

Trend atlas of the EMULATE indices: Extreme temperature and precipitation climates in Europe

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Summary

In this work we present a trend atlas for 64 extremes indices computed for European climate stations providing daily temperature and precipitation data. Three periods - 1801-2000, 1851-2000, and 1901-2000 - and the four natural seasons have been investigated for linear trends in order to quantify temporal changes of the indices. Time-series for each station and region were produced in order to provide detailed information about the temporal changes of the particular index. Trend maps give the possibility to detect spatial patterns and differences for certain time periods, regions, seasons, and indices. The trends for the temperature indices are indicating a shift in the frequency distribution. We can observe a higher frequency and amplitude of warm and hot extremes. Cold extremes became fewer. A large part of these trends turned out to be significant. The pattern of changes is much more heterogeneous and less significant for the precipitation extremes. However, we find a tendency towards an increased precipitation intensity, not necessarily combined with an increased precipitation total. So there is evidence that the climate became more extreme during the periods analyzed.

Chapter 1

Introduction

The impact of climate change on society due to changes in the atmospheric greenhouse gas concentrations is of fundamental importance for the future planning and management. Statistics of extreme events is a part of the climate. As the climate changes, the characteristics of extremes may also change (Trenberth, 1999; Easterling et al., 2000; Beniston and Stephenson, 2004). For many impact applications and decision support systems extreme events are much more important than the mean climate (Mearns et al., 1984; Wise, 1999). Change in extremes may be due to the mean effect (e.g. Wigley, 1985), the variance effect (e.g. Katz and Brown, 1992), or a combination of the mean and variance effects (e.g. Brown and Katz, 1995), or the Structural change in shape etc (e.g. Beniston, 2004).

Extreme climate events can be defined as events that occur with extraordinary low frequency during a certain period of time (rarity), events with high magnitude (intensity) or duration, and events causing sizeable impacts such as losses (severity). According to the IPCC (Houghton et al., 2001, p. 790), "An extreme weather event is an event that is rare within its statistical reference distribution at a particular place. Definitions of 'rare' vary, but an extreme weather event would normally be as rare as or rarer than the 10th or 90th percentile. By definition, the characteristics of what is called extreme weather may vary from place to place. An extreme climate event is an average of a number of weather events over a certain period of time, an average which itself is extreme (e.g. rainfall over a season)". Some indices for maxima/minima during a certain period of time, magnitude (a threshold of a variable), and rarity have been developed and used to study the changes in the climate extremes (e.g. Jones et al., 1999). Examples are the number of very warm and cold days for the time of year, the number of heavy rainfall days, and number of frost days (Frich et al., 2002). Some extremes are determined by natural thresholds, while the majority is determined by the data's own distribution. The majority of indices relate to counts of individual daily extremes, but a few are determined by spells of exceptionally warm/cold temperatures or wet/dry periods or the first/last occurrence of an event during a season (like spring/autumn frost, beginning/end of the summer dry season). With respect to temperature and rainfall, spells of extreme weather generally have large societal and economical impacts. Examples of short-lived extremes that may cause extensive damage are windstorms, hailstorms and extensive and heavy snowfall.

Recently, there is an international effort towards developing a suite of indices so that researchers around the world can calculate the indices in exactly the same manner. These analyses can then be easily put into the regional and global perspectives (Karl et al., 1999; Peterson et al., 2001; Frich et al., 2002). However, the definition of several of the suggested indices is somewhat cumbersome and some of the indices still exist in various flavors. Consequently, different software may produce slightly different results. Several EU research projects either use the indices in the European Climate Assessment (Klein Tank et al., 2002; Klein Tank and Können, 2003) or a program developed within the STARDEX project (STATistical and Regional dynamical Downscaling of EXtremes for European regions, Haylock and Goodess, 2004), this program was also used within EMULATE (European and North Atlantic daily to MULTidecadal climATE variability) (e.g. Moberg and Jones, 2005).

While some of the climatic extremes are well described by meteorological variables/indices, others may not be easily defined with data for a single meteorological variable only. This is true when the

impact is involved (Pellikka and Järvenpää, 2003)(Pellikka and Järvenp, 2003). For example, freezing rain is a special combination of low temperature and rain that produces major damages through ice loading on wires and structures. Snow damage on forest is another example (Solantie, 1994)(Solantie, 1994). On sea rain is not needed for ice to accumulate on ships in cold weather. Another example is land slides that are known to be affected by heavy rains (e.g. Schuster, 1996)(e.g. Schuster 1996). However, its occurrence is also determined by geological and geomorphologic settings (?)(Brunsden, 1999). Yet another type of climate extremes is that some weather conditions, which may seem more or less normal from a purely anthropocentric perspective nevertheless, could induce a strong impact on some other species. Thus, such ecological climate extremes may not be easy to identify as climate extremes. The dependence on factors other than meteorological data makes it difficult to disentangle the specific contribution of weather/climate in producing the impacts and to describe the combinations of extremes. A possible solution to this problem is interactions with affected and interested groups and individuals, such as the insurance industry and design engineers. Damages reports from (re)insurance companies may also be useful. Nevertheless, since there is no long term homogeneous data yet in this regard, the use of this approach in climate change studies is not feasible at this point. Therefore, this report will not discuss this kind of extremes. Rather the focus will be put on a set of indices well defined by meteorological data.

While an increasing number of climate model studies indicate that rising contents of greenhouse gases in the atmosphere will probably lead to more severe weather conditions in the future, it is of great importance to increase our understanding regarding the occurrence of climate extremes in the recent and more remote past. During the last five to ten years, a large number of studies have therefore been carried out focusing on various aspects of climate extremes (mainly temperature and precipitation) in different regions of the world (e.g. Trenberth, 1999; Easterling et al., 2000; Beniston and Stephenson, 2004)(e.g. Trenberth, 1999; Easterling et al., 2000; Beniston and Stephenson, 2004). Depending on research tasks, different measures were used to quantify extremes, which not always allow direct comparison of results. A general conclusion of many of these studies is, however, that changes in extreme temperature and precipitation have occurred world-wide during the past century along with the ongoing climate change in terms of the mean temperature. Yet, it is still hard to draw a firm conclusion from these studies, whether these changes are due to natural variability or caused by anthropogenic activity (Houghton et al., 2001)(IPCC, 2001).

In an attempt to summarize the changes around the globe, Groisman et al. (1999)Groisman et al. (1999) studied the probability distribution of daily precipitation in eight countries located on different continents and concluded that increased mean precipitation is associated with an increase in heavy rainfalls. In their near-global analysis, Frich et al. (2002)Frich et al. 2002 found regions with both negative and positive changes in wet extremes, with parts of Europe having more robust positive changes. Recently, Moberg and Jones (2005)Moberg and Jones (2005) investigated trends in daily temperature and precipitation extremes across Europe over the past century and found that both mean precipitation and wet extremes have increased mainly during winter. Also Klein Tank and Können (2003)Klein Tank and Können (2003) found an increase in the annual number of moderate and very wet days between 1946 and 1999. According to Haylock and Goodess (2004)Haylock and Goodess (2004), inter-annual variability and trends in extreme winter rainfall are to a large extent linked to variations in the North Atlantic Oscillation (NAO). Several studies have also been carried out at the national level. Fowler and Kilsby (2003)Fowler and Kilsby (2003) studied multi-day rainfall events in the UK since 1961 and found significant but regionally varying changes in the 5- and 10-day events which they consider as having important implications for the design and planning of flood control measures. In central Europe, Schmidli and Frei (2005)Schmidli and Frei (2005) found significant increasing trends in winter and autumn rainfall in Switzerland and Hündecha and Bardossy (2005)Hündecha and Bardossy (2005) found increasing precipitation extremes across western Germany since 1958. In northern Europe, Achberger and Chen (2006)Achberger and Chen (2006) study the spatial patterns and long term trends of precipitation indices in Sweden and Norway on the annual and seasonal basis for the years 1961 to 2004. These indices are based on daily data from 471 stations. Analyzing the trends of the various indices for the period 1961-2004 shows that magnitude and sign of the trends vary depending on index, region and season. A clear majority of stations show increasing trends, though the fraction having statistically significant trends is small. In Norway, positive trends are most common during winter,

while at Swedish stations, positive trends are most frequent in spring and summer. Autumn has the highest number of stations in both countries with negative trends. The findings are generally in line with results from other studies concluding that regions at middle and higher latitudes are becoming wetter and extremes are becoming more frequent and more intense.

The importance of monitoring and analyzing climate extremes has been highlighted by the last two assessment reports of the IPCC, and during a special IPCC meeting on climate extremes held in Beijing in June 2002 (Houghton et al., 2002)(IPCC, 2002). Over the last few years, there has been increased research in the European countries aiming at a better understanding of the dynamics of climate extremes. Data sets enabling studies on changes in extreme climate events have been collected by ECA (European Climate Assessment) (Klein Tank et al., 2002)(Klein Tank et al., 2002), and by STARDEX (Statistical and Regional dynamical Downscaling of Extremes for European regions) project (Haylock and Goodess, 2004)(Haylock and Goodess, 2003).

This report represents an effort within the EMULATE (European and North Atlantic daily to MULTidecadal climATE variability) project. The EMULATE project builds on ECA data set and also represent a set of newly digitalized daily data at some European stations (Moberg et al., 2006)(Moberg et al., 2006). While (Moberg et al., 2006)Moberg et al. (2006) focused on a small subset of all the indices during summer and winter seasons, the focus of this report is on a systematic trend analysis of ALL EMULATE indices for all seasons.

This work is motivated by a) a need for further analysis within and after the EMULATE project, b) a requirement of some regional and country based analyses on climate change such as BACC (the BALTEX Assessment of Climate Change for the Baltic Sea basin). The report is organized as follows: section 2 describes the data and method used, section 3 presents the results and section 4 discusses the results and provides the conclusions. The final section gives the results represented by tables and figures.

Chapter 2

Data and method

The method will follow the ones used by Moberg et al. (2006).

2.1 Station data and regional division

EMULATE has collected a dataset containing daily temperature and precipitation observations over Europe starting not later than 1900 (Moberg et al., 2006). This dataset is the basis for the analyses in this atlas. Up to four climate variables are available: minimum and maximum temperature (Tmin/Tmax), mean temperature (Tmean), and precipitation (Prec). We focus on three periods: 1801-2000, 1851-2000, and 1901-2000. A data completeness criterion has been applied to filter out stations with insufficient data for the proposed analyses. Therefore we divided the period in question into three sub periods: 20 year periods, one at the beginning and one at the end of the series and the period between (160, 110, or 60 years according to the period analyzed). A station passed the filter if it has not more than 4% of missing values in the two 20 year blocks at the beginning and end and at last 6% missing values in the block between. All the stations which passed the criterion and could be used in this work are listed in Table 2.1.

For the 200-year period we can use three stations with Tmin/Tmax, and 7 stations with daily Tmean measurements. No precipitation observations are available for this period (Fig. 2.1). Looking at the 150-year period the number of observations is rising to 9 for Tmin/Tmax, 13 for Tmean, and 9 for precipitation (Fig. 2.2). For these two periods the analyses were carried out station wise. The number of stations is too low to undertake any averaging or regionalization approaches.

For the 100-year period significantly more stations are available: we have 57 observations for Tmin/Tmax (Fig. 2.3), 54 for Tmean (Fig. 2.4), and 100 for precipitation (Fig. 2.5). The stations are quite unequally distributed over the research area. We find the highest station density in Central Europe. The relatively high number of observations for this period provides the possibility, and makes it necessary as well, to cluster stations in order to be able to compare different regions with each other. The 8 regions obtained are a modified version of the regions used by Moberg et al. (2006). They are not based on an objective method as cluster analysis or PCA. Since not exactly the same stations are used in the two studies (stronger missing value criterion in this study), the number of stations belonging to a region can be slightly different. Furthermore some regions have been added. The climate indices were computed for all stations belonging to the particular region. Afterwards the time-series have been averaged to one time-series (arithmetic average). The resulting average time-series has been evaluated for a linear trend over the whole 100-year period. The following regions have been created. GERMANY (Germany), GTALPINE (=Greater Alpine: southern Germany, Austria, Switzerland), IBERIA (Spanish stations), WEUROPE (=Western Europe: Netherlands, France, Belgium, Uk, Ireland), SEUROPE (=Southern Europe: Bosnia, Croatia, France, Greece, Italy), SSCAND (=Southern Scandinavia: Denmark, Sweden, Norway), SEEROPE (=Southeastern Europe: Ukraine, Southern Russia), and NEEUROPE (=Northeast Europe: Finland, Russia).

To a large part the eight regions obtained are a compromise mainly due to station availability. In theory there should be enough (at least ten) stations available to go into the regional average and on the other hand a region should not be larger than the stations in it can represent. In practice several regions are on one hand quite large and on the other hand suffer from a low station density. In this

context there are some points to keep in mind when looking at the regional assessment. For some regions we see relatively large differences in the means between the time-series for the single stations belonging to the particular region. This can be seen best in the time-series for the GTALPINE region which contains stations located both in high and low mountain areas. For example stations with summer mean temperatures between 15-20°C are mixed with stations with mean temperatures between 0-5°C. As long as trend sign and trend amplitude are similar for the stations involved this is not much a problem. Nevertheless, GTALPINE is one of the regions with a quite high station density.

The data quality of the series selected for this study varies. All the series have been corrected for obvious errors whereas efforts on homogenizing the database could not be undertaken. It is known that only a few series have been tested and also corrected for inhomogeneities (e.g. Stockholm and Swiss stations). Some of the series have been used much more in the literature than others and are in this context more quality controlled than others. However, potential problems with the time-series could affect the results, i.e. the trend values. For more details on the data quality and the data quality checking procedures we refer to Moberg et al. (2006) again.

ID	Lat	Lon	Station	Country	Tmin/Tmax	Tmean	Prec
1	48.08	15.45	Graz-Uni	Austria	x	x	x
2	47.27	11.40	Innsbruck-Uni	Austria			x
3	48.05	14.13	Kremsmuenster	Austria		x	x
4	47.80	13.00	Salzburg	Austria	x	x	x
5	47.05	12.95	Sonnblick	Austria	x	x	x
6	48.23	16.35	Wien	Austria	x	x	x
7	50.90	4.53	Brussels-Uccle	Belgium	x	x	
8	43.85	18.38	Sarajevo	Bosnia-Herzeg	x	x	x
9	45.17	14.70	Crikvenica	Croatia		x	
10	45.82	15.98	Zagreb	Croatia	x	x	x
11	50.08	14.42	Prag	Czech Republic	x	x	
12	55.28	14.78	Hammer-Odde-Fyr	Denmark	x	x	x
13	55.45	8.40	Nordby	Denmark	x	x	x
14	55.85	10.60	Tranebjerg	Denmark	x	x	x
15	56.77	8.32	Vestervig	Denmark	x	x	x
16	60.32	24.97	Helsinki	Finland	x	x	x
17	43.31	5.40	Marseille	France	x	x	x
18	48.82	2.34	Paris-Parcmontsouris	France	x	x	x
19	49.88	10.88	Bamberg	Germany	x	x	
20	52.45	13.30	Berlin	Germany	x	x	
21	53.03	8.78	Bremen	Germany	x	x	
22	48.73	9.72	Goeppingen-Hohenst	Germany			x
23	49.28	9.17	Gundelsheim	Germany			x
24	53.48	10.25	Hamburg-Bergedorf	Germany	x	x	
25	53.55	9.97	Hamburg-Fuhlsbuettel	Germany	x	x	
26	53.15	11.03	Hitzacker	Germany			x
27	47.80	11.00	Hohenpeissenberg	Germany		x	
28	48.42	8.67	Horb-Betra	Germany			x
29	47.68	10.05	Isny	Germany			x
30	50.93	11.58	Jena	Germany	x	x	x
31	49.03	8.35	Karlsruhe	Germany	x	x	
32	49.20	8.10	Landau/Pfalz	Germany			x
33	48.85	12.92	Metten	Germany			x
34	48.17	11.50	Muenchen	Germany	x	x	
35	49.22	9.52	Oehringen	Germany			x
36	52.38	13.07	Potsdam	Germany	x	x	
37	48.72	9.22	Stuttgart	Germany	x	x	
38	48.02	8.82	Tuttlingen	Germany			x

ID	Lat	Lon	Station	Country	Tmin/Tmax	Tmean	Prec
39	47.87	11.78	Valley-Muehlthal	Germany			x
40	53.78	7.90	Wangerooge	Germany			x
41	52.90	8.43	Wildeshausen	Germany			x
42	47.42	10.98	Zugspitze	Germany	x	x	x
43	37.97	23.72	Athens	Greece	x	x	x
44	65.08	-22.73	Stykkisholmur	Iceland		x	
45	53.37	-6.35	Dublin	Ireland			x
46	44.48	11.50	Bologna	Italy	x	x	x
47	44.82	11.50	Ferrara	Italy			x
48	45.15	10.75	Mantova	Italy			x
49	45.50	9.20	Milano	Italy	x	x	
50	38.11	13.36	Palermo	Italy			x
51	45.38	10.87	Verona-Villafranca	Italy			x
52	52.10	5.18	De-Bilt	Netherlands	x	x	
53	52.97	4.76	De-Kooy	Netherlands			x
54	53.13	6.58	Eelde	Netherlands			x
55	53.18	6.60	Groningen	Netherlands			x
56	52.40	6.05	Heerde	Netherlands			x
57	52.31	4.70	Hoofddorp	Netherlands			x
58	52.64	5.07	Hoorn	Netherlands			x
59	51.68	3.86	Kerkwerpe	Netherlands			x
60	51.57	4.53	Oudenbosch	Netherlands			x
61	51.18	5.97	Roermond	Netherlands			x
62	52.88	7.06	Ter-Apel	Netherlands			x
63	53.37	5.22	Westterschelling	Netherlands			x
64	51.98	6.70	Winterswijk	Netherlands			x
65	60.65	6.22	Bulken	Norway			x
66	59.12	11.38	Halden	Norway			x
67	63.22	11.12	Lien-I-Selbu	Norway			x
68	38.72	-9.15	Lisboa-Geofisica	Portugal	x	x	
69	44.42	26.10	Bucuresti-Filaret	Romania			x
70	64.58	40.50	Arhangelsk	Russia			x
71	51.05	40.70	Kamennaja-Step	Russia			x
72	55.78	49.18	Kazan	Russia			x
73	51.65	36.18	Kursk	Russia			x
74	51.63	45.45	Oktjabrskij-Gorodok	Russia			x
75	51.75	55.10	Orenburg	Russia			x
76	58.02	56.30	Perm	Russia			x
77	59.97	30.30	St-Petersburg	Russia		x	
78	62.70	56.20	Troicko-Pecerskoe	Russia			x
79	38.37	-0.50	Alicante	Spain			x
80	38.88	-6.83	Badajoz	Spain	x	x	x
81	42.36	-3.72	Burgos-Villafria	Spain			x
82	36.50	-6.23	Cadiz	Spain	x	x	
83	37.14	-3.63	Granada	Spain	x	x	x
84	40.41	-3.68	Madrid	Spain	x	x	
85	37.98	-1.12	Murcia	Spain	x	x	x
86	37.42	-5.90	Sevilla	Spain			x
87	41.44	-2.48	Soria	Spain	x	x	
88	41.64	-4.77	Valladolid	Spain	x	x	x
89	60.62	15.67	Falun	Sweden		x	x
90	65.07	17.15	Stensele	Sweden	x		x
91	59.35	18.05	Stockholm	Sweden		x	

ID	Lat	Lon	Station	Country	Tmin/Tmax	Tmean	Prec
92	59.87	17.63	Uppsala	Sweden		x	
93	56.87	14.80	Vaexjoe	Sweden	x		x
94	47.55	7.58	Basel	Switzerland	x	x	x
95	46.93	7.42	Bern	Switzerland	x	x	x
96	47.05	6.99	Chaumont	Switzerland			x
97	46.25	6.13	Geneva	Switzerland	x	x	x
98	46.00	8.97	Lugano	Switzerland	x	x	x
99	47.25	9.35	Saentis	Switzerland	x	x	x
100	46.23	7.37	Sion	Switzerland		x	x
101	47.38	8.57	Zurich	Switzerland	x	x	x
102	54.35	-6.65	Armagh	Uk	x		x
103	52.20	0.13	Cambridge	Uk			x
104	52.42	-1.83	Cet	Uk		x	
105	51.77	-1.27	Oxford	Uk	x		x
106	58.33	-6.32	Stornoway	Uk	x		
107	45.03	35.38	Feodosija	Ukraine	x		
108	50.40	30.45	Kiev	Ukraine	x	x	
109	49.60	34.55	Poltava	Ukraine	x	x	

Table 2.1: All stations used for the analyses

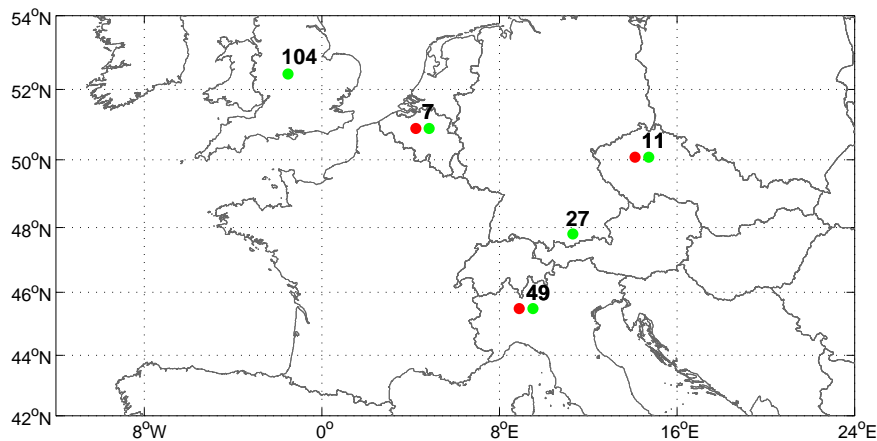


Figure 2.1: Available stations for 1801-2000.

Tmin/Tmax(red): Brussels-Uccle(7), Prag(11), Milano(49).

Tmean(green): Brussels-Uccle(7), Prag(11), Hohenpeissenberg(27), Milano(49), Stockholm(91), Uppsala(92), CET(104)

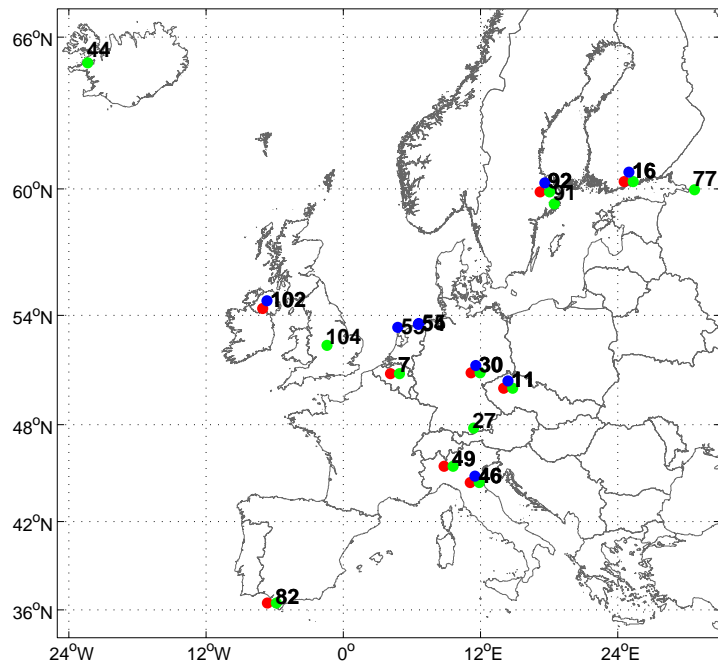


Figure 2.2: Available stations for 1851-2000.

Tmin/Tmax(red): Brussels-Uccle(7), Prag(11), Helsinki(16), Jena(30), Bologna(46), Milano(49), Cadiz(82), Uppsala(92), Armagh(102).

Tmean(green): Brussels-Uccle(7), Prag(11), Helsinki(16), Hohenpeissenberg(27), Jena(30), Stykkisholmur(44), Bologna(46), Milano(49), St-Petersburg(77), Cadiz(82), Stockholm(91), Uppsala(92), Cet(104).

Prec(blue): Prag(11), Helsinki(16), Jena(30), Bologna(46), De-Kooy(53), Eelde(54), Groningen(55), Uppsala(92), Armagh(102).

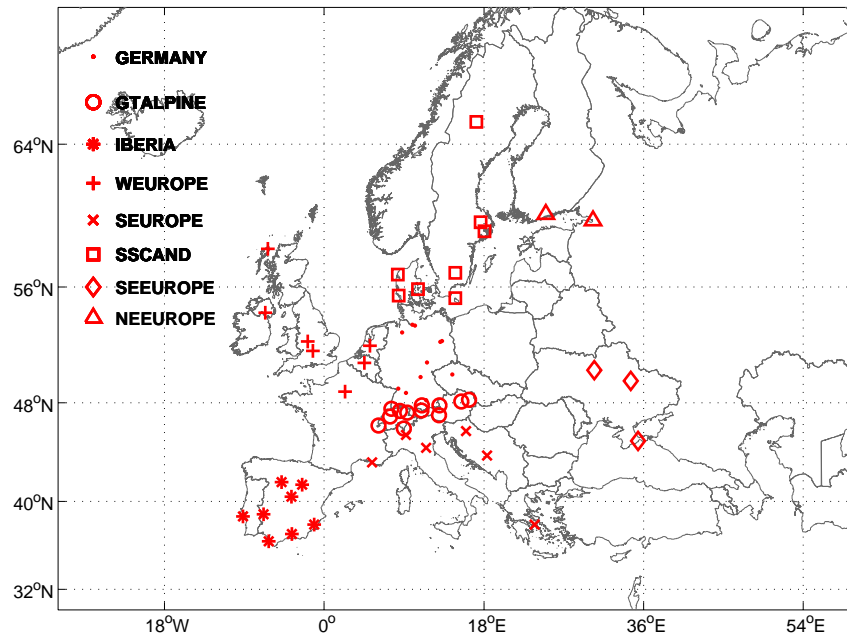


Figure 2.3: Available stations for 1901-2000, Tmin/Tmax.

GERMANY: Prag(11), Bamberg(19), Berlin(20), Bremen(21), Hamburg-Fuhlsbuettel(25), Hamburg-Bergedorf(24), Jena(30), Karlsruhe(31), Muenchen(34), Potsdam(36), Stuttgart(37)

GTALPINE: Graz-Uni(1), Salzburg(4), Sonnblick(5), Wien(6), Hohenpeissenberg(27), Zugspitze(42), Basel(94), Bern(95), Geneva(97), Lugano(98), Saentis(99), Zurich(101)

IBERIA: Lisboa-Geofisica(68), Badajoz(80), Cadiz(82), Granada(83), Madrid(84), Murcia(85), Soria(87), Valladolid(88)

NEEUROPE: Helsinki(16), St-Petersburg(77)

SEEUROPE: Feodosija(107), Kiev(108), Poltava(109)

SEUROPE: Sarajevo(8), Crikvenica(9), Zagreb(10), Marseille(17), Athens(43), Bologna(46), Milano(49)

SSCAND: Hammer-Odde-Fyr(12), Nordby(13), Tranebjerg(14), Vestervig(15), Stensele(90), Stockholm(91), Uppsala(92), Vaexjoe(93)

WEUROPE: Brussels-Uccle(7), Paris-Parcmontsouris(18), De-Bilt(52), Armagh(102), Cet(104), Oxford(105), Stornoway(106)

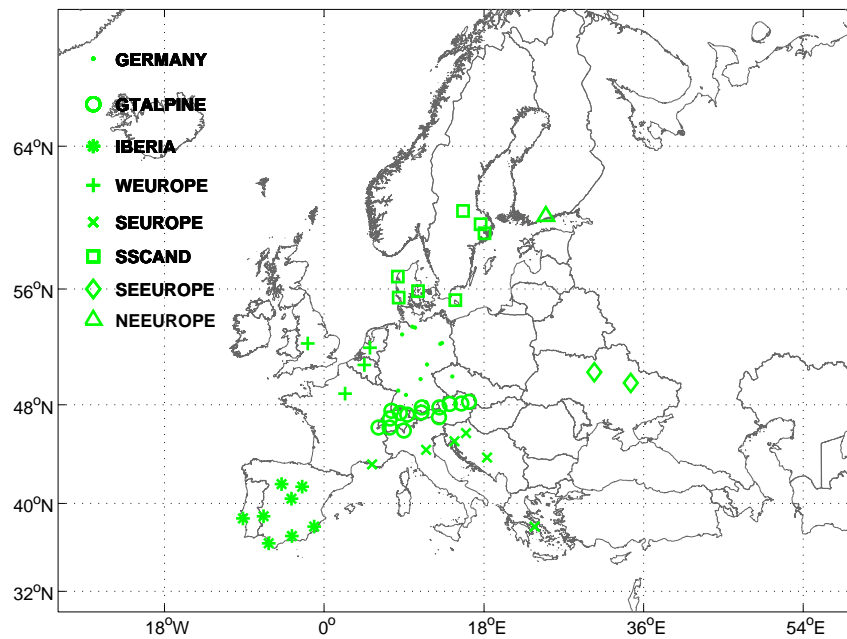


Figure 2.4: Available stations for 1901-2000, Tmean.

GERMANY: Prag(11), Bamberg(19), Berlin(20), Bremen(21), Hamburg-Fuhlsbuettel(25), Hamburg-Bergedorf(24), Jena(30), Karlsruhe(31), Muenchen(34), Oehringen(35), Potsdam(36), Stuttgart(37)

GTALPINE: Graz-Uni(1), Kremsmuenster(3), Salzburg(4), Sonnblick(5), Wien(6), Hohenpeissenberg(27), Zugspitze(42), Basel(94), Bern(95), Geneva(97), Lugano(98), Saentis(99), Sion(100), Zurich(101)

IBERIA: Lisboa-Geofisica(68), Badajoz(80), Cadiz(82), Granada(83), Madrid(84), Murcia(85), Soria(87), Valladolid(88)

NEEUROPE: Helsinki(16)

SEEUROPE: Kiev(108), Poltava(109)

SEUROPE: Sarajevo(8), Crikvenica(9), Zagreb(10), Marseille(17), Athens(43), Bologna(46)

SSCAND: Hammer-Odde-Fyr(12), Nordby(13), Tranebjerg(14), Vestervig(15), Falun(89), Stockholm(91), Uppsala(92)

WEUROPE: Brussels-Uccle(7), Paris-Parcmontsouris(18), De-Bilt(52), Cet(104)

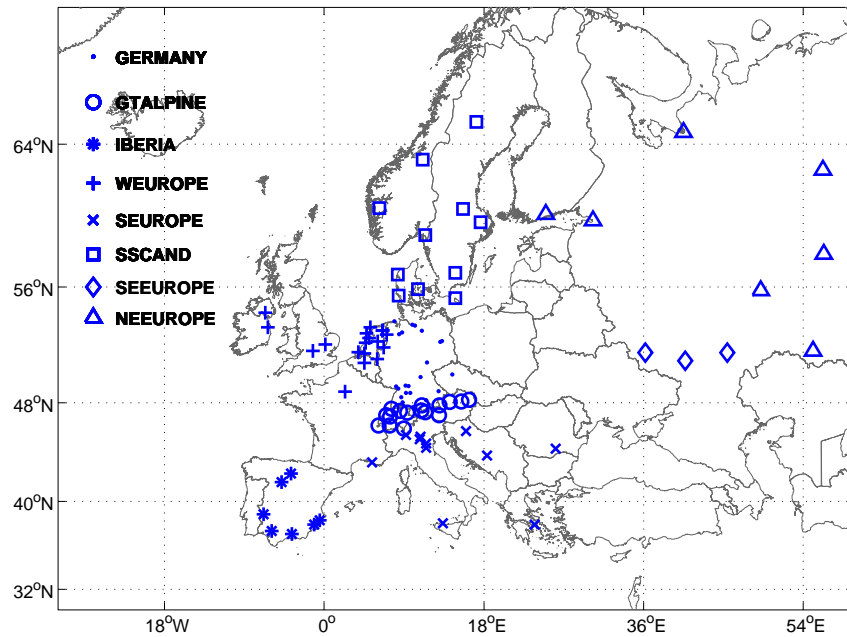


Figure 2.5: Available stations for 1901-2000, Prec.

GERMANY: Goeppingen(22), Gundelsheim(23), Hitzacker(26), Horb-Betra(28), Isny(29), Landau/Pfalz(32), Metten(33), Oehringen(35), Tuttlingen(38), Valley-Muehltal(39), Wangerooge(40), Wildeshausen(41)

GTALPINE: Graz-Uni(1), Innsbruck-Uni(2), Kremsmuenster(3), Salzburg(4), Sonnblick(5), Wien(6), Hohenpeissenberg(27), Zugspitze(42), Basel(94), Bern(95), Chaumont(96), Geneva(97), Lugano(98), Saentis(99), Sion(100), Zurich(101)

IBERIA: Alicante(79), Badajoz(80), Burgos-Villafria(81), Granada(83), Murcia(85), Sevilla(86), Valladolid(88)

NEEUROPE: Helsinki(16), Arhangelsk(70), Kazan(72), Orenburg(75), Perm(76), St-Petersburg(77), Troicko-Pecerskoe(78)

SEEUROPE: Kamennaja-Step(71), Kursk(73), Oktjabrskij-Gorodok(74), Feodosija(107)

SEUROPE: Sarajevo(8), Zagreb(10), Marseille(17), Athens(43), Bologna(46), Ferrara(47), Mantova(48), Milano(49), Palermo(50), Verona-Villafranca(51), Bucuresti-Filaret(69)

SSCAND: Hammer-Odde-Fyr(12), Nordby(13), Tranebjerg(14), Vestervig(15), Bulken(65), Halden(66), Lien-I-Selbu(67), Falun(89), Stensele(90), Uppsala(92), Vaexjoe(93)

WEUROPE: Brussels-Uccle(7), Paris-Parcmontsouris(18), Dublin(45), De-Kooy(53), Eelde(54), Groningen(55), Heerde(56), Hoofddorp(57), Hoorn(58), Kerkwerve(59), Oudenbosch(60), Roermond(61), Ter-Apel(62), Westterschelling(63), Winterswijk(64), Armagh(102), Cambridge(103), Oxford(105)

2.2 Climate indices calculated

All the 64 EMULATE indices (Moberg et al., 2006) have been computed for each of the three periods described above. The indices are listed and explained in table 2.2. Mainly percentiles themselves and percentile-based indices are used. For the indices which require a certain base period 1961-1990 was used as reference. Not all indices can be characterized as to be real extremes indices. Nevertheless they are useful to characterize climate conditions and their changes. The indices were computed separately for each of the three month seasons (MAM, JJA, SON, and DJF). Two indices have an annual resolution: the growing season length (GSL) and the number of frost days (FD).

No.	Identifier	Parameter	Unit	No.	Identifier	Parameter	Unit
1	MEANTN	Mean Tmin	°C	33	TX5N	exc. Tmax 5th percentile	days
2	MEANTX	Mean Tmax	°C	34	TX10N	exc. Tmax 10th percentile	days
3	MEANTG	Mean Tmean	°C	35	TX90N	exc. Tmax 90th percentile	days
4	PRECTOT	Precipitation total	[mm]	36	TX95N	exc. Tmax 95th percentile	days
5	TN2P	Tmin 2nd percentile	°C	37	TX98N	exc. Tmax 98th percentile	days
6	TN5P	Tmin 5th percentile	°C	38	TG2N	exc. Tmean 2nd percentile	days
7	TN10P	Tmin 10th percentile	°C	39	TG5N	exc. Tmean 5th percentile	days
8	TN90P	Tmin 90th percentile	°C	40	TG10N	exc. Tmean 10th percentile	days
9	TN95P	Tmin 95th percentile	°C	41	TG90N	exc. Tmean 90th percentile	days
10	TN98P	Tmin 98th percentile	°C	42	TG95N	exc. Tmean 95th percentile	days
11	TX2P	Tmax 2nd percentile	°C	43	TG98N	exc. Tmean 98th percentile	days
12	TX5P	Tmax 5th percentile	°C	44	R90N	exc. Prec 90th percentile	days
13	TX10P	Tmax 10th percentile	°C	45	R90T	Fraction above precip. perc.	%
14	TX90P	Tmax 90th percentile	°C	46	R90AM	Prec. total above percentile	[mm]
15	TX95P	Tmax 95th percentile	°C	47	R95N	exc. Prec 95th percentile	days
16	TX98P	Tmax 98th percentile	°C	48	R95T	Fraction above precip. perc.	%
17	TG2P	Tmean 2nd percentile	°C	49	R95AM	Prec. total above percentile	[mm]
18	TG5P	Tmean 5th percentile	°C	50	R98N	exc. Prec 98th percentile	days
19	TG10P	Tmean 10th percentile	°C	51	R98T	Fraction above precip. perc.	%
20	TG90P	Tmean 90th percentile	°C	52	R98AM	Prec. total above percentile	[mm]
21	TG95P	Tmean 95th percentile	°C	53	SDI90P	Daily intensity above 90th perc.	[mm]
22	TG98P	Tmean 98th percentile	°C	54	SDI95P	Daily intensity above 95th perc.	[mm]
23	PREC90P	Precip. 90th percentile	[mm]	55	SDI98P	Daily intensity above 98th perc.	[mm]
24	PREC95P	Precip. 95th percentile	[mm]	56	SDII	Simple daily intensity index	[mm]
25	PREC98P	Precip. 98th percentile	[mm]	57	R5d	Greatest 5-day total rainfall	[mm]
26	TN2N	exc. Tmin 2nd percentile	days	58	R1d	Greatest (1-day) total rainfall	[mm]
27	TN5N	exc. Tmin 5th percentile	days	59	CDD	No. of consecutive dry days	days
28	TN10N	exc. Tmin 10th percentile	days	60	HWDI	Heat wave duration index	days
29	TN90N	exc. Tmin 90th percentile	days	61	WSDI90	Warm spell duration index	days
30	TN95N	exc. Tmin 95th percentile	days	62	CSDI10	Cold spell duration index	days
31	TN98N	exc. Tmin 98th percentile	days	63	FD	No. of Frost days	days
32	TX2N	exc. Tmax 2nd percentile	days	64	GSL	Growing season length	days

Table 2.2: EMULATE extremes indices

2.3 Trend analysis

Linear trends were estimated in order to illustrate temporal changes in temperature and precipitation indices. The ordinary least squares method was used. The trend was computed for the particular period in question: 200 years, 150 years, and 100 years. For an easy comparison all trends are given in [unit/100y]. The significance of the slope has been tested using a t-test. The lag-1 autocorrelation in each series has been taken into account to be able to adjust the degrees of freedom (DOF) accordingly. Trends are determined to be significant at the 5% level and highly significant at the 1% level. The trends are presented in the Appendix in Maps and Time-series.

Chapter 3

Results

3.1 Temporal trends of indices

3.1.1 Temperature

1801-2000

Tmin/Tmax Three Tmin/Tmax observations were analysed. The indices MEANTN and MEANTX show positive trends for all stations (three) and at five out of six stations the trends are significant ($p < 0.05$) (Tab. 3.1). Only for the summer season (JJA) we find one station having a negative trend. Looking at the low Tmin/Tmax percentiles (TN/TX2P, TN/TX5P, TN/TX10P) we see the same pattern. Mainly positive trends with an outstanding summer season: JJA is the only season with a majority of negative and negative significant trends. For the upper percentiles (TN/TX90P, TN/TX95P, TN/TX98P) not even one negative significant trend can be found for any season. The under-run of the lower reference percentiles (TN/TX2N, TN/TX5N, TN/TX10N) is mainly decreasing except for JJA where we can observe as many positive as negative trends. The pattern for indices measuring the exceedance of the upper reference percentiles (TN/TX90N, TN/TX95N, TN/TX98N) is even clearer. Only positive trends throughout all seasons and the trends at all stations but one in JJA are significant. For HWDI (heat wave duration) we get almost only positive trends (only one station with negative trends). The trends for WSDI90 (warm spell duration) are all positive whereas the trends for CSDI10 (cold spell duration) are all but one in JJA negative.

Tmean Seven Tmean observations were analysed. For the mean temperature (MEANTG) the majority of trends is positive for all seasons (Tab. 3.2). We find an increased rate of negative trends for JJA whereas the rate of negative significant trends is not as outstanding. The lower percentiles (TG2P, TG5P, TG10P) have mainly positive and positive significant trends. JJA is outstanding again with a majority of negative significant trends. For the upper percentiles (TG90P, TG95P, TG98P) the fraction of negative trends is increasing but still there are much more positive significant trends than negative significant ones. Trends for the under-run of the lower percentiles (TG2N, TG5N, TG10N) are mainly negative. This pattern is clearer for SON and DJF than for the other two seasons where the fraction of positive trends is a bit higher but still in the minority. Analysing the exceedance of the upper percentiles (TG90N, TG95N, TG98N) is resulting in a pattern seen for Tmin/Tmax: the majority of trends is positive. In MAM, SON, and DJF only one out of seven stations has a negative trend. For JJA the fraction of negative trend is increased (43% (28%) negative (sig.) trends).

Annual indices The number of frost days (FD) are decreased significantly at all stations. The thermal growing season (GSL) became longer. We find 86% of the trends to be positive significant. There is only one insignificant negative trend at one station.

SUMMARY Summarizing the results of the temperature indices for the 200-year period gives the following picture. We see an increase in all means (Tmin, Tmax, and Tmean). All six percentiles analysed are increasing. An exception is the summer season (JJA) where the number of negative trends

is higher. In general the underrun of the lower percentiles is decreasing whereas the upper percentiles are exceeded more often. Again, JJA is a bit more equalized regarding positive and negative trends. Even HWDI, WSDI90, and CSDI10 point towards an increase in warm extremes and a decrease in cold ones.

In general we can see a tendency towards higher means, higher extreme levels (percentiles), an increase in the frequency and duration of warm extremes, and a decrease in the frequency of cold ones. We see these main tendencies for all seasons, even though it is a bit more balanced in summer.

1851-2000

Tmin/Tmax Nine Tmin/Tmax observations were analysed. For MEANTN and MEANTX we find the majority of trends being positive (Tab. 3.3). Only in JJA there are 33% negative (not. sig.) trends. All percentiles, upper and lower, increased. The pattern is very clear for MAM, SON, and DJF. Again the summer season is different to some extent. There is a higher rate of negative (even significant) trends for the lower Tmax percentiles. But still the majority is positive. The underrun of the lower percentiles is significantly decreasing throughout all seasons, a bit more balanced in JJA again. The exceedance of the upper percentiles is very clear: a significant increase. HWDI and WSDI90 are increasing whereas CSDI10 shows a distinct negative tendency.

Tmean Thirteen Tmean observations were analysed. Only 15% (7%) negative (sig.) trends for MEANTG in JJA (Tab. 3.4). So again, the majority of observations suggests increased mean temperatures. The lower percentiles show a clear increase as well with JJA a bit more balanced). For the upper Tmean percentiles we find the majority of trends being positive. However, we see an increased rate of negative trends (about 15%) in three seasons (MAM, JJA, and SON). Another very clear pattern in line with the findings for the 200-year period was found for underrun and exceedance of the reference percentiles: less days with mean temperatures falling below the lower percentiles and more days with Tmean above the upper ones.

Annual indices Even for the 150-year trend patterns both for the number of frost days (FD) and the growing season length (GSL) are very clear. 89% (78%) of all trends for FD are negative (negative significant). Only at one station we find a positive trend, but not significant. For GSL we get only trends which suggest an extension.

SUMMARY Regarding the temperature indices we find similar results for this period as for the longer period described above. The patterns became even clearer. We find increased means. The levels of extremes increased which is reflected in positive trends for the percentiles. The frequency of warm extremes increased whereas cold extremes occur more infrequently.

1901-2000

Tmin/Tmax 58 Tmin and Tmax observations were analysed for linear trends. We find a significant increase of MEANTN and MEANTX for all seasons (Tab. 3.5). All Tmin and Tmax percentiles show primarily positive trends. The underrun of the lower percentile occurs less frequently whereas the exceedance of the upper percentiles increased suggested by mainly positive trends. The durations of heat waves (HWDI) and warm spells (WSDI90) increased, CSDI10 decreased significantly.

Tmean 54 station series were investigated. We find a very clear pattern for MEANTG (Tab. 3.6). The majority of trends is positive. The very few negative trends are not significant. The pattern for the upper and lower percentiles is in general the same. An exception is the 98th percentile (TG98P) for MAM: The 52% of the stations have positive, and 48% have negative trends. Both 7% out of the negative and out of the positive trend are significant. The underrun of the lower percentiles (TG2/5/10N) and the exceedance of the upper percentiles (TG90/95/98N) suggest a very clear picture again: underruns decreased significantly whereas the exceedances significantly increased.

	MAM			JJA			SON			DJF		
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*
MEANTN	100	66.7	0.0 0.0	66.7	66.7	33.3 33.3	100	66.7	0.0 0.0	100	100	0.0 0.0
MEANTX	100	100	0.0 0.0	66.7	66.7	33.3 0.0	100	100	0.0 0.0	100	100	0.0 0.0
TN2P	100	66.7	0.0 0.0	0.0	0.0	100 66.7	100	33.3	0.0 0.0	100	66.7	0.0 0.0
TN5P	100	66.7	0.0 0.0	0.0	0.0	100 33.3	100	66.7	0.0 0.0	100	66.7	0.0 0.0
TN10P	100	66.7	0.0 0.0	33.3	0.0	66.7 33.3	100	33.3	0.0 0.0	100	66.7	0.0 0.0
TN90P	33.3	33.3	66.7 0.0	66.7	66.7	33.3 0.0	66.7	66.7	33.3 0.0	100	100	0.0 0.0
TN95P	33.3	33.3	66.7 0.0	100	66.7	0.0 0.0	66.7	66.7	33.3 0.0	100	100	0.0 0.0
TN98P	66.7	33.3	33.3 0.0	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	66.7	0.0 0.0
TX2P	100	33.3	0.0 0.0	33.3	0.0	66.7 66.7	66.7	33.3	33.3 0.0	100	66.7	0.0 0.0
TX5P	100	33.3	0.0 0.0	33.3	33.3	66.7 33.3	66.7	33.3	33.3 0.0	100	66.7	0.0 0.0
TX10P	100	66.7	0.0 0.0	33.3	33.3	66.7 33.3	100	33.3	0.0 0.0	100	66.7	0.0 0.0
TX90P	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0
TX95P	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0
TX98P	100	100	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0	100	100	0.0 0.0
TN2N	0.0	0.0	100 33.3	66.7	33.3	33.3 0.0	0.0	0.0	100 33.3	0.0	0.0	100 66.7
TN5N	0.0	0.0	100 33.3	33.3	0.0	66.7 0.0	33.3	0.0	66.7 66.7	0.0	0.0	100 66.7
TN10N	0.0	0.0	100 33.3	33.3	33.3	66.7 33.3	33.3	0.0	66.7 66.7	0.0	0.0	100 66.7
TN90N	100	33.3	0.0 0.0	66.7	66.7	33.3 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0
TN95N	100	66.7	0.0 0.0	66.7	66.7	33.3 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0
TN98N	100	33.3	0.0 0.0	66.7	66.7	33.3 0.0	100	33.3	0.0 0.0	100	66.7	0.0 0.0
TX2N	33.3	0.0	66.7 33.3	66.7	33.3	33.3 0.0	66.7	0.0	33.3 0.0	0.0	0.0	100 66.7
TX5N	33.3	0.0	66.7 33.3	66.7	33.3	33.3 33.3	66.7	0.0	33.3 0.0	0.0	0.0	100 66.7
TX10N	33.3	0.0	66.7 33.3	33.3	33.3	66.7 33.3	0.0	0.0	100 33.3	0.0	0.0	100 66.7
TX90N	100	100	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0	100	100	0.0 0.0
TX95N	100	100	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0	100	100	0.0 0.0
TX98N	100	100	0.0 0.0	100	66.7	0.0 0.0	100	100	0.0 0.0	100	100	0.0 0.0
HWDI	100	100	0.0 0.0	66.7	66.7	33.3 0.0	100	0.0	0.0 0.0	100	33.3	0.0 0.0
WSDI90	100	66.7	0.0 0.0	100	66.7	0.0 0.0	100	33.3	0.0 0.0	100	66.7	0.0 0.0
CSDI10	0.0	0.0	100 33.3	33.3	0.0	66.7 33.3	0.0	0.0	100 66.7	0.0	0.0	100 33.3
FD	0.0	0.0	100 100	0.0	0.0	100 100	0.0	0.0	100 100	0.0	0.0	100 100

Table 3.1: 1801-2000, Tmin/Tmax: Fraction of pos and neg trends

	MAM			JJA			SON			DJF		
	pos	pos*	neg*	pos	pos*	neg*	pos	pos*	neg*	pos	pos*	neg*
MEANTG	85.7	71.4	14.3	57.1	28.6	42.9	85.7	71.4	14.3	85.7	85.7	14.3
TG2P	100	57.1	0.0	42.9	14.3	57.1	100	57.1	0.0	100	71.4	0.0
TG5P	85.7	71.4	14.3	57.1	0.0	42.9	85.7	71.4	14.3	100	71.4	0.0
TG10P	85.7	71.4	14.3	57.1	14.3	42.9	85.7	71.4	14.3	100	71.4	0.0
TG90P	57.1	14.3	42.9	57.1	57.1	42.9	42.9	42.9	57.1	85.7	57.1	14.3
TG95P	85.7	14.3	14.3	57.1	57.1	42.9	42.9	42.9	57.1	85.7	85.7	14.3
TG98P	85.7	14.3	14.3	57.1	57.1	42.9	57.1	42.9	42.9	85.7	85.7	14.3
TG2N	14.3	0.0	85.7	42.9	0.0	57.1	14.3	0.0	85.7	14.3	0.0	85.7
TG5N	14.3	14.3	85.7	42.9	14.3	57.1	14.3	0.0	85.7	0.0	0.0	100
TG10N	28.6	14.3	71.4	42.9	14.3	57.1	14.3	0.0	85.7	0.0	0.0	100
TG90N	85.7	57.1	14.3	57.1	57.1	42.9	85.7	57.1	14.3	85.7	85.7	14.3
TG95N	85.7	42.9	14.3	57.1	57.1	42.9	85.7	57.1	14.3	100	85.7	0.0
TG98N	85.7	42.9	14.3	57.1	57.1	42.9	85.7	57.1	14.3	85.7	85.7	14.3
GSL	85.7	85.7	14.3	85.7	85.7	14.3	85.7	85.7	14.3	85.7	85.7	14.3

Table 3.2: 1801-2000, Tmean: Fraction of pos and neg trends

	MAM			JJA			SON			DJF		
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*
MEANTN	100	88.9	0.0 0.0	100.0	88.9	0.0 0.0	100	88.9	0.0 0.0	100	88.9	0.0 0.0
MEANTX	100	88.9	0.0 0.0	66.7	44.4	33.3 0.0	100	100.0	0.0 0.0	100	77.8	0.0 0.0
TN2P	88.9	88.9	11.1 0.0	66.7	44.4	33.3 0.0	88.9	66.7	11.1 0.0	100	77.8	0.0 0.0
TN5P	100	77.8	0.0 0.0	66.7	44.4	33.3 0.0	100	77.8	0.0 0.0	100	66.7	0.0 0.0
TN10P	100	88.9	0.0 0.0	77.8	55.6	22.2 0.0	100	88.9	0.0 0.0	100	66.7	0.0 0.0
TN90P	88.9	88.9	11.1 0.0	100	100	0.0 0.0	100	77.8	0.0 0.0	100	88.9	0.0 0.0
TN95P	88.9	66.7	11.1 0.0	100	100	0.0 0.0	100	66.7	0.0 0.0	100	88.9	0.0 0.0
TN98P	88.9	66.7	11.1 0.0	100	77.8	0.0 0.0	88.9	55.6	11.1 0.0	100	88.9	0.0 0.0
TX2P	100	66.7	0.0 0.0	55.6	33.3	44.4 22.2	100	66.7	0.0 0.0	100	44.4	0.0 0.0
TX5P	100	88.9	0.0 0.0	55.6	22.2	44.4 11.1	100	88.9	0.0 0.0	100	44.4	0.0 0.0
TX10P	100	88.9	0.0 0.0	55.6	22.2	44.4 11.1	100	100	0.0 0.0	100	55.6	0.0 0.0
TX90P	100	77.8	0.0 0.0	88.9	55.6	11.1 0.0	88.9	33.3	11.1 0.0	100	88.9	0.0 0.0
TX95P	100	66.7	0.0 0.0	77.8	44.4	22.2 0.0	88.9	33.3	11.1 0.0	100	88.9	0.0 0.0
TX98P	100	55.6	0.0 0.0	77.8	55.6	22.2 0.0	88.9	22.2	11.1 0.0	100	77.8	0.0 0.0
TN2N	0.0	0.0	100 66.7	33.3	0.0	66.7 44.4	11.1	0.0	88.9 77.8	11.1	0.0	88.9 66.7
TN5N	11.1	0.0	88.9 66.7	33.3	0.0	66.7 44.4	11.1	0.0	88.9 77.8	0.0	0.0	100 66.7
TN10N	0.0	0.0	100 66.7	22.2	0.0	77.8 44.4	0.0	0.0	100 88.9	0.0	0.0	100 66.7
TN90N	100	88.9	0.0 0.0	100	88.9	0.0 0.0	88.9	88.9	11.1 0.0	100	100	0.0 0.0
TN95N	100	100.0	0.0 0.0	100	100	0.0 0.0	88.9	88.9	11.1 0.0	100	88.9	0.0 0.0
TN98N	100	100.0	0.0 0.0	100	77.8	0.0 0.0	88.9	77.8	11.1 0.0	100	88.9	0.0 0.0
TX2N	11.1	0.0	88.9 66.7	33.3	22.2	66.7 44.4	0.0	0.0	100 66.7	0.0	0.0	100 44.4
TX5N	11.1	0.0	88.9 66.7	33.3	22.2	66.7 33.3	0.0	0.0	100 77.8	11.1	0.0	88.9 33.3
TX10N	11.1	0.0	88.9 66.7	33.3	22.2	66.7 33.3	0.0	0.0	100 88.9	0.0	0.0	100 66.7
TX90N	100	77.8	0.0 0.0	77.8	55.6	22.2 0.0	100	77.8	0.0 0.0	100	88.9	0.0 0.0
TX95N	100	66.7	0.0 0.0	77.8	55.6	22.2 0.0	100	88.9	0.0 0.0	100	88.9	0.0 0.0
TX98N	100	66.7	0.0 0.0	77.8	55.6	22.2 0.0	100	66.7	0.0 0.0	100	88.9	0.0 0.0
HWDI	88.9	33.3	11.1 0.0	88.9	22.2	11.1 0.0	77.8	0.0	11.1 0.0	88.9	44.4	0.0 0.0
WSDI90	100	44.4	0.0 0.0	66.7	11.1	33.3 0.0	100	22.2	0.0 0.0	100	77.8	0.0 0.0
CSDI10	0.0	0.0	100.0 77.8	22.2	0.0	77.8 22.2	0.0	0.0	100.0 44.4	0.0	0.0	100 33.3
FD	11.1	0.0	88.9 77.8	11.1	0.0	88.9 77.8	11.1	0.0	88.9 77.8	11.1	0.0	88.9 77.8

Table 3.3: 1851-2000, Tmin/Tmax: Fraction of pos and neg trends

	MAM			JJA			SON			DJF		
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*
MEANTG	92.3	92.3	7.7 0.0	84.6	61.5	15.4 7.7	100	92.3	0.0 0.0	100	69.2	0.0 0.0
TG2P	100	84.6	0.0 0.0	69.2	46.2	30.8 0.0	100	84.6	0.0 0.0	100	84.6	0.0 0.0
TG5P	100	92.3	0.0 0.0	76.9	38.5	23.1 15.4	100	100	0.0 0.0	100	61.5	0.0 0.0
TG10P	100	92.3	0.0 0.0	84.6	38.5	15.4 7.7	100	100	0.0 0.0	100	76.9	0.0 0.0
TG90P	92.3	69.2	7.7 7.7	92.3	38.5	7.7 7.7	92.3	38.5	7.7 0.0	100	76.9	0.0 0.0
TG95P	84.6	61.5	15.4 7.7	84.6	46.2	15.4 7.7	84.6	38.5	15.4 0.0	100	84.6	0.0 0.0
TG98P	84.6	38.5	15.4 7.7	84.6	38.5	15.4 7.7	84.6	38.5	15.4 0.0	100	84.6	0.0 0.0
TG2N	0.0	0.0	100 92.3	30.8	0.0	69.2 61.5	0.0	0.0	100 69.2	0.0	0.0	100 38.5
TG5N	0.0	0.0	100 84.6	30.8	0.0	69.2 61.5	0.0	0.0	100 92.3	0.0	0.0	100 53.8
TG10N	7.7	0.0	92.3 76.9	30.8	0.0	69.2 61.5	0.0	0.0	100 92.3	0.0	0.0	100 53.8
TG90N	92.3	69.2	7.7 0.0	84.6	46.2	15.4 7.7	92.3	76.9	7.7 0.0	100	84.6	0.0 0.0
TG95N	92.3	76.9	7.7 0.0	84.6	46.2	15.4 7.7	92.3	61.5	7.7 0.0	100	84.6	0.0 0.0
TG98N	92.3	76.9	7.7 0.0	84.6	46.2	15.4 7.7	92.3	69.2	7.7 0.0	100	84.6	0.0 0.0
GSL	92.3	84.6	0.0 0.0	92.3	84.6	0.0 0.0	92.3	84.6	0.0 0.0	92.3	84.6	0.0 0.0

Table 3.4: 1851-2000, Tmean: Fraction of pos and neg trends

Annual indices We register a significantly decreasing number of frost days (FD). The few positive trends (16%) are not significant. The growing season (GSL) became significantly longer. Only 7% of the trends are negative but not significant.

SUMMARY So even for the 100-year period we see a pattern that is pointing towards higher means, increased extreme levels, more frequent warm extremes, and less frequent cold extremes. Compared with the other two periods the pattern became even clearer in the 100-year period.

3.1.2 Precipitation

1851-2000

Nine precipitation observations were available. The precipitation total (PRECTOT) increased significantly for MAM, SON, and DJF (Tab. 3.7). For JJA we find the same tendency even if there are no positive trends which are significant. The trends for the percentiles are mainly positive. JJA is the only season with no station having a significant positive trend. Still, 78% positive trends. In general we find a similar pattern for the other precipitation indices as well. The summer season has the lowest number of both negative and positive trends which are significant. But still the tendency towards the overall majority of trends in the other seasons is the same. We find an increase in the frequency of events exceeding the reference percentiles (R90/95/98N). The fraction (R90/95/98T) and the amount of rainfall (R90/95/98AM) above the particular percentile have also increased. The majority of trend results suggests an increase of the intensity of extreme rainfall events (SDII90/95/98P). Even the normal rainfall intensity (SDII), the greatest 5-day total rainfall (R5d), and the greatest 1-day total rainfall (R1d) increased significantly. For two thirds of the stations a decrease in the number of consecutive dry days (CDD) was found. However, neither the negative nor the positive trends are significant. In general we find for the precipitation indices that the fraction of positive and negative trend which are significant is much lower than for temperature extremes. However, a clear tendency is suggested by the results: higher precipitation totals, increased extreme levels, more frequent and more intensive rainfall events.

1901-2000

We looked at 86 precipitation observations. In general we see a much more balanced pattern throughout all indices compared to the period before (Tab. 3.8). The positive and positive significant trends are mostly in the majority. For all indices and seasons we find a similar ratio of trends: two thirds are positive and one third is negative. The fraction of positive significant trends ranges from 6-24% whereas the highest fraction of negative significant trends is 6% for one index. There are only very few exceptions from this general pattern: in JJA the trends of PRECTOT are balanced around 50% whereat there are slightly more positive significant trends (6%) than negative significant ones (3%). Another exception is CDD for the winter season (DJF): even here the trends are balanced but almost none of the trends is significant, neither positive nor negative.

As for the 150-year period we find even here signals that point towards a wetter climate with higher extreme levels and more frequent and more intensive rainfall events.

3.2 Time series of the regional means

In this section we summarize the trends for the eight regional means. The tables presenting the results are organized by variable and season.

In this section we take a closer look to the time-series of the regional means in order to obtain more detailed information about the spatial distribution of the trends for the indices. As described in the data section some potential problems can occur when evaluating the results mainly due to the highly variable station density over the research area and due to the definition of the regions. For example consist some regions of few stations only (e.g. NEEUROPE, SEEUROPE). This should be kept in mind when evaluating the results.

	MAM			JJA			SON			DJF						
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*				
MEANTN	84.2	61.4	15.8	1.8	8.8	3.5	93.0	66.7	7.0	0.0	87.7	35.1	12.3	0.0		
MEANTX	91.2	50.9	8.8	3.5	87.7	56.1	12.3	3.5	93.0	66.7	7.0	3.5	96.5	49.1	3.5	0.0
TN2P	78.9	22.8	21.1	0.0	68.4	31.6	31.6	7.0	77.2	24.6	22.8	0.0	75.4	26.3	24.6	1.8
TN5P	75.4	22.8	24.6	0.0	71.9	43.9	28.1	7.0	86.0	26.3	14.0	0.0	71.9	26.3	28.1	1.8
TN10P	77.2	29.8	22.8	0.0	82.5	50.9	17.5	7.0	93.0	35.1	7.0	0.0	75.4	26.3	24.6	0.0
TN90P	77.2	31.6	22.8	3.5	93.0	63.2	7.0	0.0	87.7	45.6	12.3	0.0	98.2	42.1	1.8	0.0
TN95P	66.7	19.3	33.3	10.5	91.2	61.4	8.8	0.0	86.0	40.4	14.0	0.0	96.5	47.4	3.5	0.0
TN98P	63.2	14.0	36.8	12.3	87.7	54.4	12.3	0.0	80.7	36.8	19.3	1.8	96.5	54.4	3.5	0.0
TX2P	93.0	26.3	7.0	0.0	70.2	24.6	29.8	7.0	98.2	22.8	1.8	0.0	78.9	12.3	21.1	0.0
TX5P	93.0	28.1	7.0	0.0	64.9	33.3	35.1	7.0	94.7	26.3	5.3	0.0	91.2	19.3	8.8	0.0
TX10P	91.2	26.3	8.8	0.0	70.2	33.3	29.8	3.5	94.7	33.3	5.3	0.0	89.5	19.3	10.5	0.0
TX90P	61.4	35.1	38.6	5.3	86.0	50.9	14.0	3.5	82.5	33.3	17.5	3.5	94.7	68.4	5.3	0.0
TX95P	63.2	22.8	36.8	3.5	84.2	42.1	15.8	5.3	66.7	21.1	33.3	3.5	96.5	80.7	3.5	0.0
TX98P	54.4	15.8	45.6	7.0	84.2	40.4	15.8	5.3	68.4	24.6	31.6	7.0	94.7	80.7	5.3	0.0
TN2N	17.5	3.5	82.5	38.6	26.3	7.0	73.7	40.4	21.1	1.8	78.9	42.1	31.6	0.0	68.4	8.8
TN5N	21.1	3.5	78.9	45.6	19.3	7.0	80.7	47.4	17.5	3.5	82.5	43.9	28.1	0.0	71.9	19.3
TN10N	19.3	5.3	80.7	43.9	15.8	7.0	84.2	50.9	15.8	1.8	84.2	49.1	29.8	0.0	70.2	21.1
TN90N	86.0	64.9	14.0	0.0	91.2	59.6	8.8	0.0	93.0	70.2	7.0	0.0	94.7	54.4	5.3	0.0
TN95N	86.0	59.6	14.0	0.0	96.5	59.6	3.5	0.0	89.5	64.9	10.5	0.0	96.5	64.9	3.5	0.0
TN98N	87.7	54.4	12.3	1.8	94.7	54.4	5.3	0.0	86.0	52.6	14.0	0.0	94.7	68.4	5.3	0.0
TX2N	8.8	0.0	91.2	38.6	14.0	3.5	86.0	38.6	3.5	0.0	96.5	49.1	24.6	0.0	75.4	10.5
TX5N	14.0	0.0	86.0	43.9	19.3	3.5	80.7	42.1	3.5	0.0	96.5	64.9	26.3	0.0	73.7	17.5
TX10N	15.8	1.8	84.2	49.1	22.8	3.5	77.2	45.6	1.8	0.0	98.2	71.9	29.8	0.0	70.2	19.3
TX90N	87.7	50.9	12.3	3.5	84.2	52.6	15.8	5.3	89.5	50.9	10.5	5.3	98.2	84.2	1.8	0.0
TX95N	86.0	50.9	14.0	3.5	84.2	45.6	15.8	3.5	84.2	45.6	15.8	5.3	98.2	84.2	1.8	0.0
TX98N	86.0	43.9	14.0	3.5	84.2	40.4	15.8	3.5	82.5	35.1	17.5	7.0	96.5	82.5	3.5	0.0
HWDI	84.2	22.8	15.8	0.0	73.7	21.1	26.3	3.5	64.9	5.3	28.1	3.5	89.5	36.8	5.3	0.0
WSDI90	82.5	24.6	17.5	0.0	75.4	24.6	24.6	3.5	73.7	14.0	26.3	3.5	96.5	49.1	3.5	0.0
CSDI10	19.3	0.0	80.7	22.8	28.1	0.0	71.9	19.3	17.5	0.0	82.5	35.1	29.8	0.0	70.2	7.0
FD	15.8	0.0	84.2	52.6	15.8	0.0	84.2	52.6	15.8	0.0	84.2	52.6	15.8	0.0	84.2	52.6

Table 3.5: 1901-2000, Tmin/Tmax: Fraction of pos and neg trends

	MAM			JJA			SON			DJF						
	pos	pos*	neg*	pos	pos*	neg*	pos	pos*	neg*	pos	pos*	neg*				
MEANTG	98.1	61.1	1.9	0.0	98.1	70.4	1.9	0.0	98.1	75.9	1.9	0.0	92.6	38.9	5.6	0.0
TG2P	92.6	35.2	7.4	0.0	85.2	29.6	14.8	1.9	96.3	20.4	3.7	0.0	77.8	24.1	20.4	0.0
TG5P	90.7	29.6	9.3	0.0	83.3	42.6	16.7	0.0	96.3	31.5	3.7	0.0	79.6	31.5	18.5	0.0
TG10P	88.9	31.5	11.1	0.0	90.7	48.1	9.3	0.0	98.1	31.5	1.9	0.0	79.6	27.8	18.5	0.0
TG90P	81.5	22.2	18.5	0.0	94.4	61.1	5.6	0.0	92.6	40.7	7.4	0.0	96.3	64.8	1.9	0.0
TG95P	61.1	14.8	38.9	0.0	90.7	51.9	9.3	1.9	77.8	24.1	22.2	0.0	98.1	68.5	0.0	0.0
TG98P	48.1	7.4	51.9	7.4	88.9	48.1	11.1	1.9	72.2	22.2	27.8	0.0	96.3	66.7	1.9	0.0
TG2N	3.7	0.0	96.3	51.9	9.3	1.9	90.7	57.4	3.7	0.0	96.3	68.5	29.6	0.0	68.5	5.6
TG5N	5.6	0.0	94.4	55.6	5.6	0.0	94.4	61.1	1.9	0.0	98.1	66.7	31.5	0.0	66.7	24.1
TG10N	9.3	0.0	90.7	53.7	9.3	0.0	90.7	66.7	1.9	0.0	98.1	74.1	22.2	0.0	75.9	29.6
TG90N	98.1	66.7	1.9	0.0	94.4	68.5	5.6	0.0	92.6	66.7	7.4	0.0	98.1	81.5	0.0	0.0
TG95N	96.3	59.3	3.7	0.0	92.6	64.8	7.4	0.0	90.7	63.0	9.3	0.0	98.1	79.6	0.0	0.0
TG98N	90.7	44.4	9.3	0.0	92.6	59.3	7.4	0.0	92.6	40.7	7.4	0.0	98.1	83.3	0.0	0.0
GSL	85.2	57.4	7.4	0.0	85.2	57.4	7.4	0.0	85.2	57.4	7.4	0.0	83.3	57.4	7.4	0.0

Table 3.6: 1901-2000, Tmean: Fraction of pos and neg trends

	MAM			JJA			SON			DJF		
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*
PRECTOT	66.7	33.3	33.3 0.0	66.7	0.0	33.3 11.1	88.9	33.3	11.1 0.0	88.9	55.6	11.1 0.0
PREC90P	77.8	44.4	22.2 0.0	77.8	0.0	22.2 11.1	77.8	22.2	22.2 0.0	100	66.7	0.0 0.0
PREC95P	66.7	22.2	33.3 0.0	77.8	0.0	22.2 11.1	88.9	33.3	11.1 0.0	77.8	55.6	22.2 0.0
PREC98P	55.6	22.2	44.4 0.0	77.8	0.0	22.2 11.1	66.7	33.3	33.3 0.0	66.7	33.3	33.3 0.0
R90N	88.9	33.3	11.1 0.0	77.8	0.0	22.2 11.1	88.9	33.3	11.1 0.0	88.9	55.6	11.1 0.0
R90T	66.7	33.3	33.3 0.0	66.7	0.0	33.3 11.1	55.6	33.3	44.4 0.0	66.7	22.2	33.3 0.0
R90AM	66.7	33.3	33.3 0.0	77.8	11.1	22.2 11.1	77.8	33.3	22.2 0.0	88.9	55.6	11.1 0.0
R95N	77.8	33.3	22.2 0.0	77.8	0.0	22.2 11.1	77.8	33.3	22.2 0.0	88.9	44.4	11.1 0.0
R95T	55.6	22.2	44.4 0.0	77.8	0.0	22.2 0.0	66.7	33.3	33.3 0.0	66.7	33.3	33.3 0.0
R95AM	66.7	22.2	33.3 0.0	77.8	0.0	22.2 11.1	77.8	33.3	22.2 0.0	77.8	66.7	22.2 0.0
R98N	66.7	44.4	33.3 0.0	55.6	0.0	44.4 0.0	88.9	33.3	11.1 0.0	88.9	33.3	11.1 0.0
R98T	77.8	22.2	22.2 0.0	55.6	0.0	44.4 0.0	88.9	33.3	11.1 0.0	77.8	0.0	22.2 0.0
R98AM	66.7	33.3	33.3 0.0	66.7	11.1	33.3 11.1	100	33.3	0.0 0.0	77.8	22.2	22.2 0.0
SDII90p	44.4	22.2	55.6 0.0	66.7	0.0	33.3 0.0	66.7	33.3	33.3 0.0	66.7	11.1	33.3 0.0
SDII95p	55.6	22.2	44.4 0.0	55.6	0.0	44.4 0.0	55.6	22.2	44.4 0.0	77.8	0.0	22.2 0.0
SDII98p	77.8	22.2	22.2 0.0	55.6	0.0	44.4 0.0	66.7	22.2	33.3 0.0	100	33.3	0.0 0.0
SDII	66.7	22.2	33.3 0.0	77.8	11.1	22.2 11.1	55.6	33.3	44.4 0.0	66.7	44.4	33.3 11.1
R5d	77.8	22.2	22.2 0.0	77.8	11.1	22.2 0.0	66.7	22.2	33.3 0.0	88.9	33.3	11.1 0.0
R1d	55.6	22.2	44.4 0.0	55.6	11.1	44.4 0.0	77.8	22.2	22.2 0.0	77.8	33.3	22.2 0.0
CDD	33.3	0.0	66.7 0.0	33.3	0.0	66.7 0.0	33.3	0.0	66.7 0.0	22.2	0.0	77.8 0.0

Table 3.7: 1851-2000, Prec: Fraction of pos and neg trends

	MAM			JJA			SON			DJF		
	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*	pos	pos*	neg neg*
PRECTOT	68.0	14.0	32.0 3.0	48.0	6.0	52.0 3.0	67.0	21.0	33.0 3.0	78.0	27.0	22.0 2.0
PREC90P	65.0	7.0	35.0 4.0	50.0	5.0	50.0 4.0	68.0	19.0	32.0 1.0	76.0	26.0	24.0 4.0
PREC95P	74.0	15.0	26.0 1.0	56.0	8.0	44.0 4.0	72.0	20.0	28.0 3.0	79.0	27.0	21.0 1.0
PREC98P	80.0	7.0	20.0 2.0	60.0	9.0	40.0 4.0	66.0	19.0	34.0 3.0	72.0	20.0	28.0 2.0
R90N	65.0	13.0	35.0 3.0	57.0	6.0	43.0 3.0	67.0	19.0	33.0 1.0	77.0	22.0	23.0 3.0
R90T	68.0	11.0	32.0 1.0	68.0	12.0	32.0 2.0	68.0	21.0	32.0 2.0	70.0	28.0	30.0 3.0
R90AM	71.0	15.0	29.0 3.0	55.0	9.0	45.0 3.0	68.0	22.0	32.0 3.0	78.0	33.0	22.0 3.0
R95N	71.0	15.0	29.0 4.0	64.0	7.0	36.0 3.0	71.0	21.0	29.0 6.0	75.0	22.0	25.0 2.0
R95T	72.0	10.0	28.0 0.0	68.0	14.0	32.0 2.0	66.0	15.0	34.0 3.0	73.0	19.0	27.0 2.0
R95AM	74.0	14.0	26.0 2.0	62.0	11.0	38.0 3.0	70.0	22.0	30.0 5.0	77.0	31.0	23.0 2.0
R98N	72.0	11.0	28.0 2.0	59.0	13.0	41.0 1.0	65.0	22.0	35.0 2.0	77.0	18.0	23.0 1.0
R98T	75.0	5.0	25.0 1.0	67.0	14.0	33.0 1.0	68.0	18.0	32.0 1.0	71.0	17.0	29.0 4.0
R98AM	72.0	10.0	28.0 2.0	61.0	12.0	39.0 3.0	68.0	21.0	32.0 4.0	79.0	21.0	21.0 2.0
SDII90p	70.0	6.0	30.0 0.0	61.0	14.0	39.0 2.0	60.0	14.0	40.0 2.0	73.0	15.0	27.0 0.0
SDII95p	63.0	6.0	37.0 1.0	57.0	10.0	43.0 0.0	66.0	8.0	34.0 1.0	70.0	7.0	30.0 2.0
SDII98p	56.0	8.0	44.0 0.0	58.0	11.0	42.0 1.0	66.0	12.0	34.0 1.0	66.0	19.0	34.0 0.0
SDII	77.0	19.0	23.0 3.0	63.0	14.0	37.0 4.0	66.0	24.0	34.0 5.0	77.0	38.0	23.0 2.0
R5d	70.0	10.0	30.0 3.0	67.0	11.0	33.0 1.0	67.0	20.0	33.0 2.0	79.0	20.0	21.0 2.0
R1d	65.0	11.0	35.0 0.0	59.0	8.0	41.0 0.0	67.0	13.0	33.0 1.0	73.0	21.0	27.0 3.0
CDD	58.0	5.0	42.0 1.0	71.0	1.0	29.0 1.0	57.0	1.0	43.0 3.0	48.0	0.0	52.0 2.0

Table 3.8: 1901-2000, Prec: Fraction of pos and neg trends

3.2.1 Temperature

MEANTN and MEANTX increased in all seasons and regions, 69% of all these trend are significant (Tab. 3.9 and 3.10). There is only one negative trend for MEANTX: SON in SEEUROPE (but not significant). The MEANTN trends range from 0.3-2.7°C and the MEANTX trends range from -0.3-2.2°C. For one region, IBERIA, MEANTX is increasing significantly more than MEANTN. In SEEUROPE, WEUROPE and SSCAND the pattern is switched: here we have a stronger increase of MEANTN. For GERMANY we find relatively small MEANTN changes. For the remaining regions (SEUROPE, GTALPINE, NEEUROPE) the changes of the two means are quite similar.

For most of the regions we get trends around 1°C. NEEUROPE with highly significant 2.1°C in MAM and SEEUROPE with 2.7°C in DJF are the highest trends. For MEANTX the pattern is similar with a modified trend range: 0.3-2.2°C. Again NEEUROPE has the highest value (MAM). We observe the biggest changes throughout all seasons as follows:

We find significantly increasing lower percentiles in MAM and JJA mainly for the following regions: SEUROPE, SSCAND, NEEUROPE, and SEEUROPE.

The lower Tmin percentiles are mainly increasing in MAM and JJA fo

3.2.2 Precipitation

	MAM					JJA								
	GERMANY	IBERIA	WEUROPE	SEUROPE	SSCAND	NEUROPE	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SEUROPE	NEUROPE
MEANTN	0.3	0.8*	0.3	1.2**	0.7**	1.5**	1.6**	2.1**	0.3	1.1**	0.5*	1.2**	1.1**	1.2**
MEANTX	0.7	0.7	1.9**	0.2	1.0**	1.1*	2.2**	1.1	0.8*	1.8**	0.5	0.8*	1.0*	0.9*
TN2P	0.3	1.1	0.7	1.2*	0.7	2.5*	3.2*	3.6*	-0.5	0.2	0.7	0.9**	0.6	1.3**
TN5P	-0.1	0.5	0.4	1.1*	0.6	2.1	2.0	3.0	-0.3	0.4	0.6	0.9**	0.7*	1.4**
TN10P	0.1	0.5	0.4	1.2**	0.5	1.8*	3.2*	3.2*	-0.1	0.6*	0.7*	1.1**	0.8**	1.1**
TN90P	-0.1	0.3	0.3	0.7**	0.6	1.5**	1.1*	1.8**	0.6*	1.5**	0.3	1.4**	1.4**	0.8
TN95P	-0.4	0.1	0.1	0.4	0.5	1.2**	1.0	1.6*	0.5*	1.4**	0.3	1.4**	1.3**	0.8
TN98P	-0.7	0.0	-0.1	0.0	0.6	0.8	1.0*	1.6*	0.5	1.4**	0.3	1.4**	1.3**	0.9
TX2P	1.2	0.6	2.3**	0.7	0.5	1.8*	1.7	3.3*	0.1	-0.2	2.5**	0.3	-0.1	1.1**
TX5P	1.1	0.4	2.3**	0.7	0.6	1.5	1.1	2.3*	0.1	-0.2	2.0**	0.1	0.1	1.1**
TX10P	0.9	0.3	2.3**	0.9	0.5	1.2	1.0	2.3*	0.1	0.0	2.1**	0.1	0.5	0.9*
TX90P	0.3	0.3	1.5*	-0.4	1.0	1.4*	0.2	2.2**	1.3**	1.2**	1.8**	0.8	1.1**	1.2
TX95P	0.1	0.1	1.1	-0.6	0.7	1.2	0.0	2.1*	1.2*	1.2**	1.8**	0.7	1.1**	1.2*
TX98P	-0.4	-0.2	0.8	-0.7	0.5	0.9	-0.1	2.1**	1.5**	1.2*	1.6**	0.6	1.1*	1.3*
TN2N	-0.4	-2.1**	-1.2*	-3.0**	-2.2**	-2.8**	-2.9**	-4.2**	-0.3	-1.8**	-1.4*	-3.1**	-3.3**	-2.7**
TN5N	-0.4	-2.8*	-1.8*	-4.4**	-3.4**	-4.9**	-4.9**	-7.0**	-0.1	-3.1**	-2.9*	-5.8**	-5.2**	-5.1**
TN10N	-0.3	-3.5*	-3.0*	-6.8**	-4.1*	-6.8**	-7.9**	-9.8**	0.3	-5.6**	-4.4*	-8.6**	-7.5**	-8.2**
TN90N	1.8	4.8**	4.1*	6.7**	4.9**	8.2**	7.0**	8.4**	3.7*	7.3**	4.3*	7.6**	9.0**	6.5**
TN95N	1.1	3.2**	2.6*	4.3**	3.0**	5.4**	4.6**	5.7**	2.9*	4.6**	2.7*	4.9**	5.9**	4.3**
TN98N	0.7	1.5*	1.3*	1.9**	1.6**	2.5**	2.2**	2.5**	1.6*	2.7**	1.4*	2.5**	2.9**	2.2**
TX2N	-1.4*	-0.7	-4.2**	-1.2*	-0.4	-1.9*	-1.7	-5.1**	-0.8	-0.6	-3.9**	-1.5**	-0.7	-3.0**
TX5N	-2.2*	-0.9	-7.7**	-2.1*	-0.8	-4.4**	-2.8	-8.1**	-1.2	-1.2	-6.7**	-1.7	-1.0	-4.9**
TX10N	-3.2	-1.0	-12.1**	-2.8	-1.7	-6.4**	-4.9	-11.8**	-2.4	-2.1	-9.9**	-2.7	-2.1	-7.2**
TX90N	3.1	3.8*	8.3**	0.7	7.3**	4.2*	2.1	7.6**	4.6**	3.0	7.6**	3.7	6.7*	4.8*
TX95N	2.1	2.3	5.4**	0.9	5.0**	3.0*	1.0	4.2**	2.9*	1.8	5.0**	2.4	5.3**	3.5*
TX98N	0.8	0.6	2.5**	0.2	2.0*	1.7*	0.6	2.1**	1.6*	0.3	2.4**	1.4	2.9*	1.7*
HWDI	2.1	2.5	3.6*	0.9	1.9*	1.0	1.2	0.4	0.7	0.3	0.8	1.5	2.0*	1.4
WSDI90	1.2	1.3	3.4**	1.4	2.2*	1.6	1.4	1.4	0.6	-0.6	1.6*	2.1	3.8**	1.3
CSDI10	-0.8	-2.1**	-0.5	-1.5*	-1.3	-1.4	-3.0	-5.1**	-0.2	-1.2**	-0.9	-1.4**	-2.0**	-3.3**
FD	-6.3	-18.2**	-4.9	-12.1**	-5.9	-18.9**	-20.9**	-23.8**	-6.3	-18.2**	-4.9	-12.1**	-5.9	-18.9**

Table 3.9: Regional trends for Tmin/Tmax 1901-2000 for autumn(MAM) and winter(JJA). (*=sig,95%; **=sig,99%)

	SON					DJF										
	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SSEUROPE	NEUROPE	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SSEUROPE	NEUROPE
MEANTN	0.6	1.2**	0.5*	1.4**	0.8**	1.5**	0.8	1.0*	0.3	1.3**	1.0*	0.6	1.1*	0.7	2.7**	1.5
MEANTX	1.1**	1.3**	1.9**	0.7**	1.1**	1.0**	-0.3	1.1*	0.7	1.3*	1.5**	0.5	1.2**	0.4	1.5*	1.4
TN2P	0.0	0.6	0.2	1.8**	1.5*	1.9*	2.2	0.3	-0.3	1.4	1.1*	0.8	1.9*	0.7	4.5**	1.5
TN5P	0.5	0.8	0.4	1.5**	1.2*	1.8*	0.8	0.9	-0.4	1.3	0.9	0.5	1.7*	0.6	4.5**	1.9
TN10P	0.6	1.0*	0.5	1.5**	0.9	1.8**	0.5	1.2	0.0	1.3	0.8	0.5	1.5*	0.7	3.6**	1.7
TN90P	0.4	1.0*	0.3	1.1**	0.6	1.4**	0.5	1.0*	0.6	1.4**	0.8*	0.8*	0.6	0.8	1.7**	0.8
TN95P	0.3	0.9*	0.3	0.9**	0.5	1.3**	0.5	1.4*	0.9	1.5**	0.9*	1.0**	0.7	1.0*	1.7**	0.7
TN98P	0.3	1.0*	0.2	0.7*	0.3	1.4**	0.4	1.5**	1.2*	1.6**	0.9*	1.1**	0.7	1.0*	2.1**	0.7
TX2P	0.9	0.8	1.5**	1.4*	1.4*	1.1	0.8	0.5	0.4	0.9	1.1	0.6	1.2	0.3	2.7	1.8
TX5P	1.1	1.0	1.5**	1.2*	1.0	1.3	0.4	1.1	0.6	0.9	1.3**	0.4	1.0	0.4	2.8*	1.8
TX10P	1.0	0.8	1.4**	1.1*	0.8	1.2*	0.3	1.2	0.5	0.8	1.4**	0.3	0.9	0.4	2.2*	1.8
TX90P	1.0	1.1	2.1**	0.2	0.7	0.7	-0.7	0.4	1.4*	1.9**	1.8**	0.8**	1.8**	0.6	0.9	1.0*
TX95P	0.3	0.7	2.0**	0.0	0.5	0.5	-1.3	0.7	1.7**	2.0**	1.9**	0.9**	1.9**	0.9*	1.3*	1.4**
TX98P	-0.1	0.7	1.9**	-0.4	0.4	0.8	-1.5*	1.2	2.0**	2.0**	1.9**	1.1**	1.7**	1.1*	1.8**	1.8**
TN2N	-0.8	-2.7**	-0.4	-4.8**	-2.9**	-2.9**	-1.8	-1.8*	-0.3	-1.1	-1.6	-0.5	-1.8	-0.3	-2.8*	-0.6
TN5N	-0.7	-4.3**	-0.8	-7.0**	-4.2**	-5.1**	-2.5	-1.8	-0.3	-2.8	-3.4*	-0.5	-3.2	-0.7	-4.4*	-0.8
TN10N	-1.0	-6.3**	-2.7	-10.1**	-6.1**	-8.6**	-4.3	-3.9	0.4	-5.3*	-6.1**	-1.3	-6.9**	-0.6	-5.6*	-2.7
TN90N	3.2*	5.6**	5.1**	6.4**	2.1	7.3**	-0.4	5.7**	3.6	6.2**	6.3**	3.2*	3.2	8.0**	6.4**	6.3*
TN95N	1.9*	3.4**	3.1**	3.9**	1.4	5.0**	-0.1	3.5*	3.3**	4.4**	3.9**	2.5**	1.6	5.9**	4.3**	3.7
TN98N	1.0*	1.5**	1.6*	1.4**	0.3	2.6**	-0.3	1.4	2.1**	2.1**	2.2**	1.5**	0.5	3.2**	2.3**	2.6*
TX2N	-2.7**	-1.9*	-2.8**	-2.3**	-1.6*	-3.4**	-0.9	-3.4**	-0.4	-0.5	-2.5**	-0.4	-1.0	-0.1	-2.2	-0.6
TX5N	-4.4**	-3.1*	-6.6**	-4.1**	-3.2**	-5.5**	-0.5	-5.2**	-0.4	-1.5	-5.4**	-0.6	-2.9	0.3	-4.3*	-0.9
TX10N	-6.8**	-5.5*	-10.4**	-6.2**	-5.1**	-7.9**	-1.1	-7.0**	-0.6	-2.4	-10.2**	-0.9	-4.7*	1.0	-6.2*	-2.9
TX90N	3.0*	3.8*	7.7**	3.3	4.6**	4.0	-4.5	4.4	7.2**	7.4**	9.0**	4.8**	9.0**	7.1**	5.8**	11.0**
TX95N	1.6	2.1*	4.6**	1.4	2.6*	2.4	-3.8*	3.2*	5.9**	5.0**	5.0**	3.6**	5.5**	5.2**	4.0**	7.1**
TX98N	0.7	0.8	2.0**	0.5	1.2*	1.2	-3.4**	1.7**	3.5**	2.4**	2.4**	2.0**	2.7**	2.6**	1.8**	3.4**
HWDI	0.5	0.4	1.2	-0.1	0.6	-0.1	-3.6*	0.3	4.6**	3.2**	0.8*	0.6	1.6	1.6	2.9	9.3**
WSDI90	0.4	0.4	2.0*	0.3	0.8	0.8	-2.1	-0.2	3.1*	2.6**	2.1**	1.2	1.8*	3.0*	1.5	4.6**
CSDI10	-1.5	-2.3*	-0.3	-3.7**	-2.3**	-3.3**	-2.5*	-1.2	-0.6	-2.1	-1.4	-0.9	-2.5	-0.1	-3.4*	0.0
FD	-6.3	-18.2**	-4.9	-12.1**	-5.9	-18.9**	-20.9**	-23.8**	-6.3	-18.2**	-4.9	-12.1**	-5.9	-18.9**	-20.9**	-23.8**

Table 3.10: Regional trends for Tmin/Tmax 1901-2000 for autumn(SON) and winter(DJF). (*=sig.95%; **=sig.99%)

	MAM						JJA									
	GERMANY	ITALY	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE	GERMANY	ITALY	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE
MEANTG	0.6	0.9**	1.1**	0.8**	0.7*	0.9*	1.1	2.4**	0.7*	1.3**	1.2**	1.0**	1.0**	0.7*	-0.2	1.8**
TG2P	1.0	1.1	1.7**	1.3	0.4	1.7	2.7	3.3*	0.2	0.5	1.6**	0.6	0.3	1.1**	0.6	2.9**
TG5P	0.7	0.8	1.6**	1.2	0.5	1.4	1.6	3.2*	0.2	0.6	1.3**	0.6*	0.3	1.1**	0.7	2.5**
TG10P	0.6	0.6	1.4**	1.1*	0.4	1.1	1.1	2.5*	0.3	0.7*	1.4**	0.7**	0.6*	0.8*	0.4	2.2**
TG90P	0.1	0.4	0.9	0.3	0.8	1.0*	0.2	2.8**	1.1**	1.6**	1.0**	1.4**	1.4**	0.9	-0.7	1.5**
TG95P	-0.1	0.1	0.7	-0.2	0.7	0.7	-0.2	2.5**	1.0*	1.5**	1.1**	1.4**	1.4**	0.9	-1.0	1.5*
TG98P	-0.6	-0.1	0.3	-0.6	0.6	0.4	-0.3	3.5**	1.0*	1.4**	1.0**	1.5**	1.3**	0.8	-1.0	1.5*
TG2N	-1.4*	-1.9**	-3.1**	-2.8**	-1.0	-1.8	-2.9*	-7.5**	-1.1	-1.6**	-2.7**	-3.1**	-1.2*	-2.5**	-1.3	-6.9**
TG5N	-2.1	-2.3*	-5.1**	-4.2**	-1.6	-3.4*	-4.0	-11.5**	-1.8	-3.1**	-5.2**	-4.8**	-2.7**	-4.6**	-2.1	-11.4**
TG10N	-2.6	-3.6*	-8.3**	-5.9**	-2.5	-5.4*	-6.5*	-16.7**	-2.3	-6.2**	-8.4**	-6.8**	-5.0**	-6.4**	-1.6	-16.8**
TG90N	3.5*	5.9**	8.2**	4.8**	6.2**	6.0*	4.1	10.1**	5.5**	7.7**	7.6**	6.9**	8.8**	5.1*	-3.6	6.8**
TG95N	2.1	3.8**	5.4**	3.8**	4.1**	3.8*	3.0	6.2**	3.4**	5.1**	5.1**	4.4**	6.5**	3.4*	-2.6	4.4*
TG98N	0.9	1.8*	2.2**	2.1**	1.9*	1.8*	1.8*	2.8**	1.9**	2.8**	2.6**	2.3*	3.4**	1.8	-2.0	2.2*
GSL	23.4**	10.2	6.2	30.2**	5.9	22.4**	20.1**	24.5**	23.4**	10.2	6.2	30.2**	5.9	22.4**	20.1**	24.5**

Table 3.11: Regional trends for Tmean 1901-2000 for autumn(MAM) and winter(JJA). (* =sig.95%; ** =sig.99%)

	SON					DJF										
	GERMANY	ITALY	IBERIA	WEUROPE	SEUROPE	SSCAND	SEUROPE	WEUROPE	SEUROPE	SSCAND	SEUROPE	NEUROPE				
MEANTG	0.8*	1.4**	1.2**	1.4**	0.9**	1.1**	0.3	1.3**	31.9	55.5**	30.0**	32.8	1.1*	25.8	6.5*	-7.9
TG2P	0.7	0.8	0.9	1.9**	1.4*	1.5	1.8	0.9	1.1	2.4	1.1*	1.1	1.7*	0.6	0.4	-0.3
TG5P	0.8	0.9	1.0*	1.9**	1.2*	1.5*	0.7	1.4	1.5	3.3	1.5*	1.6	1.4	1.0	0.5*	-0.2
TG10P	0.8	1.0	0.8	1.7**	0.9	1.3*	0.2	1.6	2.3	4.0	2.0**	2.3	1.2*	1.2	0.3	-0.8
TG90P	0.8	1.3*	1.2**	0.7	0.6	0.7	-0.4	1.1*	1.7*	1.7**	1.9**	1.8**	1.0*	1.7	0.6**	-1.4
TG95P	0.2	0.9	1.0*	0.4	0.5	0.8	-0.7	1.3*	5.7*	7.3**	3.3**	6.9**	1.0*	5.5	-2.9**	-2.5
TG98P	-0.1	1.0	1.0*	0.1	0.5	0.9	-1.2	2.0**	28.5*	48.5**	28.8**	28.0**	1.1**	23.1	2.6**	-11.9*
TG2N	-2.9**	-3.2**	-1.5*	-5.0**	-2.3**	-3.5**	-1.4	-4.9**	1.3	0.9	1.1*	1.4	-1.4	1.2	0.6	-0.7
TG5N	-3.6*	-4.9**	-3.6**	-8.0**	-3.7**	-5.9**	-1.9	-6.7**	7.0	4.6	4.8**	7.2	-3.2	5.8	-2.5	-1.9
TG10N	-5.1*	-8.2**	-7.4**	-10.8**	-6.4**	-8.6**	-3.0	-7.5**	23.9	34.7	23.7**	23.6	-5.9*	18.9	3.2	-9.1
TG90N	3.3*	6.2**	8.0**	5.5**	3.0	5.8*	-1.5	7.6**	0.7**	0.5**	0.6**	0.6**	5.4**	0.6**	0.1**	-0.7*
TG95N	1.9*	3.5**	4.8**	3.5**	2.0	4.1**	-2.1	4.0*	5.1**	3.0**	5.5**	4.3**	3.4**	4.5**	-3.7**	-4.0
TG98N	0.9	1.5**	2.3**	1.0	1.1	1.8*	-2.0	1.7	14.0**	20.2**	15.0**	13.1**	1.6*	10.2**	-0.8**	-8.7*
GSL	23.4**	10.2	6.2	30.2**	5.9	22.4**	20.1**	24.5**	0.9**	2.1	0.5	0.8**	5.9	0.4**	0.0**	-0.1**

Table 3.12: Regional trends for Tmean 1901-2000 for autumn(SON) and winter(DJF). (*=sig.95%; **=sig.99%)

	MAM						JJA									
	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE
PRECTOT	22.8	33.3	-18.6	19.9	4.9	17.9	-6.6	-14.0*	-6.1	-2.7	0.4	-6.6	30.7*	2.8	-15.8	11.8
PREC90P	0.8	1.1*	-0.9	0.4	0.3	0.4	-0.1	-0.4*	-0.2	-0.1	0.1	-0.2	0.7	-0.1	-0.7	0.4
PREC95P	1.4*	1.8*	-0.8	0.7	0.5	0.8	0.1	-0.3	-0.4	0.8	-0.3	0.1	2.2**	0.1	0.0	1.1*
PREC98P	1.9	3.0*	-1.2	1.1	1.6	1.7**	0.7	-0.5	0.1	1.2	-0.6	0.0	4.8**	-0.4	0.5	1.9
R90N	0.9	0.9	-1.6	1.4	0.0	1.0	0.5	-1.6*	-0.2	0.0	1.5*	-0.5	0.7	0.0	-1.0	0.5
R90T	2.5	4.7*	-0.8	2.7	3.6*	4.0*	7.3*	0.0	0.8	3.2*	5.9**	1.3	3.1*	-0.5	2.8	5.0**
R90AM	20.5	31.7*	-18.3	16.3	11.7	16.8*	2.4	-10	-3.2	5.2	0.1	-3.0	31.1*	1.8	-4.7	17.8
R95N	0.9	0.6	-1.0	0.8	0.3	0.7	1.2	-0.5	-0.2	0.3	1.0*	0.1	0.7	0.0	0.1	0.5
R95T	3.8	4.5*	-1.3	2.4	5.7**	4.4*	11.6**	1.7	0.8	4.2*	8.2	2.5	5.9*	-0.1	5.6	5.4*
R95AM	18.7*	26.1*	-13.3	11.7	14.5	13.5*	8.2	-6.2	-3.7	10.2	0.8	1.0	31.0**	1.8	2.0	16.0*
R98N	0.5	0.4	-0.2	0.3	0.3	0.5*	0.4	-0.3	-0.1	0.3	0.4	0.0	0.5*	0.2	0.2	0.4*
R98T	2.7	3.7	1.4	1.5	5.2*	4.9**	6.2	-0.5	0.8	4.1**	7.4	0.2	8.3**	1.2	3.2	6.1**
R98AM	12.5*	17.7*	-6.4	6.2	11.9*	11.9**	4.0	-5.2	-2.4	11.8	1.1	-0.4	25.8**	4.1	3.7	14.4**
SDII90p	0.6	1.9**	0.0	0.3	1.3**	0.5*	-0.2	0.2	0.3	0.9	-1.4	0.4	1.8*	0.0	0.7	0.9*
SDII95p	0.4	3.0**	0.1	0.3	1.4	0.7*	-0.7	-0.3	0.7	1.9*	-1.5	-0.1	2.3*	-0.6	0.3	1.3*
SDII98p	0.6	4.1*	-2.1	0.6	3.6*	2.5**	2.5	0.3	2.1	5.6*	0.7	-1.0	5.7*	-0.5	-1.4	3.8*
SDII	0.5**	1.0**	-0.4	0.2	0.8**	0.5**	0.4	0.0	0.2	0.2	-0.4	0.0	1.3*	0.1	0.5	0.9**
R5d	5.3	6.4	-6.3	3.7	5.4	5.2**	0.8	-2.0	3.3	5.8	-0.3	0.6	11.6*	0.9	-0.3	6.9*
R1d	2.4	4.7*	-2.8	1.4	5.0**	2.9**	0.0	-1.1	1.2	2.6	0.4	0.3	8.3*	0.1	0.2	4.6**
CDD	-0.1	0.4	2.8	0.6	1.7	-0.4	1.2	0.3	1.1	0.9	-3.7	1.0	-0.5	1.2	2.7	-0.2

Table 3.13: Regional trends for precipitation 1901-2000 for spring (MAM) and summer (JJA). (*=sig.95%; **=sig.99%)

	SON						DJF									
	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE	GERMANY	GTALPINE	IBERIA	WEUROPE	SEUROPE	SSCAND	SEEUROPE	NEUROPE
PRECTOT	18.5	16.6	-15.1	41.2*	-2.0	52.3**	18.9	9.4	31.9	55.5**	30.6	32.8*	-3.7	25.8	6.5	-7.9
PREC90P	0.6	0.6	-0.5	1.1*	-0.5	1.8**	0.5	0.4	1.1*	2.4**	1.1	1.1*	-0.3	0.6	0.4	-0.3
PREC95P	0.9	1.2	-1.4	1.7*	0.4	2.3**	0.8	0.5	1.5*	3.3**	1.5	1.6**	0.2	1.0	0.5	-0.2
PREC98P	1.6	2.1	-3.8	2.6**	1.9	2.3**	2.7	0.0	2.3*	4.0**	2.0	2.3*	1.0	1.2	0.3	-0.8
R90N	0.7	0.6	-1.0	2.4*	-0.5	2.3**	1.1	0.7	1.7	1.7*	1.9	1.8	-0.7	1.7	0.6	-1.4
R90T	2.5	4.5**	-2.5	6.6**	3.7**	5.6**	3.1	1.1	5.7	7.3**	3.3	6.9*	0.4	5.5*	-2.9	-2.5
R90AM	15.8	22.7	-16.5	36.7**	4.9	39.1**	17.8	7.8	28.5*	48.5**	28.8	28.0*	0.6	23.1*	2.6	-11.9*
R95N	0.7	0.6	-0.9	1.4*	0.2	1.5**	0.6	0.3	1.3	0.9	1.1	1.4*	0.1	1.2*	0.6	-0.7
R95T	3.6	4.9**	-3.9	6.1*	5.7*	5.7**	1.8	-0.7	7.0*	4.6	4.8	7.2**	2.8	5.8*	-2.5	-1.9
R95AM	15.8	20.0	-13.8	28.2**	9.0	29.1**	13.6	3.5	23.9*	34.7**	23.7	23.6*	6.2	18.9*	3.2	-9.1
R98N	0.3	0.6*	-0.2	0.7*	0.3	0.7**	0.2	0.1	0.7*	0.5	0.6*	0.6*	0.3	0.6*	0.1	-0.7*
R98T	1.7	5.8**	-3.2	4.7*	6.2*	3.5*	3.9	-0.8	5.1*	3.0	5.5	4.3*	5.6*	4.5**	-3.7	-4.0
R98AM	9.1	22.1*	-8.6	18.1**	11	16.1**	9.2	0.6	14.0*	20.2*	15	13.1*	7.8	10.2*	-0.8	-8.7*
SDII90p	0.3	1.0*	-0.3	0.7*	1.6*	0.5	1.3	-0.2	0.9*	2.1**	0.5	0.8*	0.8	0.4	0.0	-0.1
SDII95p	0.4	2.1*	-0.1	1.4*	1.0	0.7	2.0*	-0.1	1.3	3.1**	1.3	0.9	0.3	0.5	-0.3	0.1
SDII98p	2.0	5.9**	-1.8	3.4*	2.8	2.9*	3.4	0.1	3.9*	5.7**	4.5*	3.0*	1.0	1.8	-1.8	-0.4
SDII	0.3	0.8**	-0.3	0.5*	1.3**	0.6**	0.5	0.1	0.7**	1.5**	0.5	0.6**	0.6*	0.4**	-0.1	-0.2
R5d	4.3	0.1	2.0	9.5**	6.3	5.0*	7.7	1.5	7.6*	15.4**	9.2	6.7*	1.0	3.2	-2.5	-1.9
R1d	1.5	4.1*	0.4	3.9**	4.0	1.8	2.9	0.3	3.6*	4.7*	3.6	3.2*	1.4	1.9	-2.0	-1.7*
CDD	0.0	1.6	2.7	0.1	2.3	-1.3	-3.0	-1.3	0.2	0.2	-2.2	-0.2	1.5	-0.5	-2.0	0.5

Table 3.14: Regional trends for precipitation 1901-2000 for autumn(SON) and winter(DJF). (*=sig.95%; **=sig.99%)

Chapter 4

Conclusions

The maps and figures presented can serve as a base for more detailed analysis of a certain period, season, region or index. Even if the results are quite heterogeneous we try to make some brief general conclusion.

For all the periods analyzed we find relatively clear patterns. The temperature means have increased, both MEANTN, MEANTX, and MEANTG. The levels of extremes, i.e. the percentiles, increase. A shift in the frequency distribution can be observed. Extremely cold days and nights became fewer whereas extremely warm and hot days and nights occurred more often. A large part of the computed trends was found to be significant. The rate of significant changes is much higher for temperature extremes than for precipitation extremes. But still, we also obtain some clear tendencies for the latter ones. The results for the precipitation indices are more heterogeneous throughout the seasons and the different regions. The majority of trends suggests increased rainfall amounts increased extreme levels and more precipitation falling as extreme rainfall according to the respective definition. In summer the changes occur to be least significant.

The concept of taking time-series of single stations into a regional average works fairly good if a sufficient number of observations is available, e.g. GERMANY and IBERIA. For other regions as NEEUROPE, SEEUROPE, and SEUROPE only a few stations are available and in this context the results might be much less representative for the particular region.

Appendix A

Appendix

A.1 Trend Maps

In this section the trend maps are presented. As shown in the table of contents the structure of the map part is the following. Each page contains 8 figures. The figures start with the longest period, spring season (MAM) and Tmin/Tmax indices followed by Tmean and prec. Then comes the next season (JJA) with Tmin/Tmax, Tmean, and prec indices and. After DJF in the particular period we turn to the next period. The header on each page contains the period, season, and index group which is first on the particular page. The order of the indices is equivalent to the index order shown in table 2.2.

Each figure consists of a map, a color bar and a title (Fig. A.1). The lower and the upper limit of the particular color bar represent the minimum and the maximum value shown in the map. A general color scheme has been used throughout the whole atlas. Red color are used for positive values, blue colors for negative values, and green color for values around zero. The title gives the period, season, index name and trend unit. The symbols in the map are circles (200-year and 150-year period) or boxes (100-year period). The circles represent single stations and the boxes stand for the regions. Depending on the significance of the trend the circle/box is surrounded by no line (not significant), a thin black line (significant with $p < 0.05$) or a bold black line (significant with $p < 0.01$).

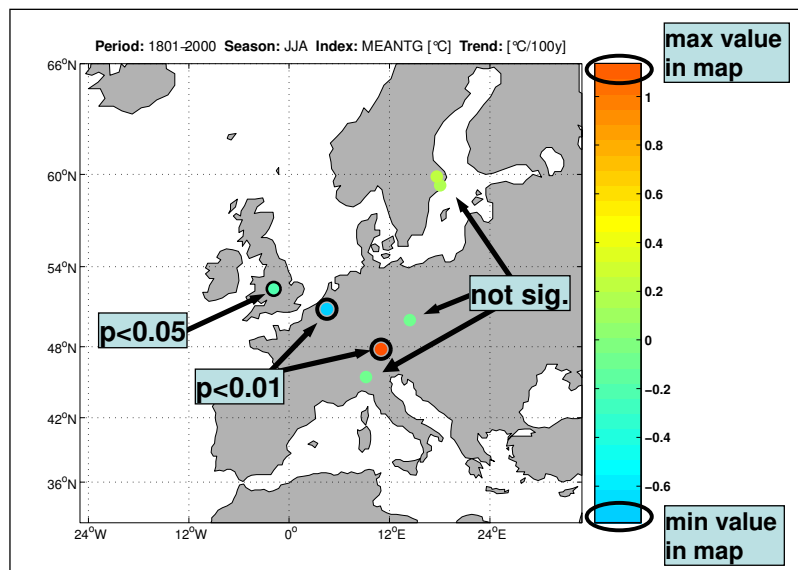
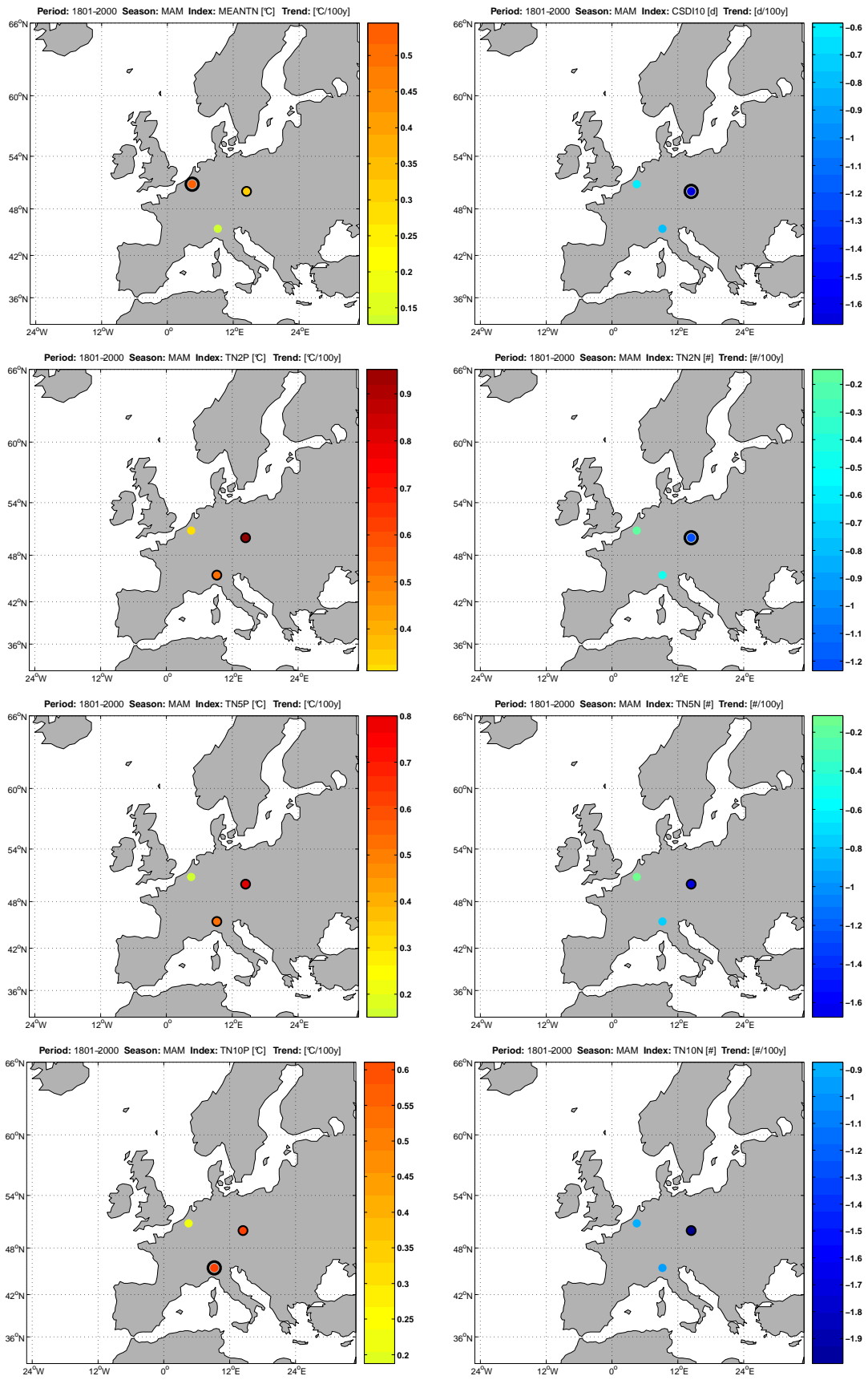
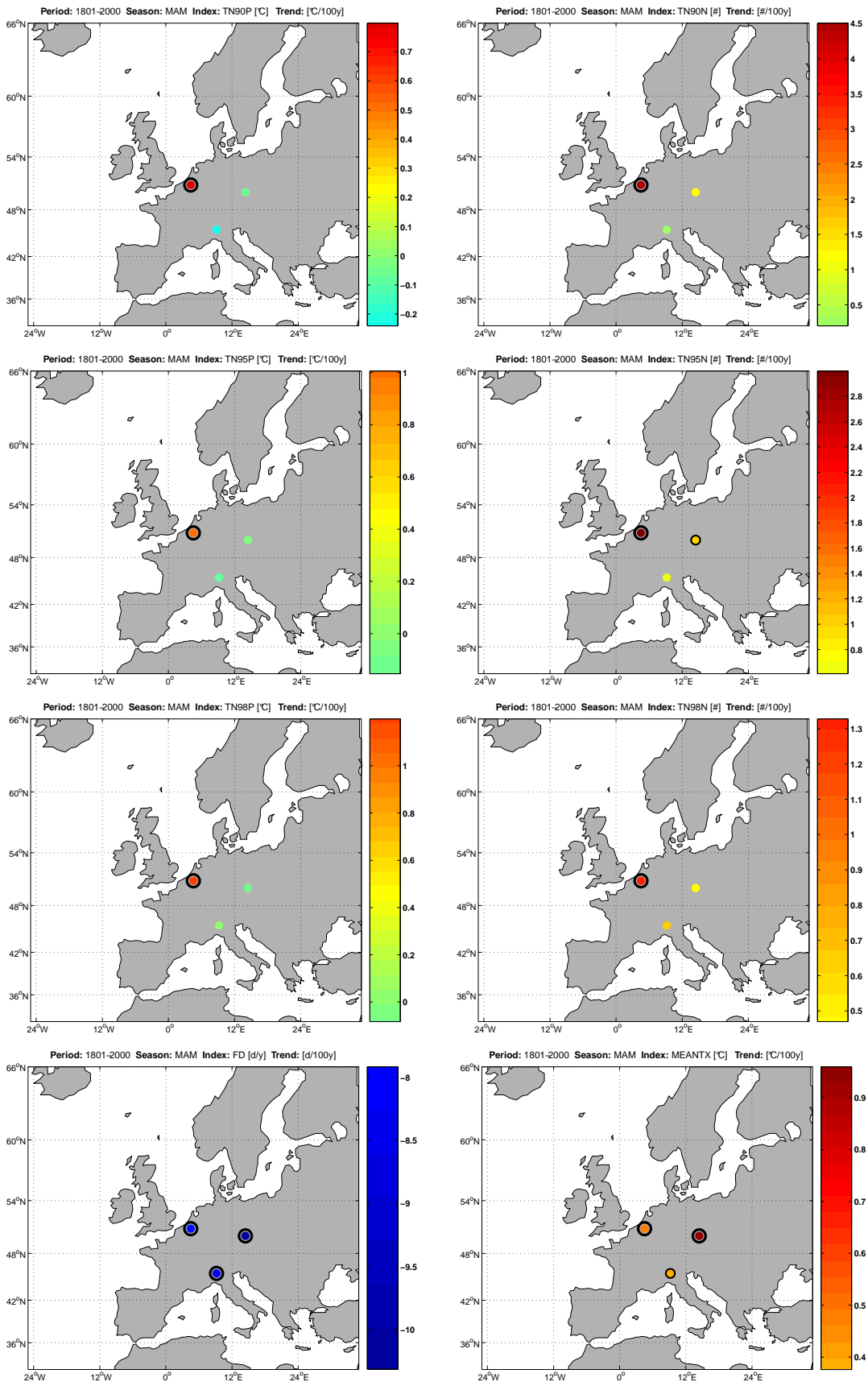
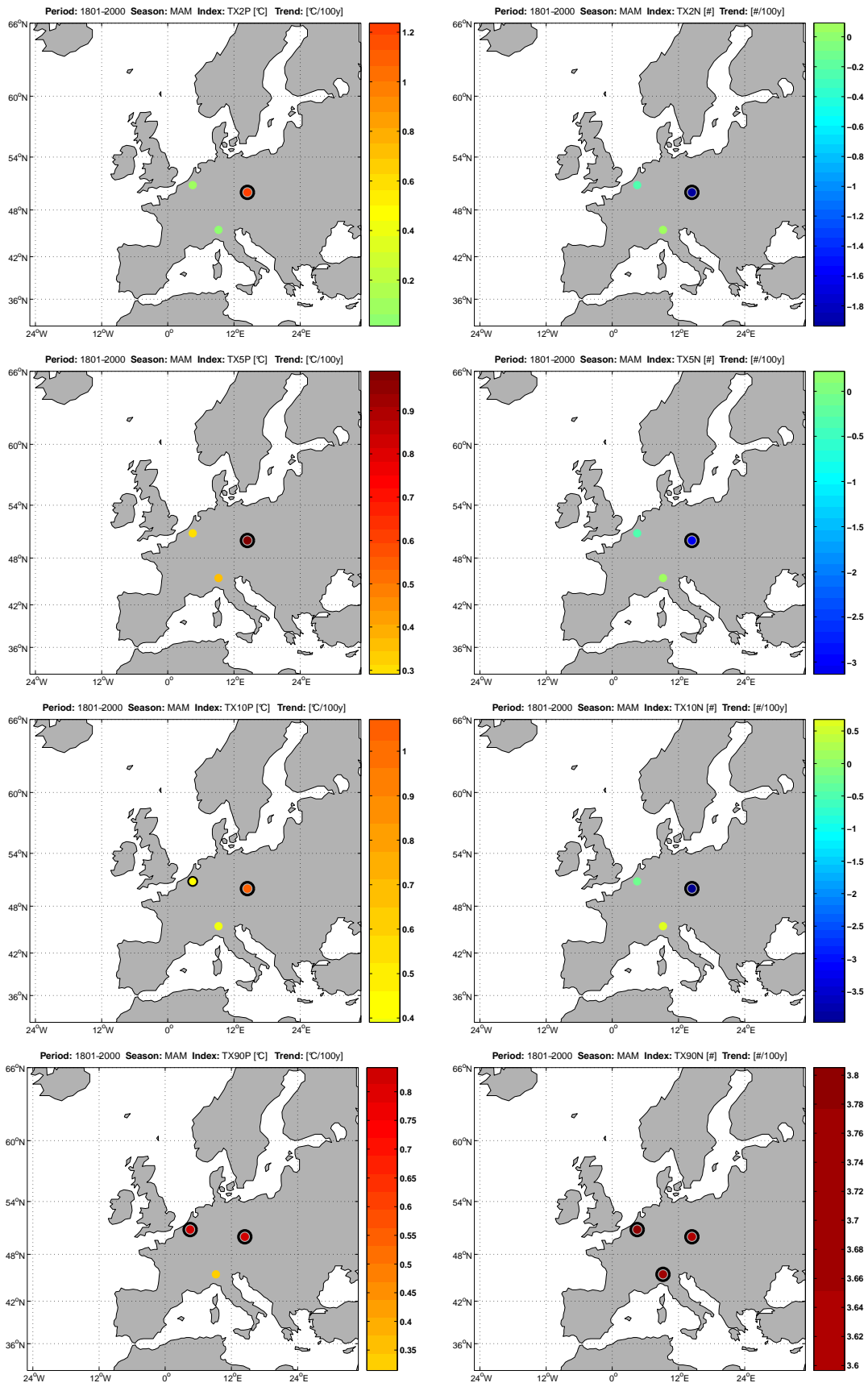
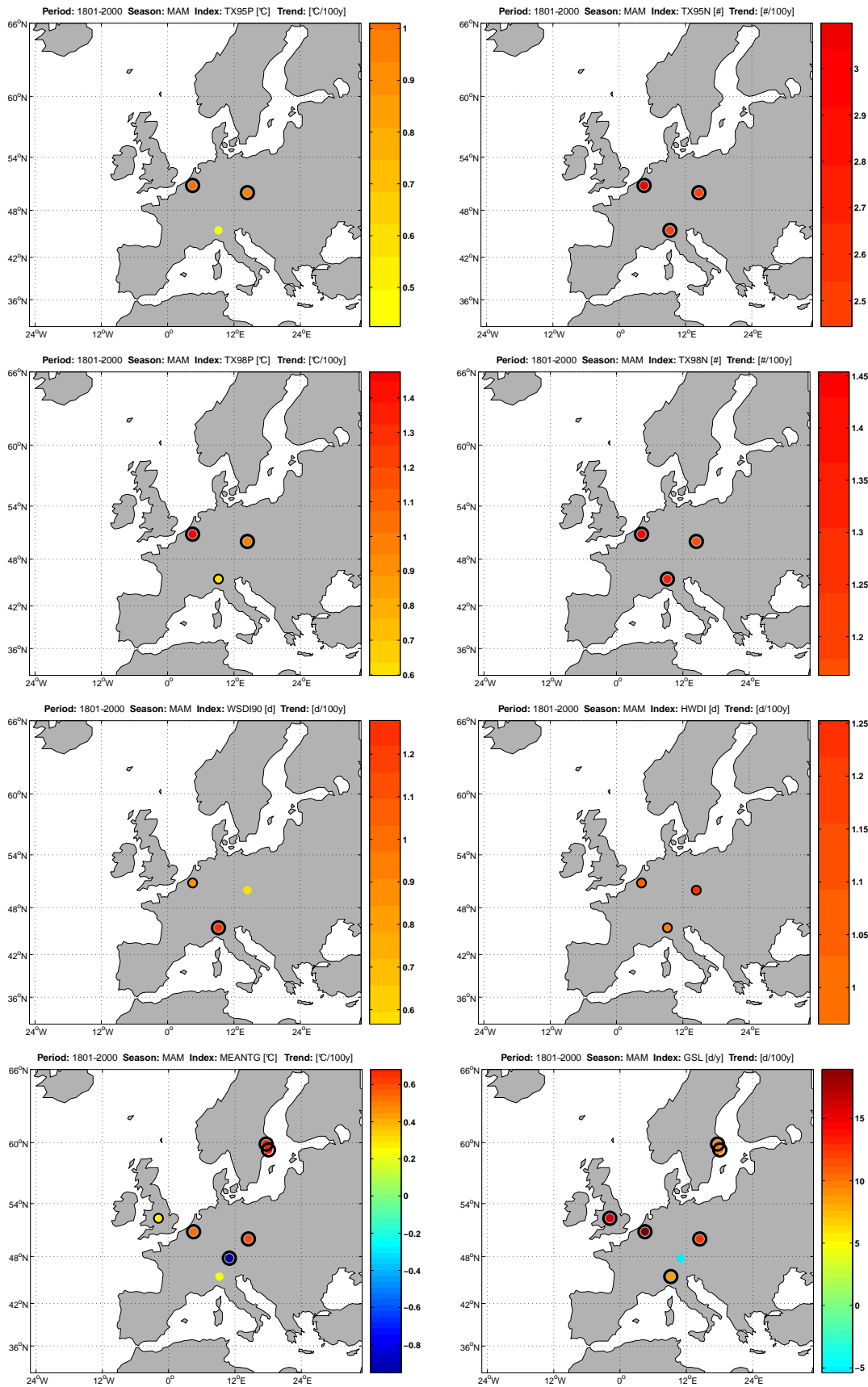


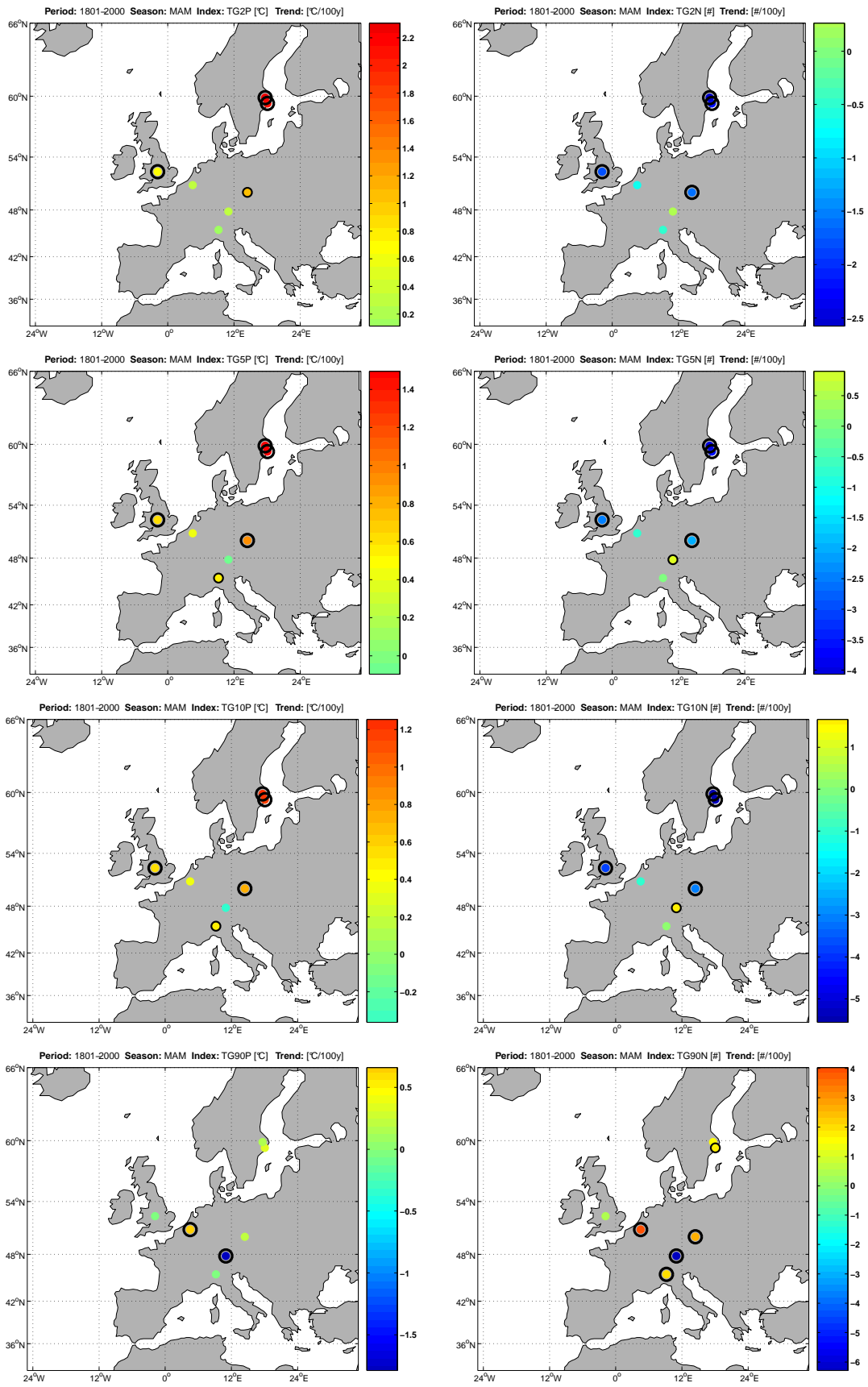
Figure A.1: Legend for trend maps

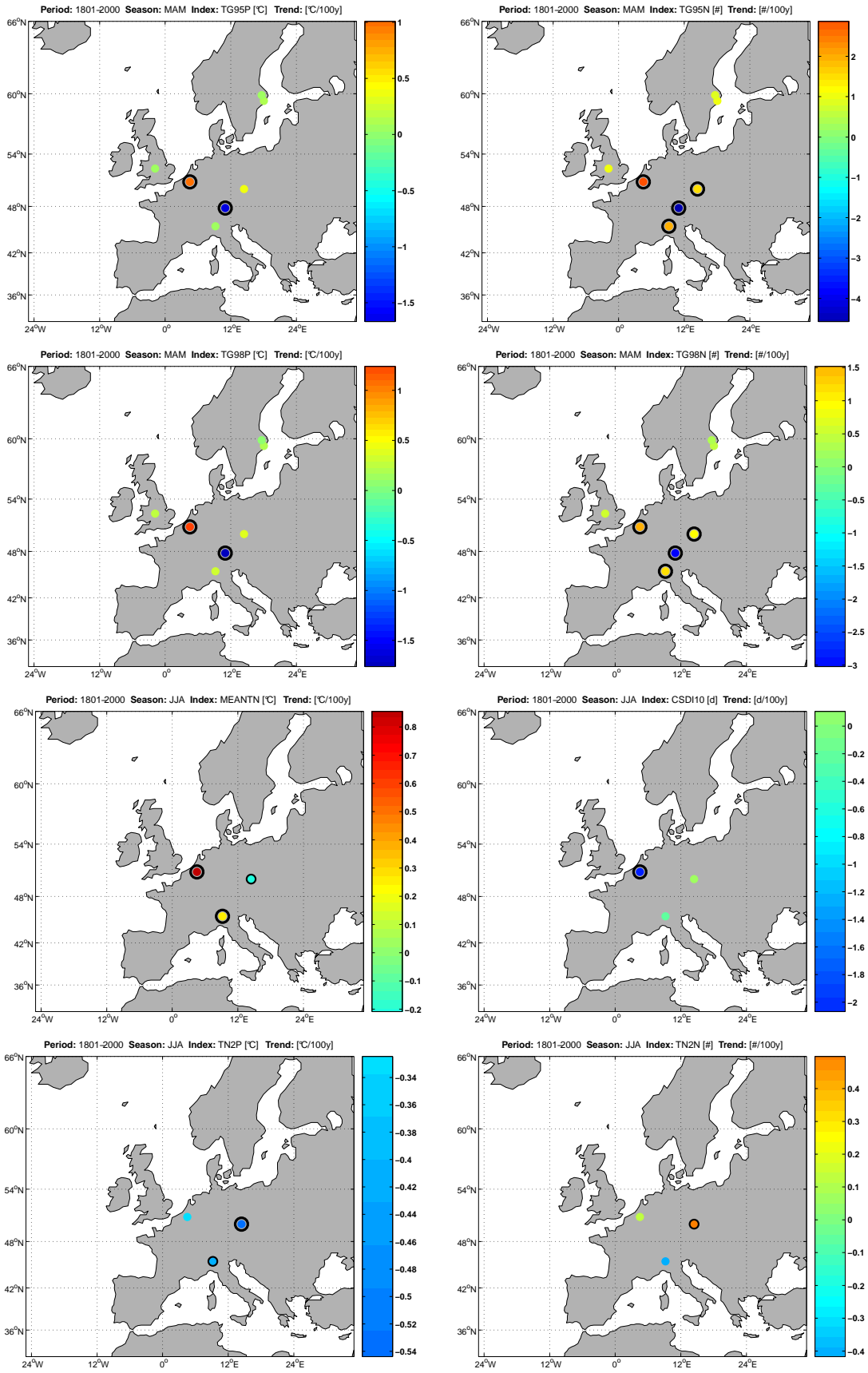


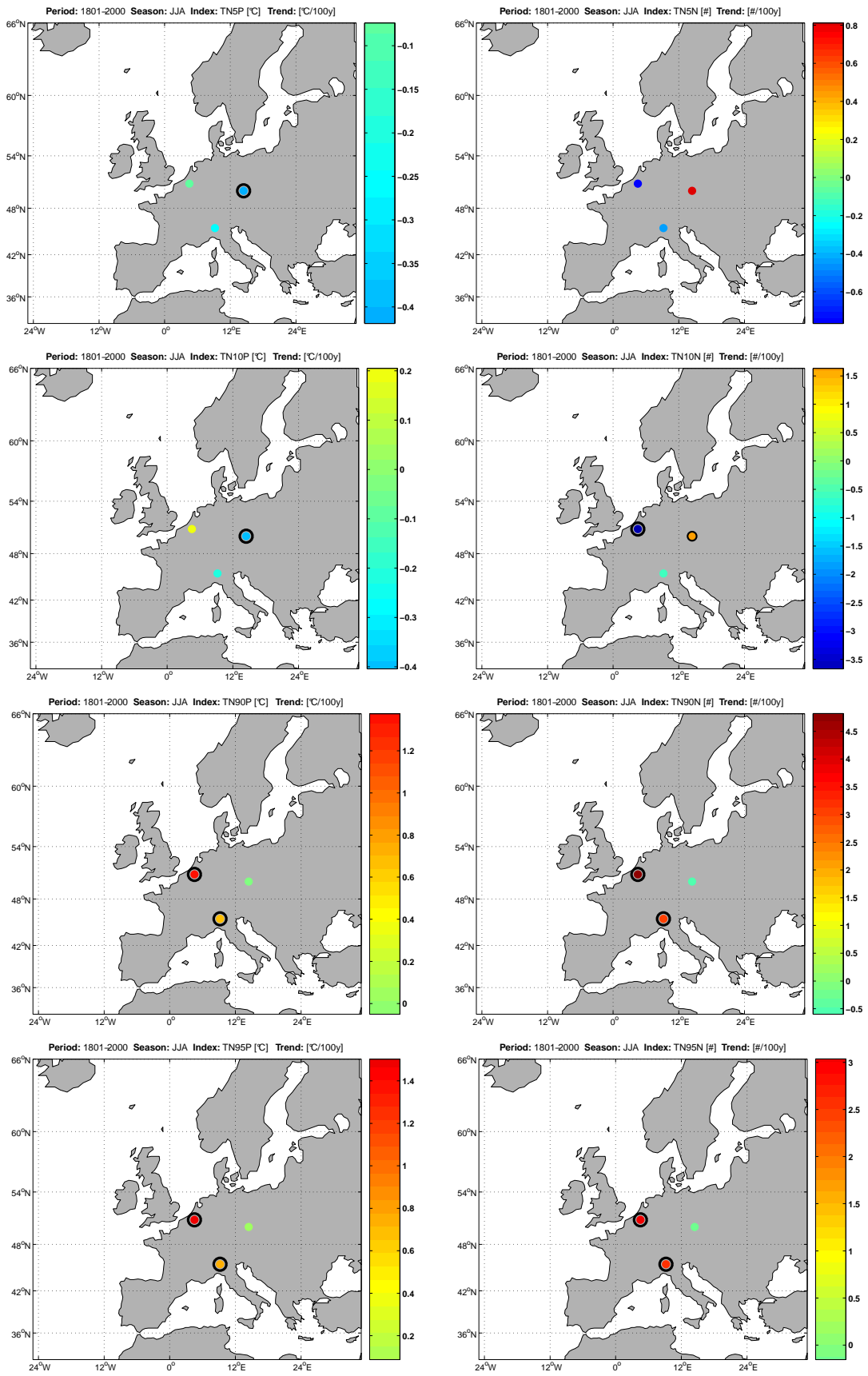


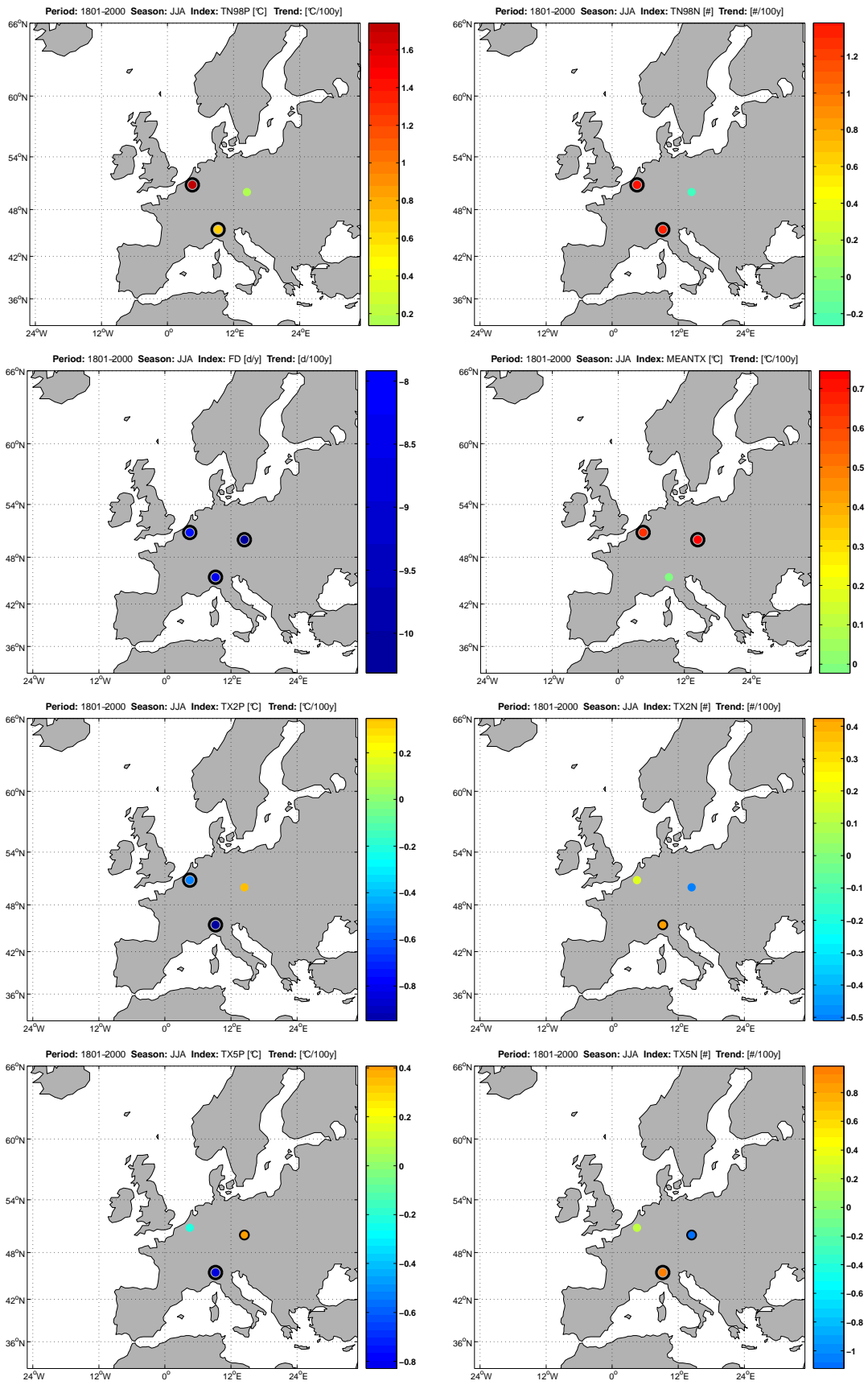


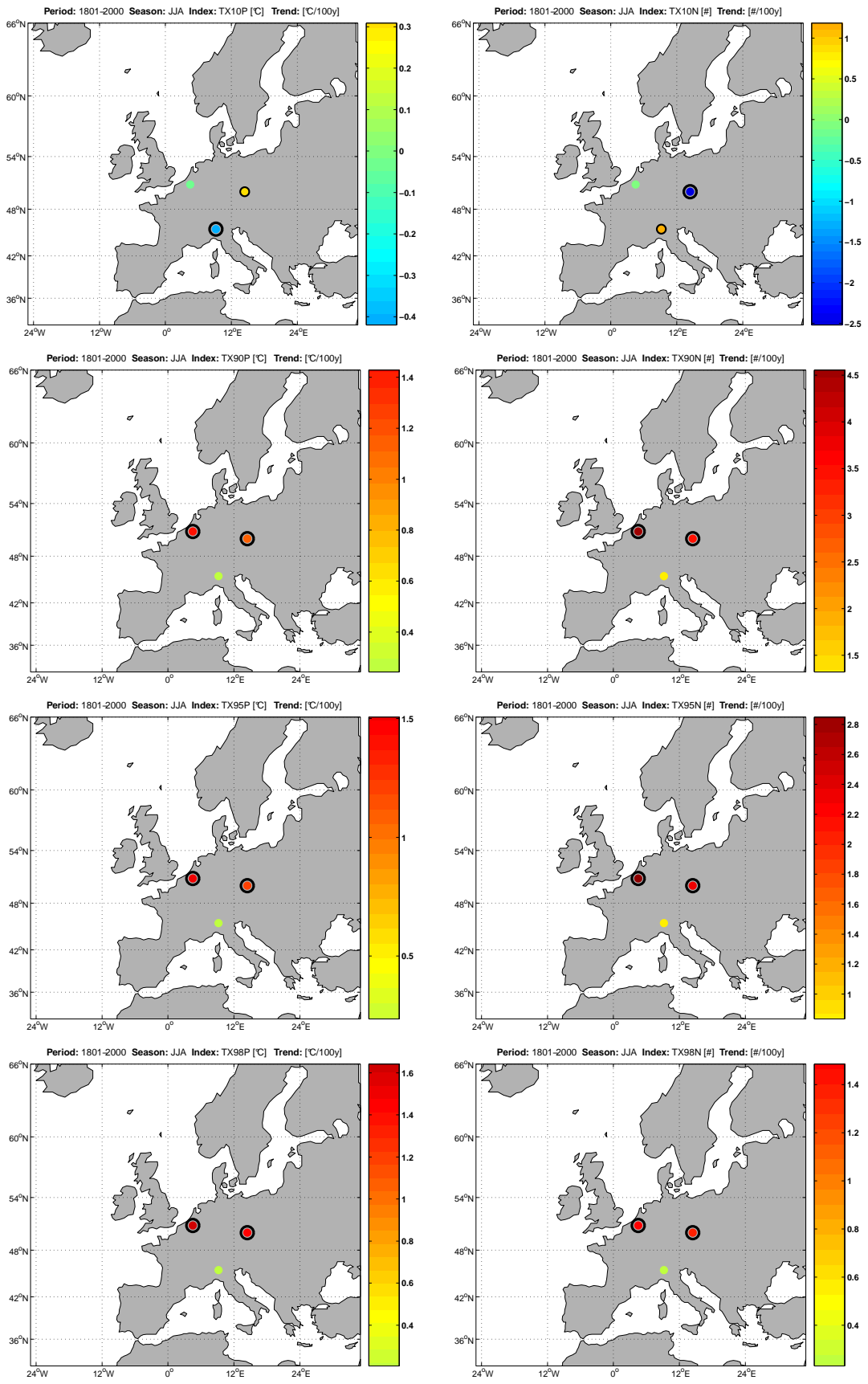


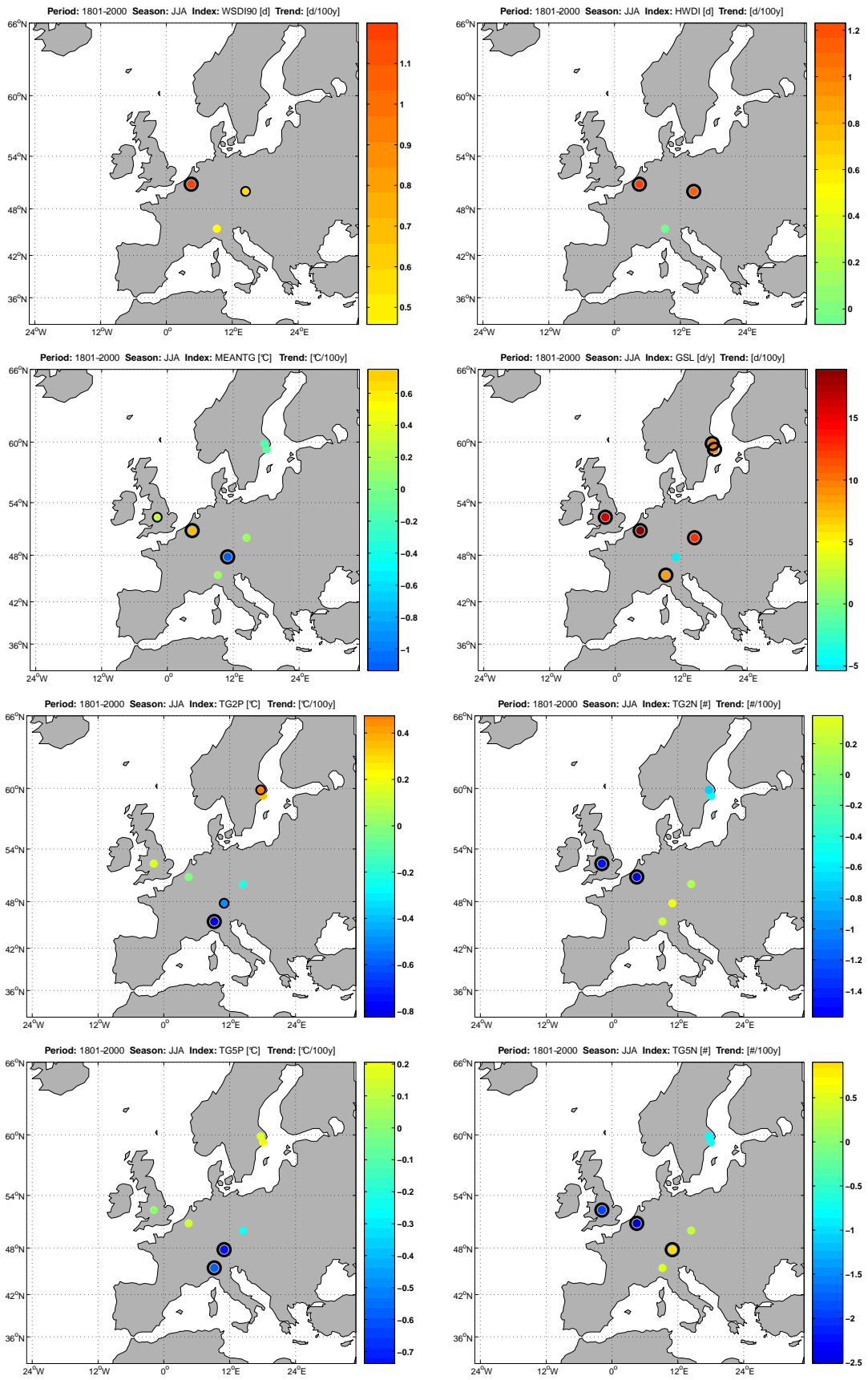


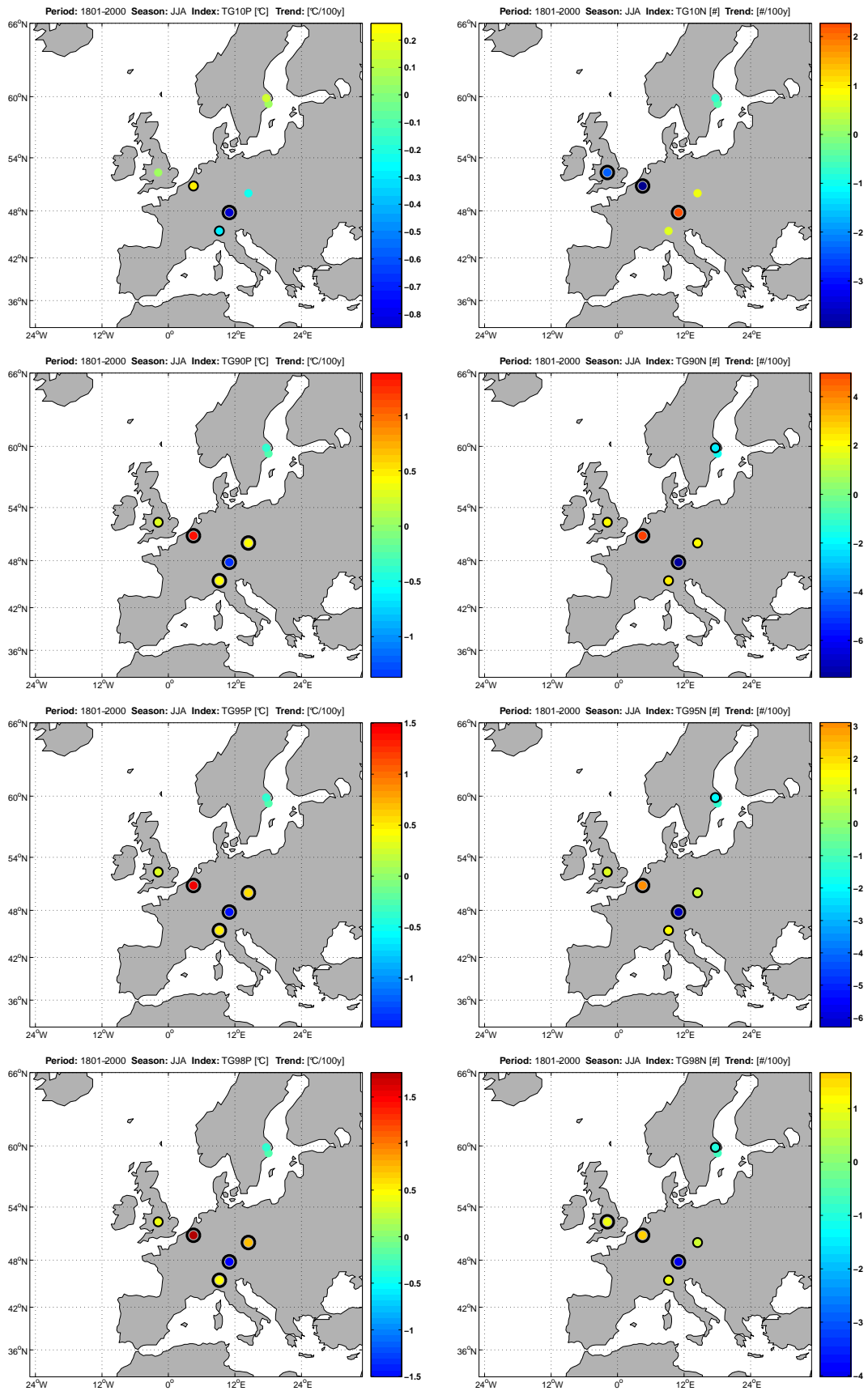


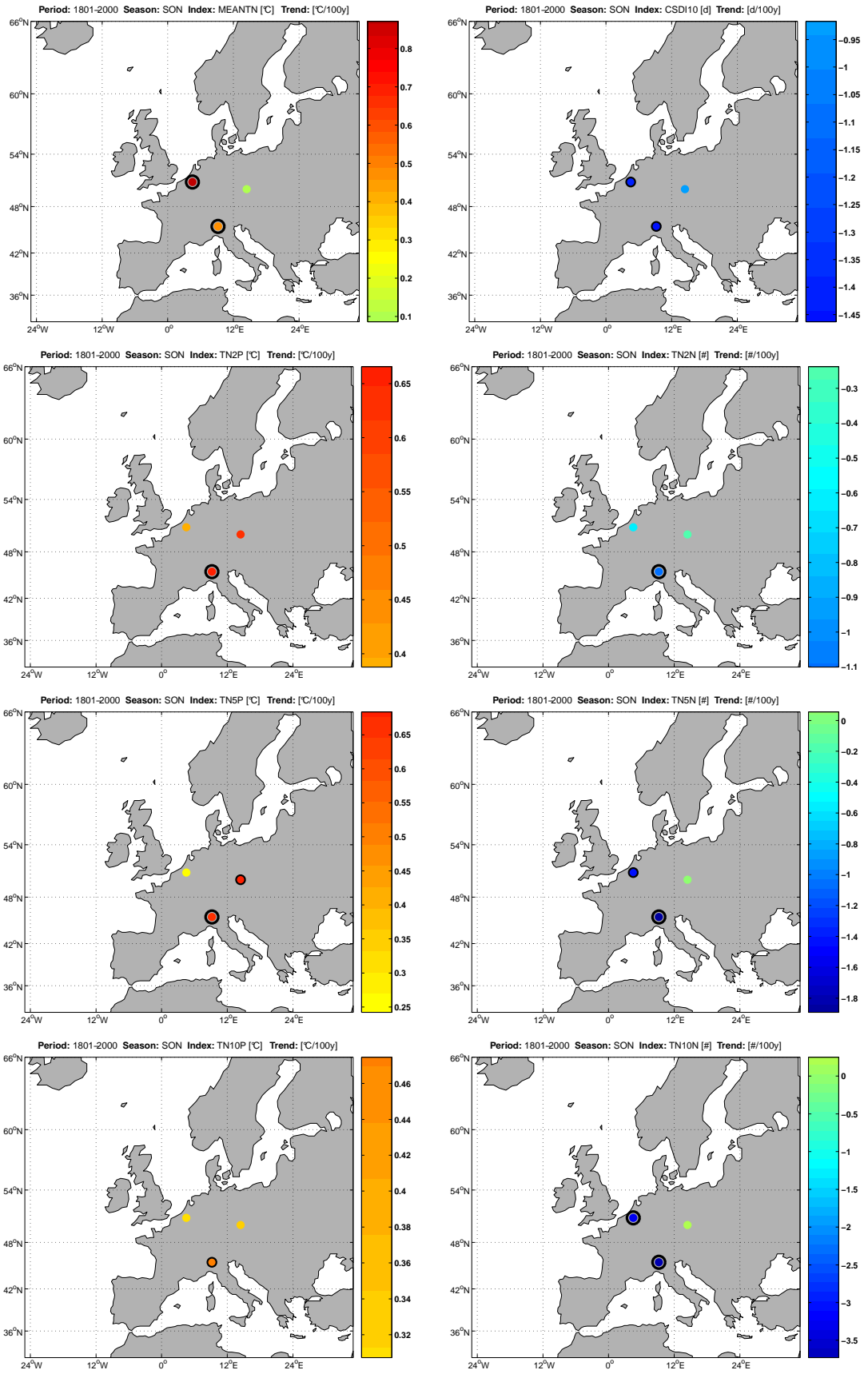


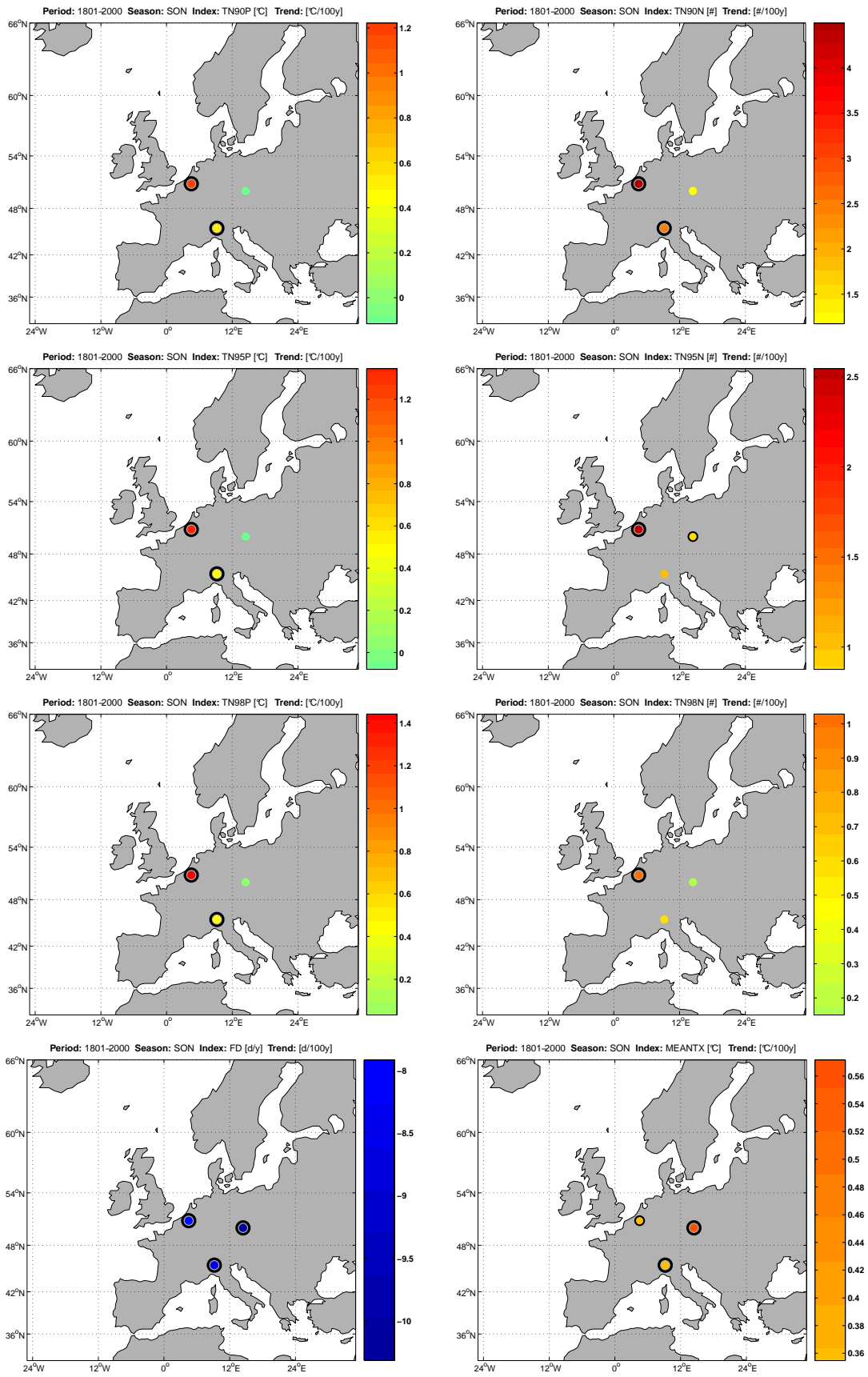


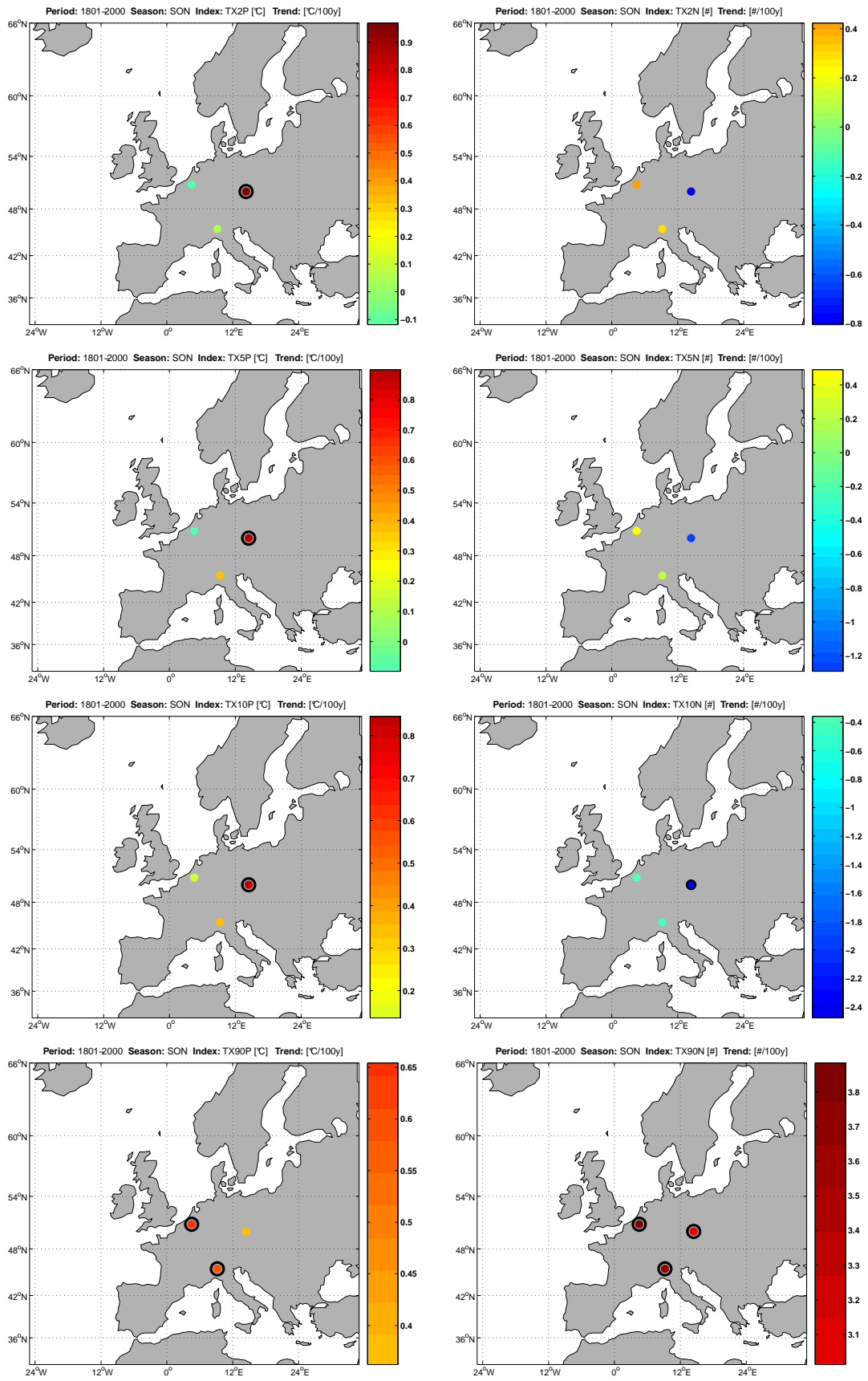


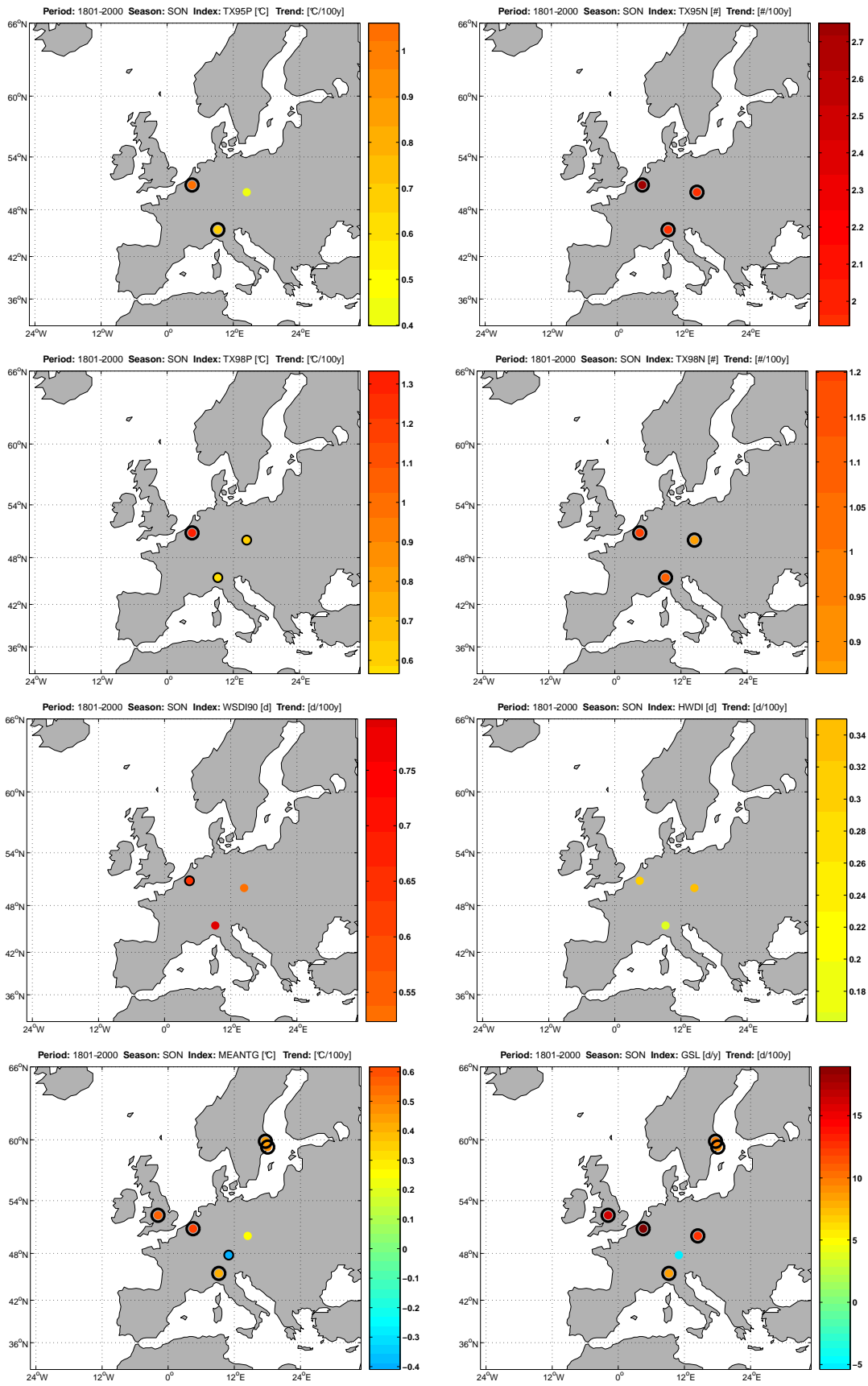


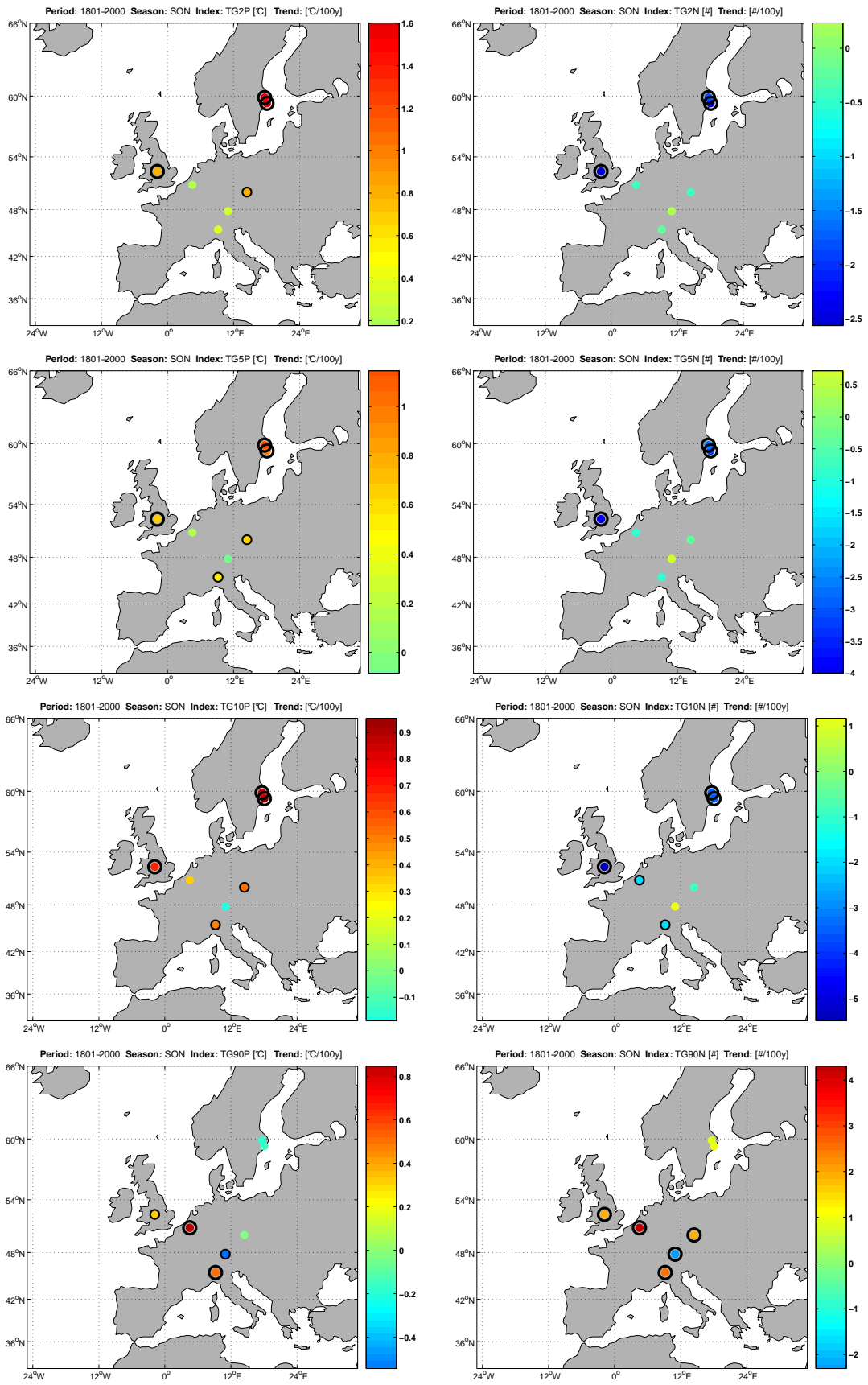


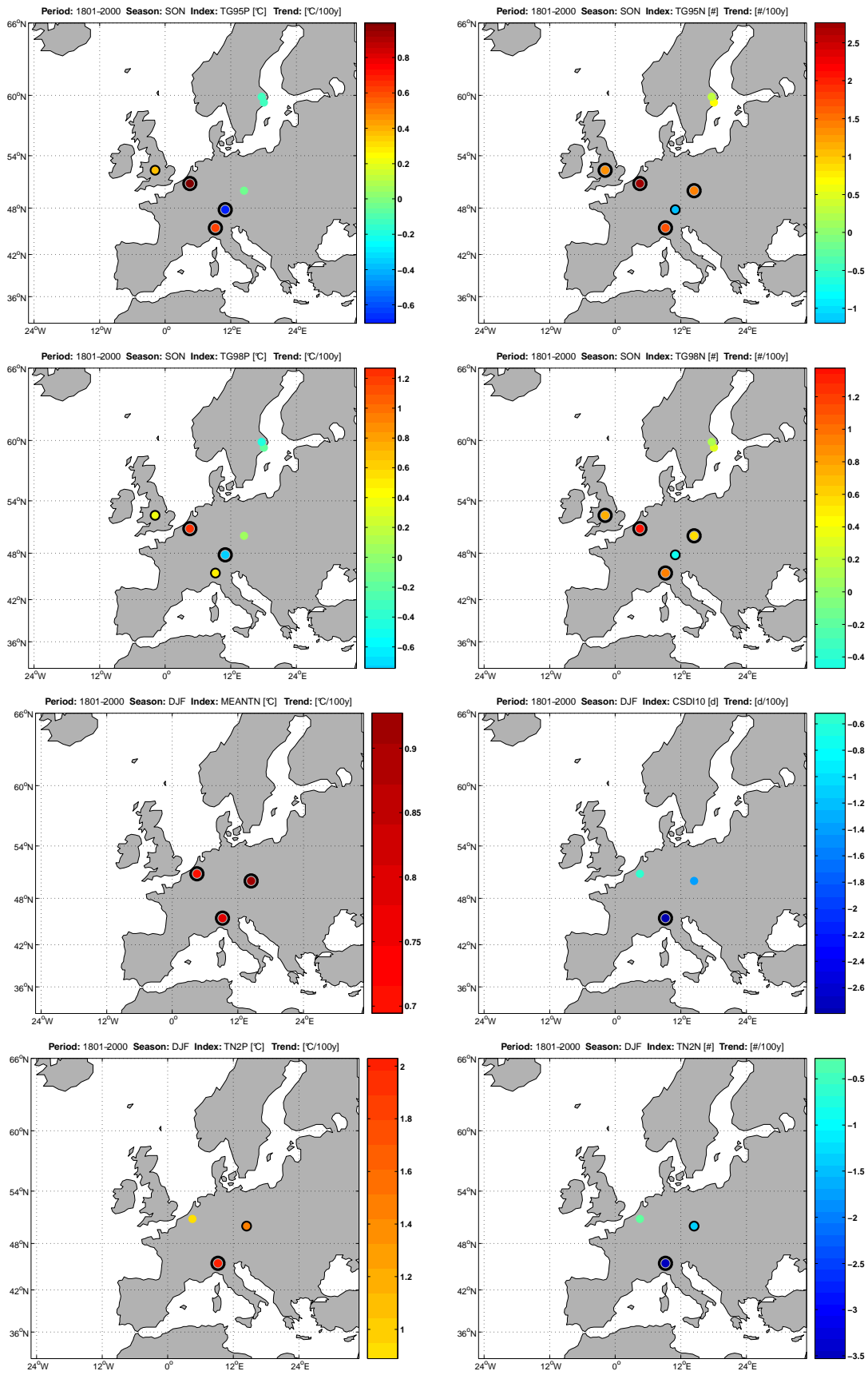


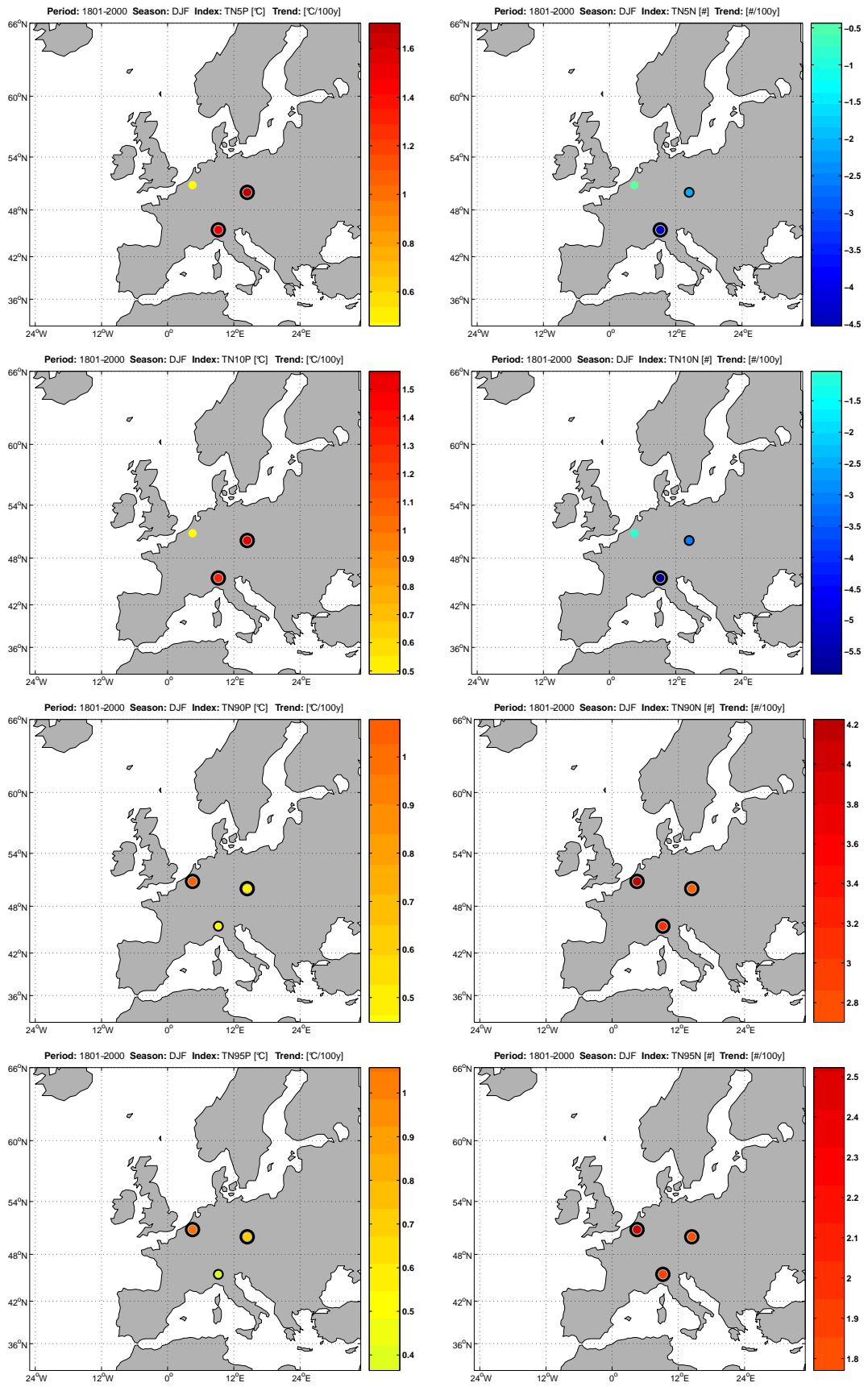


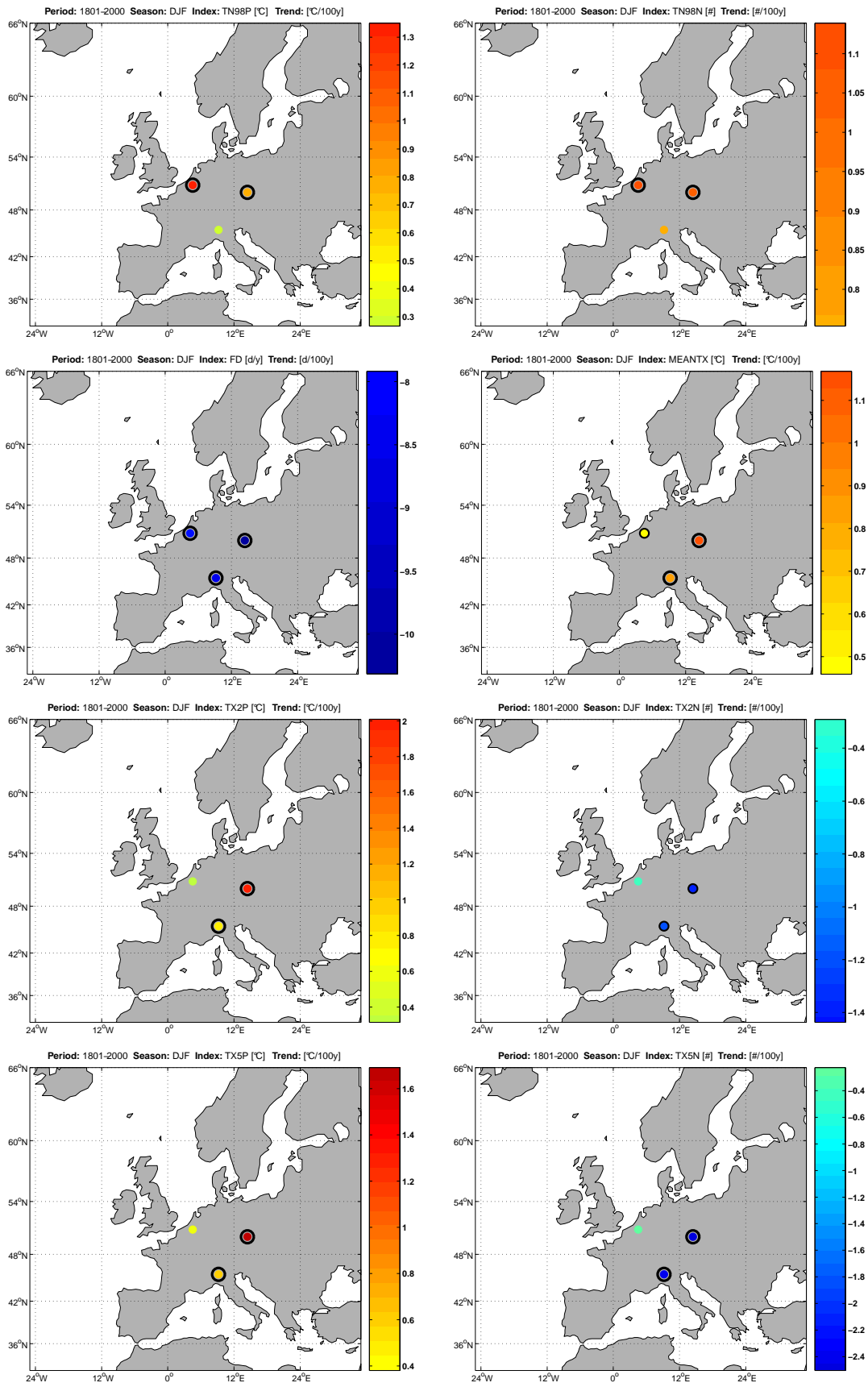


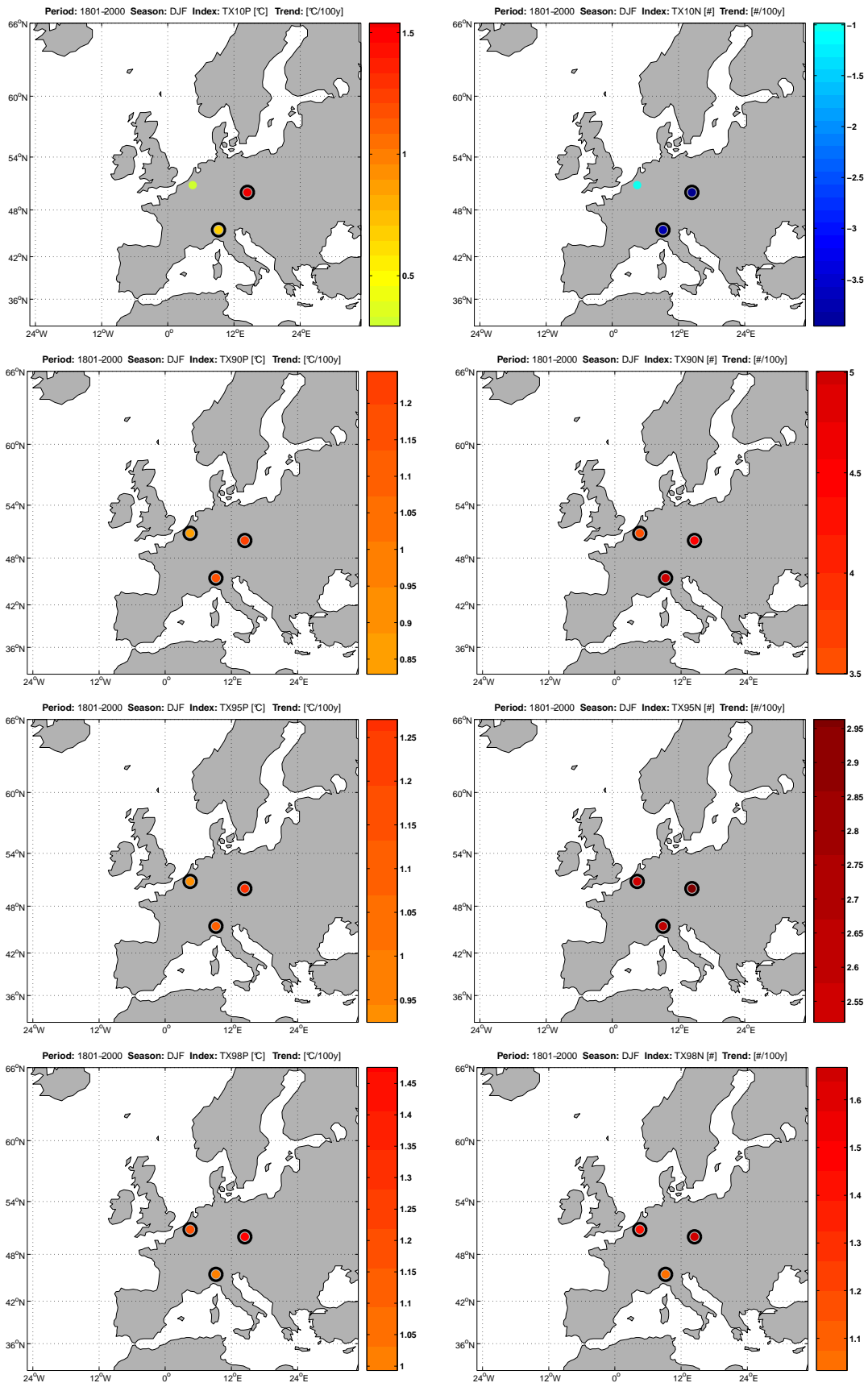


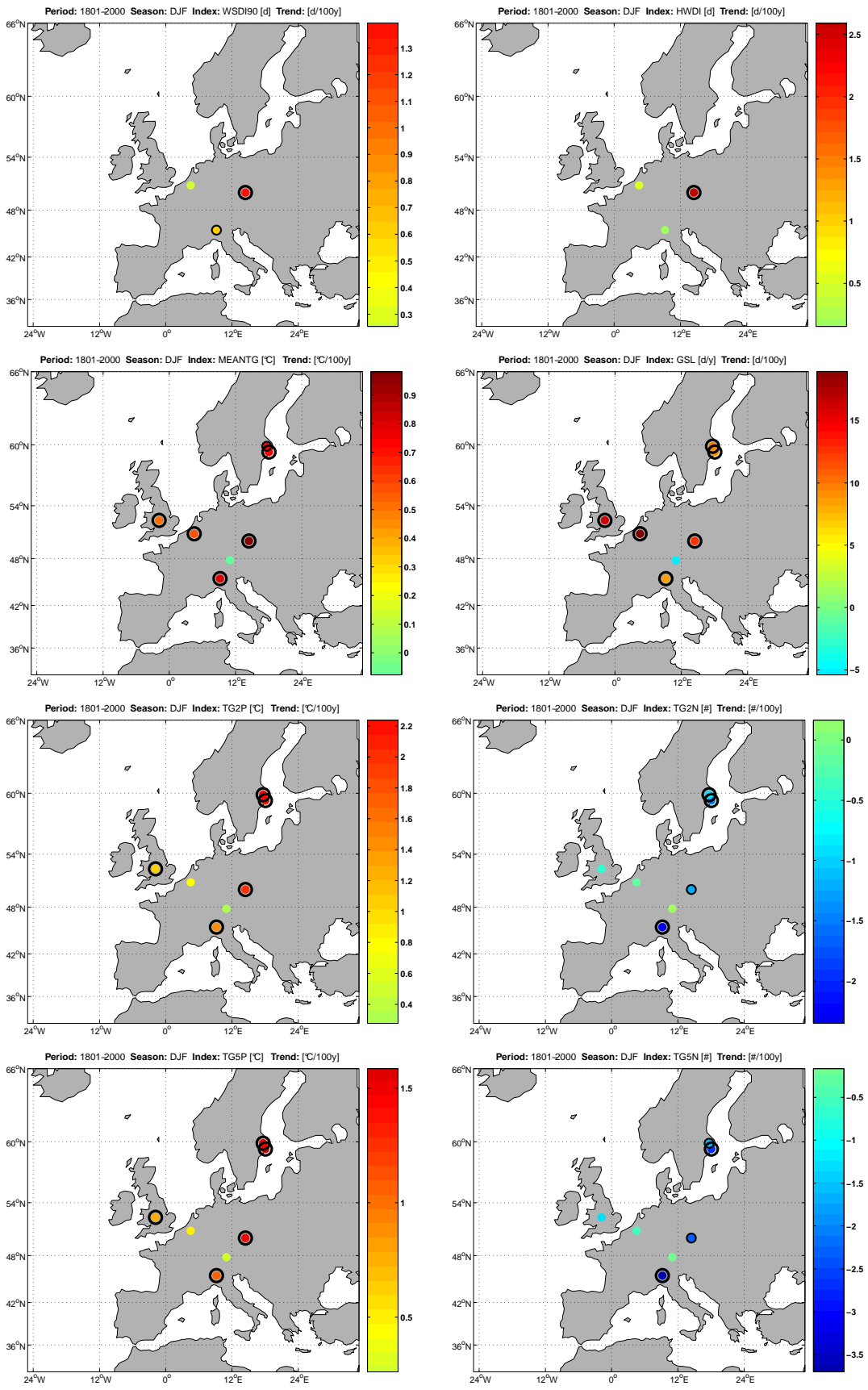


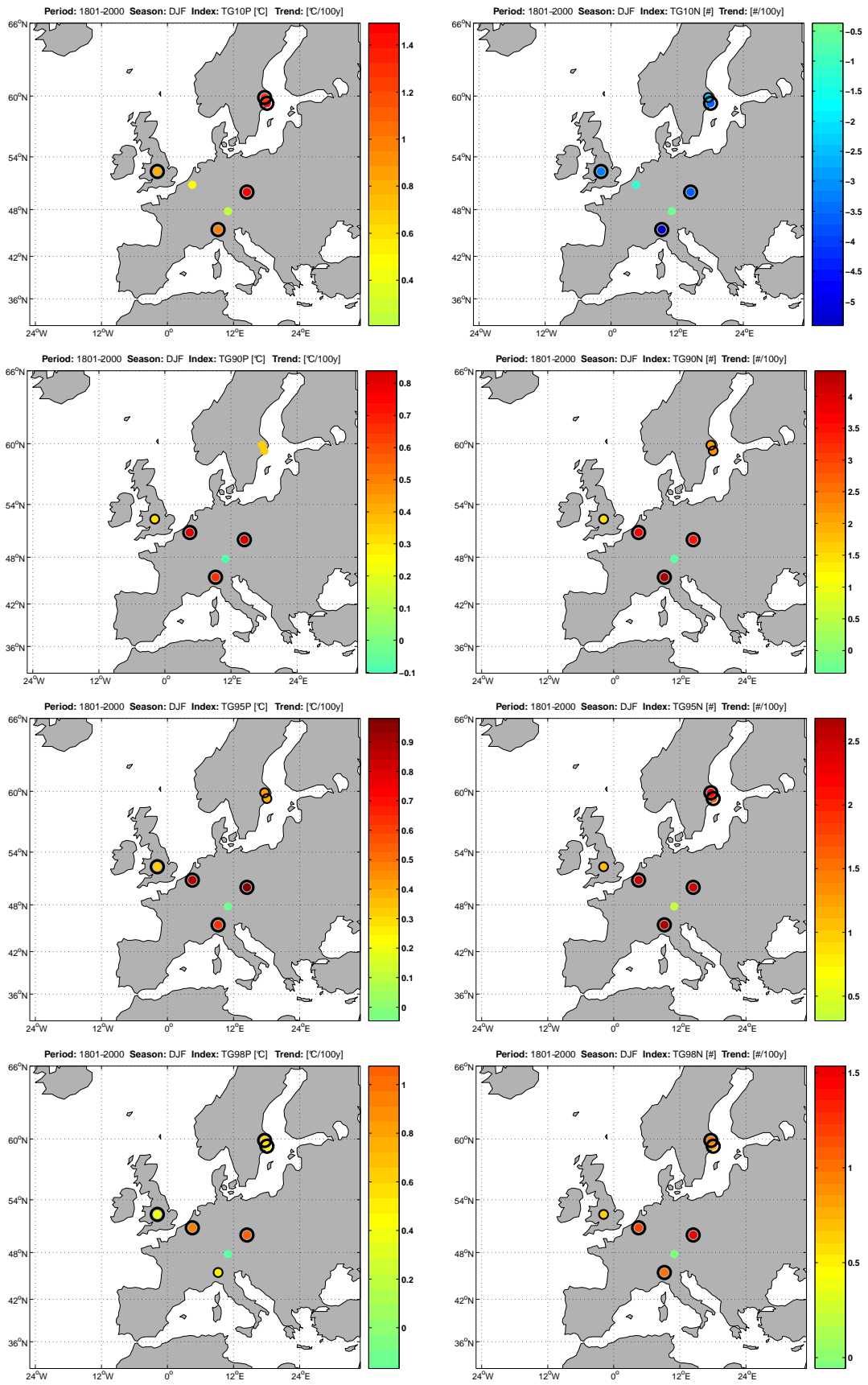


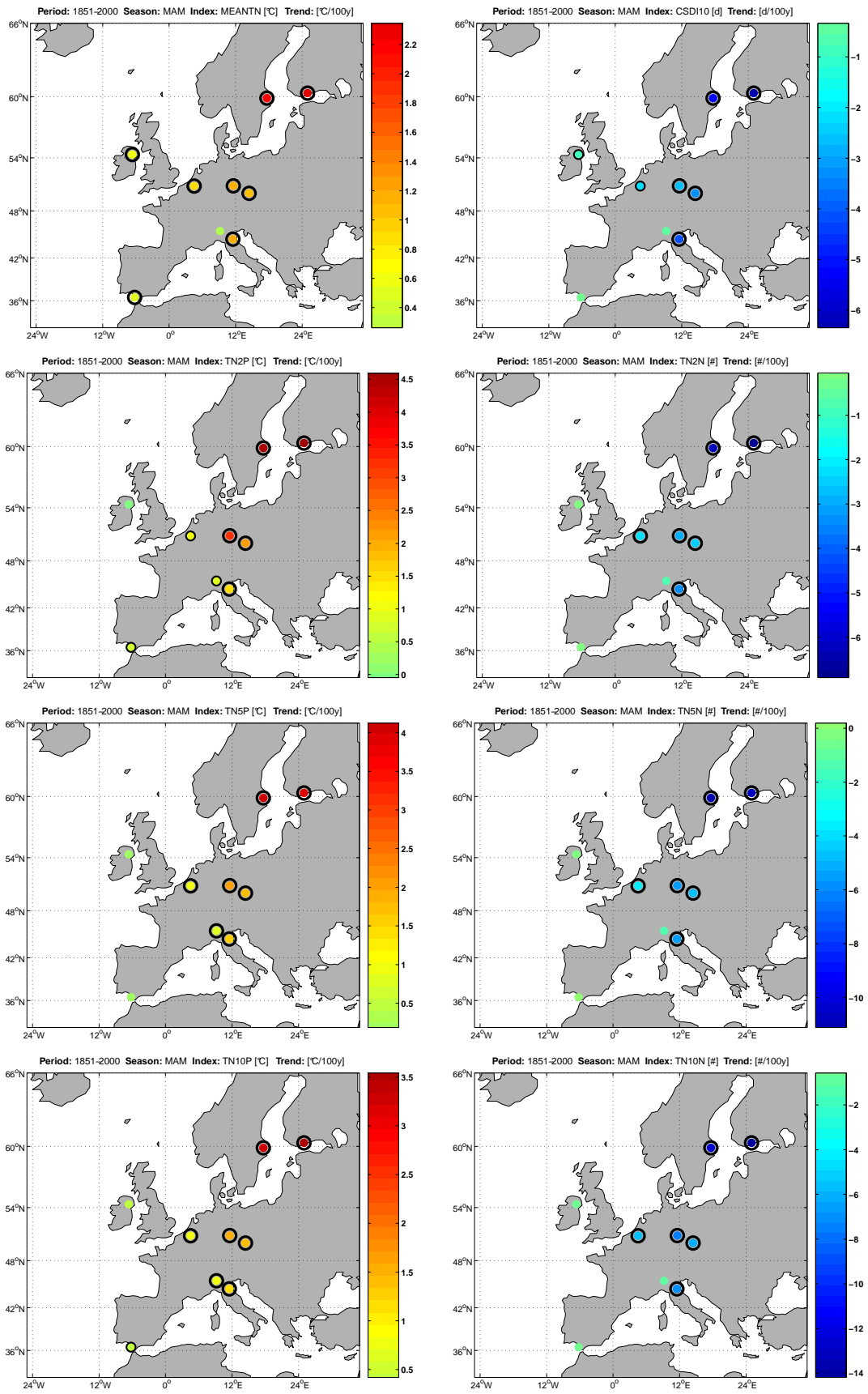


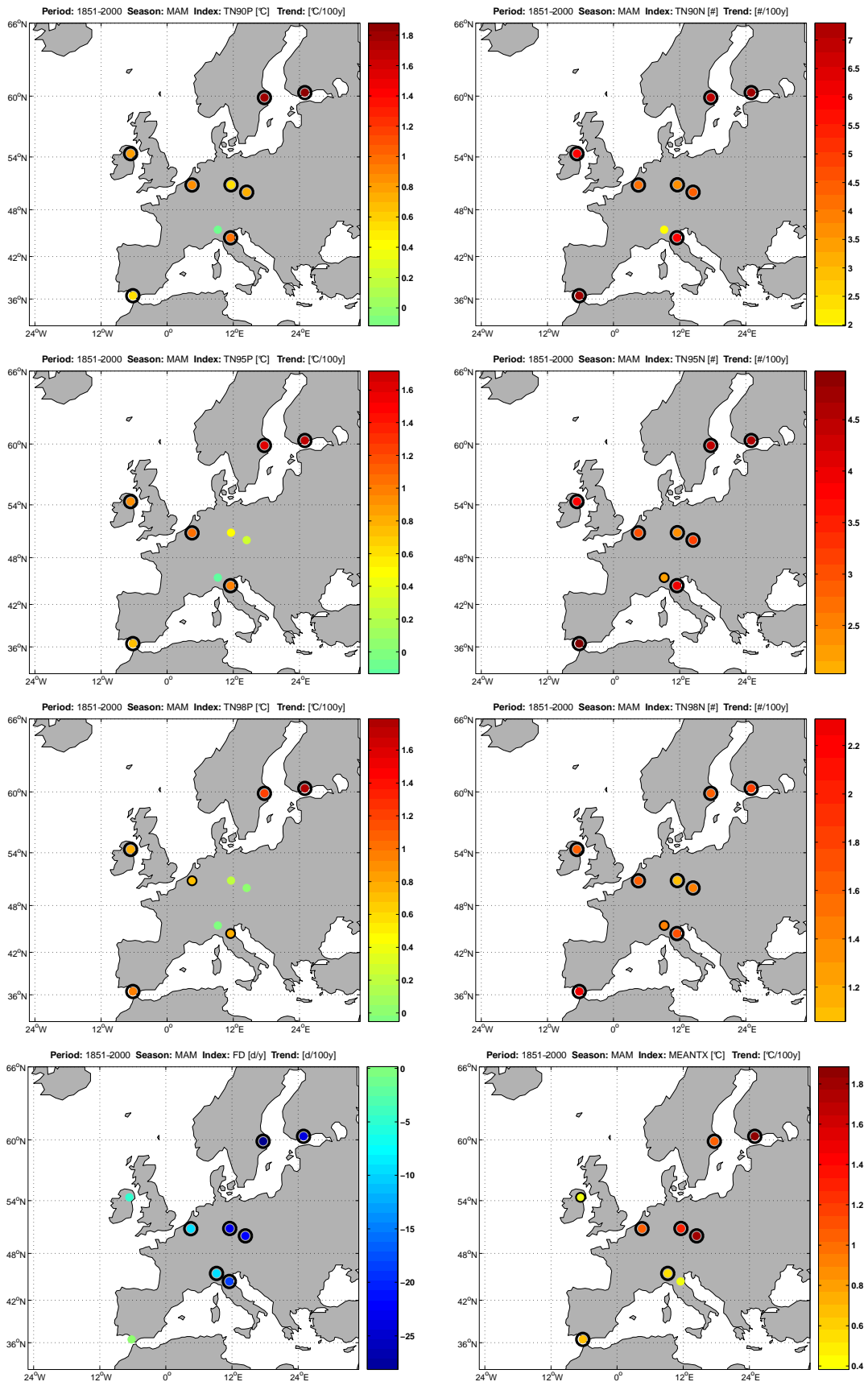


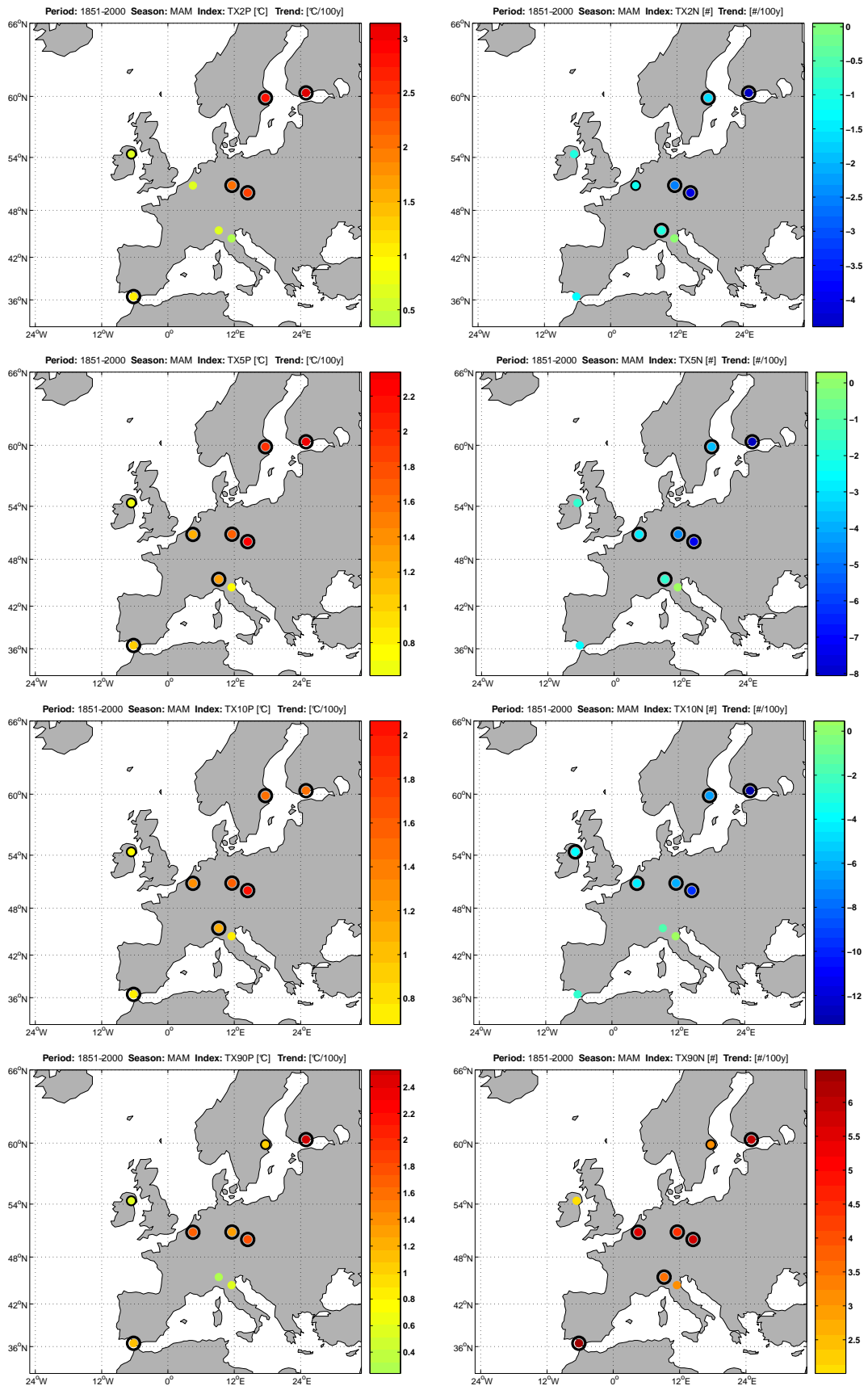


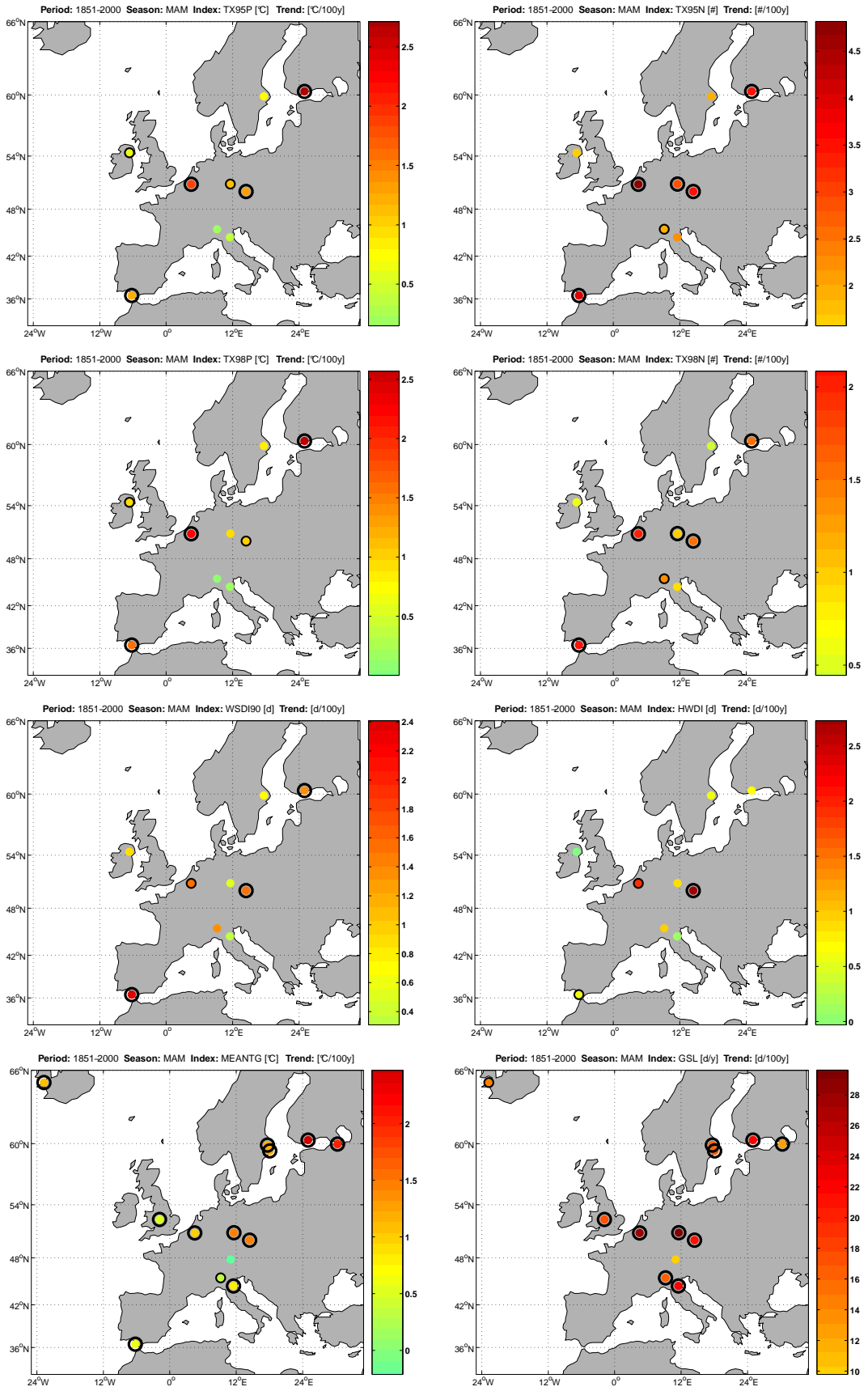


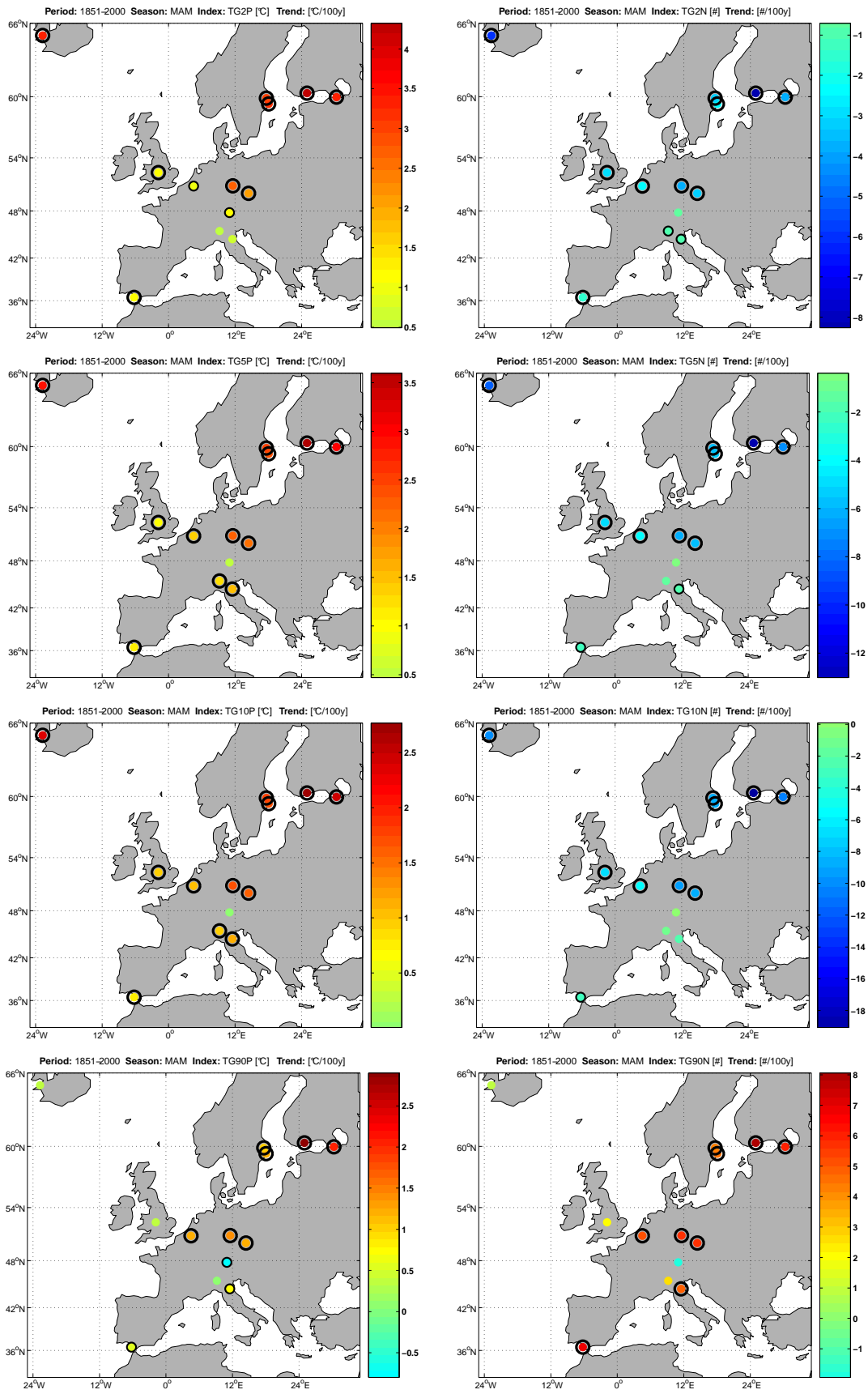


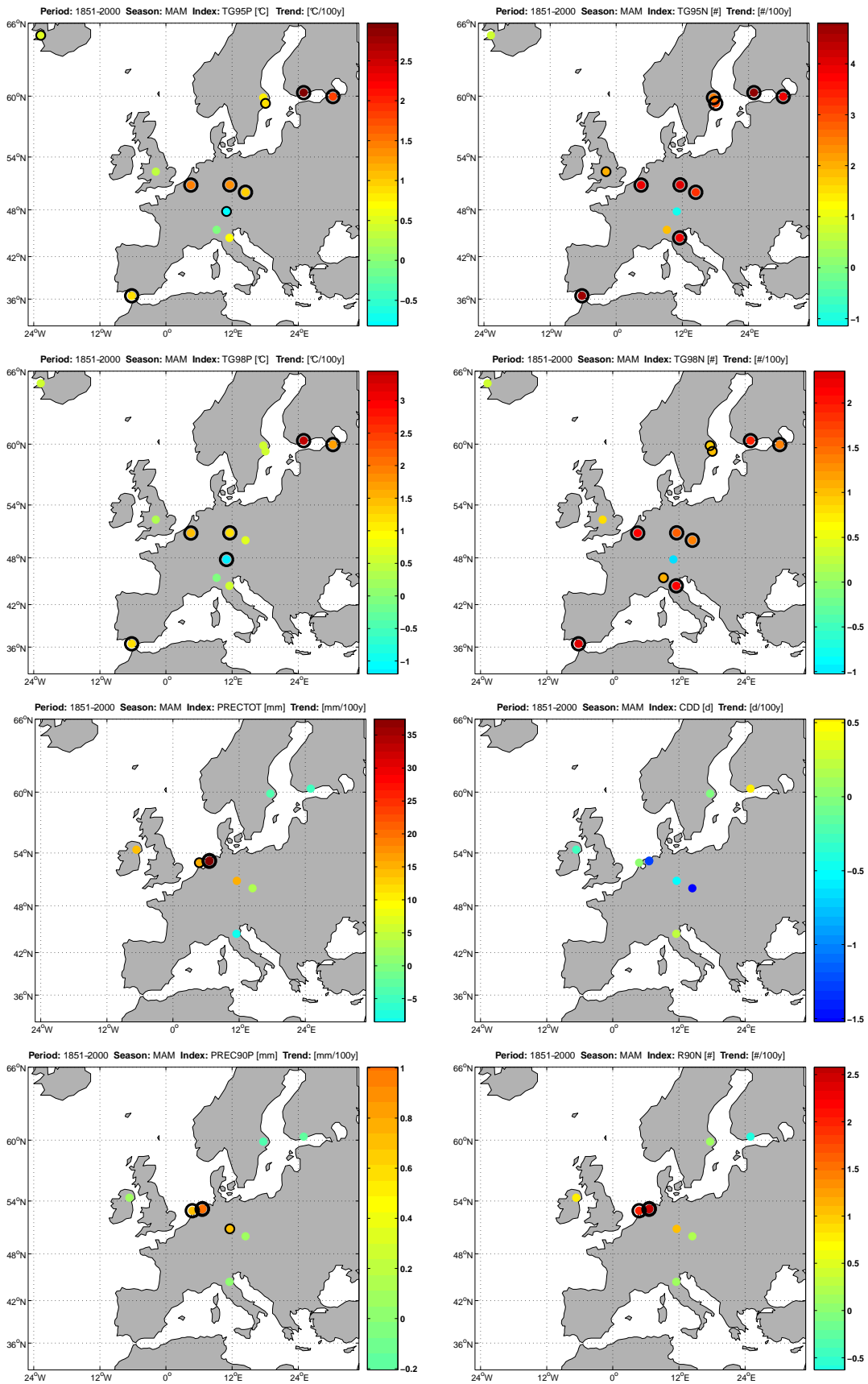


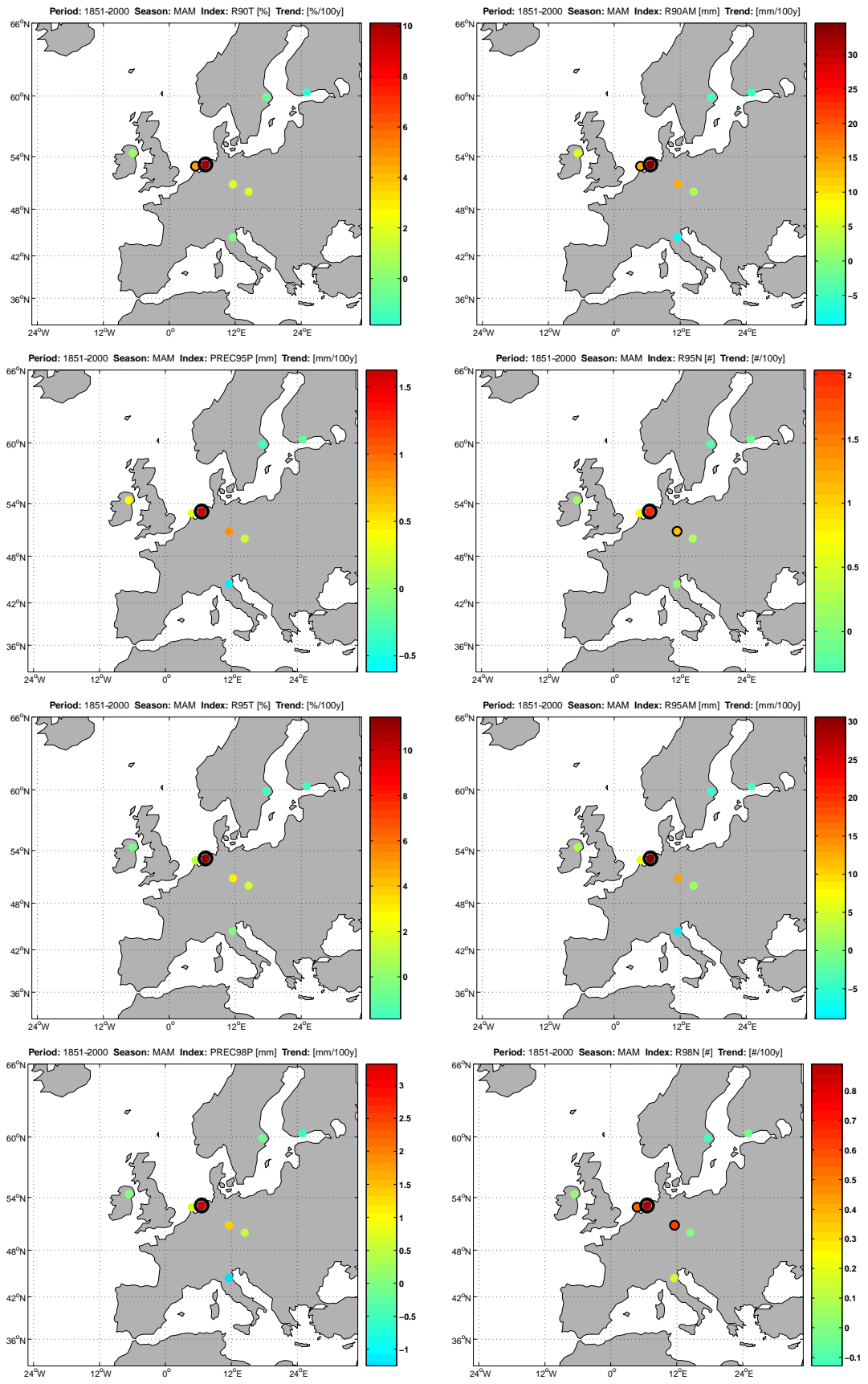


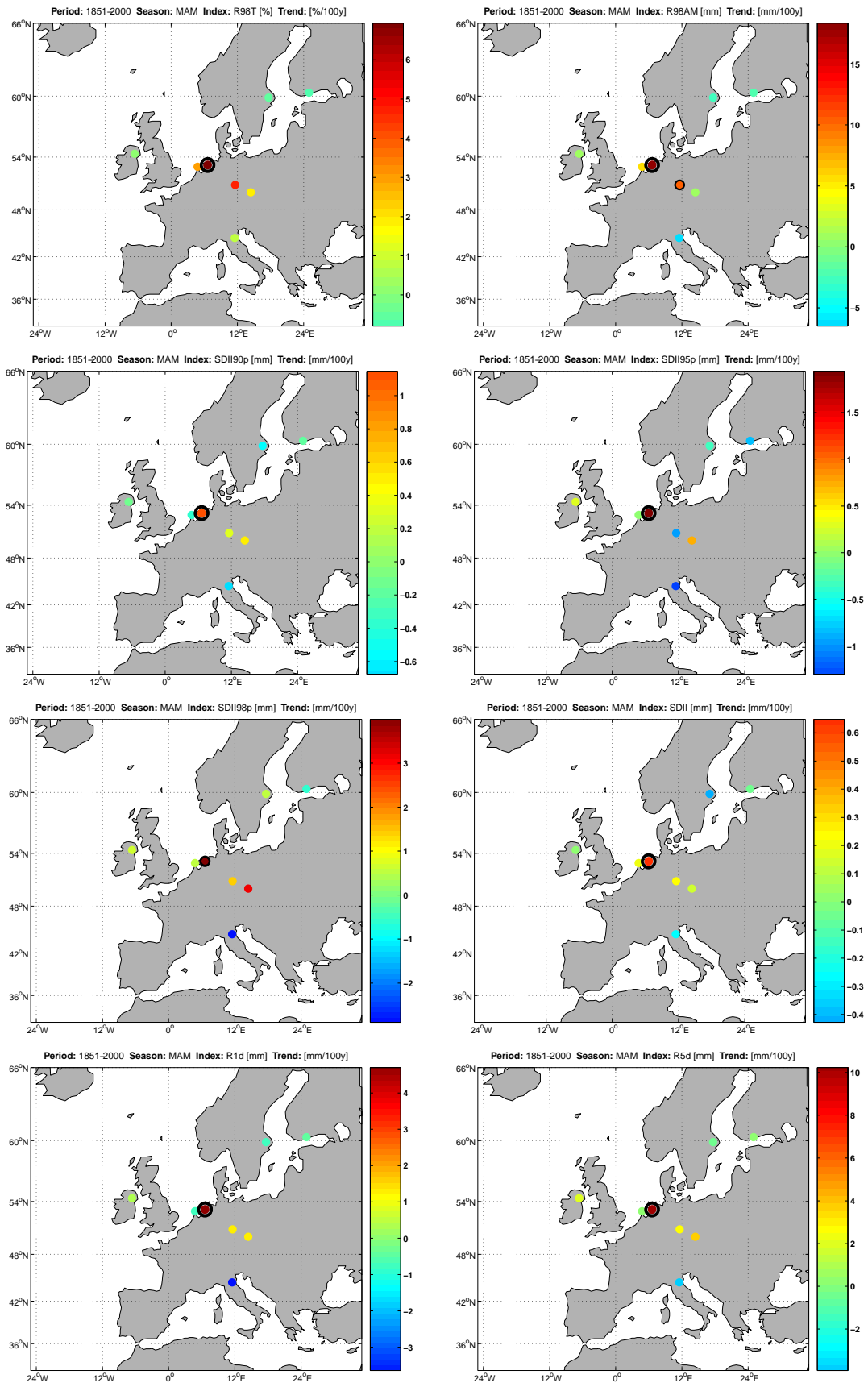


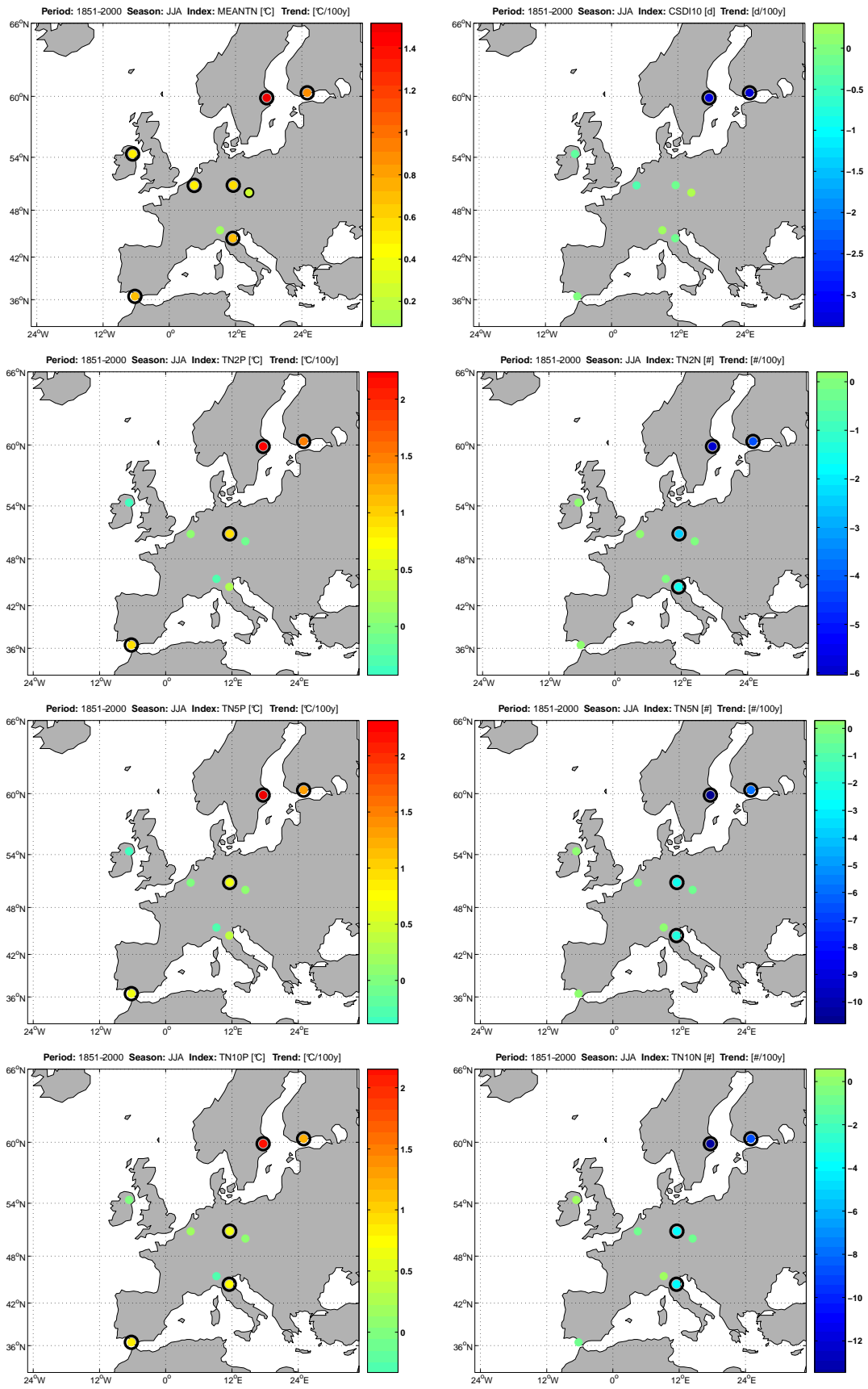


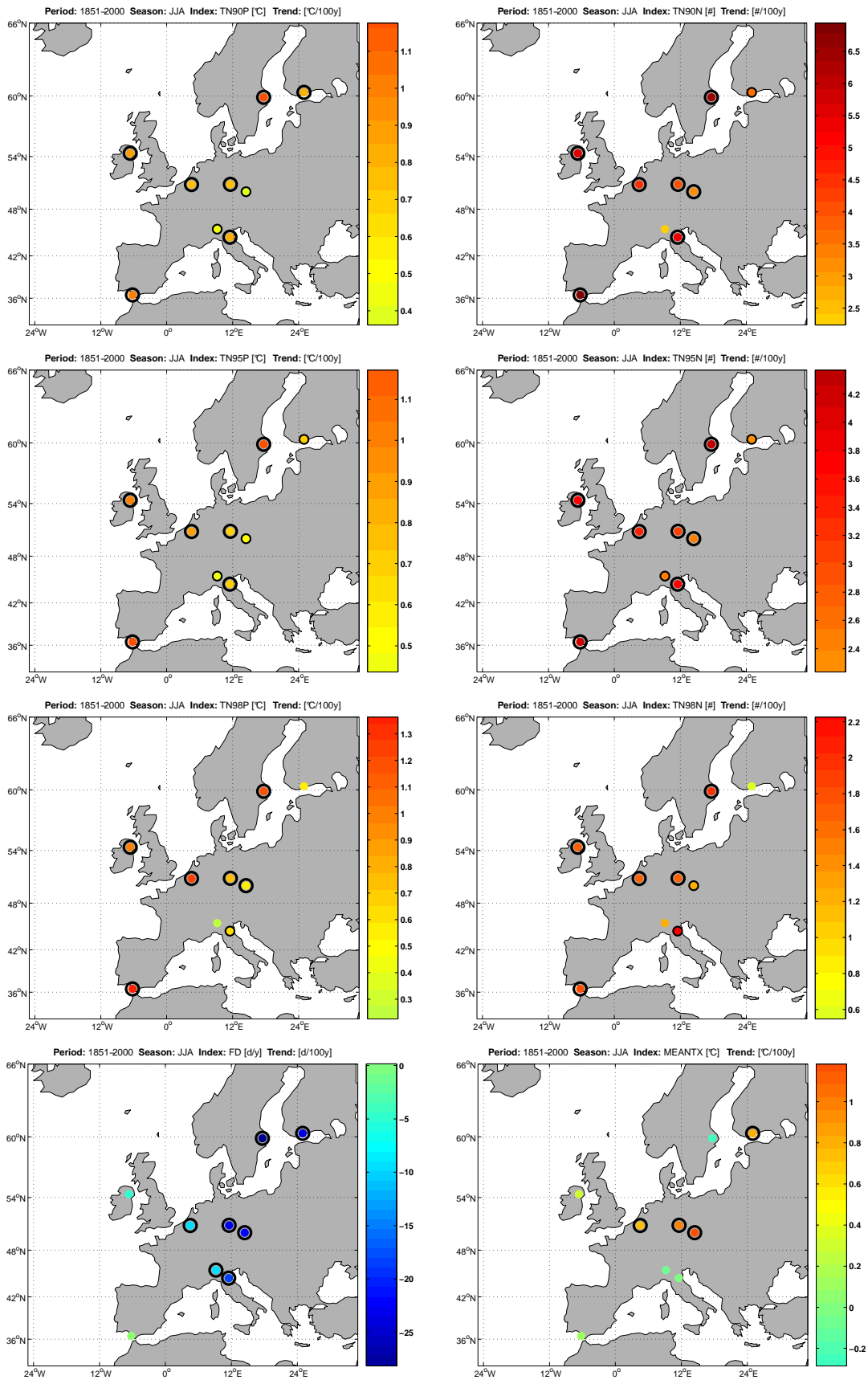


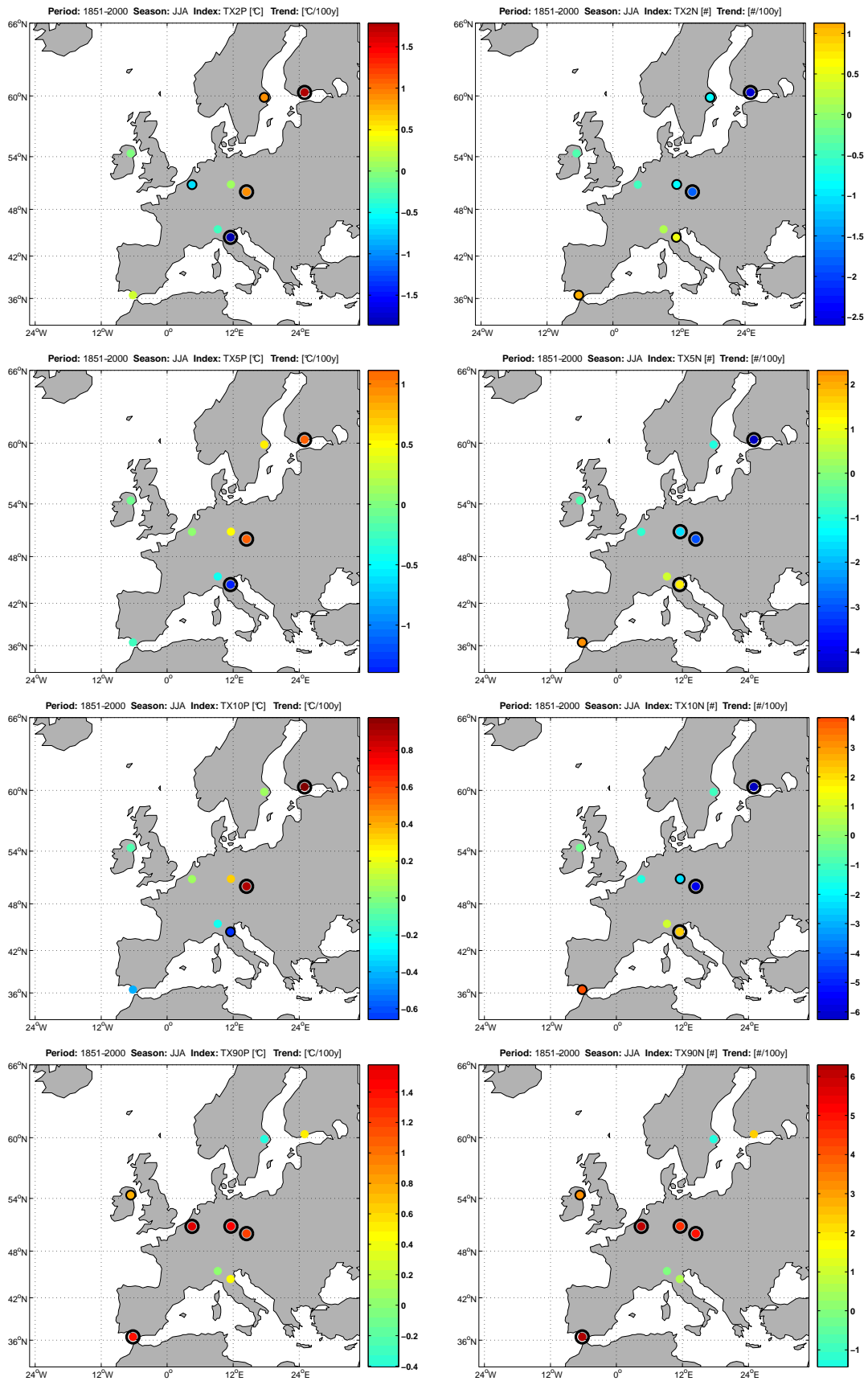


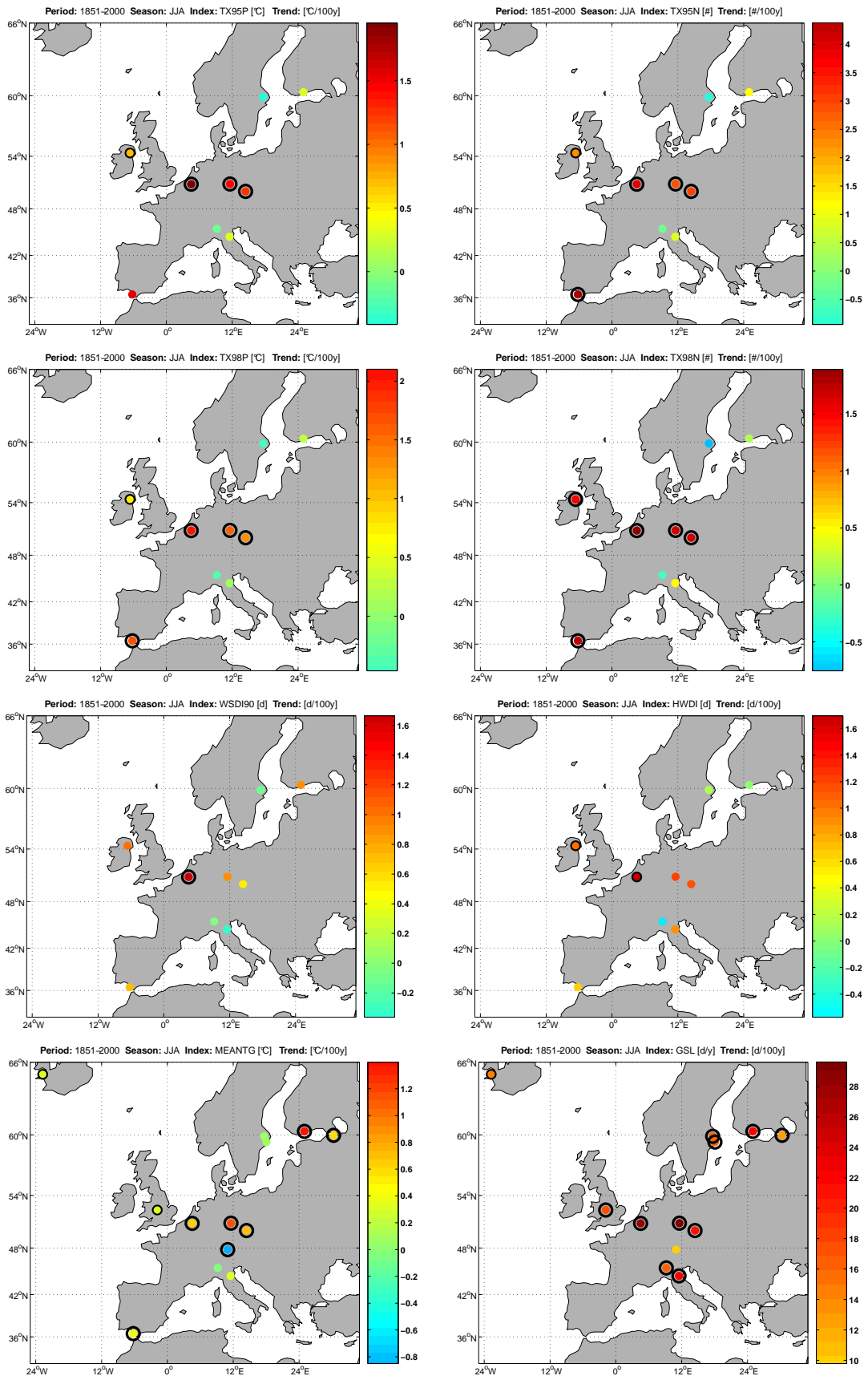


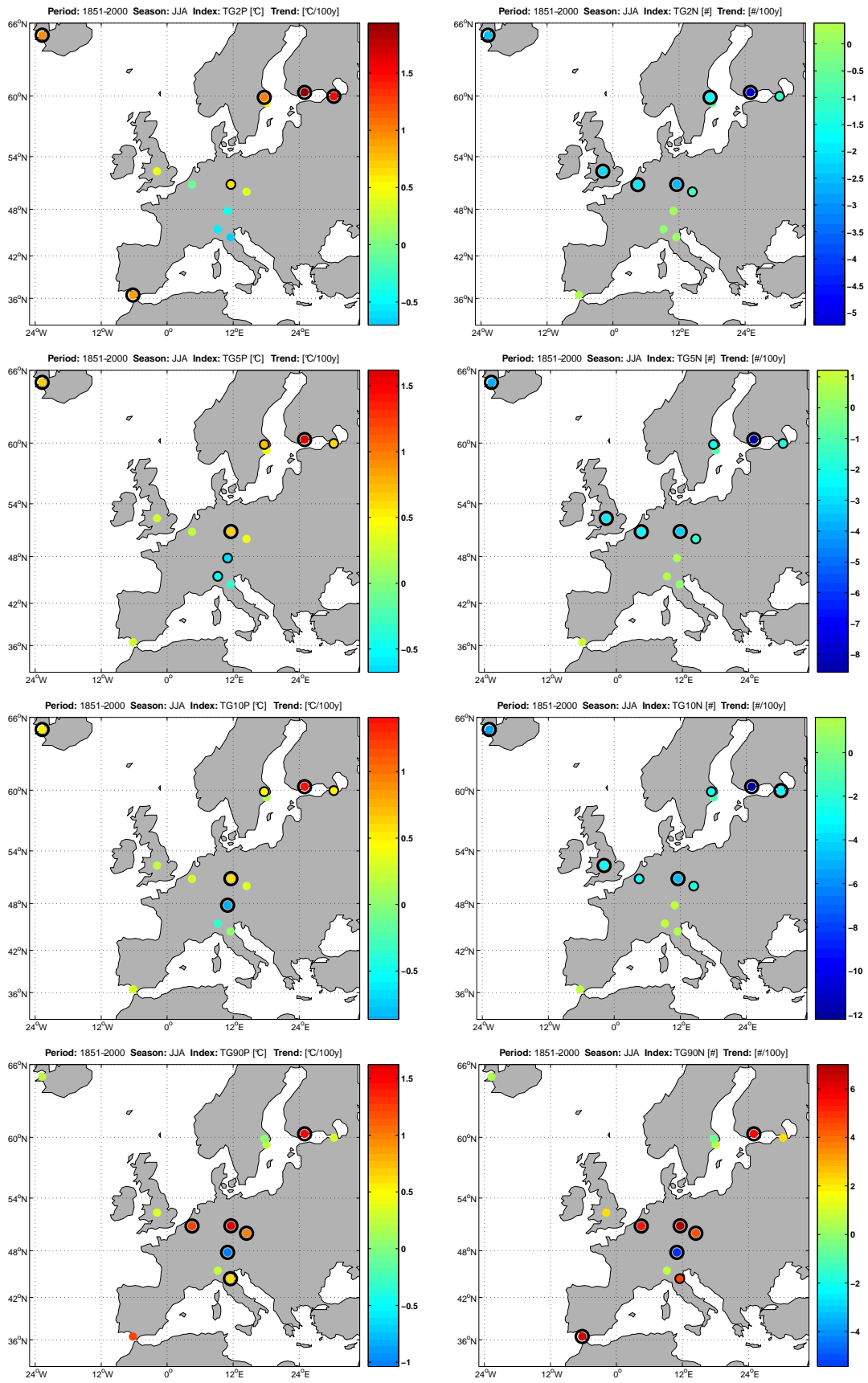


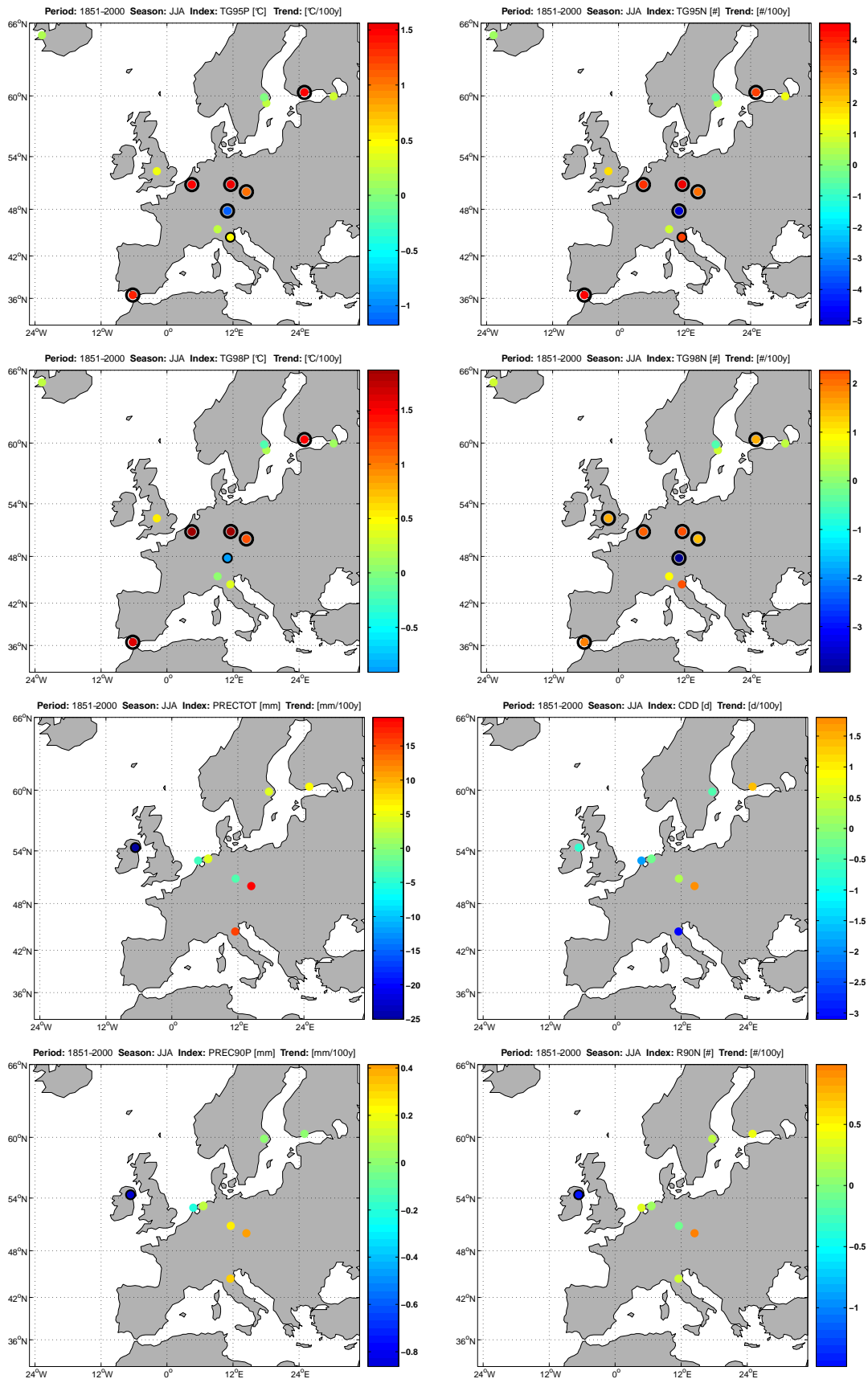


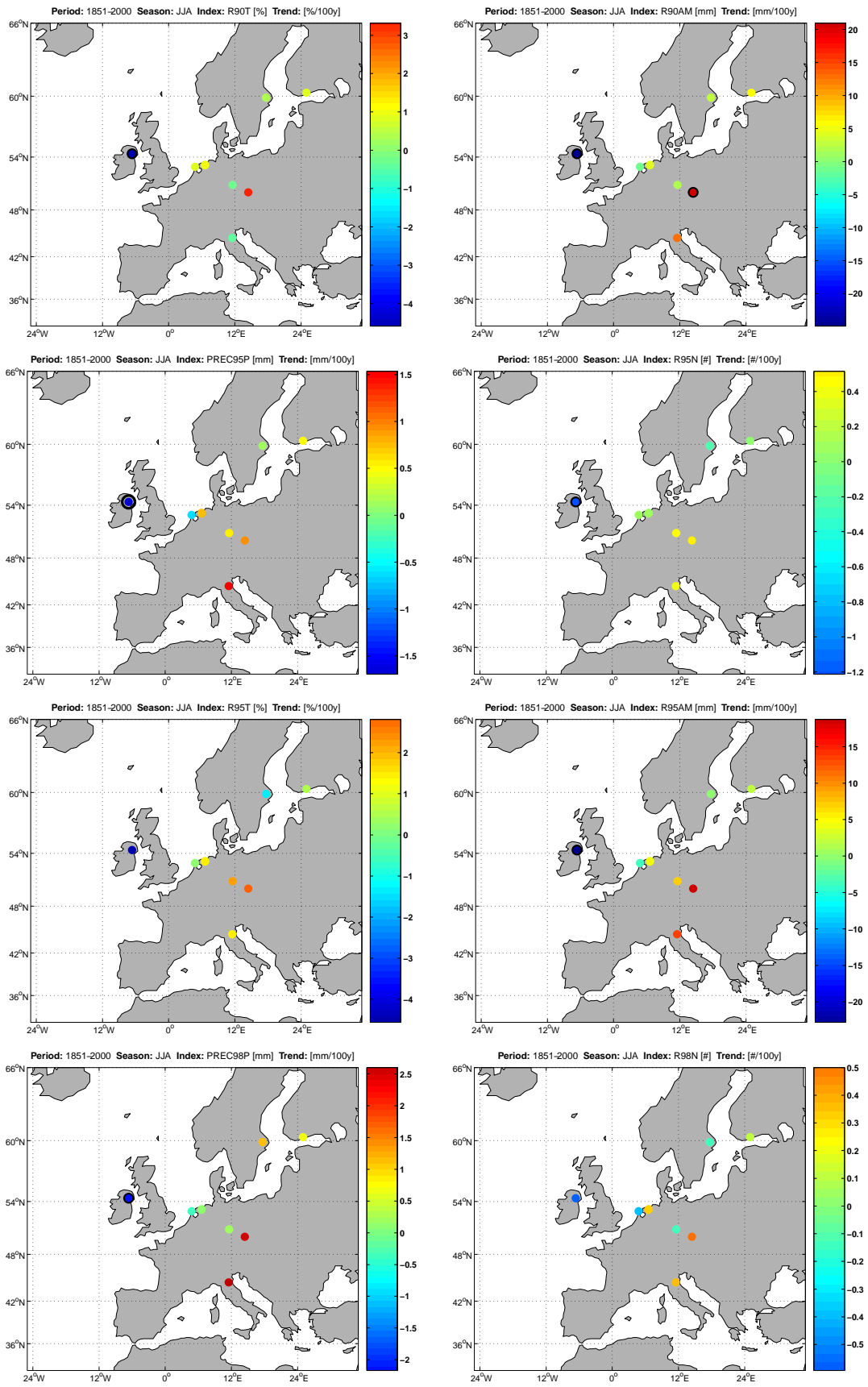


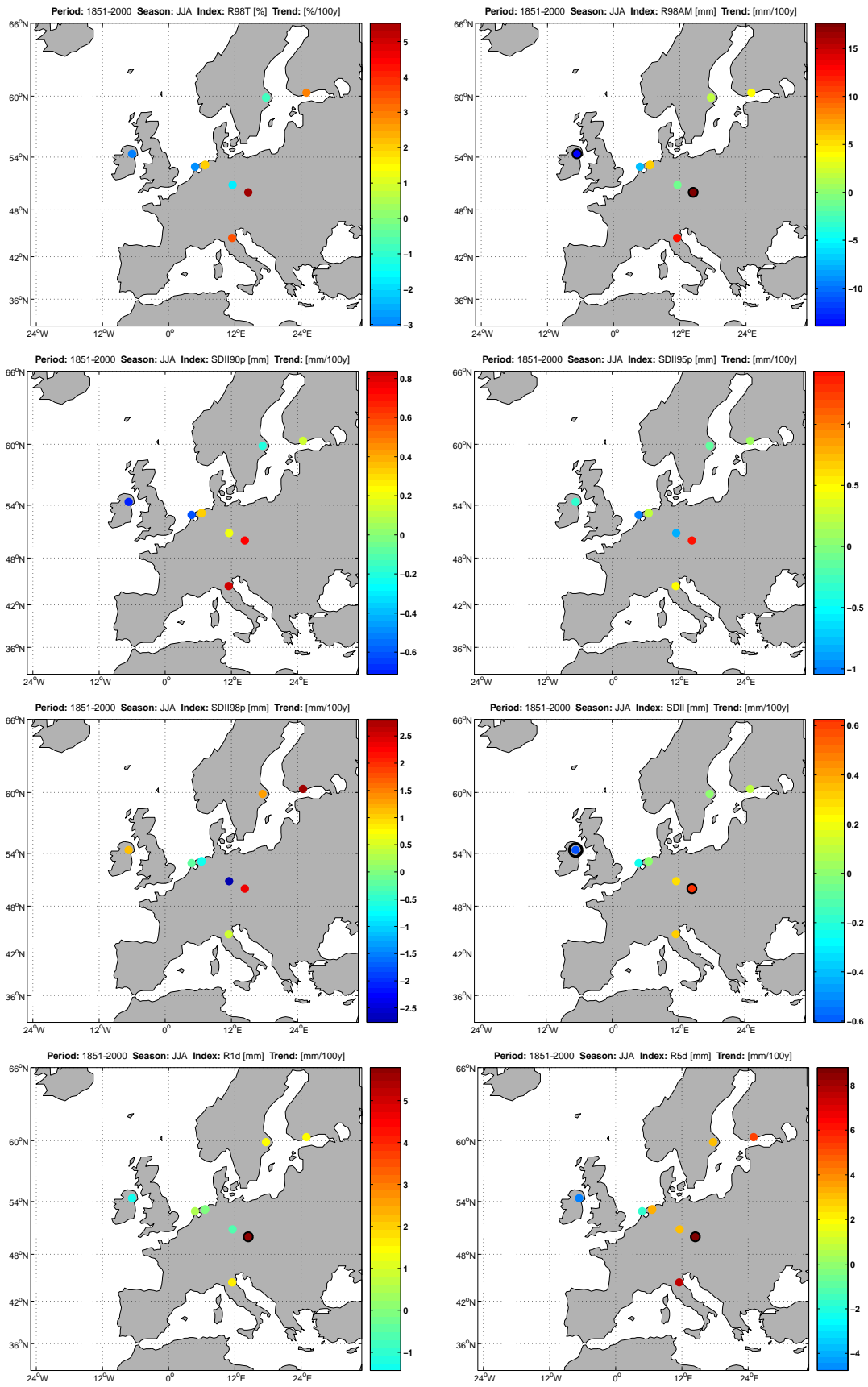


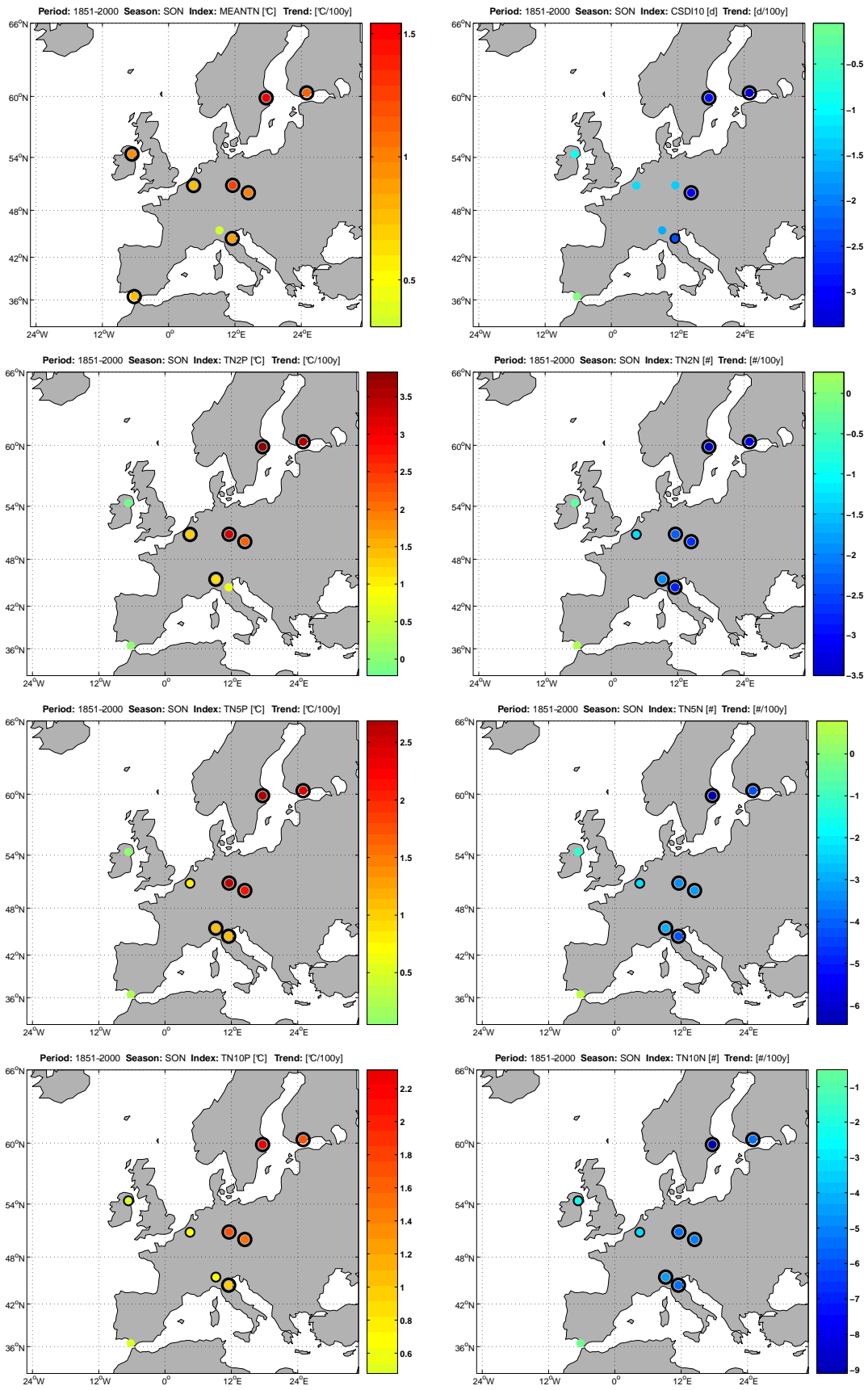


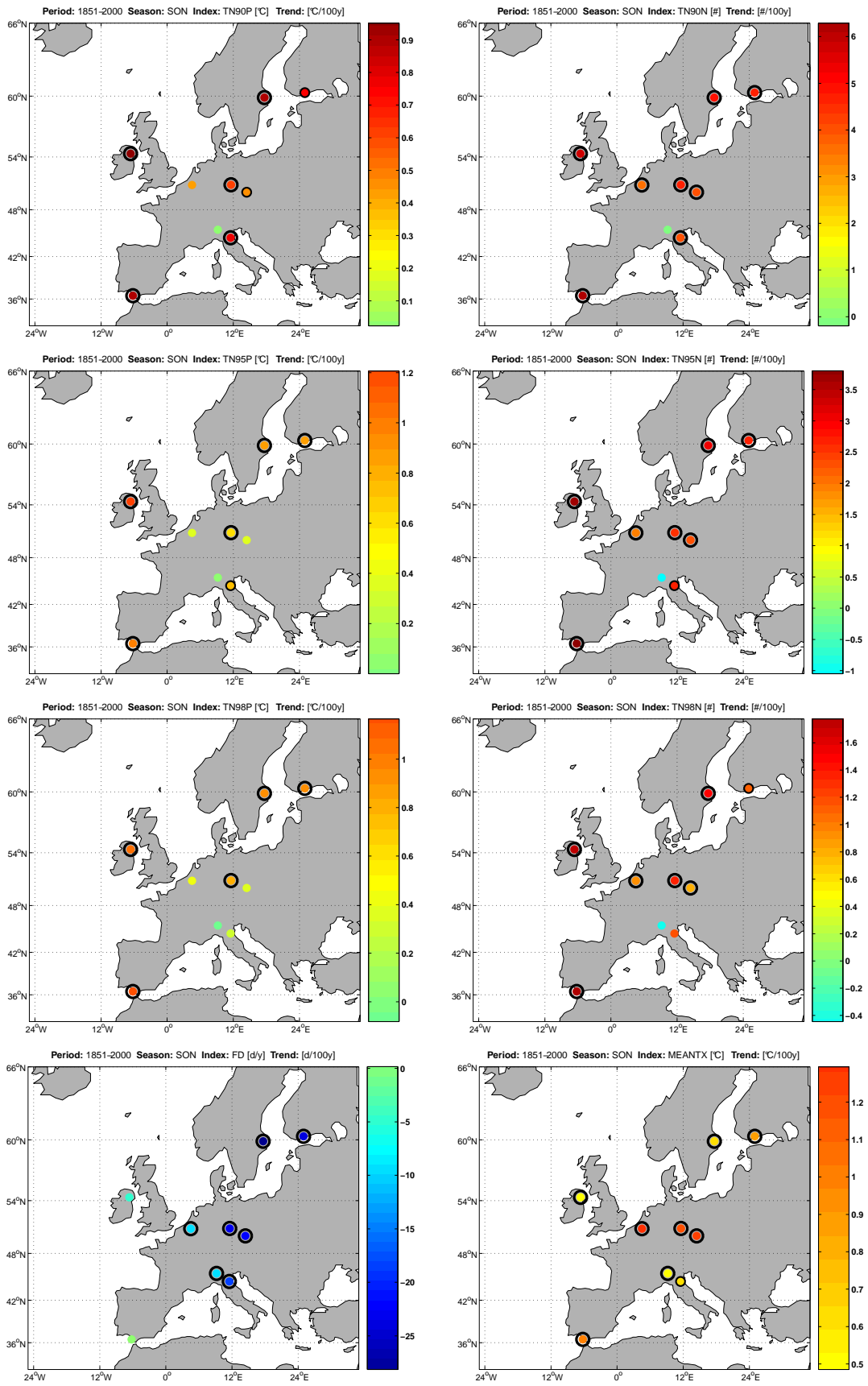


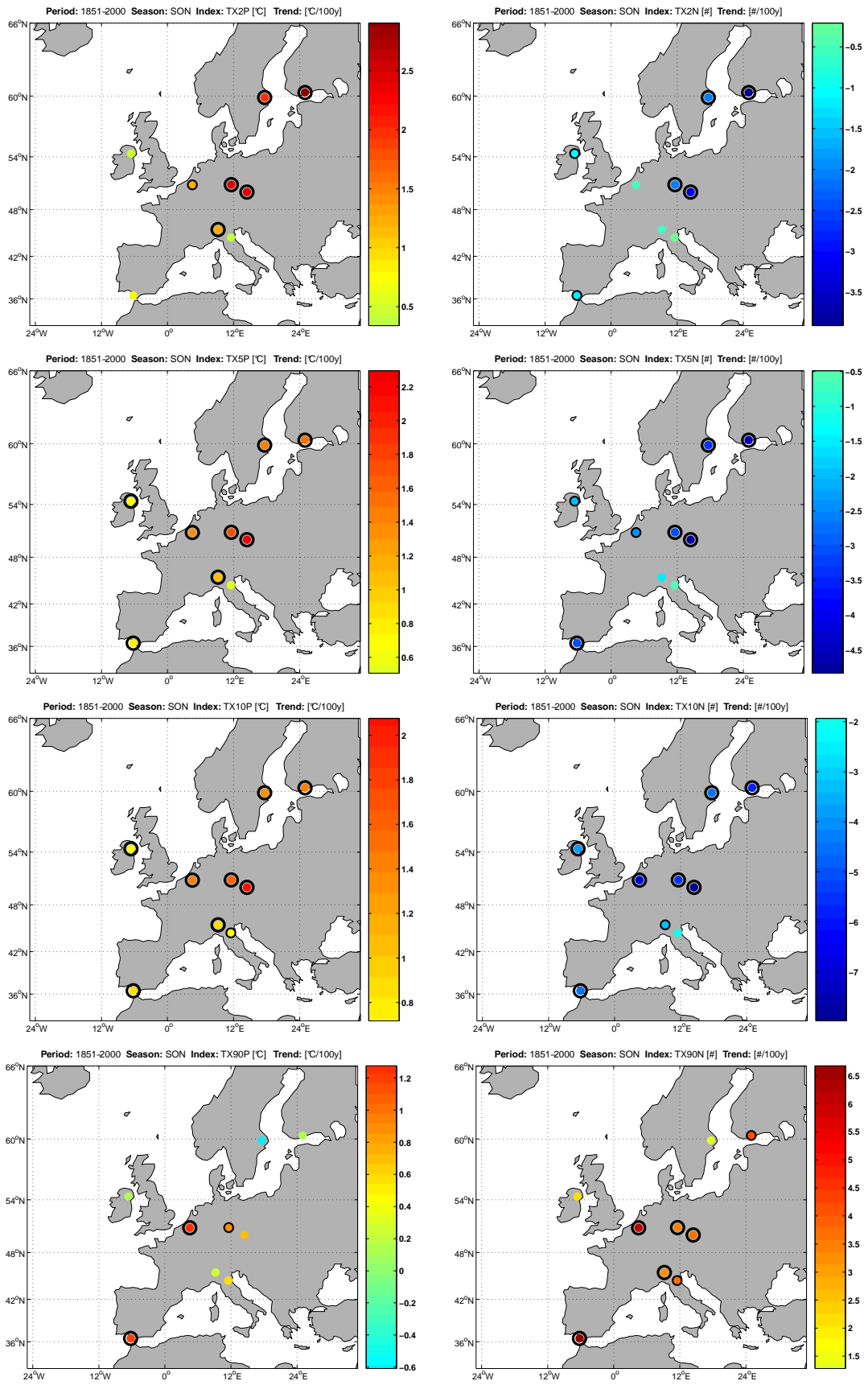


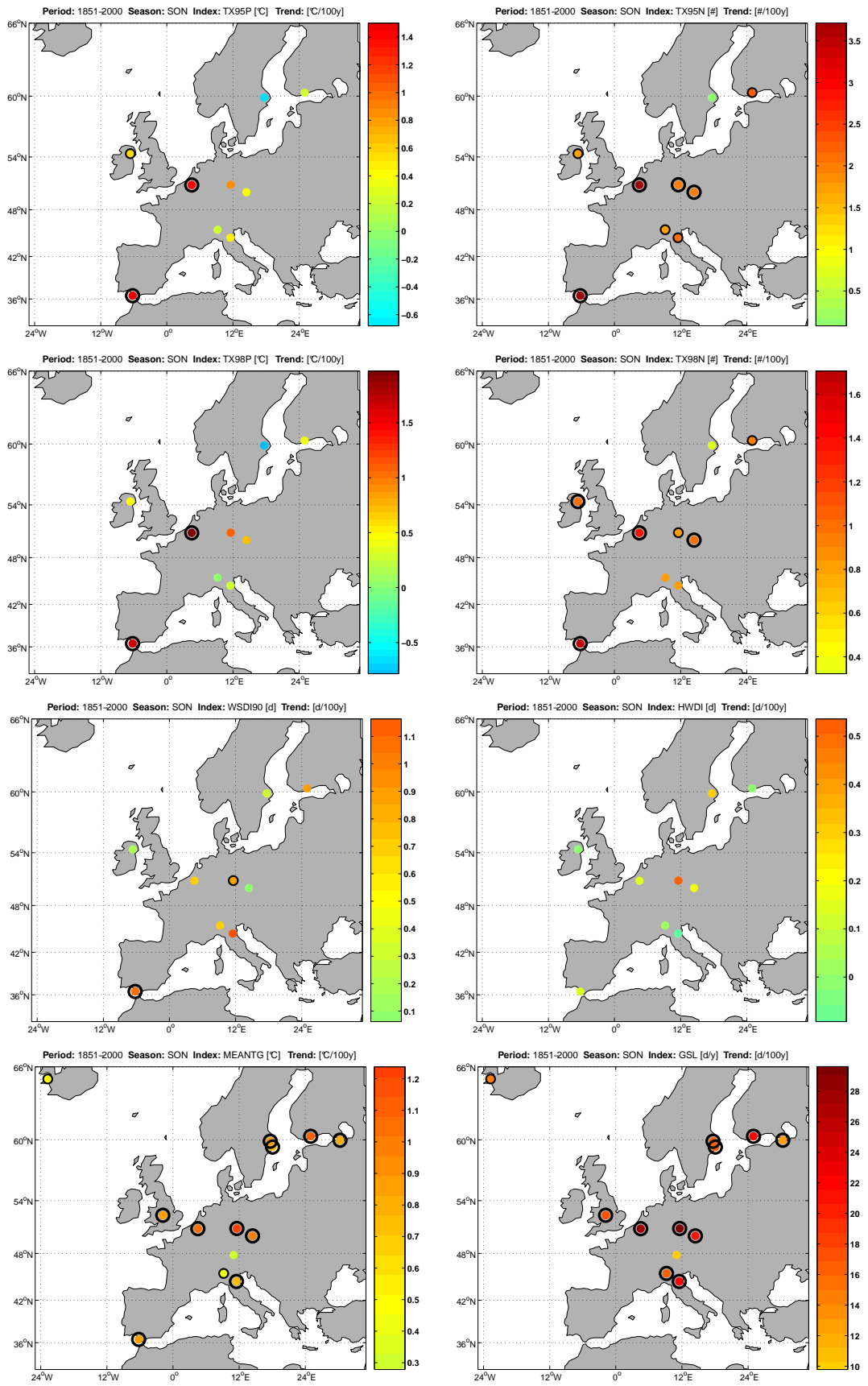


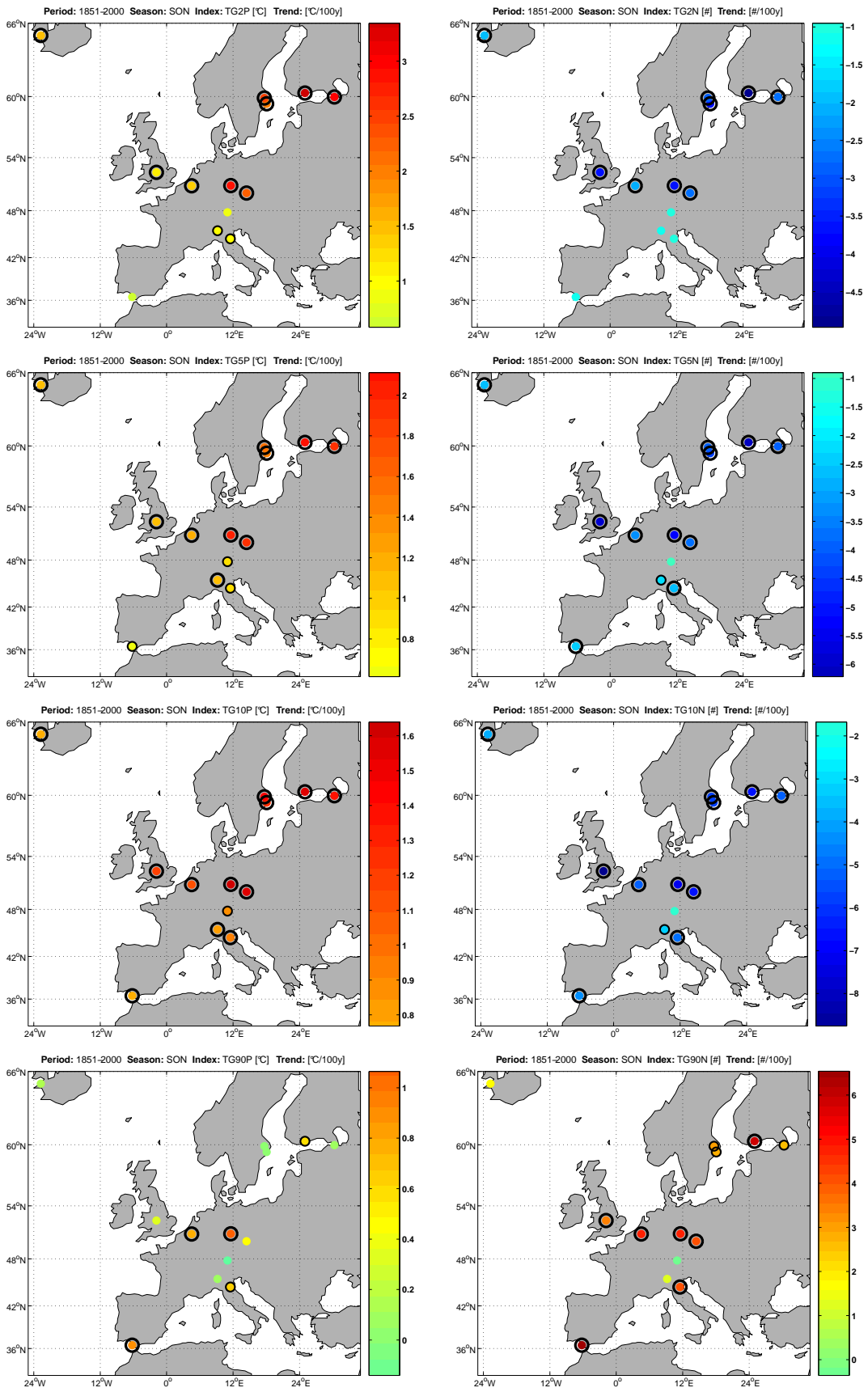


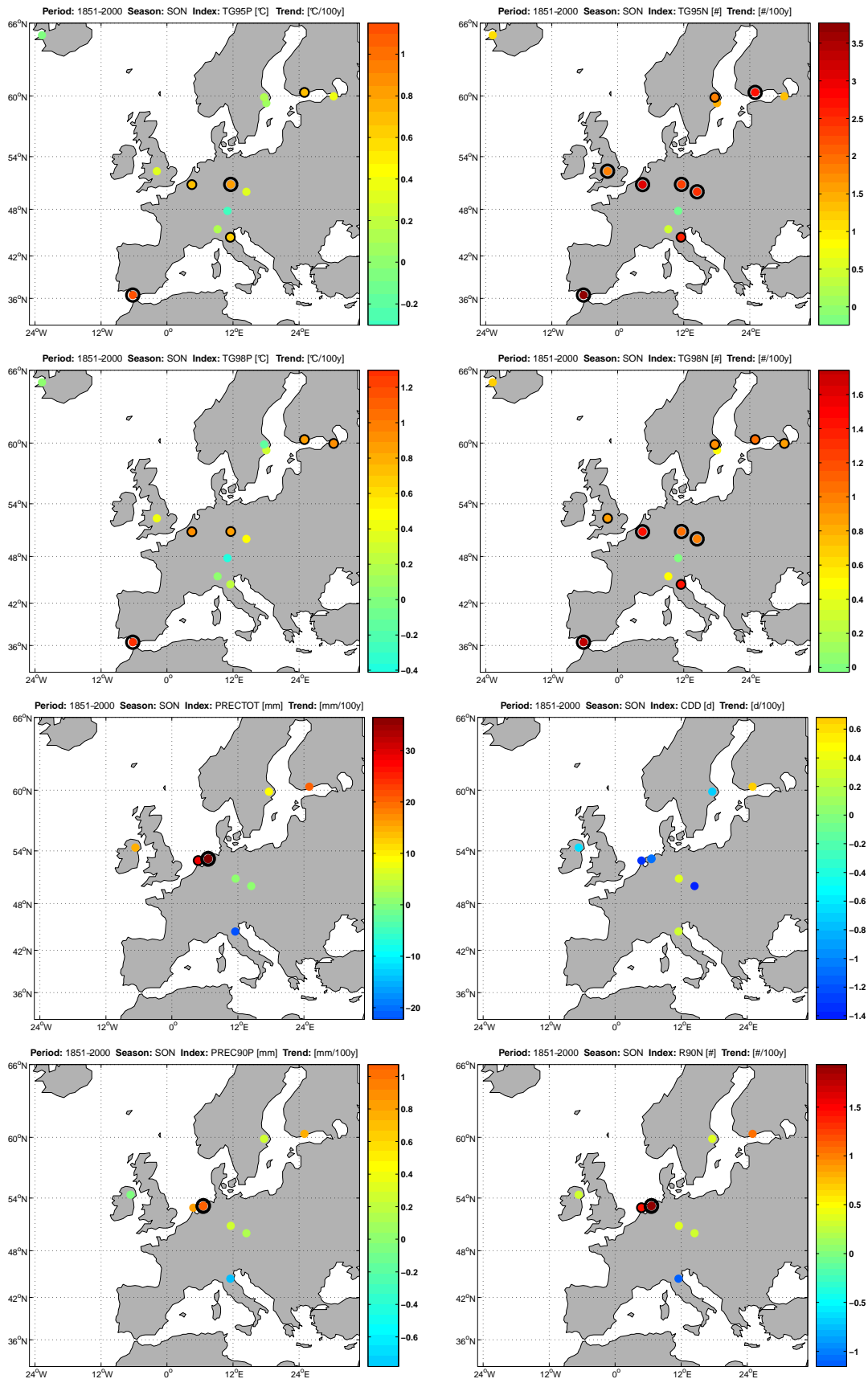


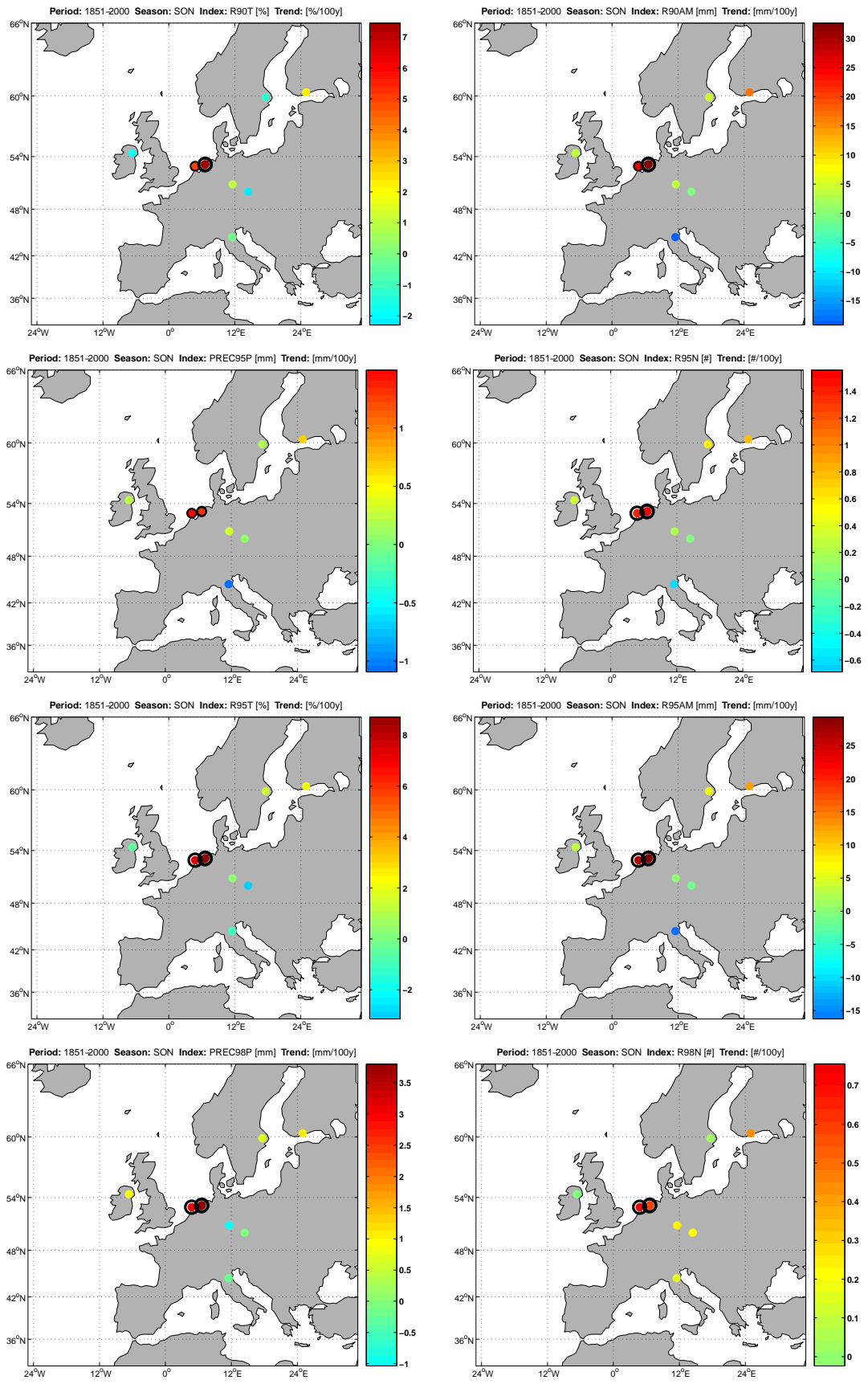


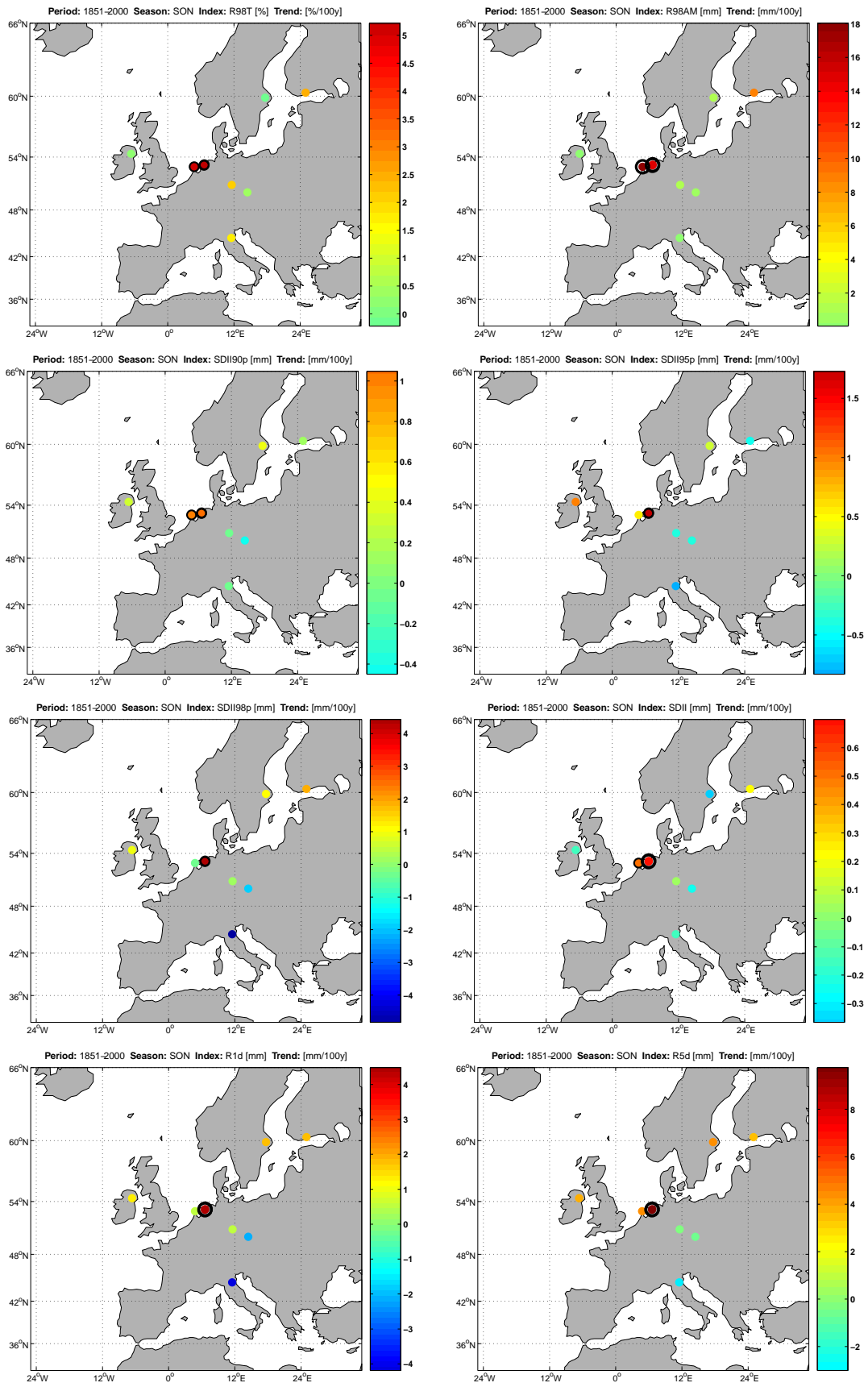


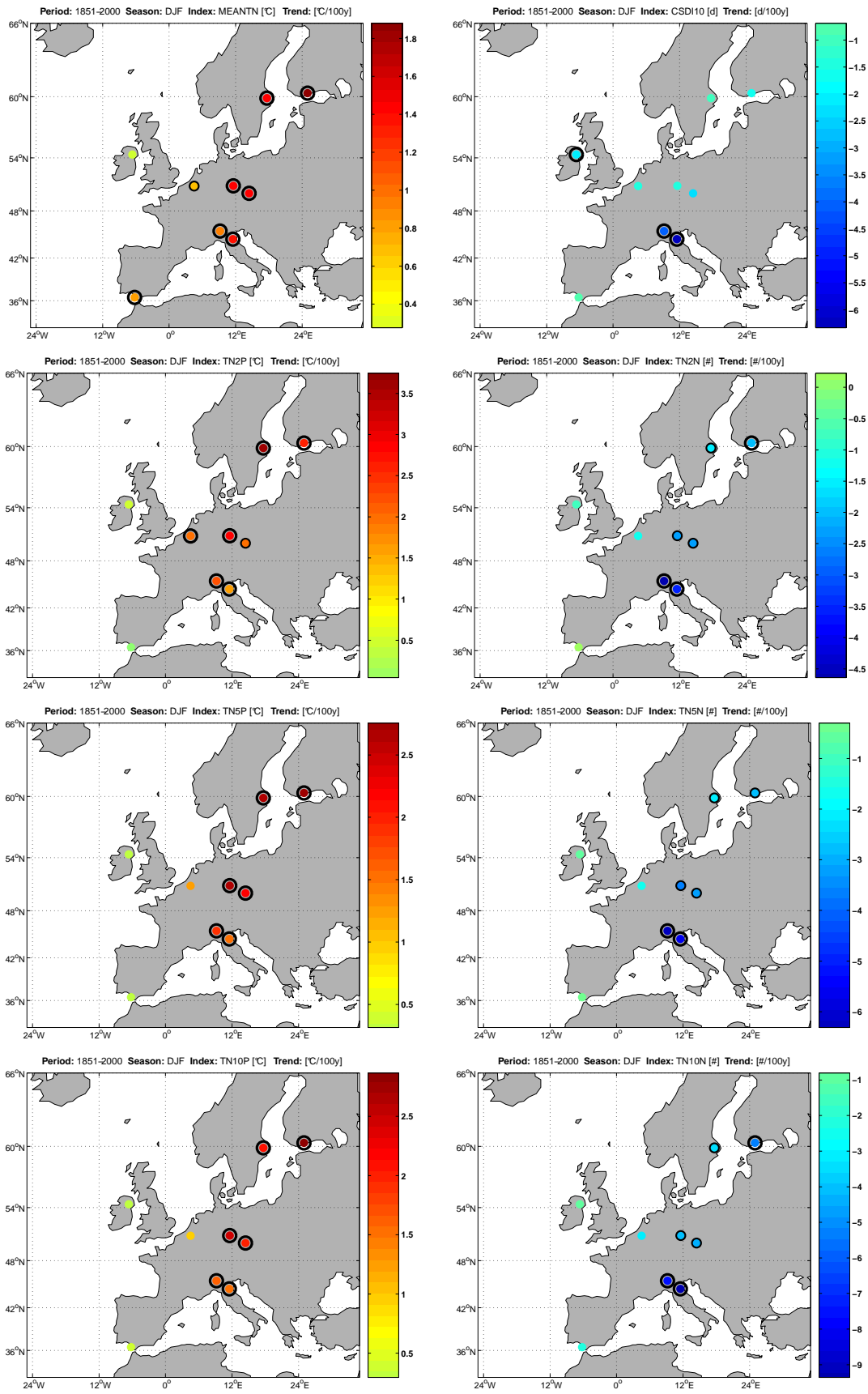


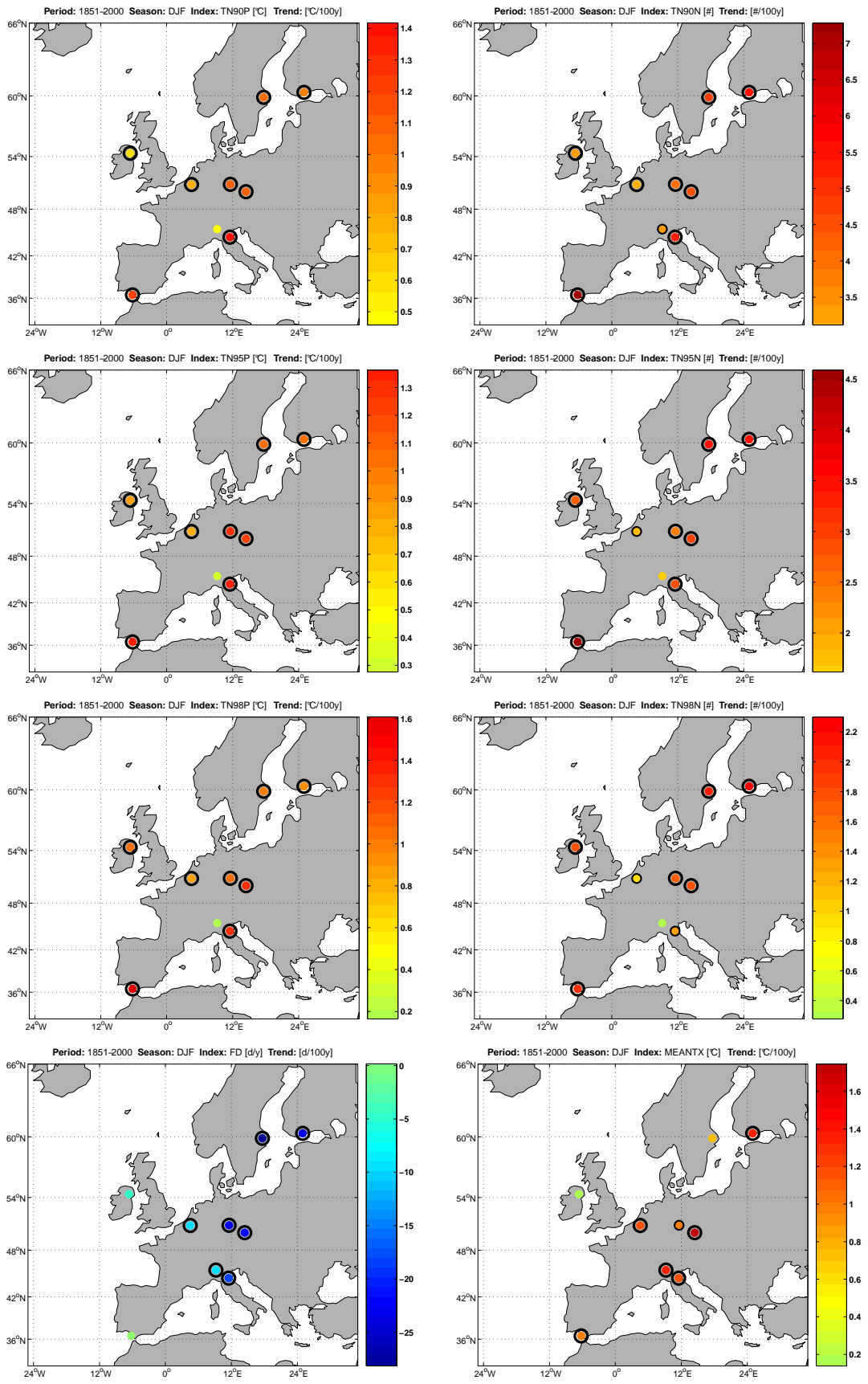


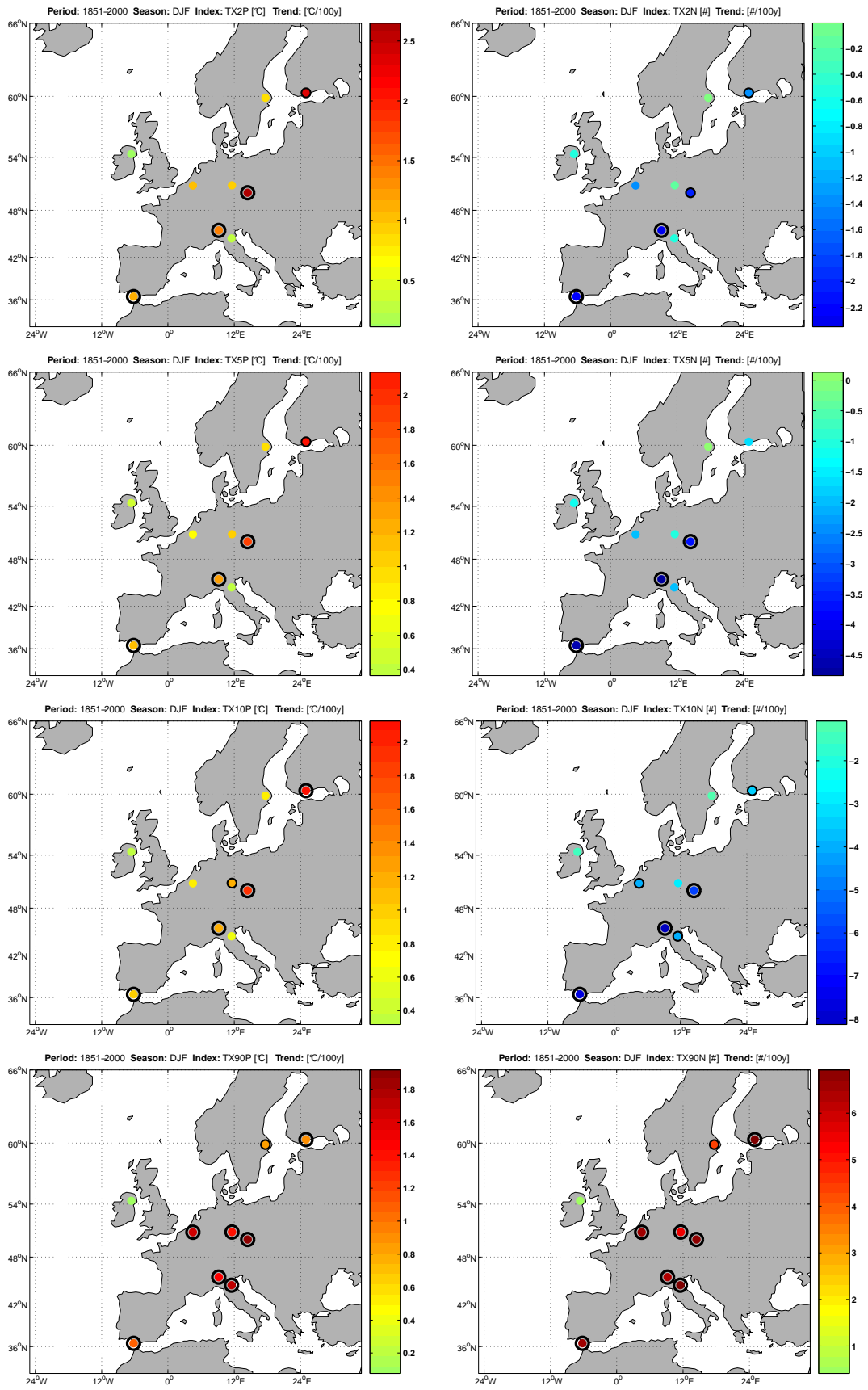


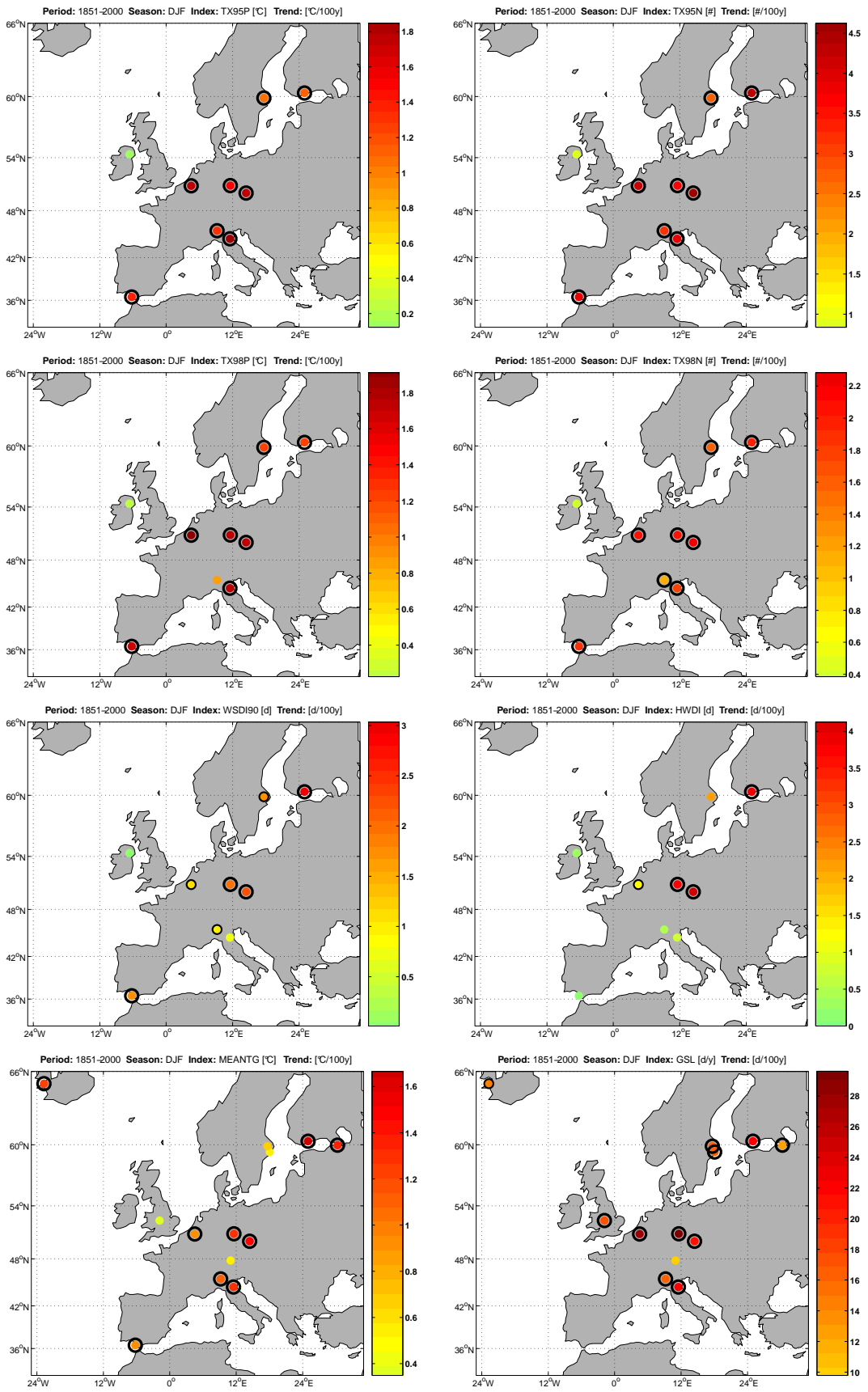


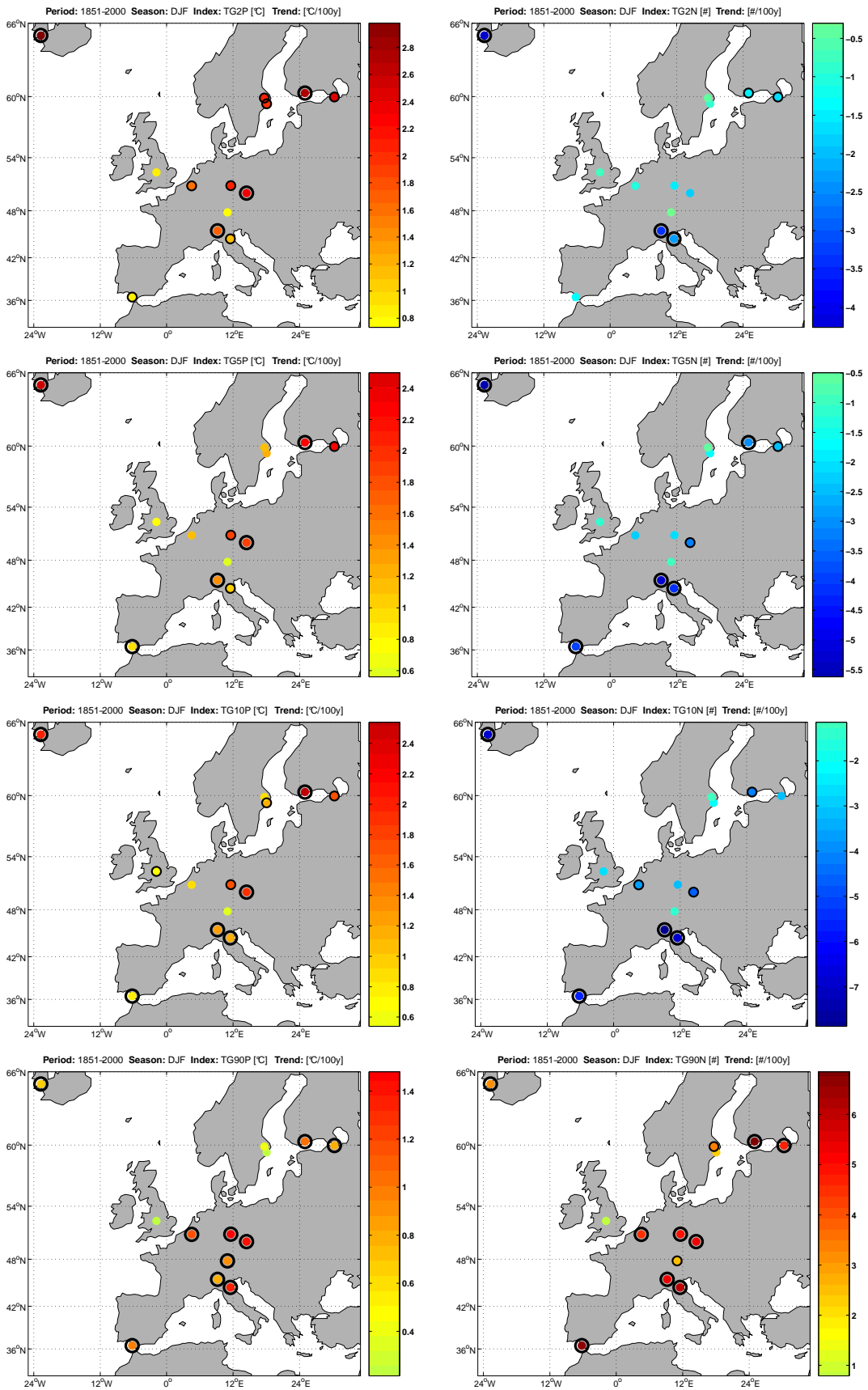


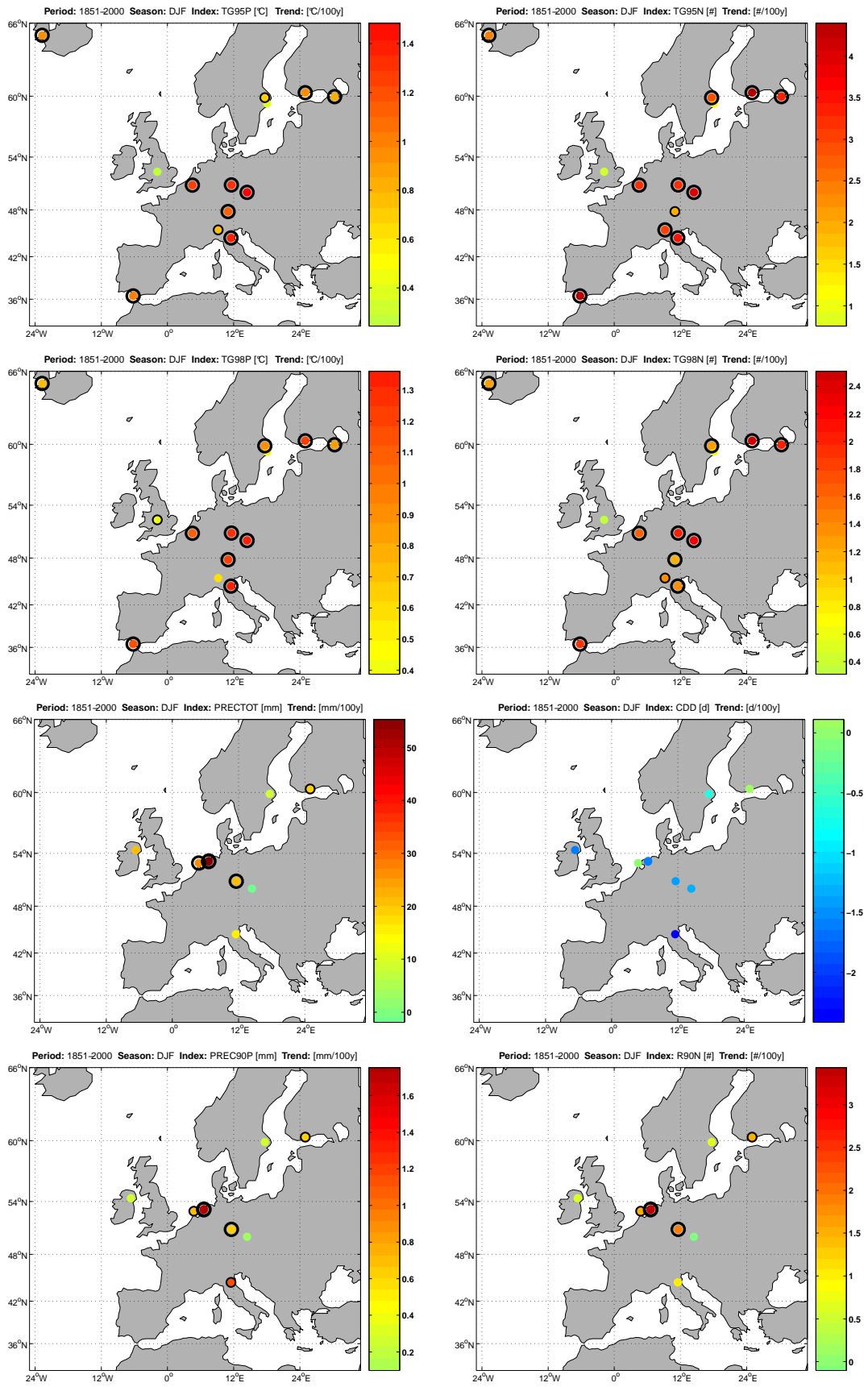


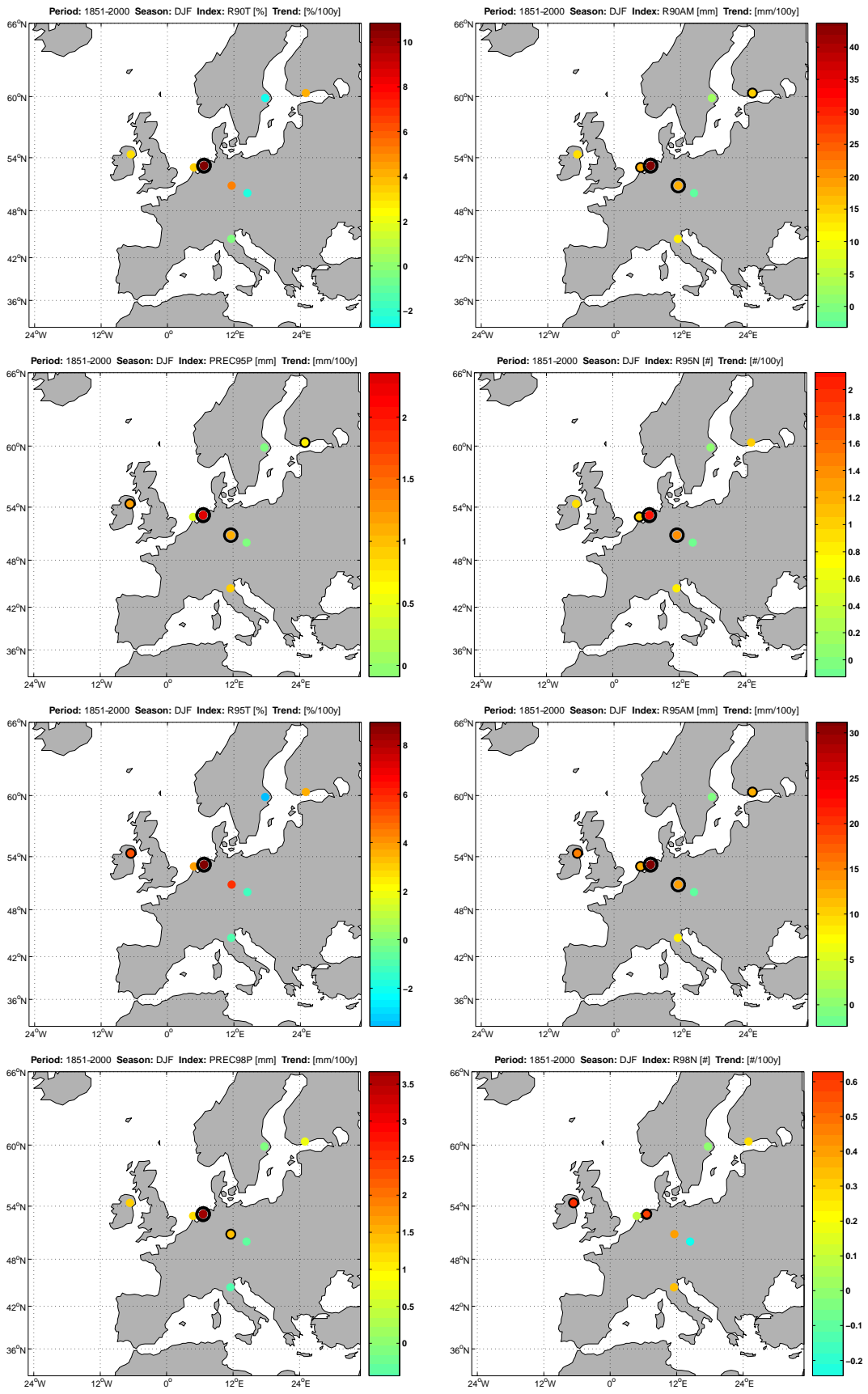


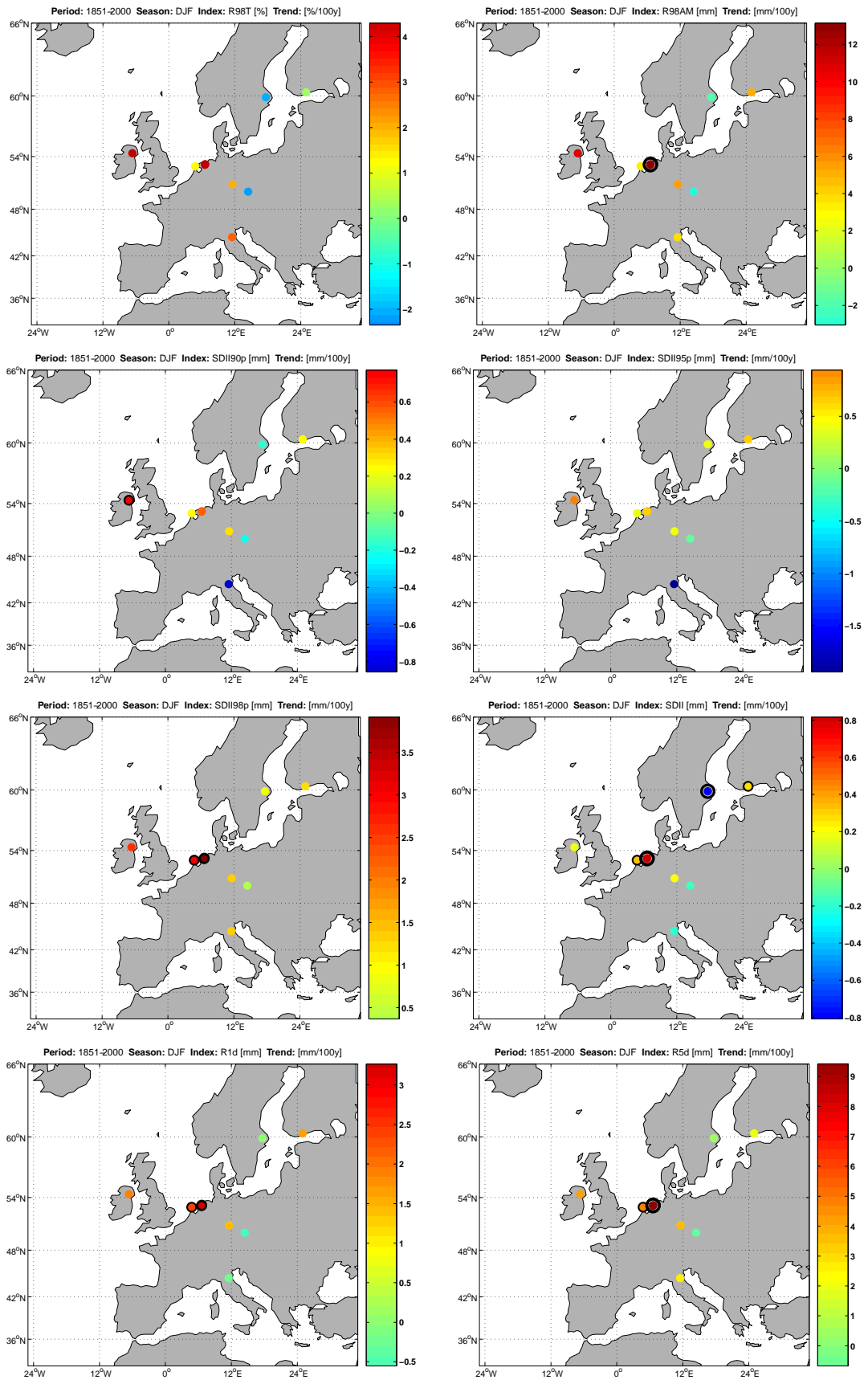


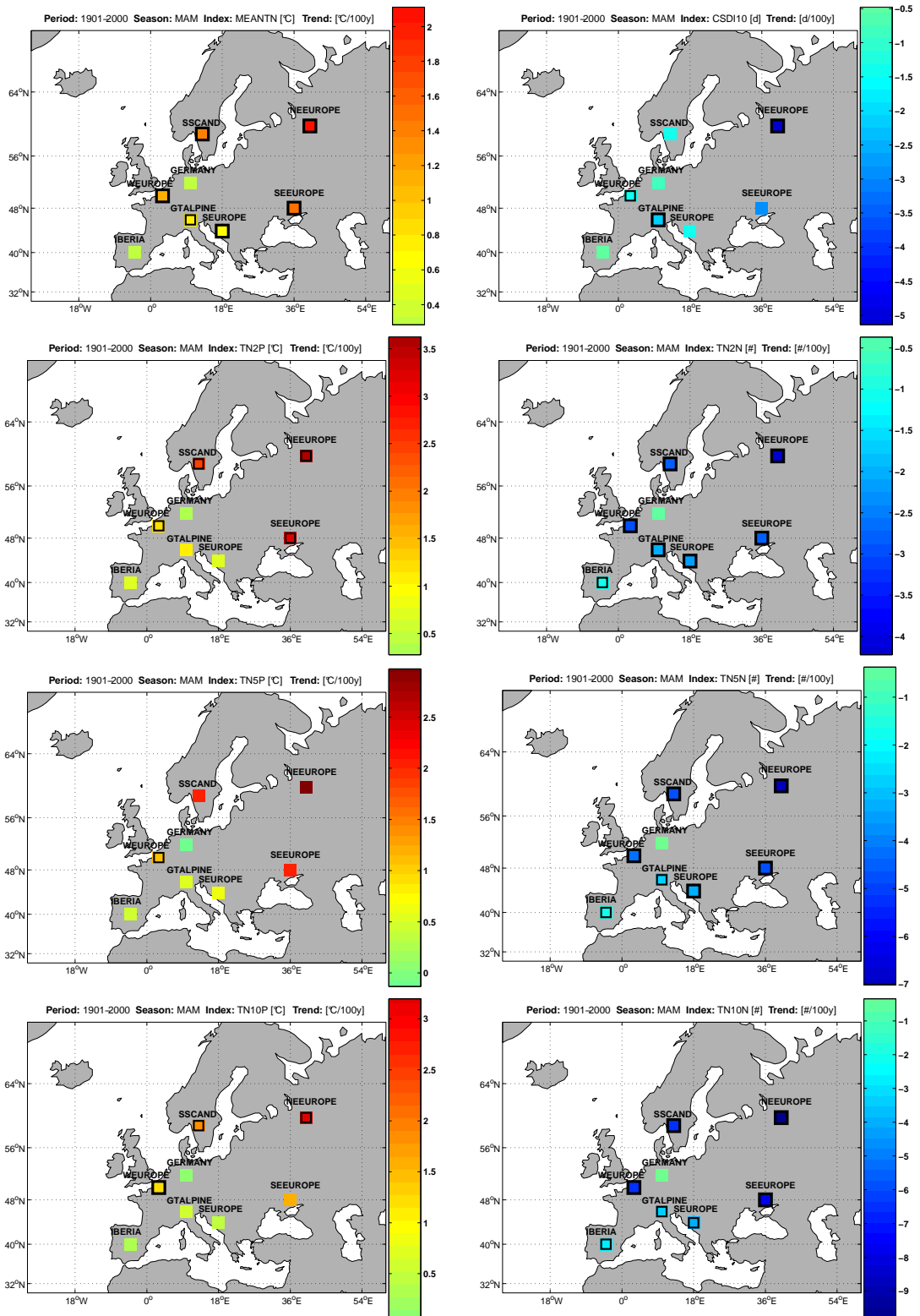


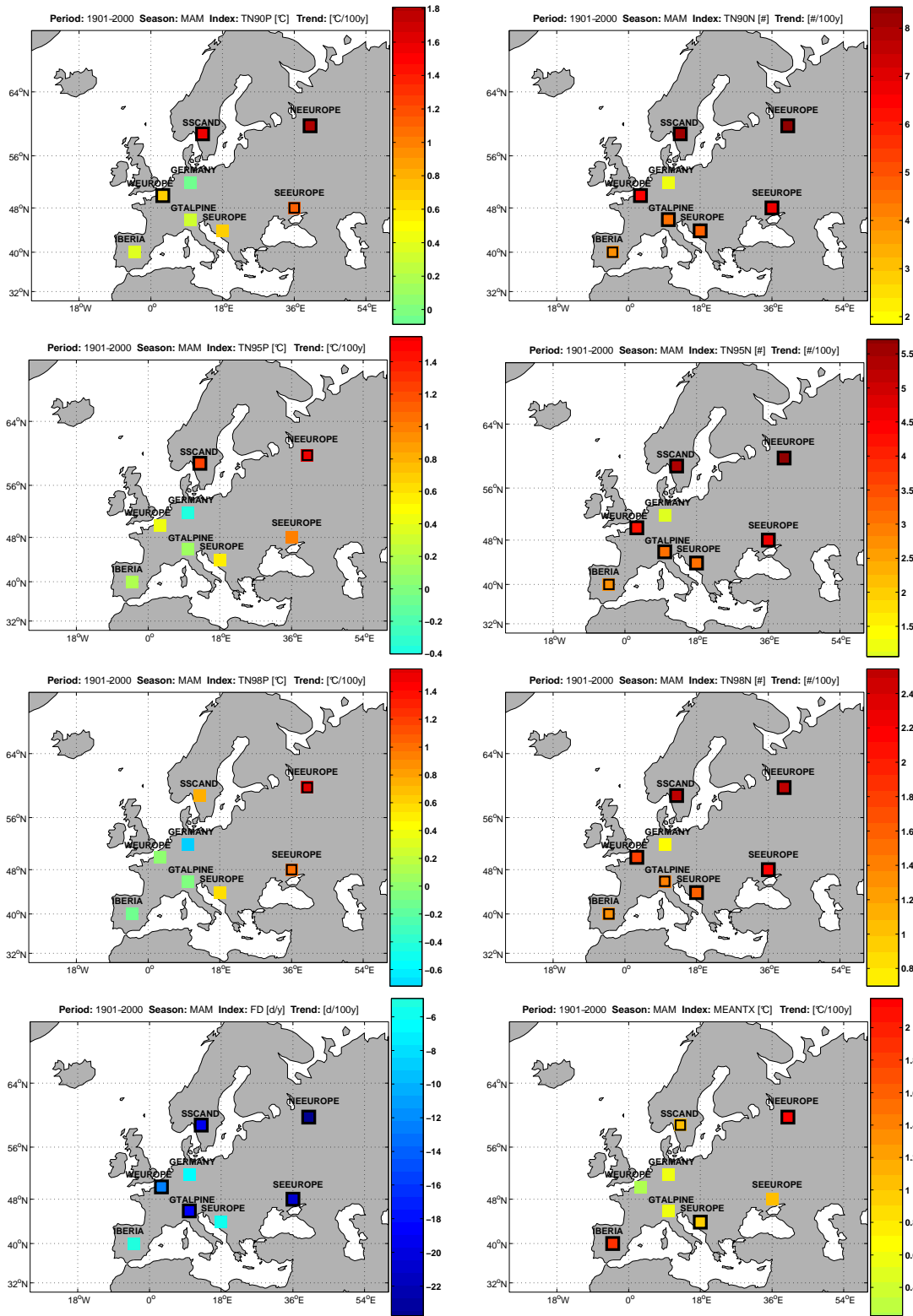


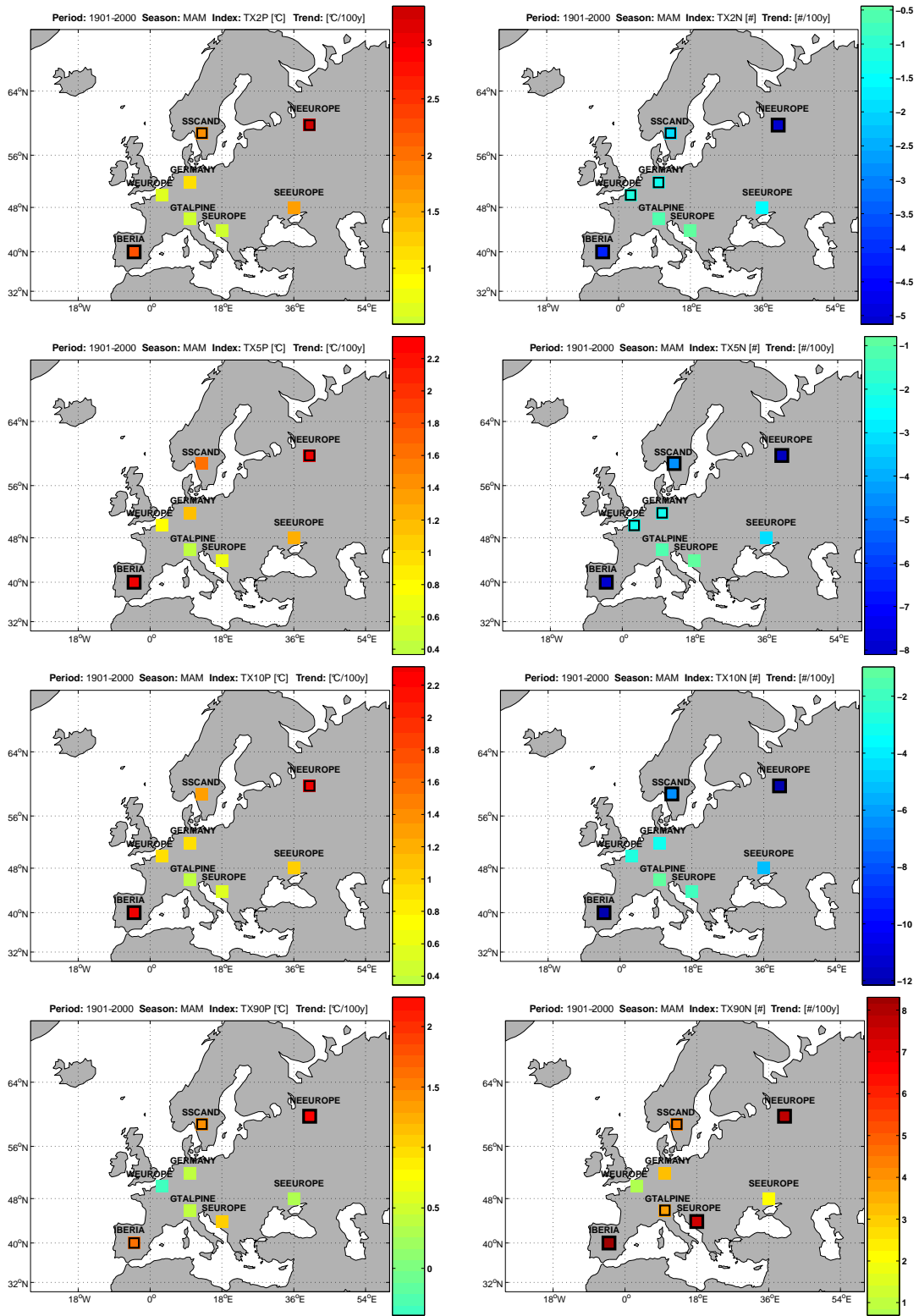


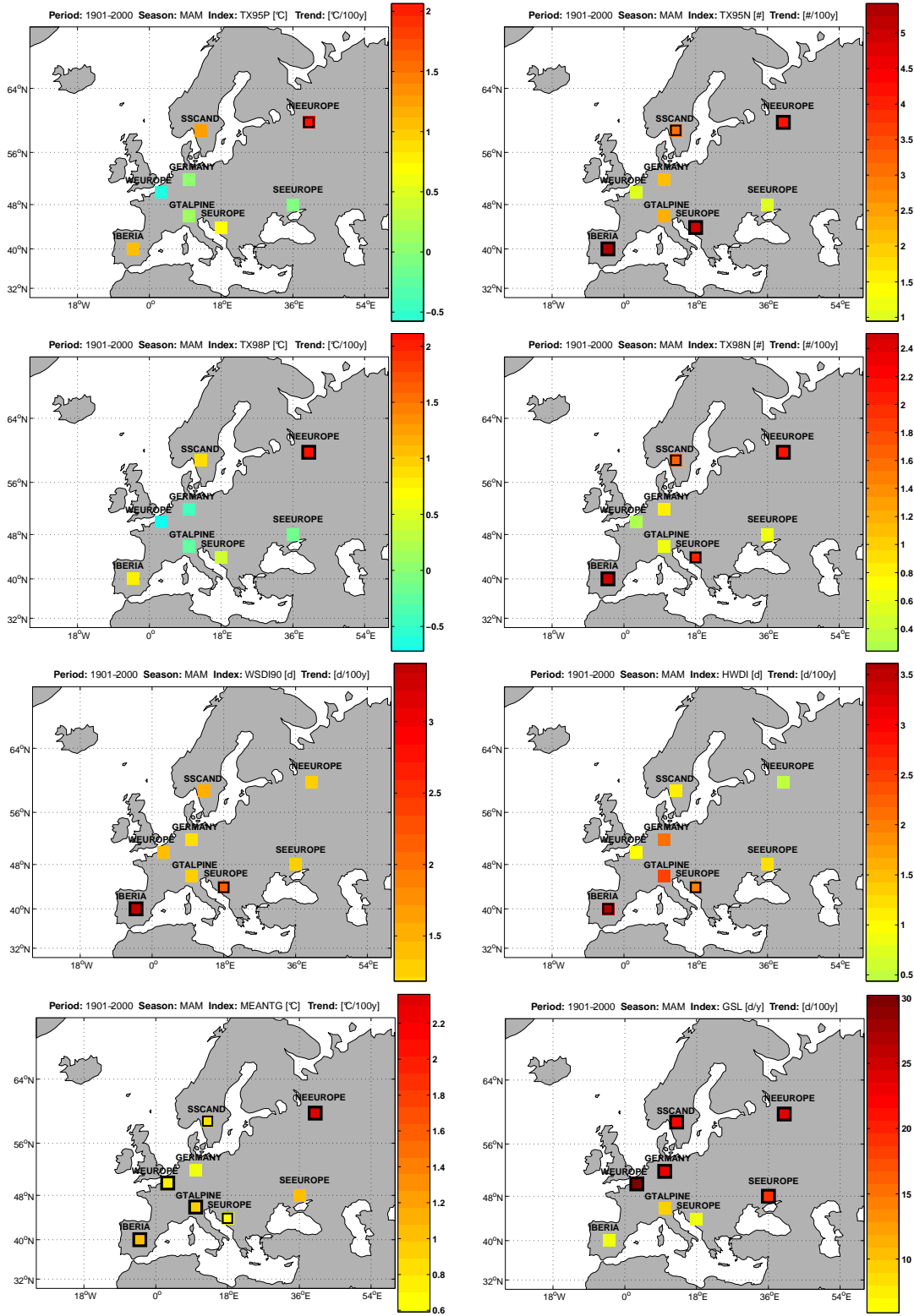


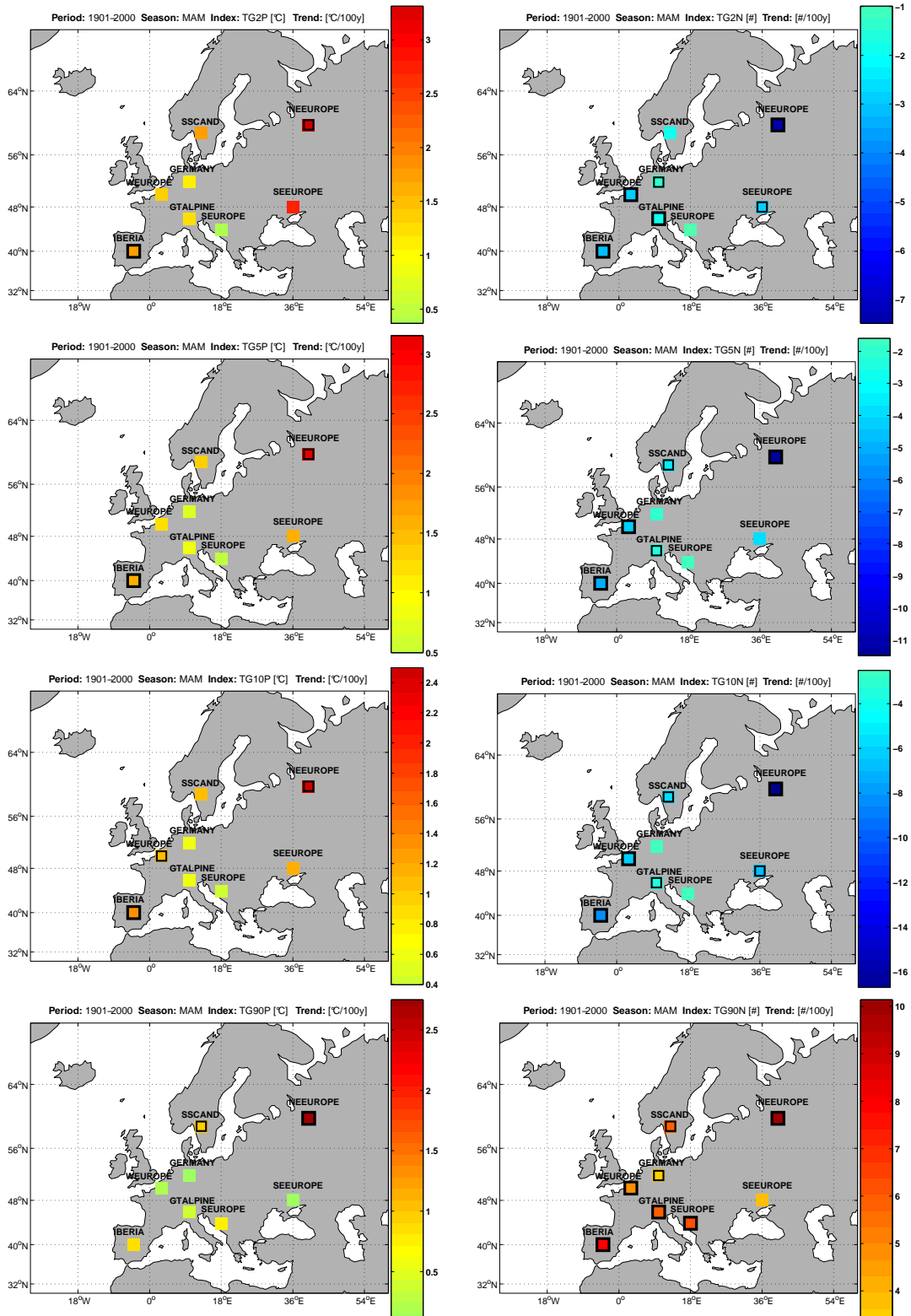


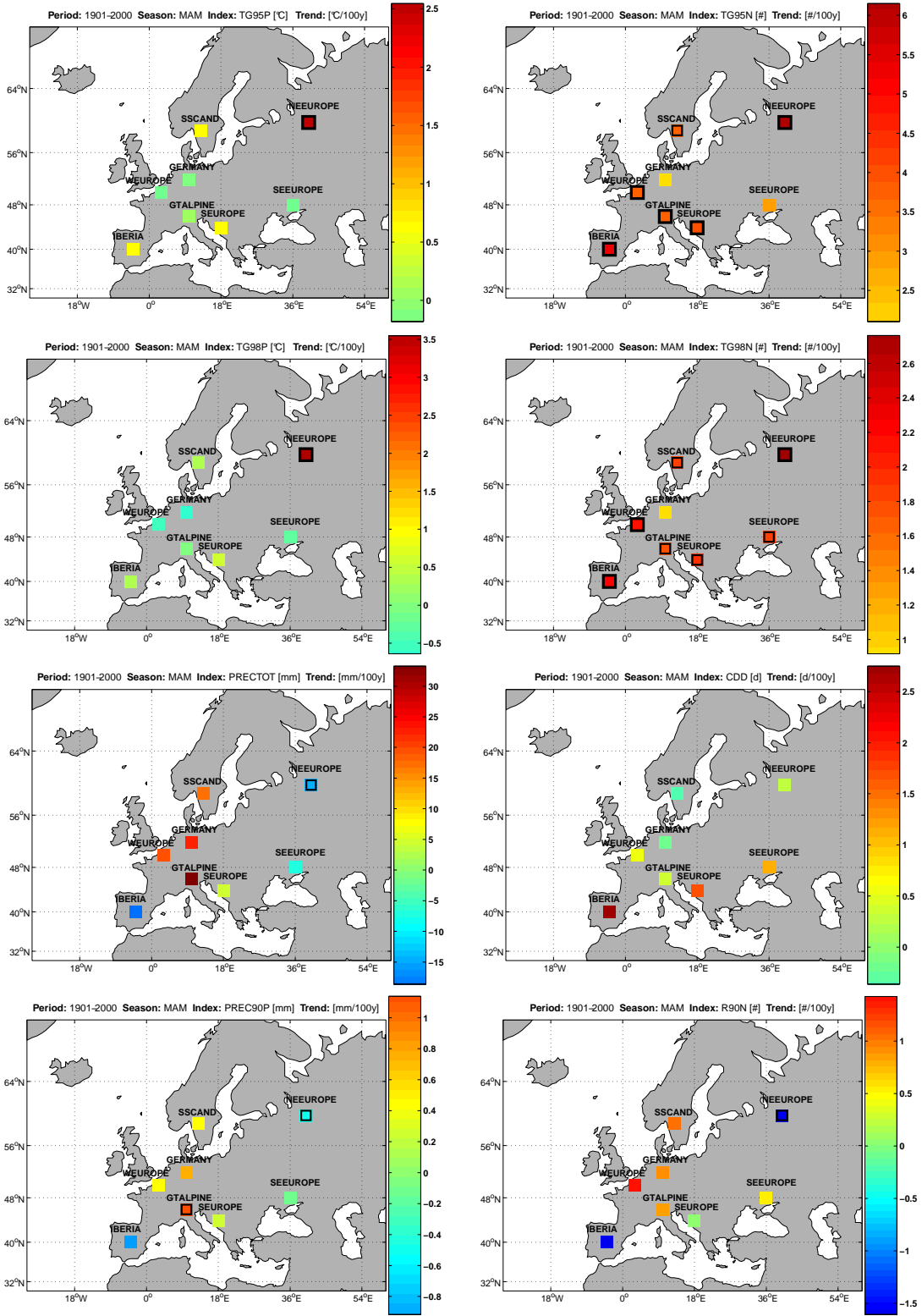


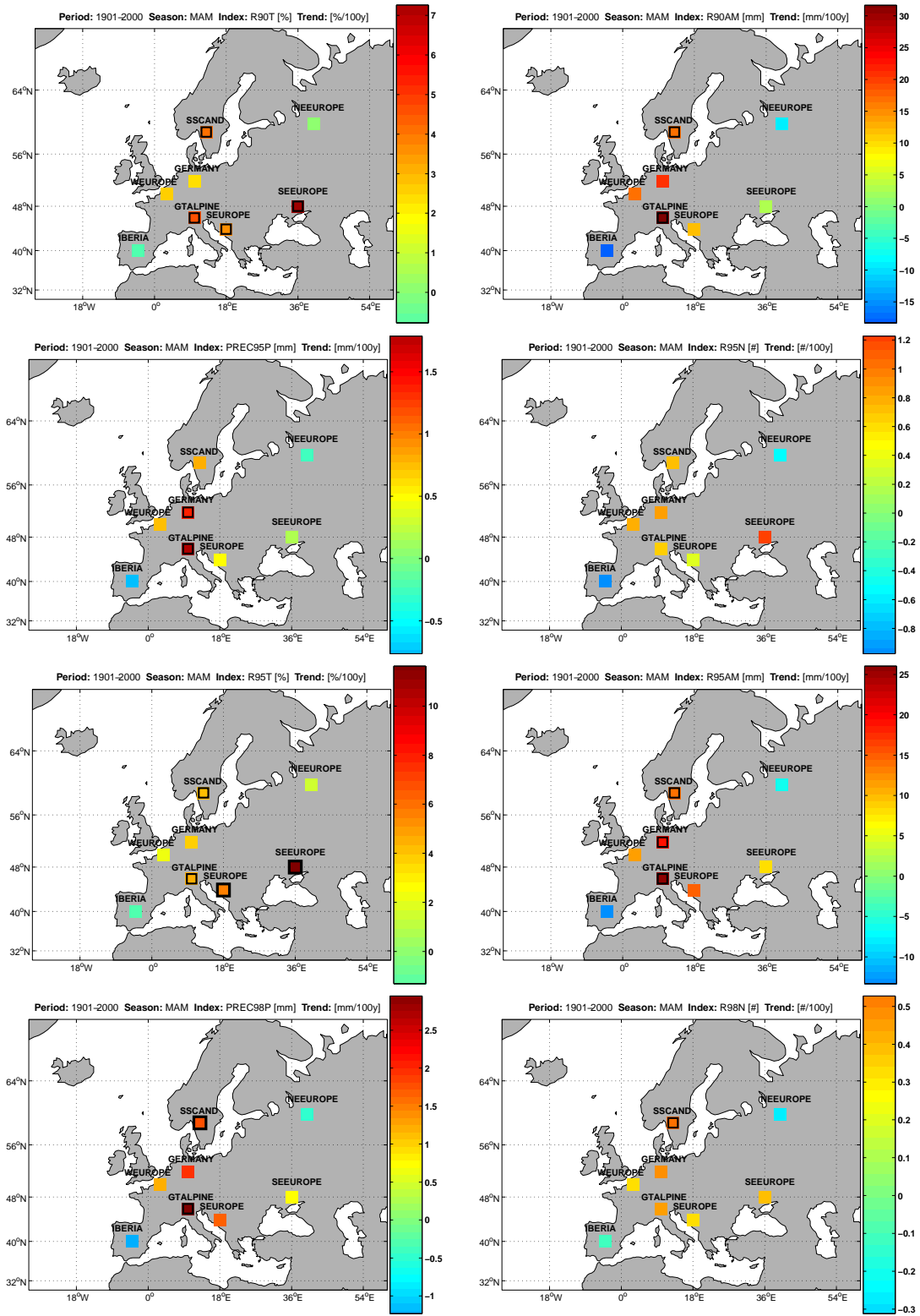


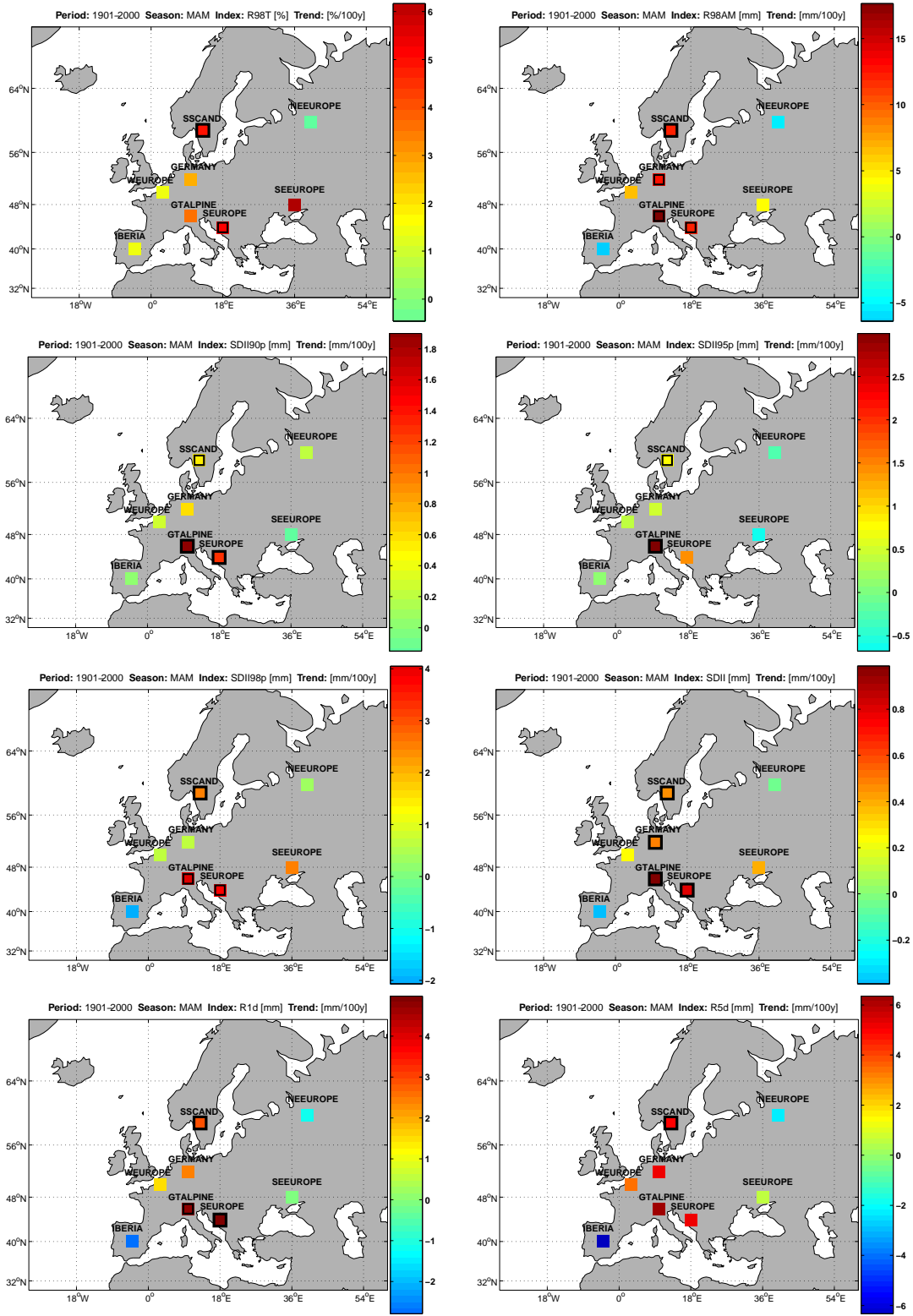


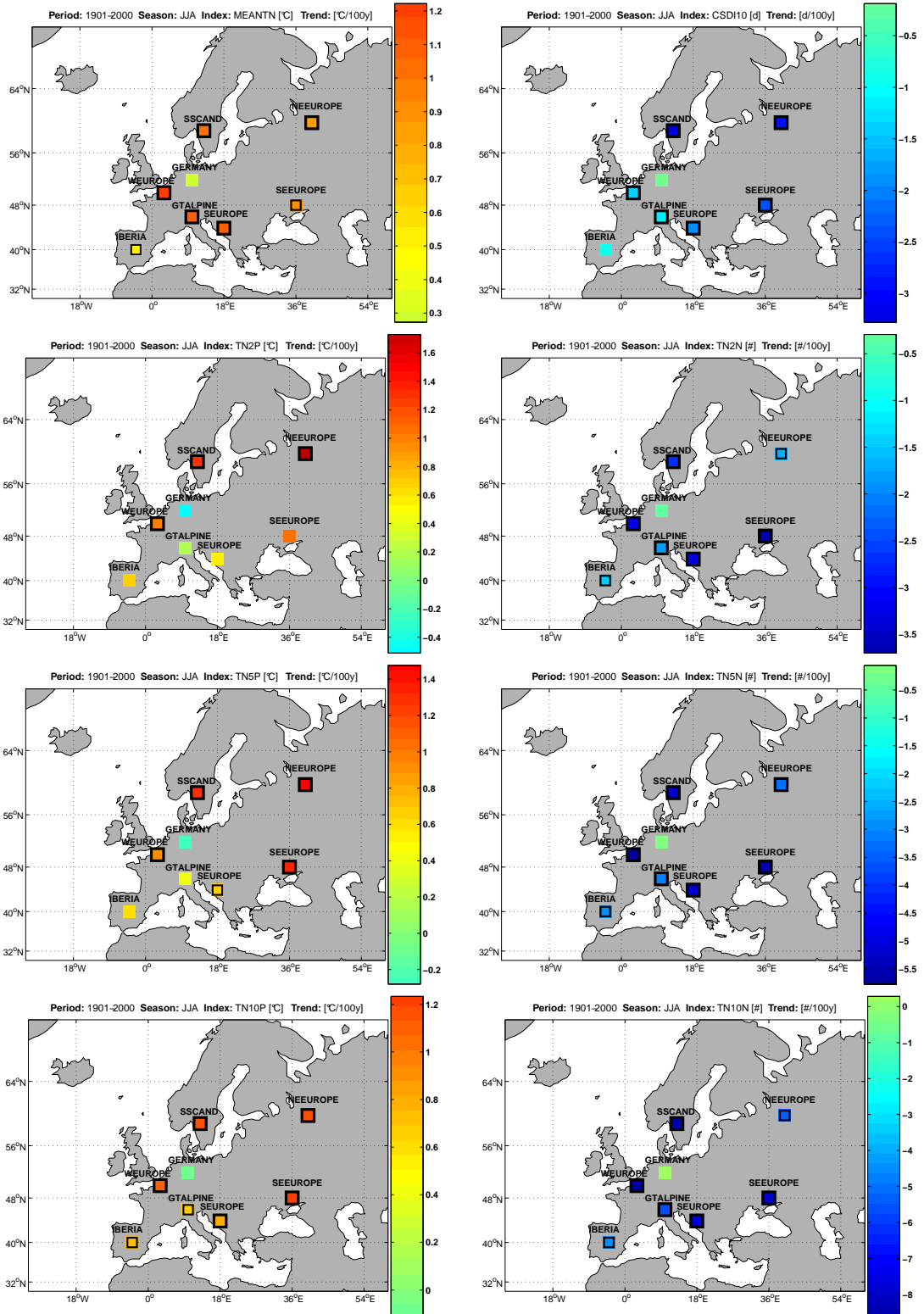


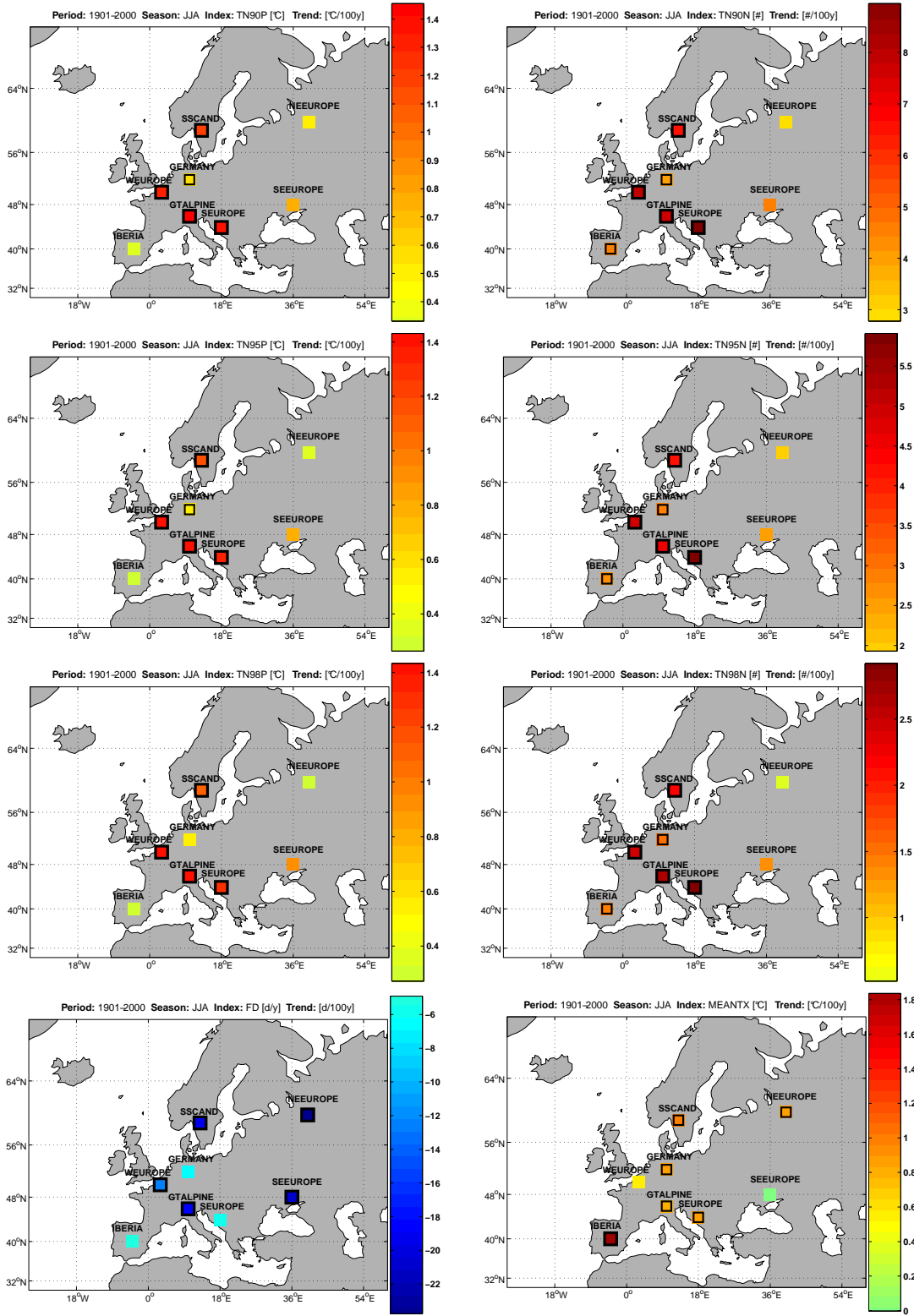


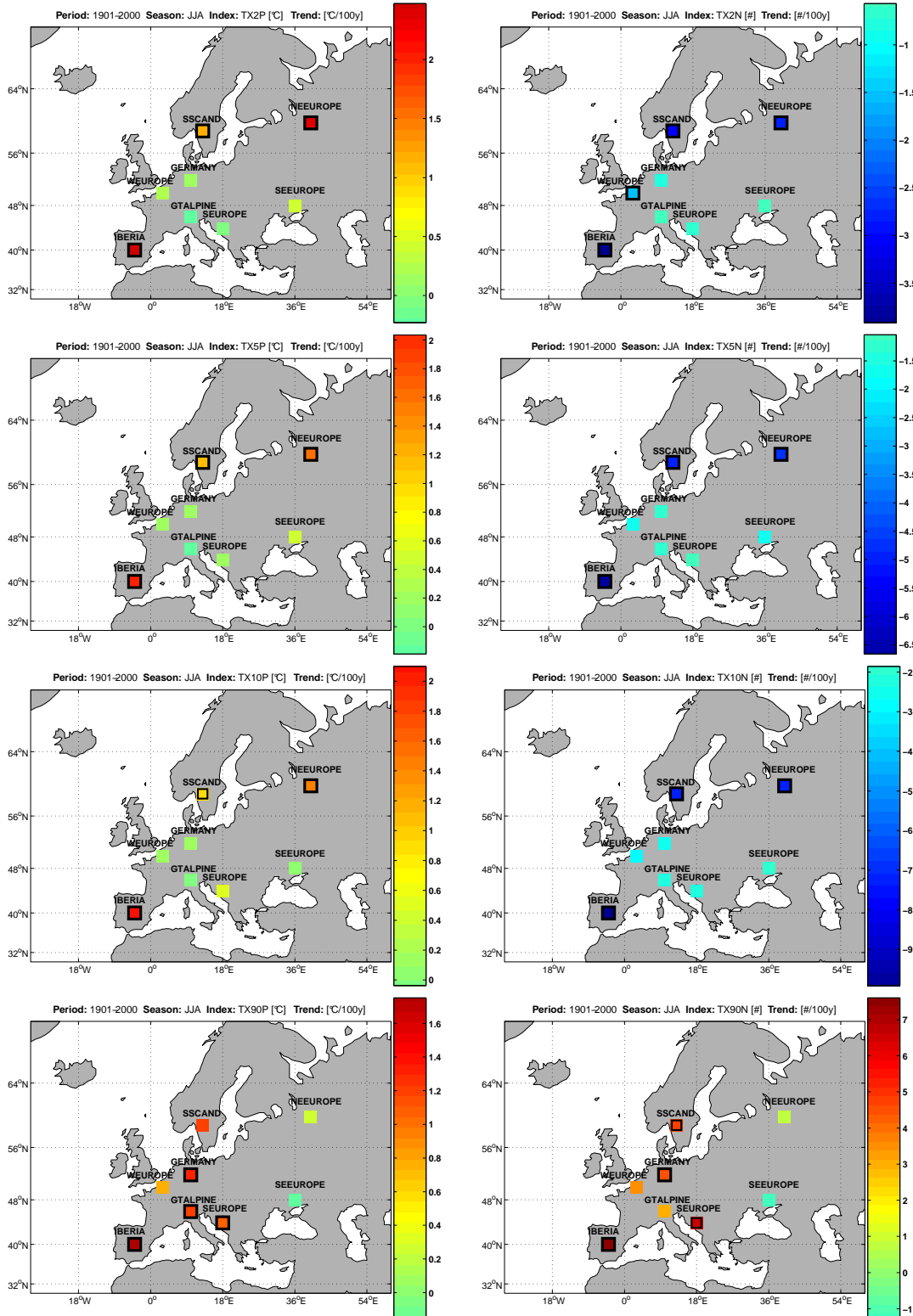


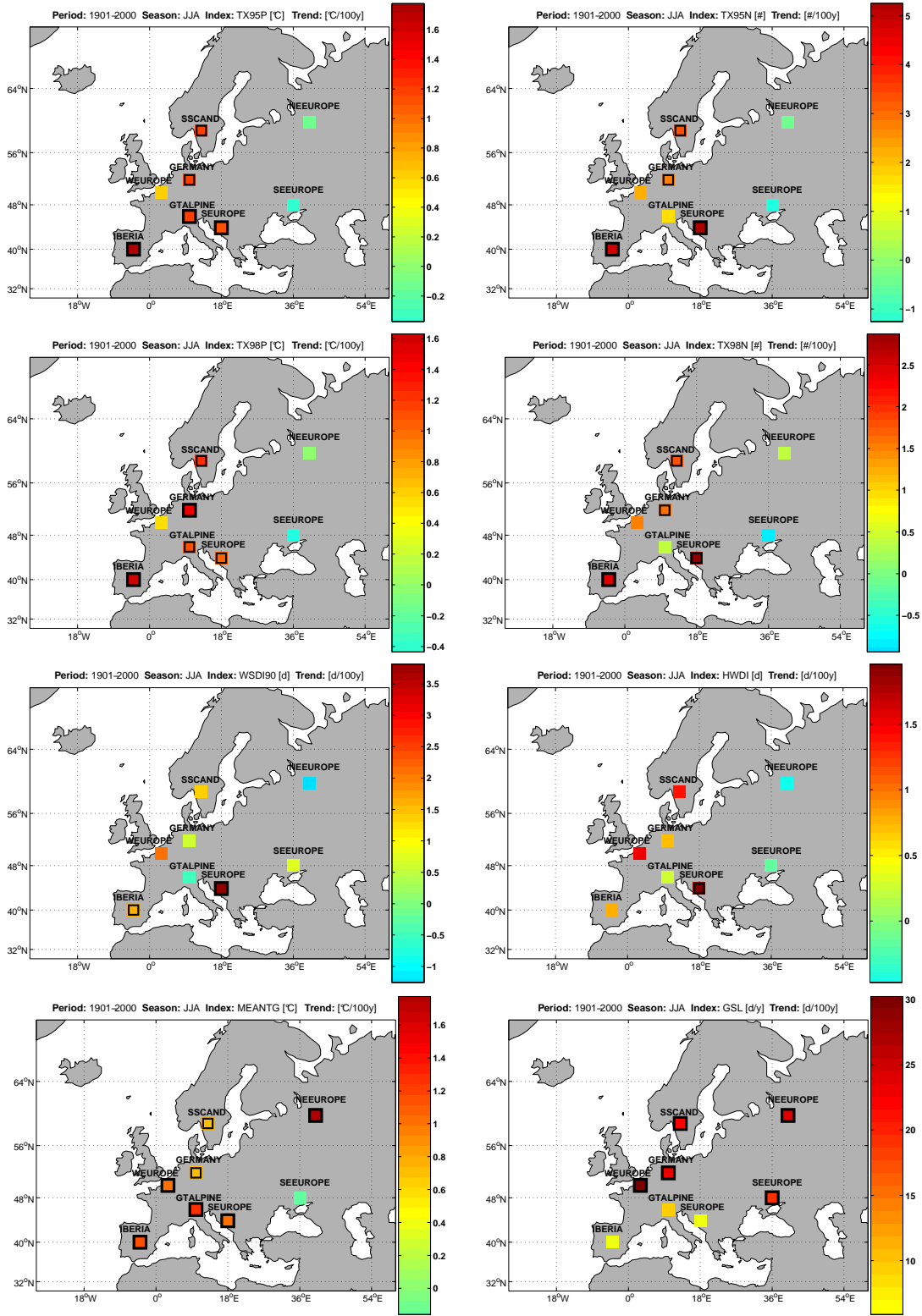


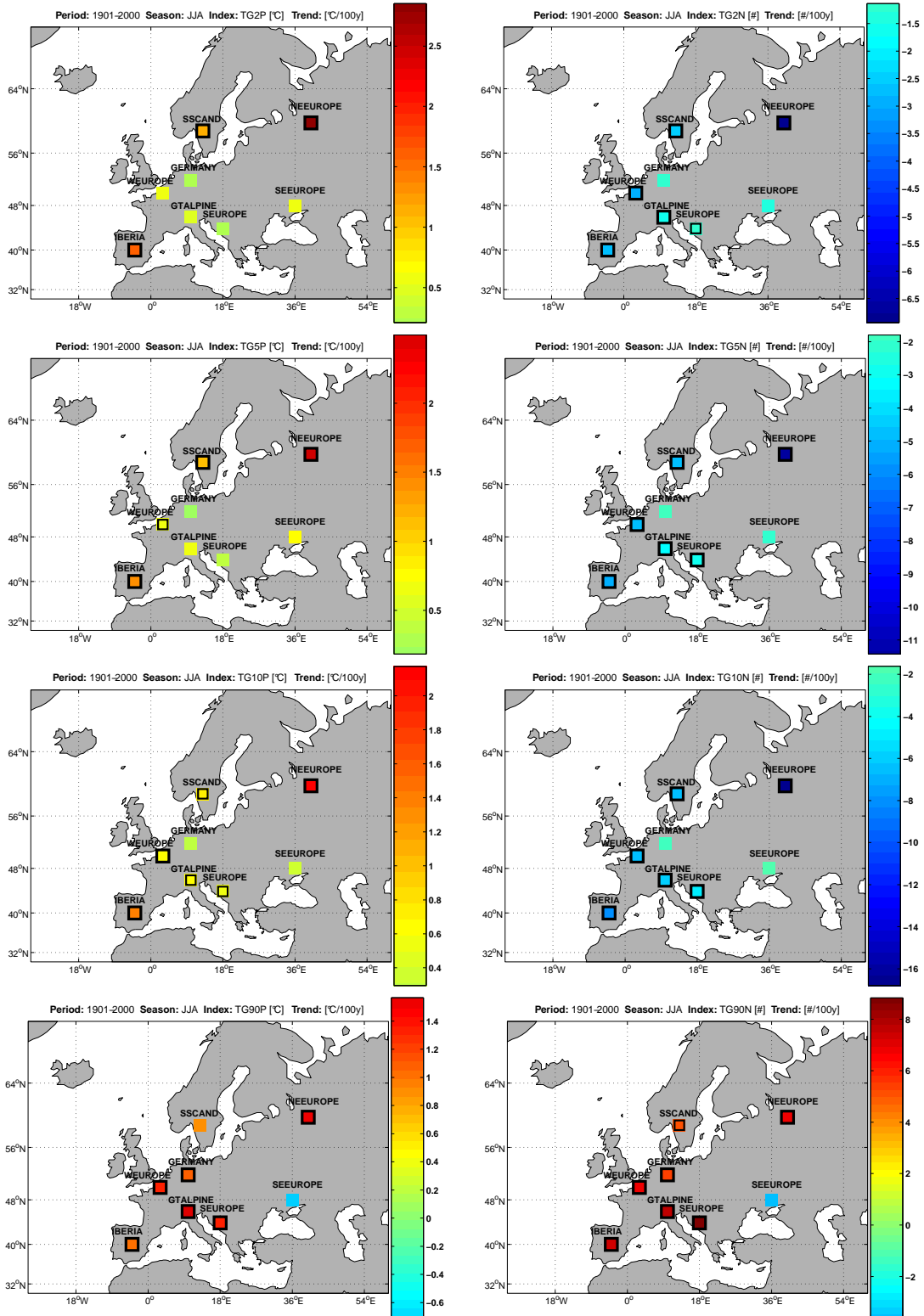


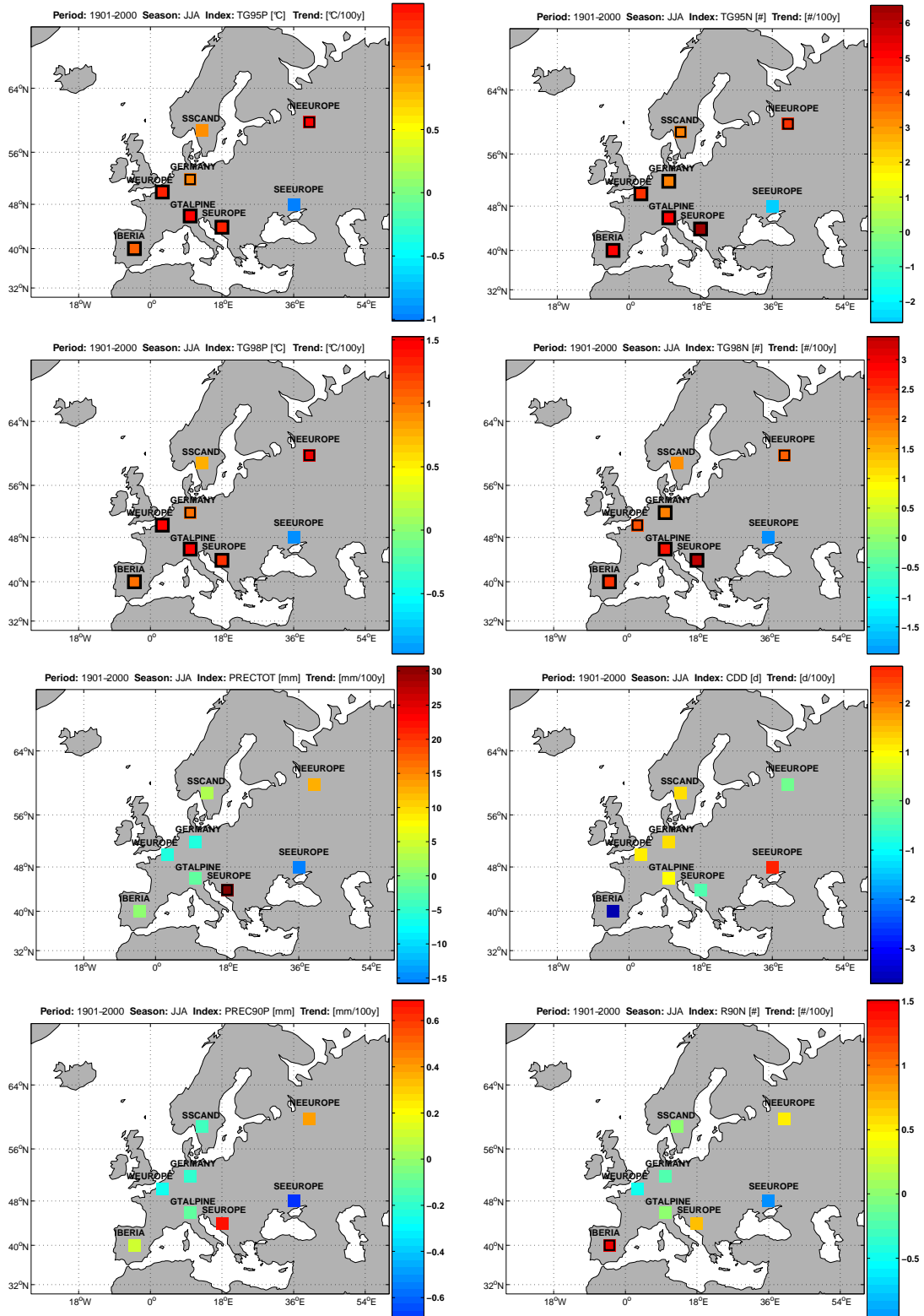


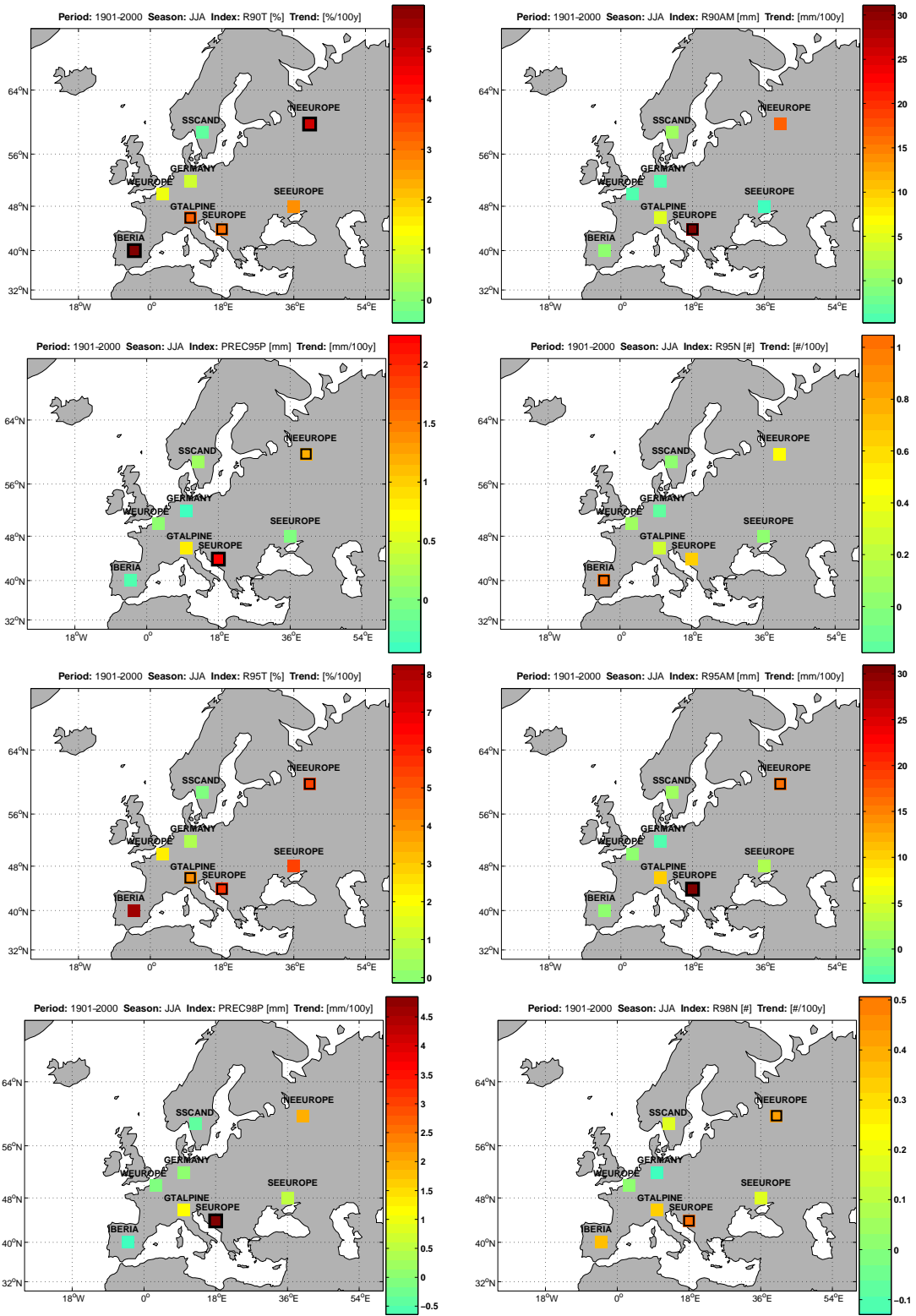


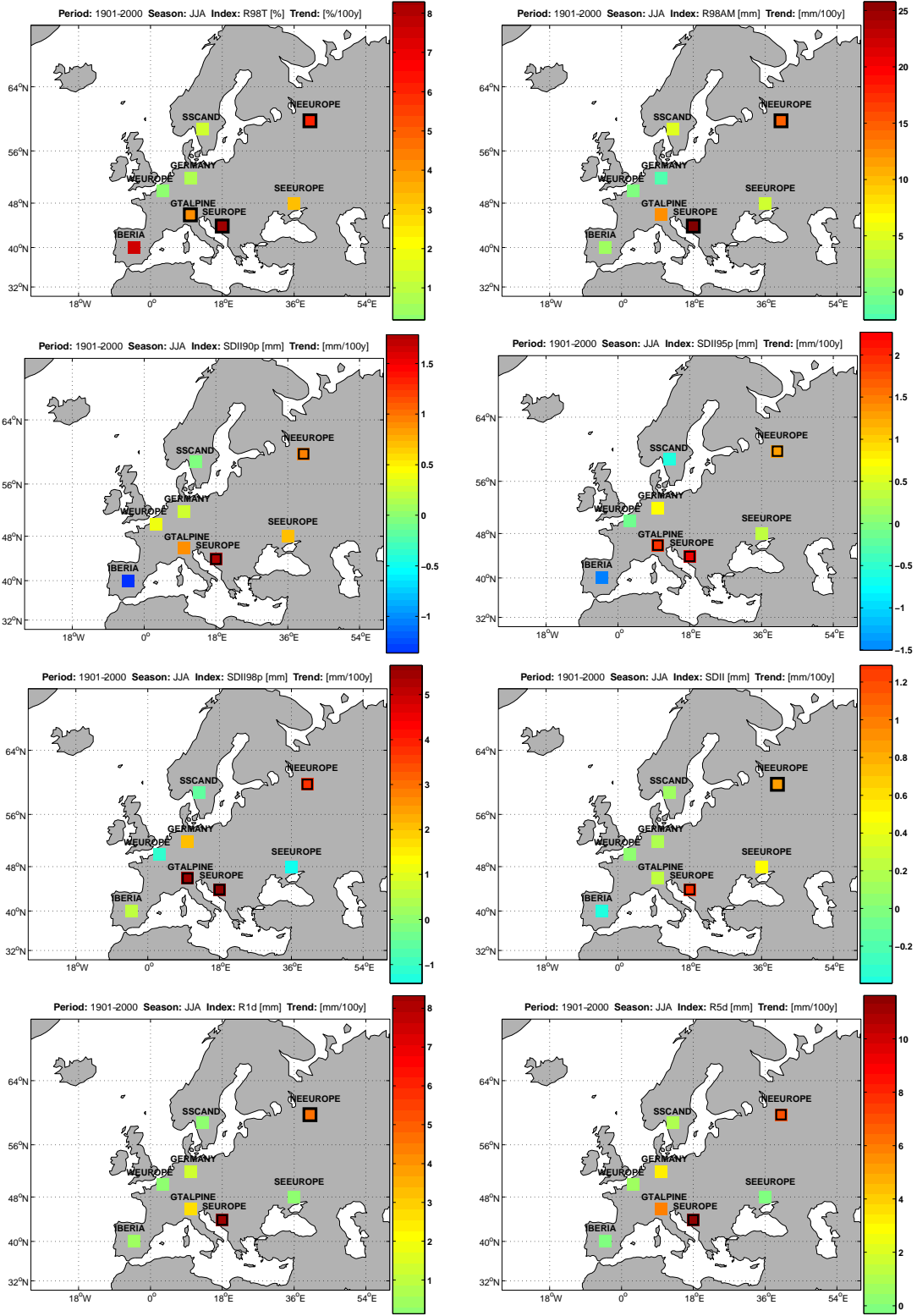


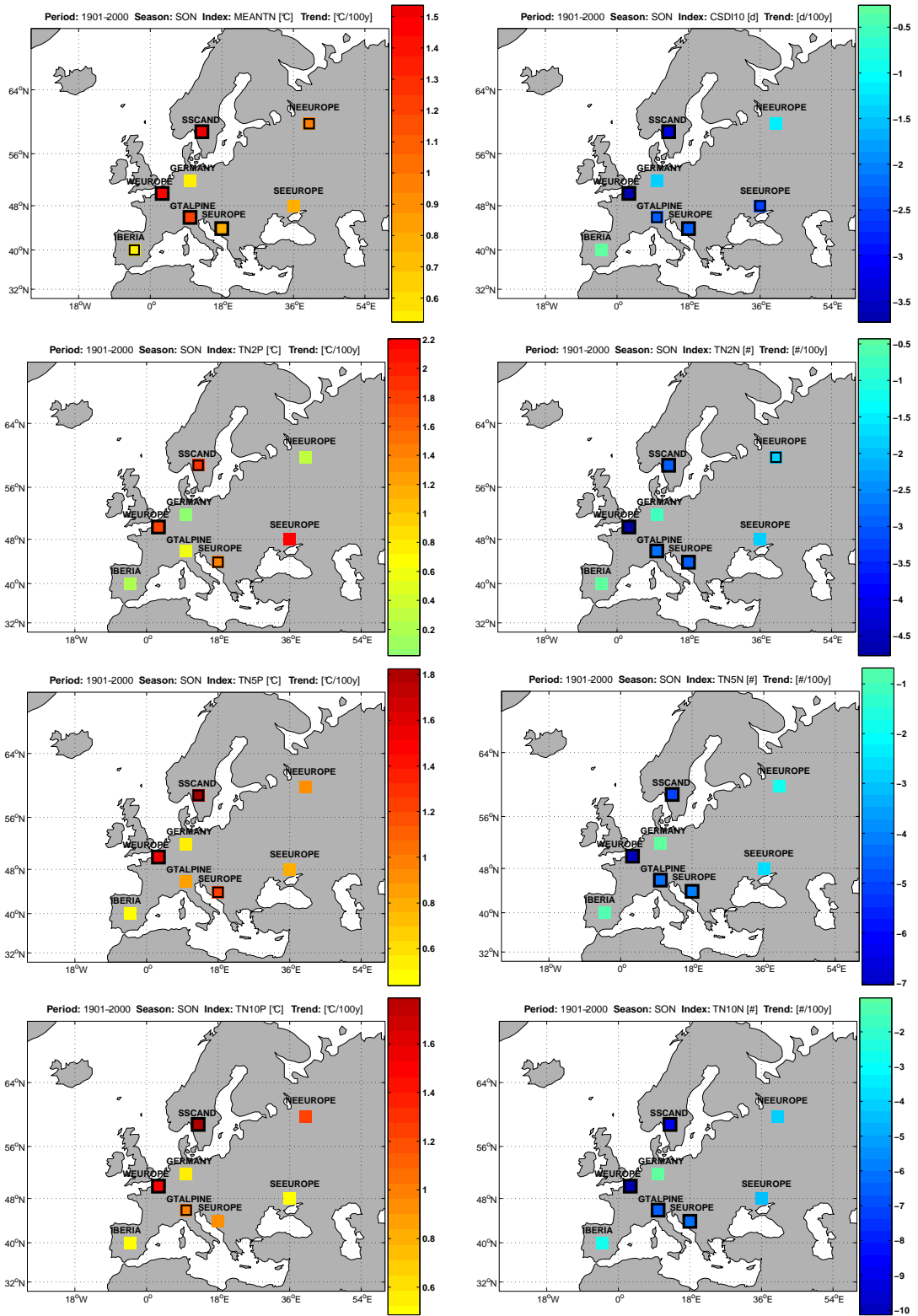


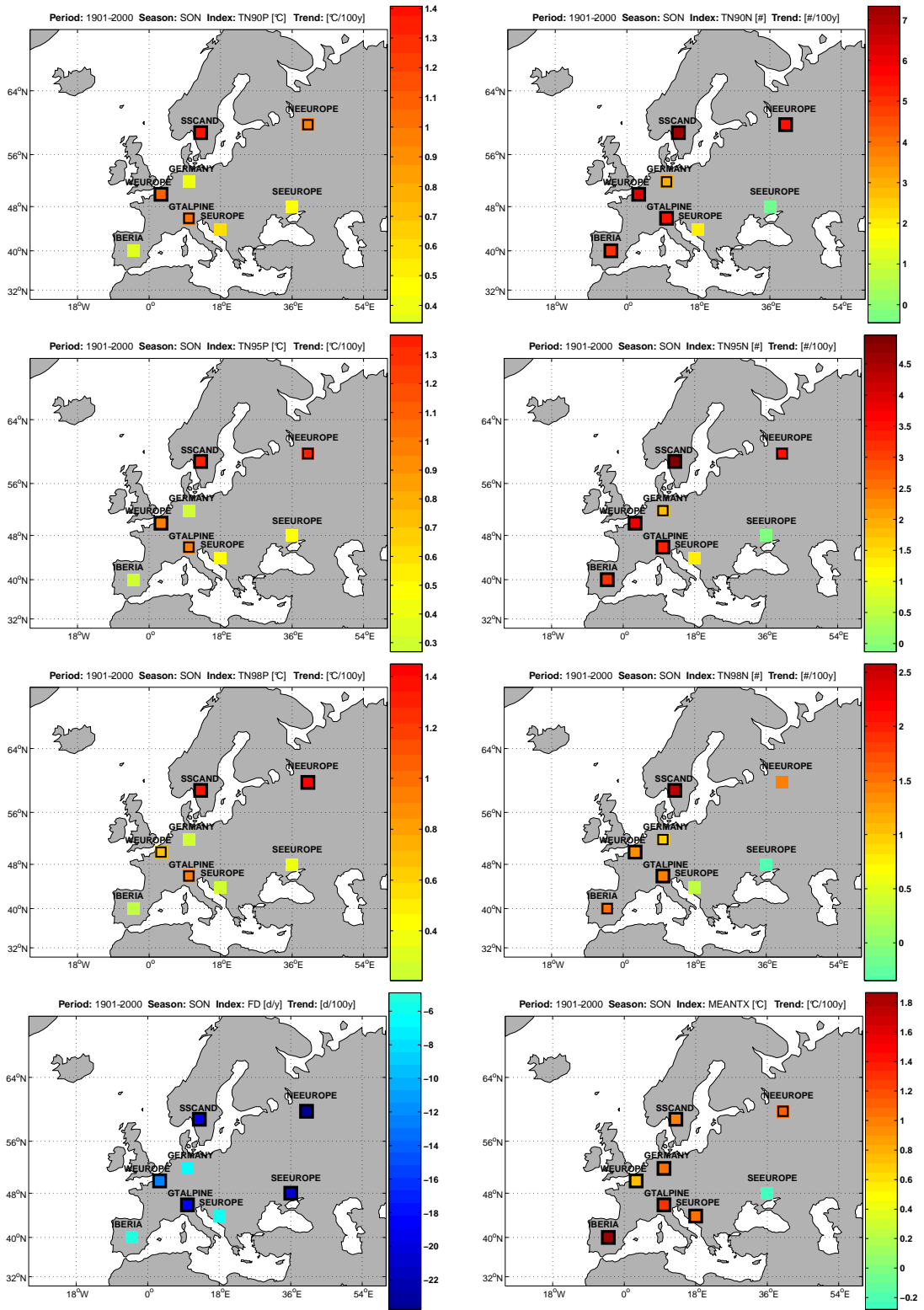


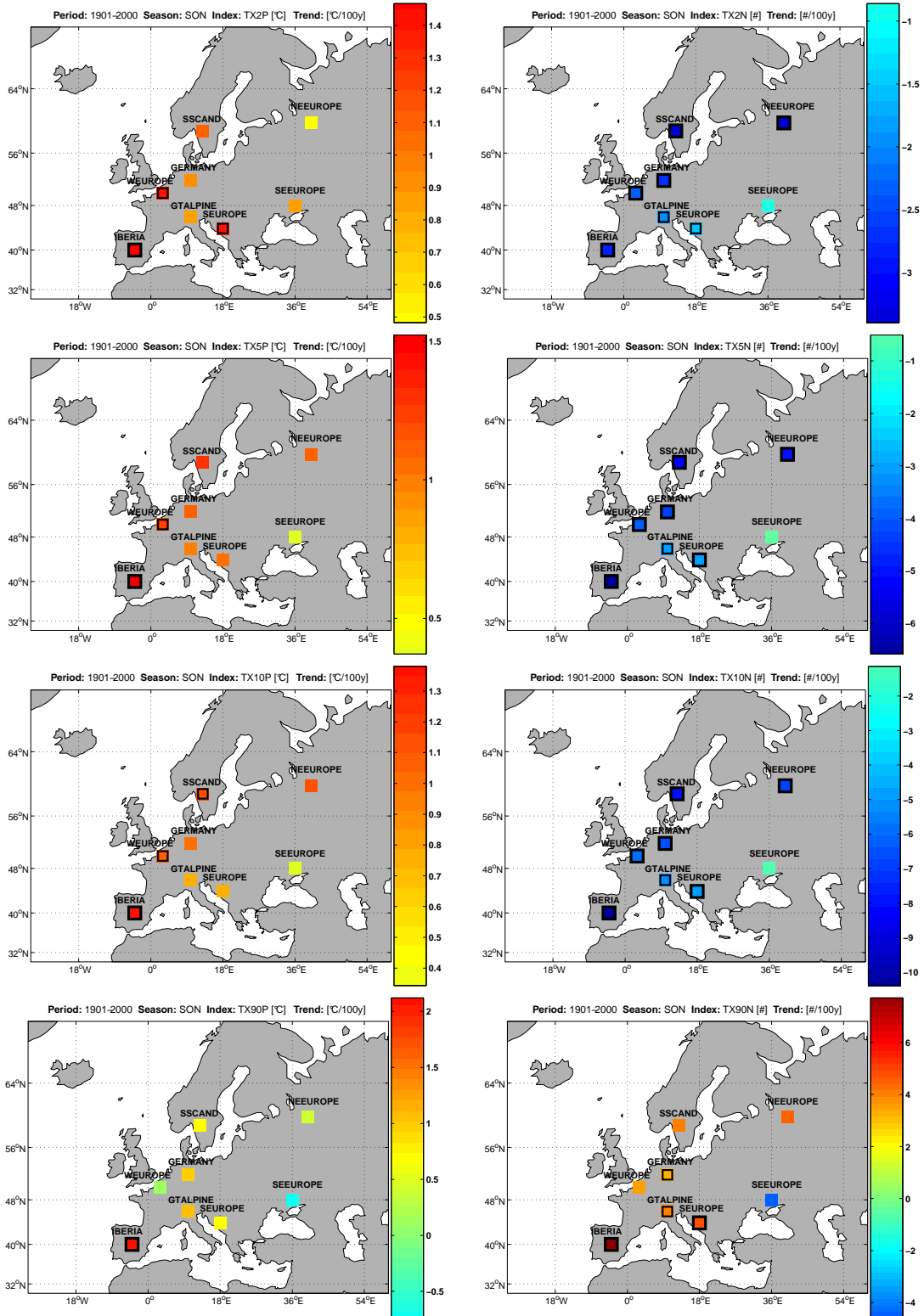


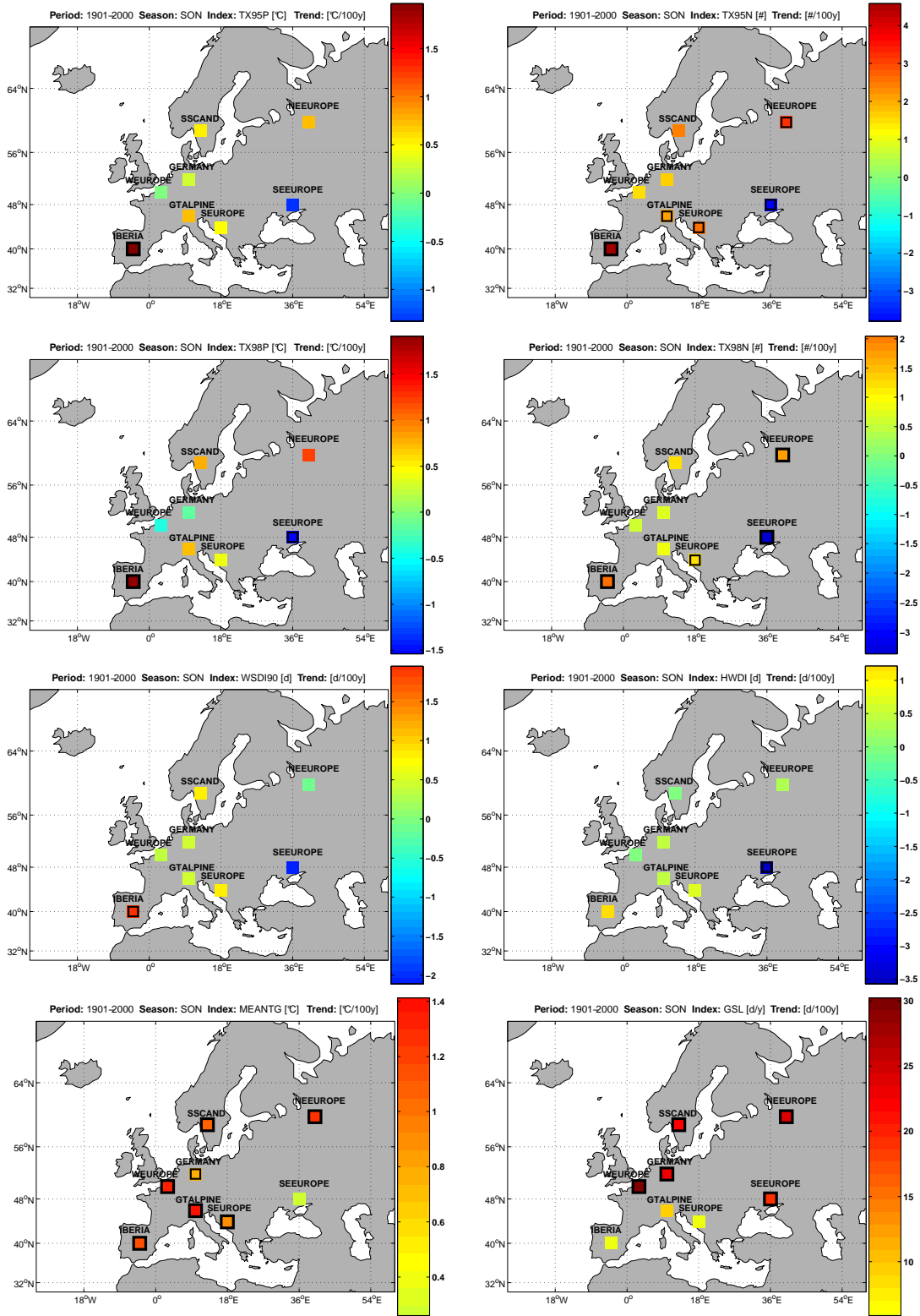


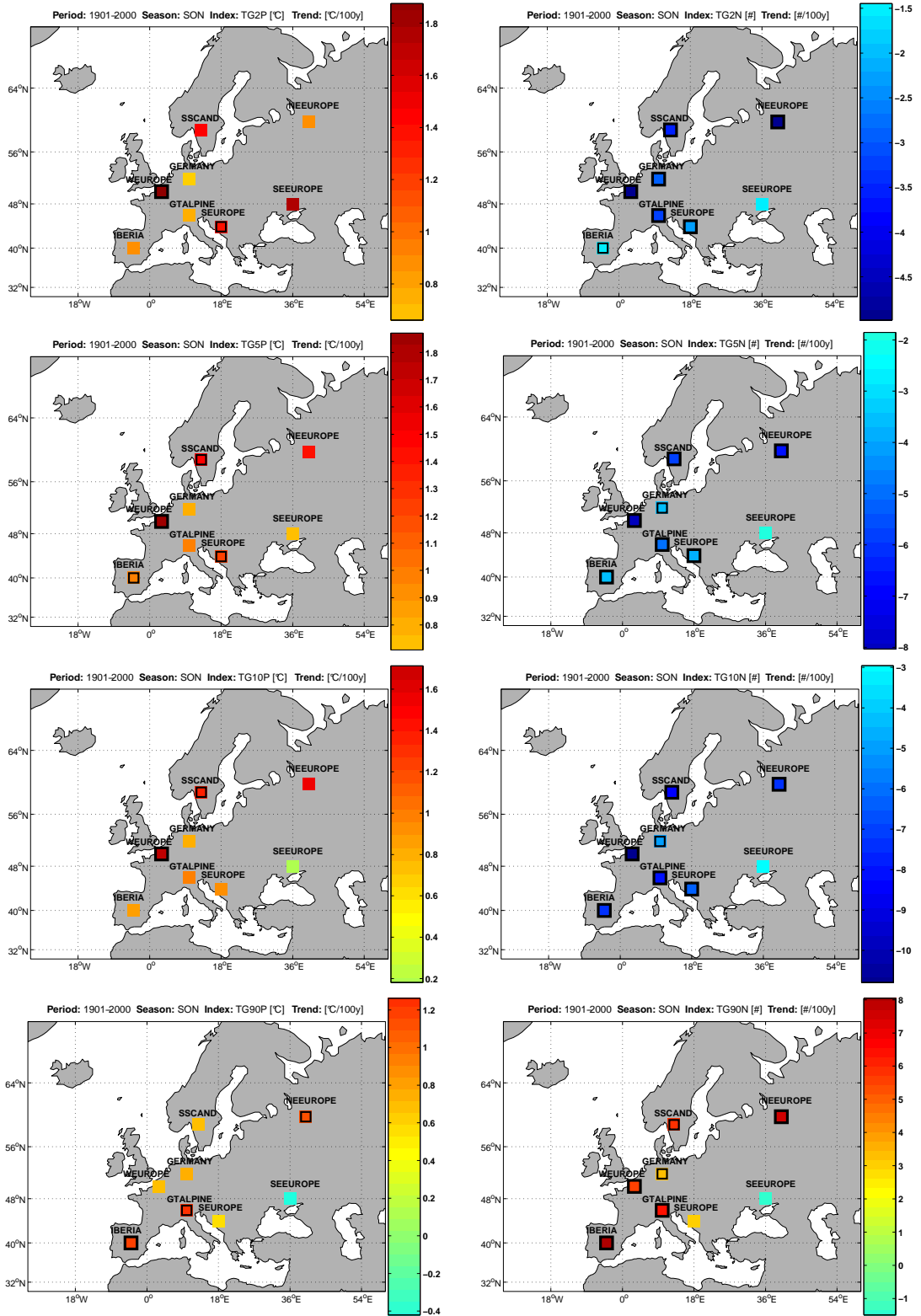


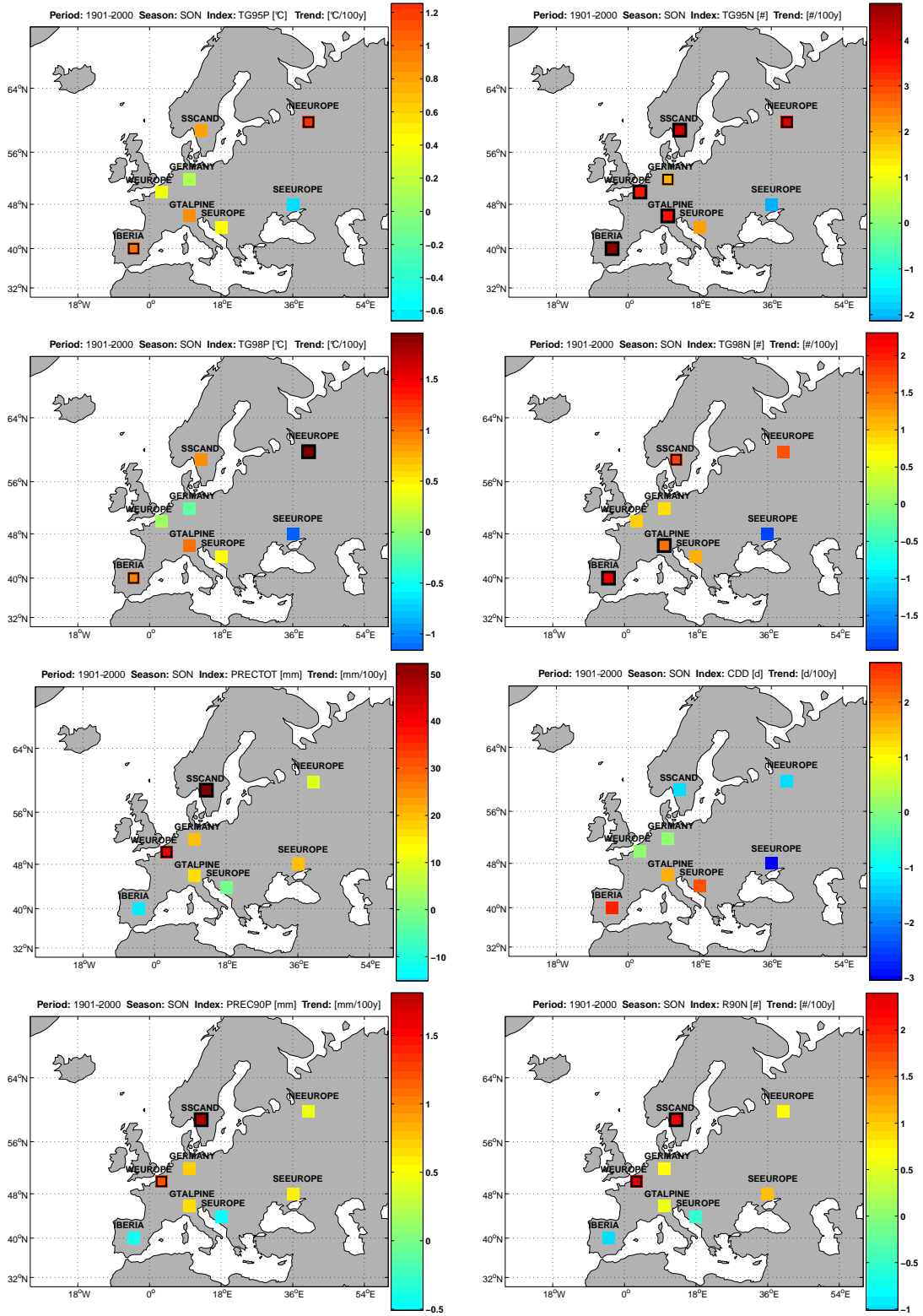


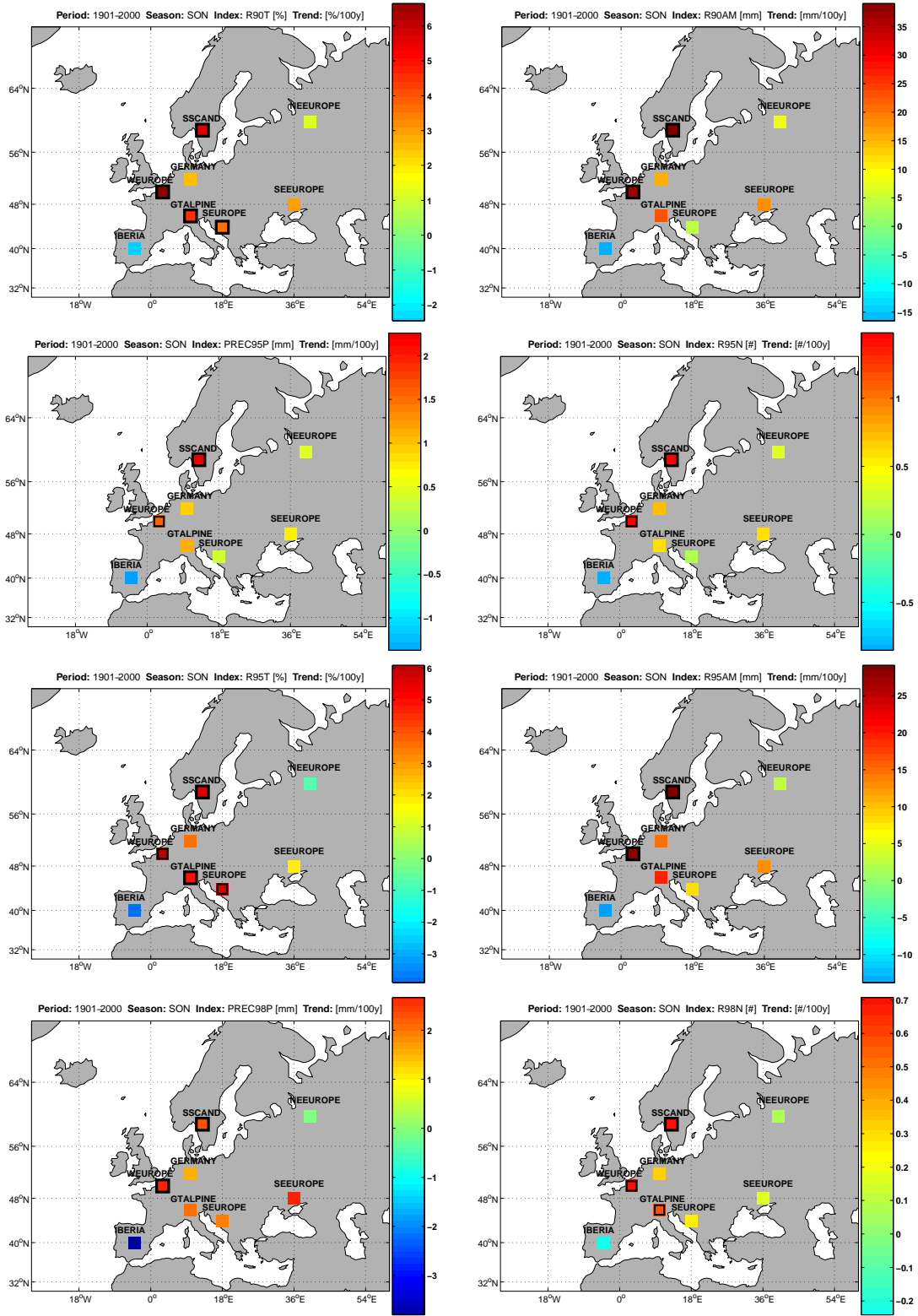


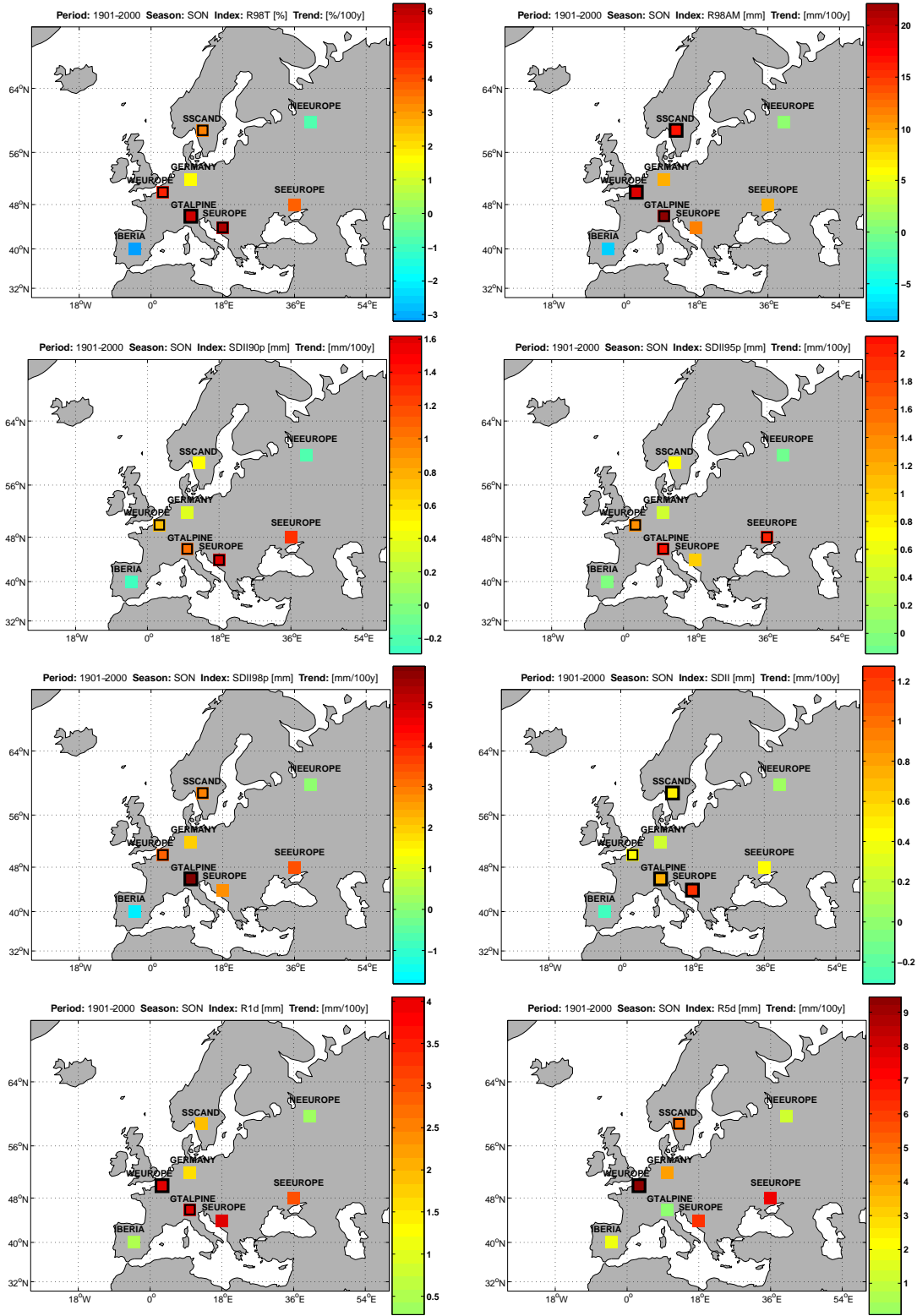


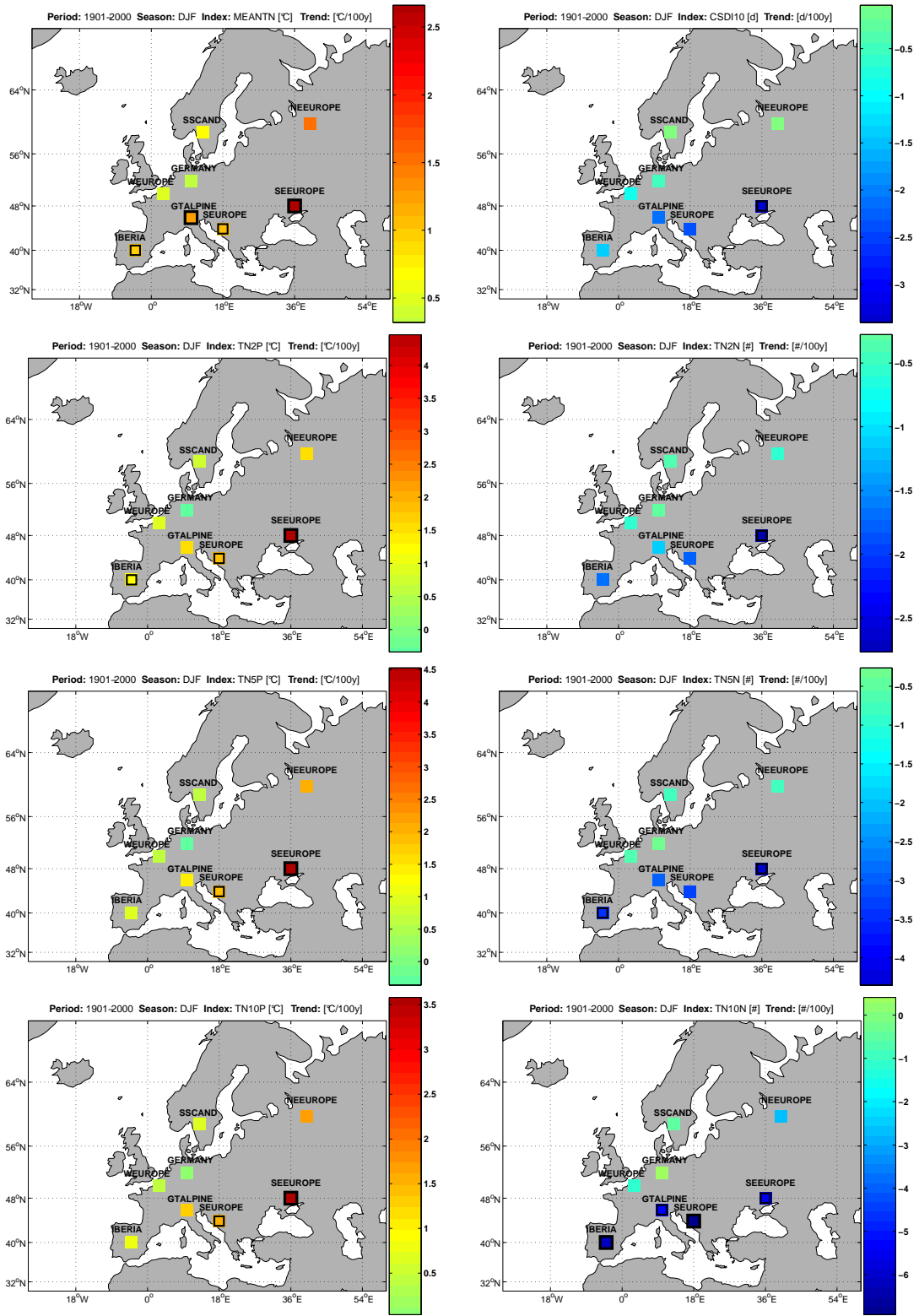


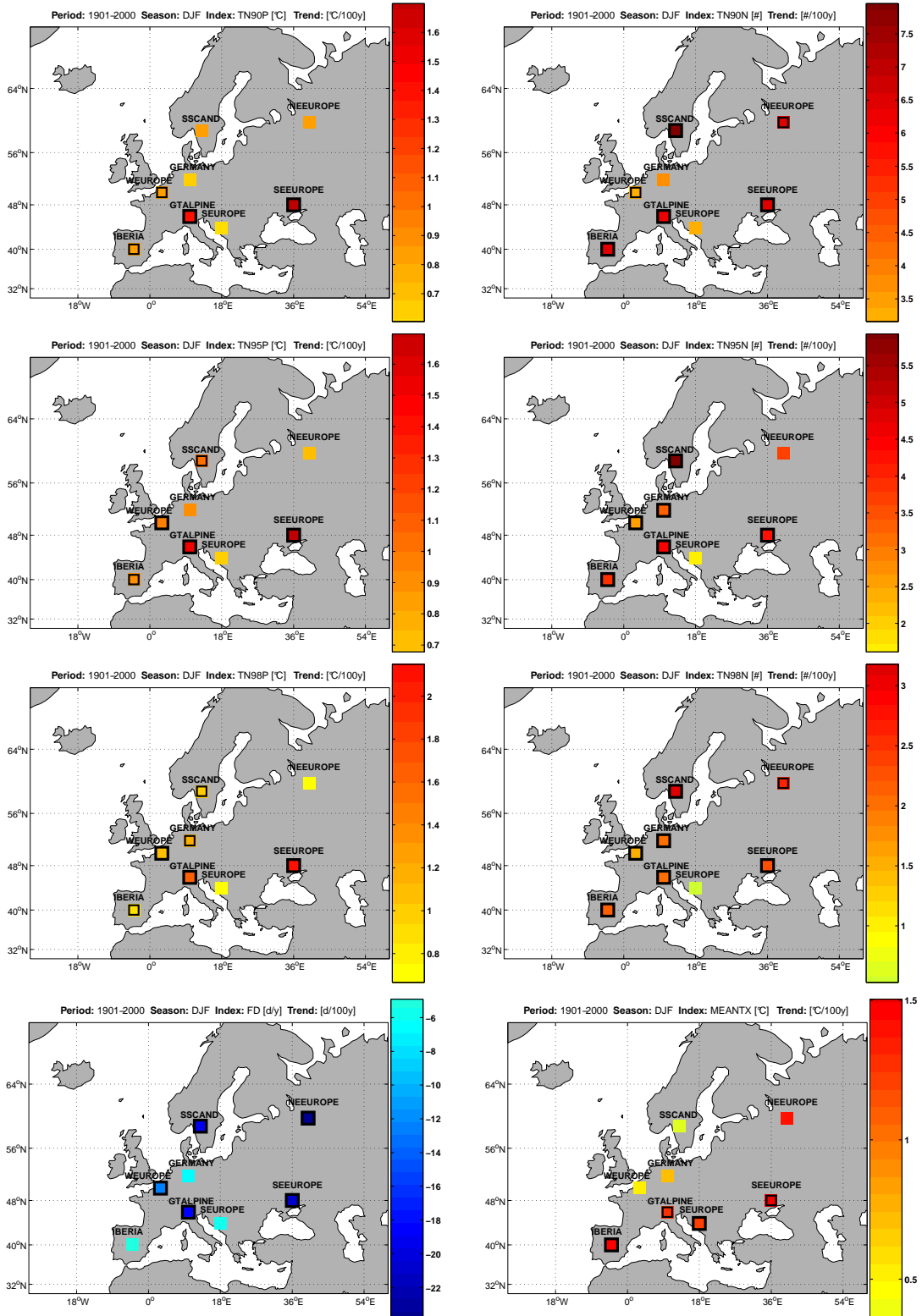


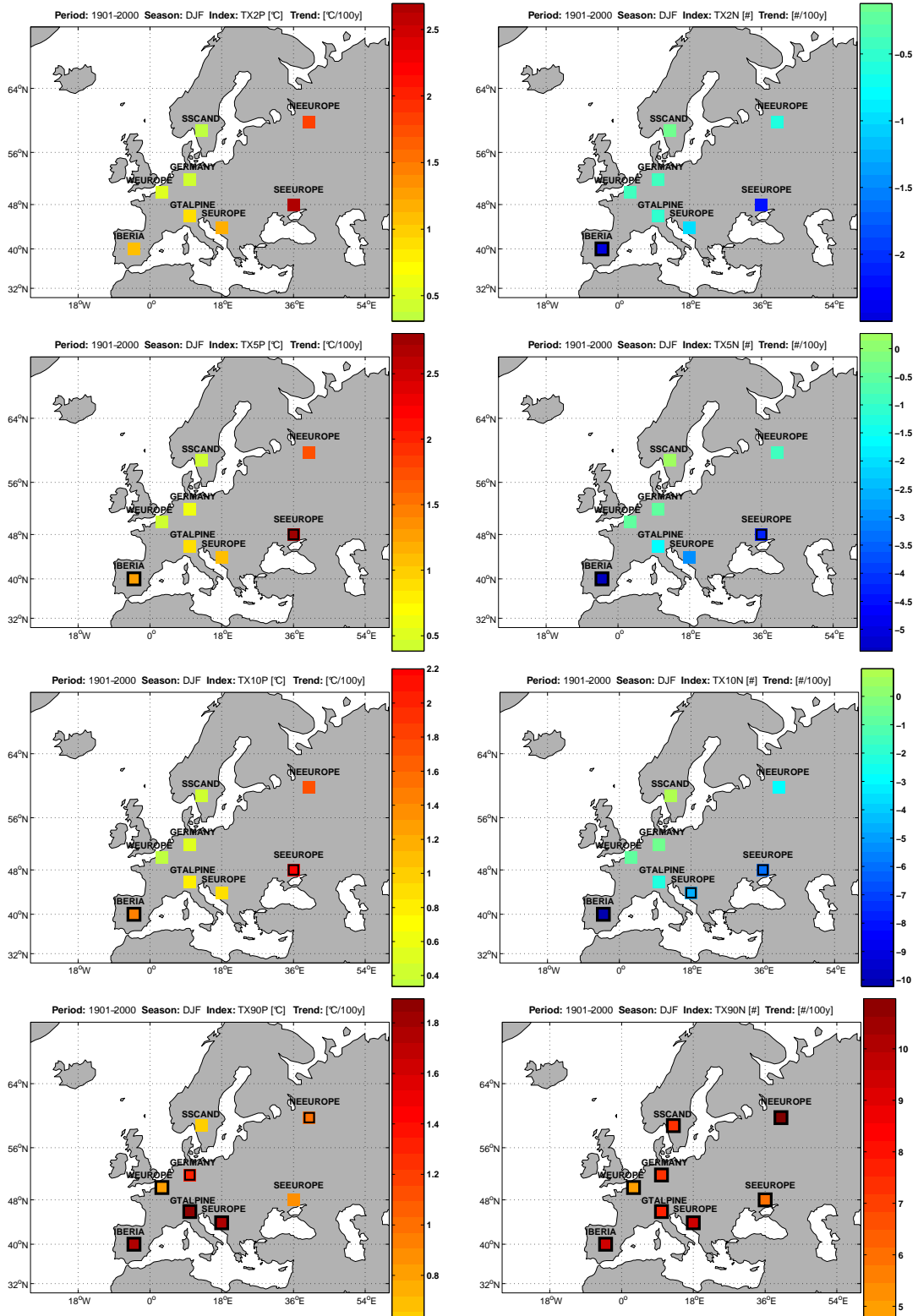


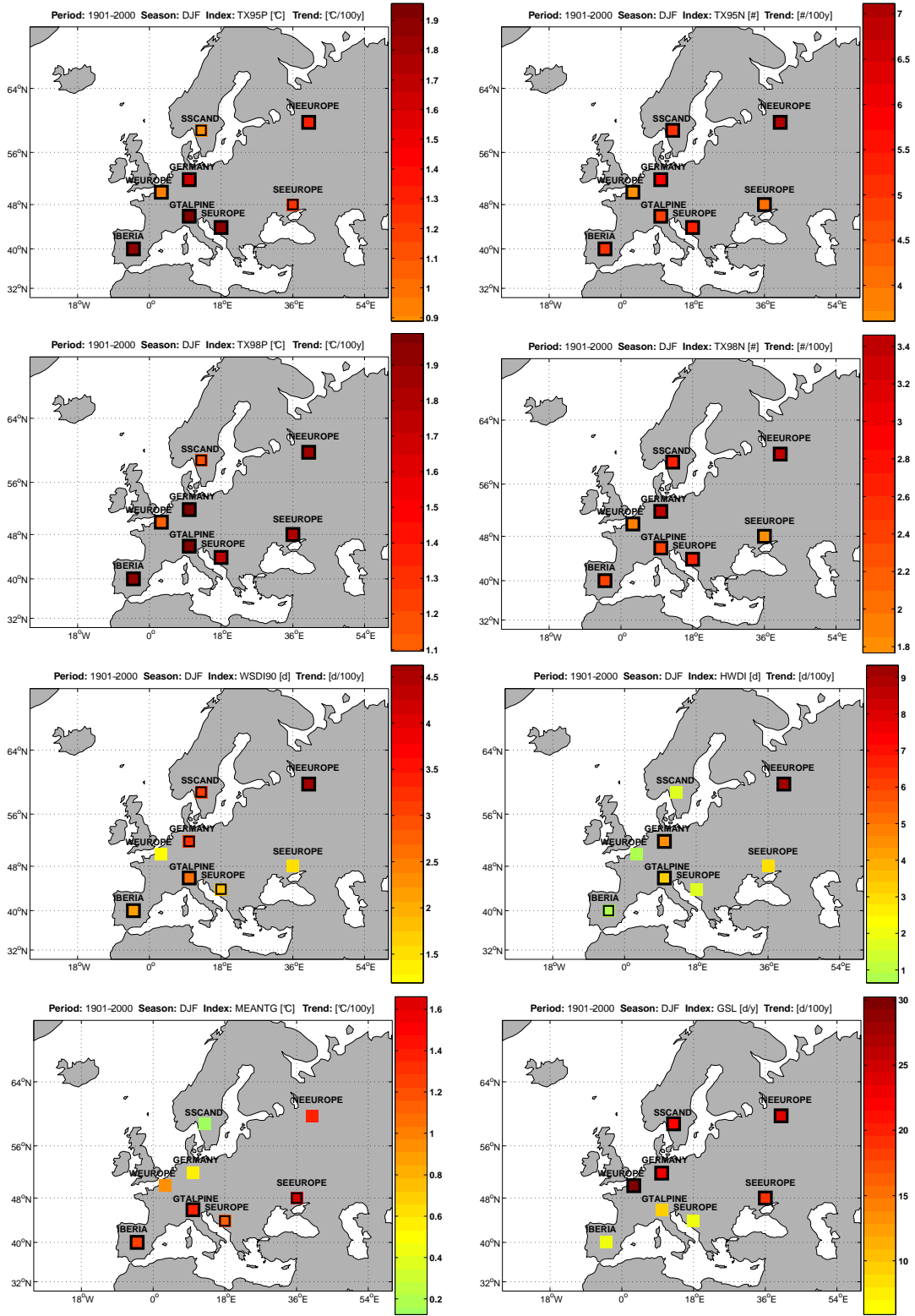


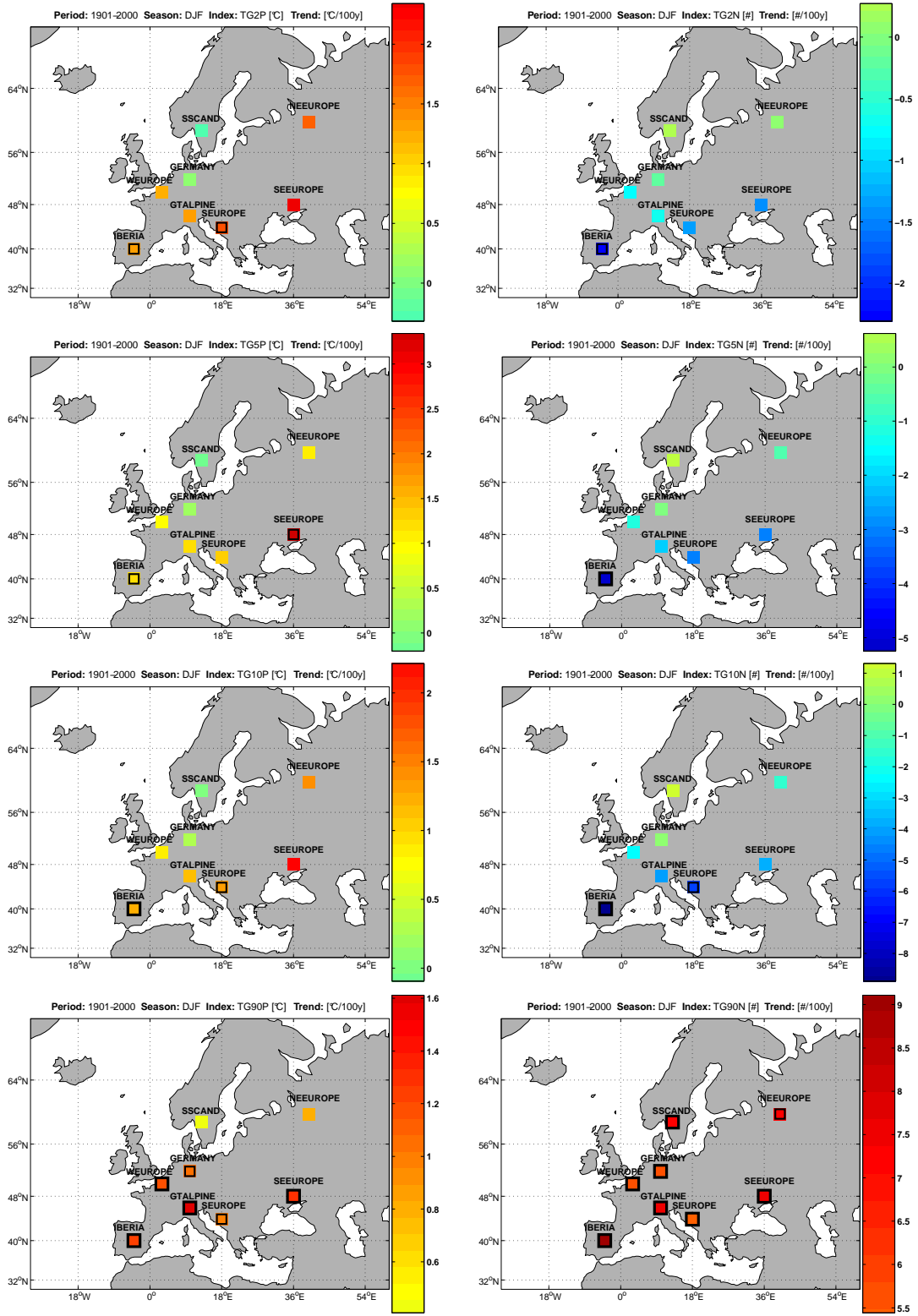


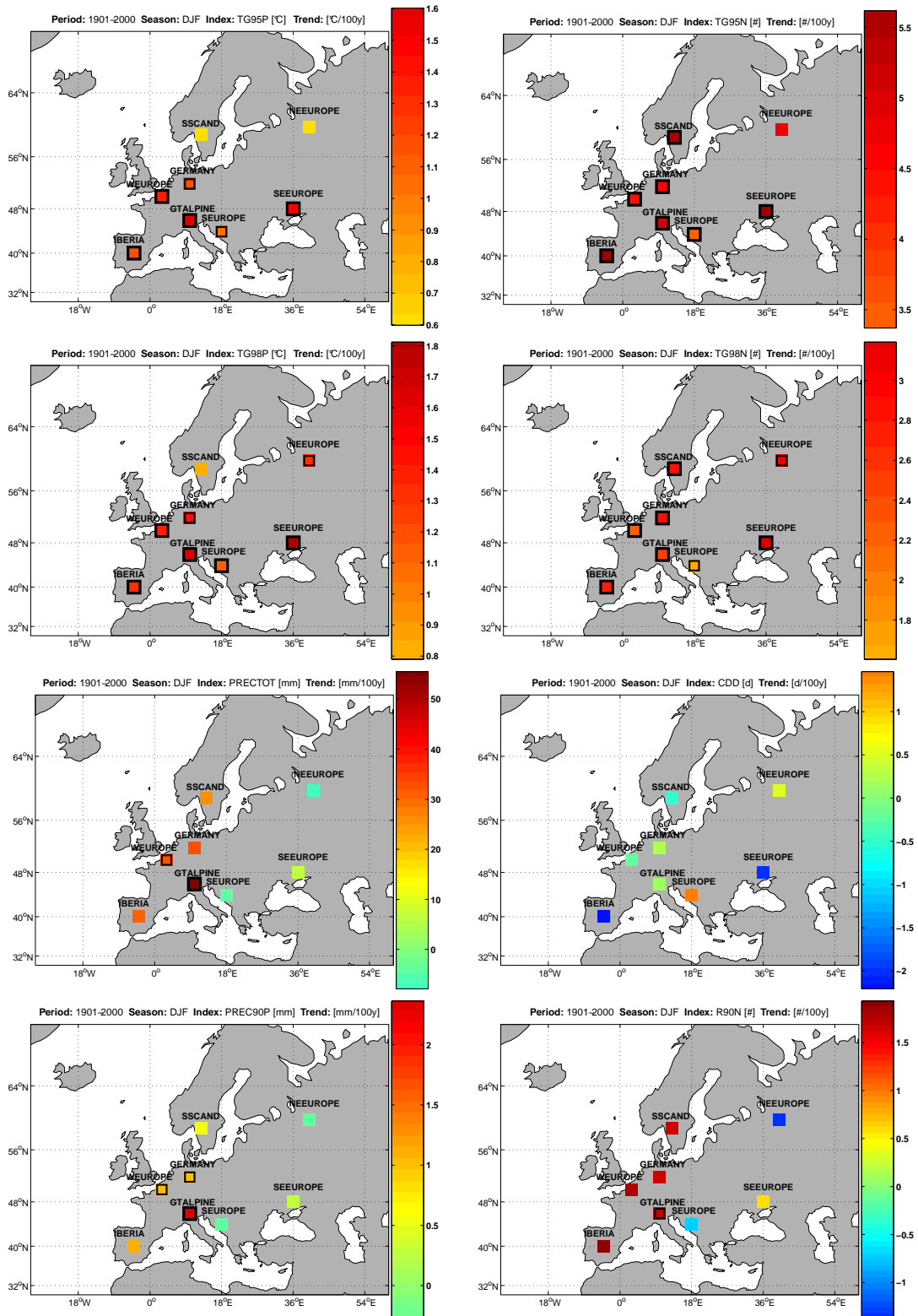


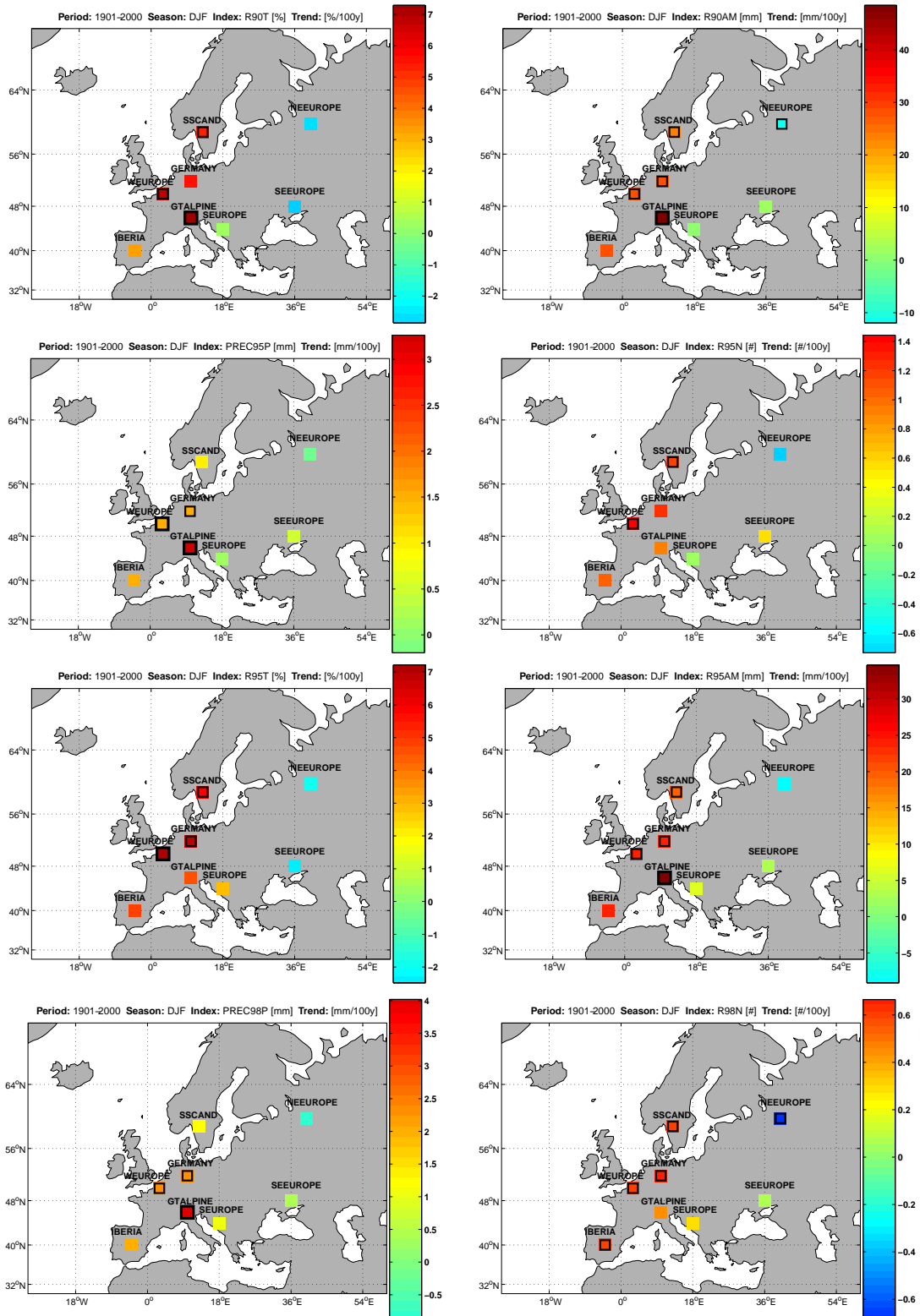


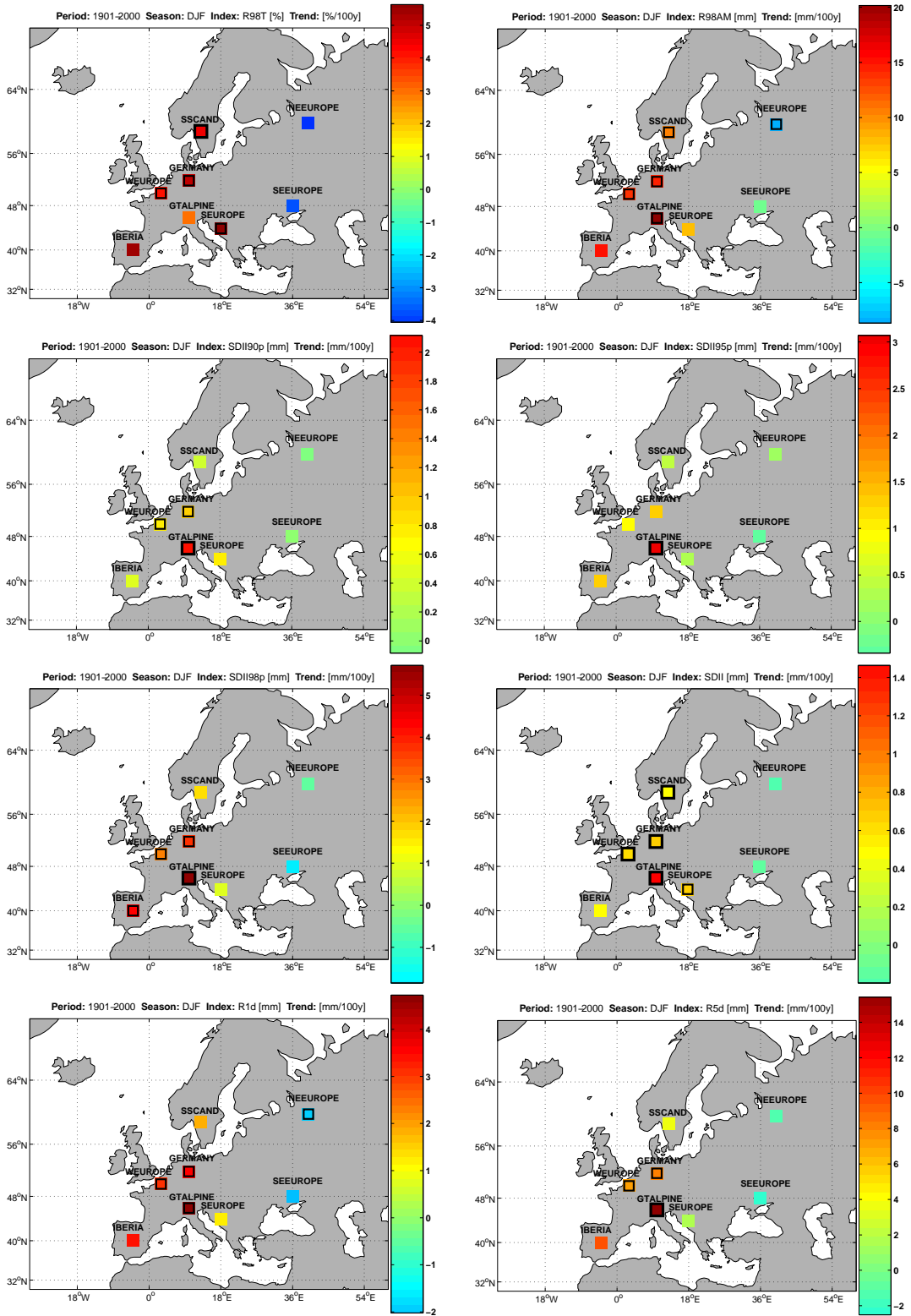


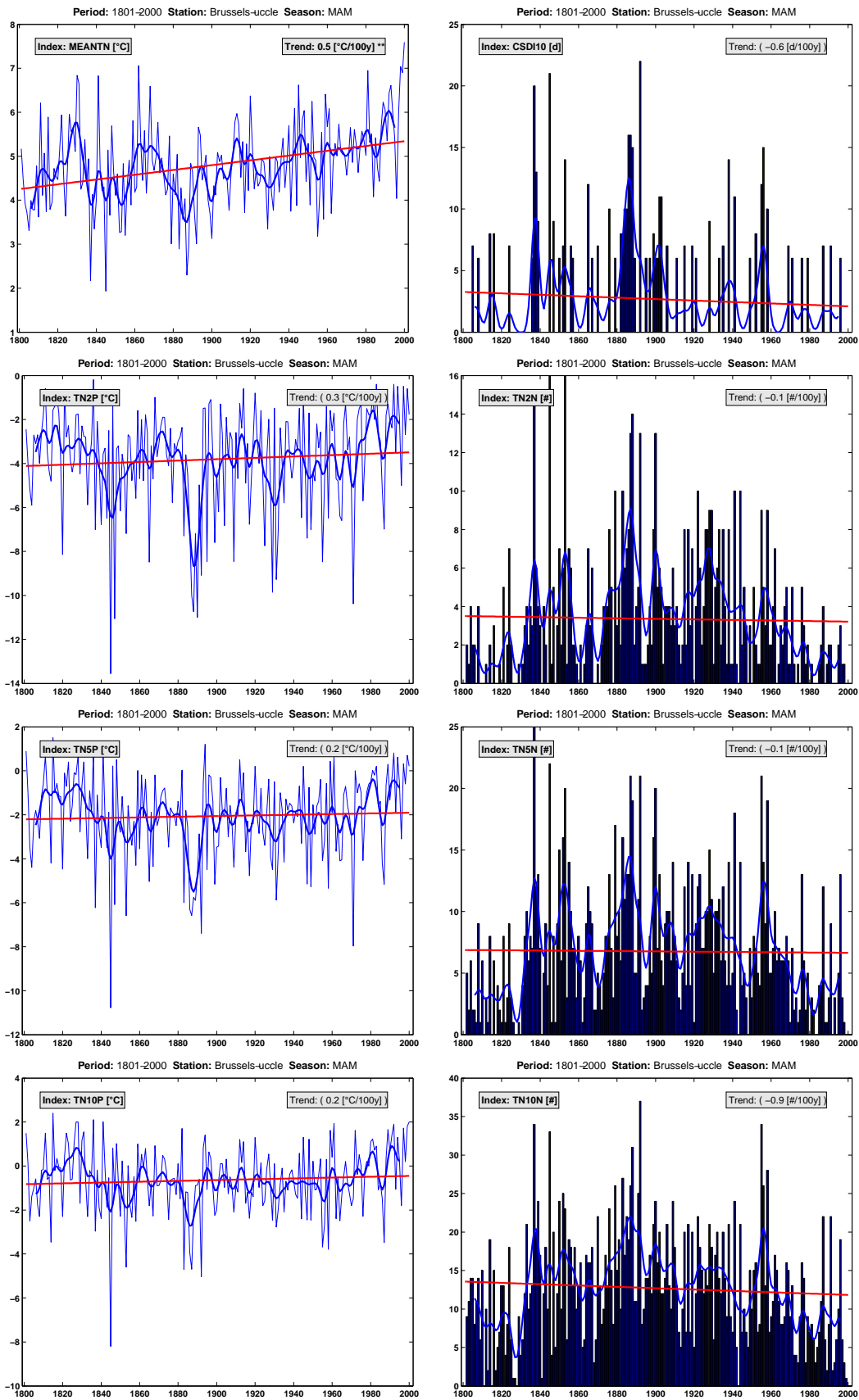


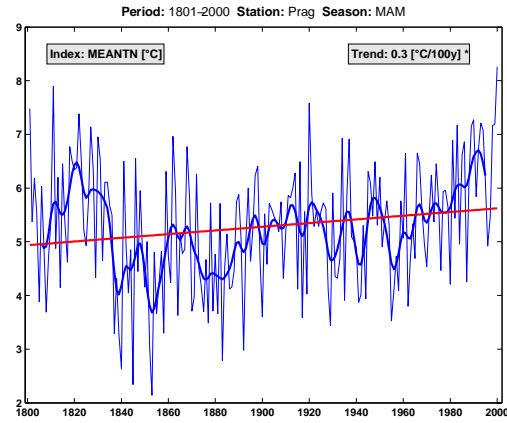
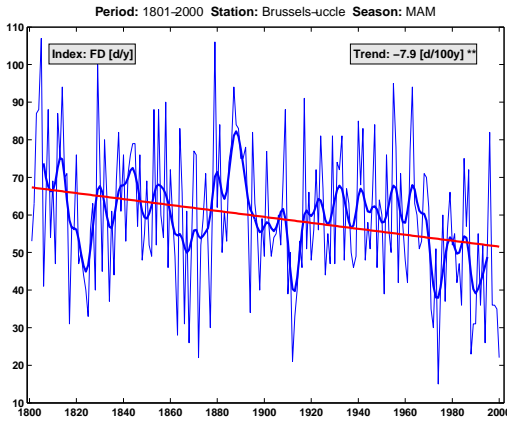
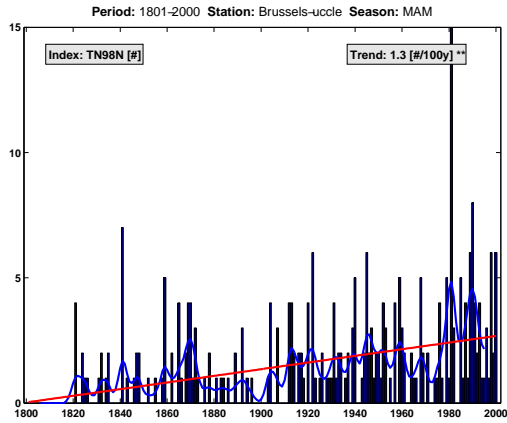
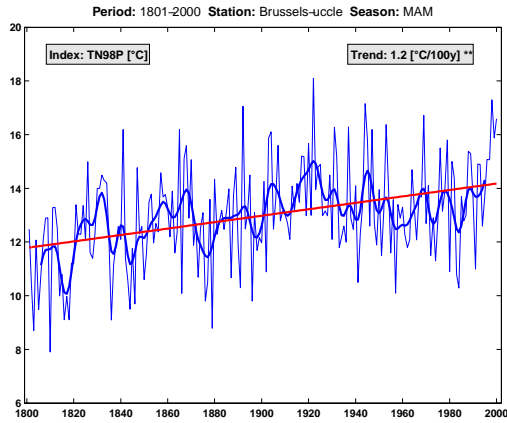
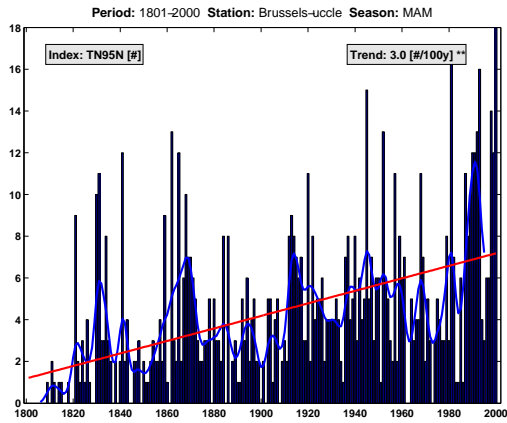
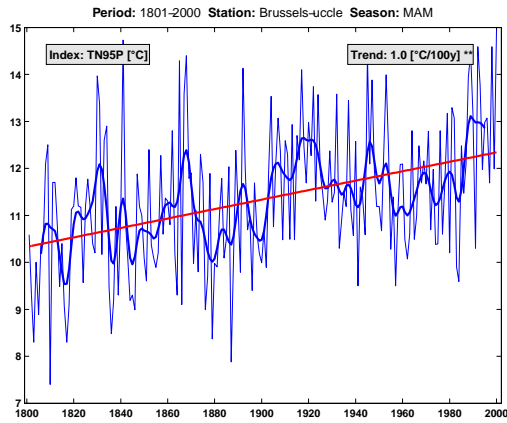
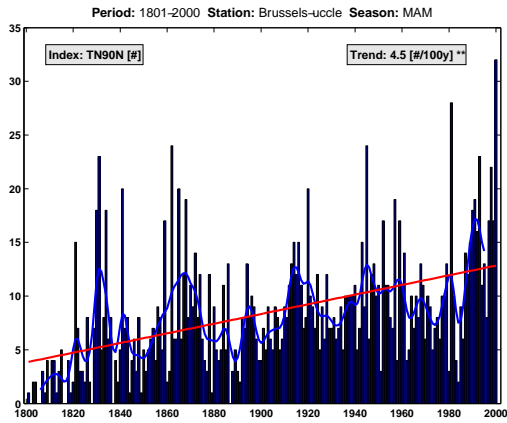
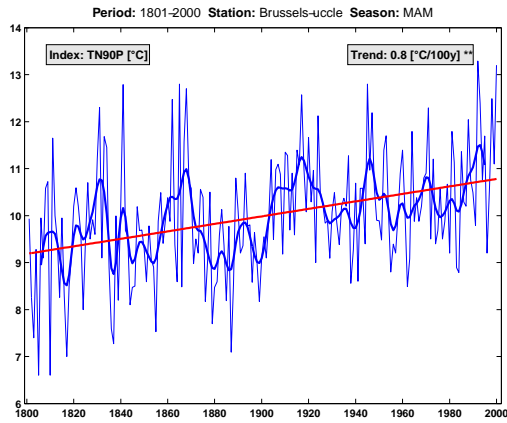


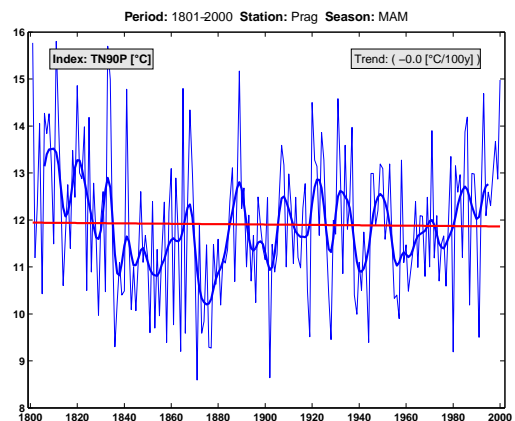
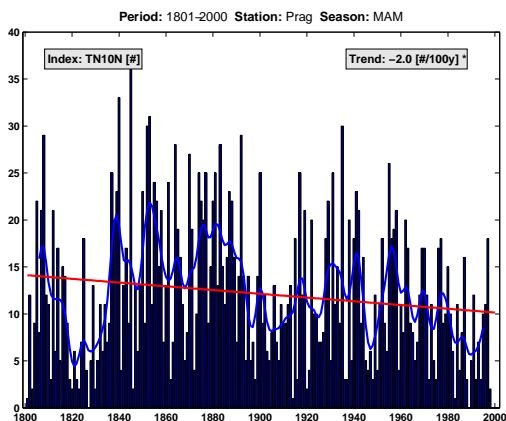
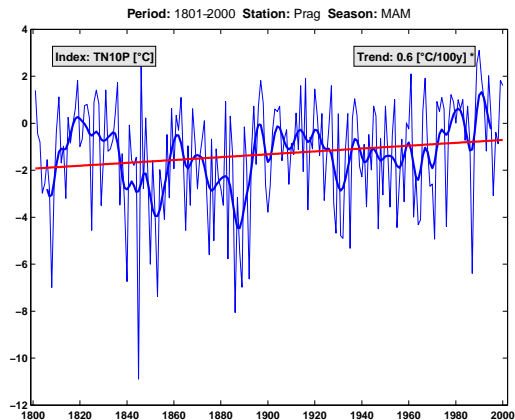
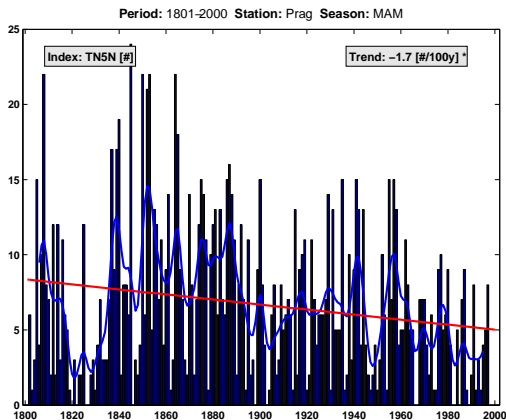
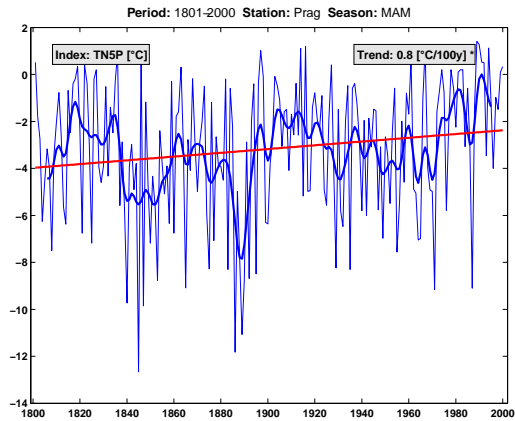
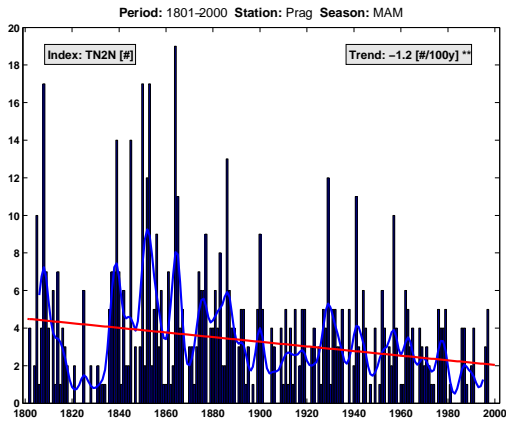
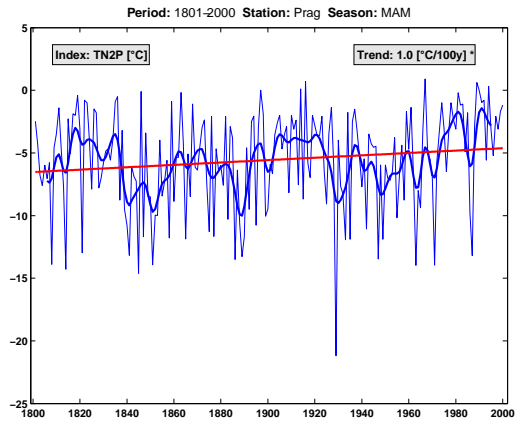
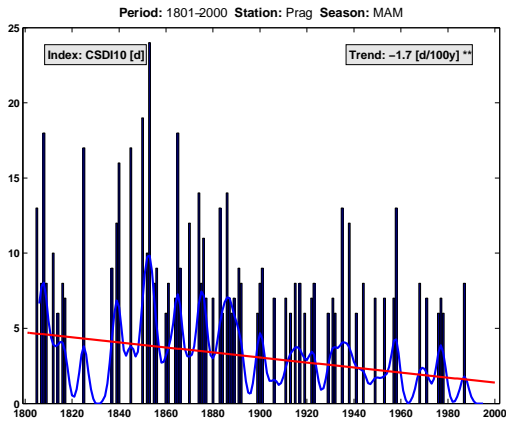


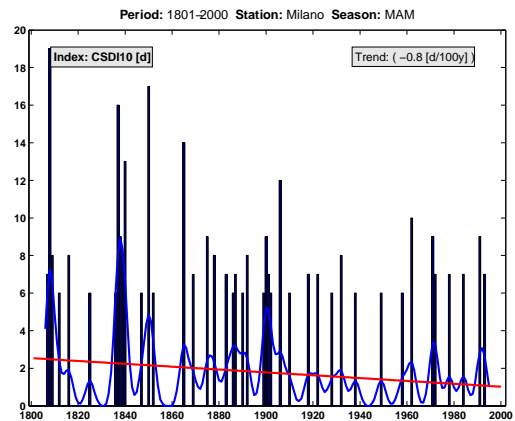
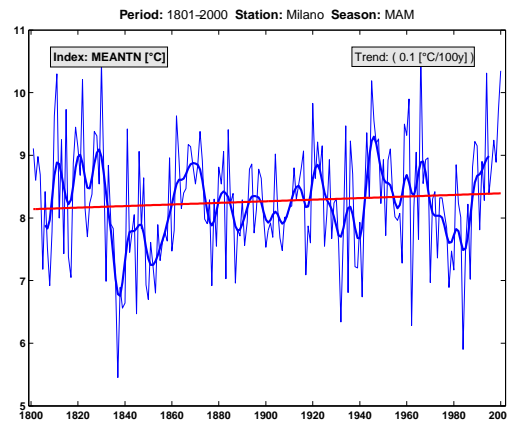
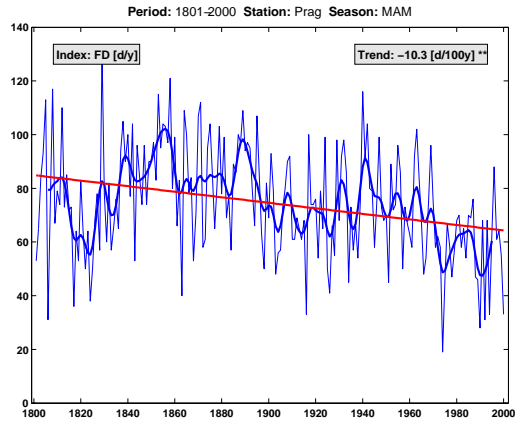
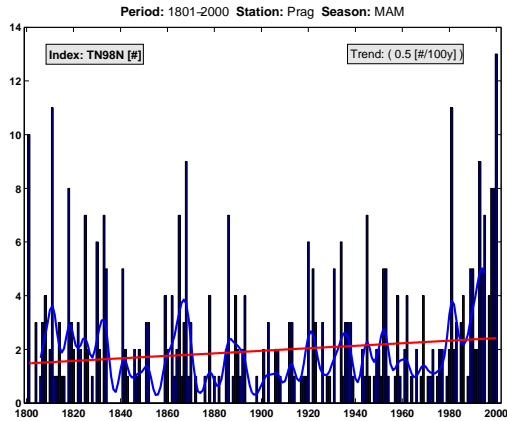
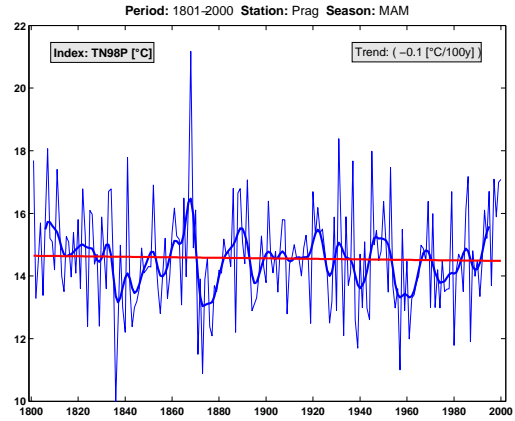
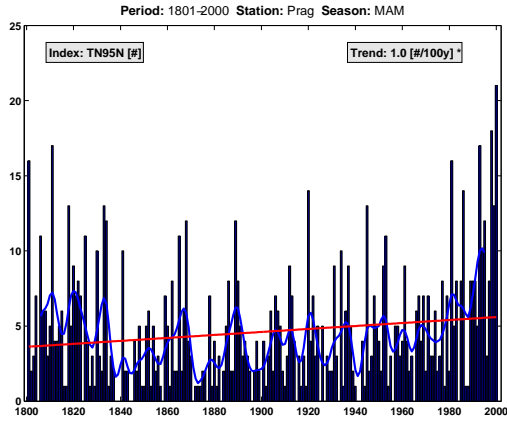
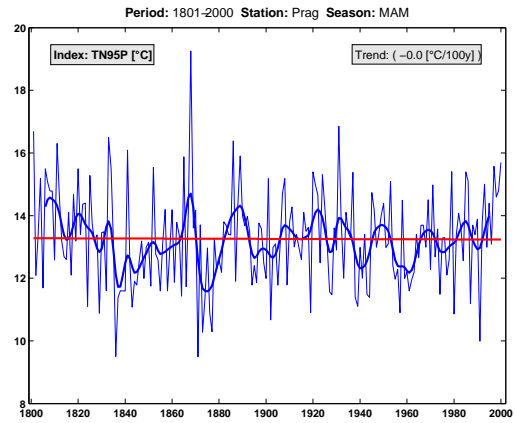
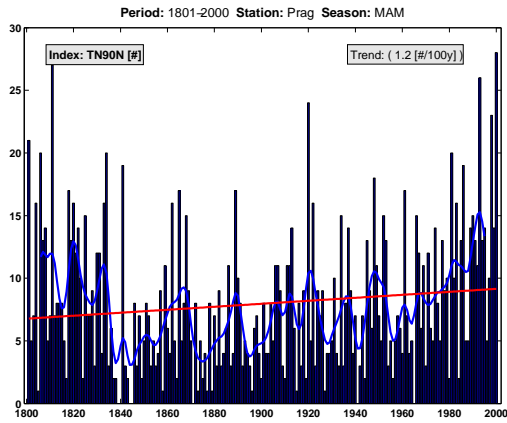


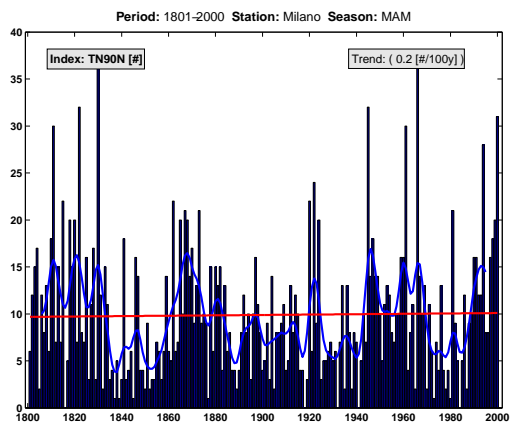
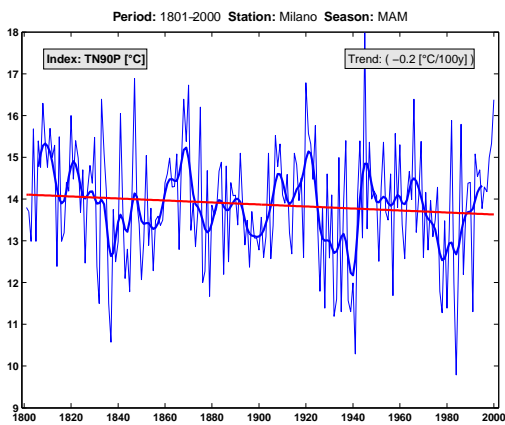
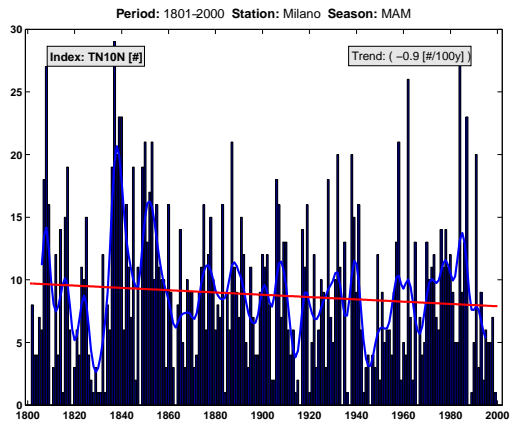
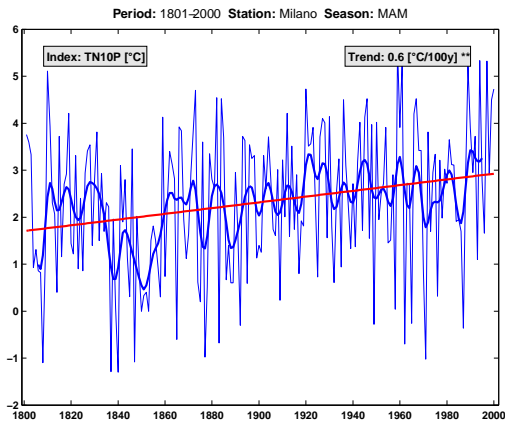
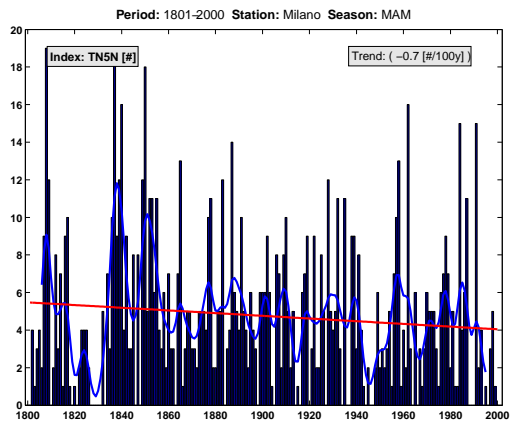
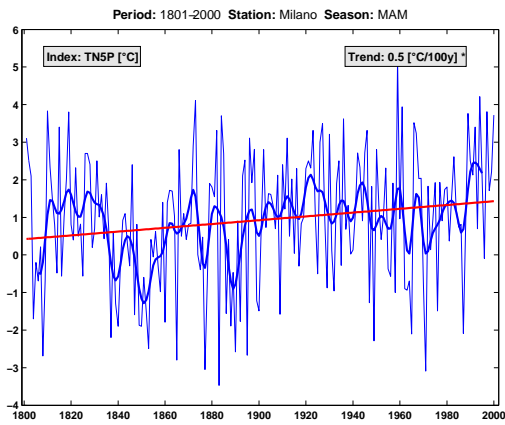
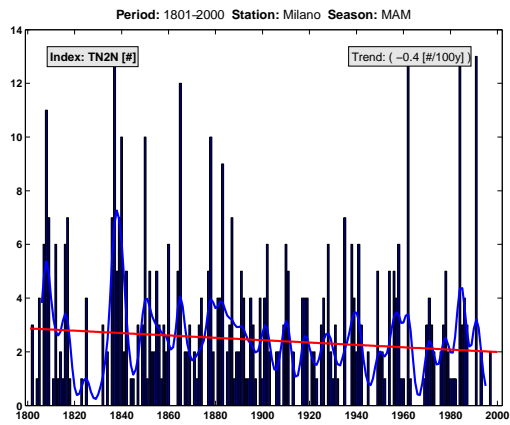
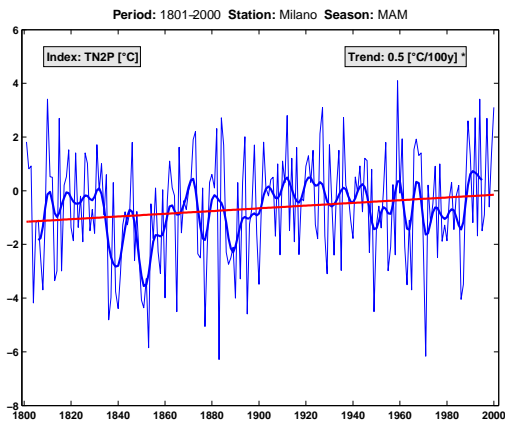


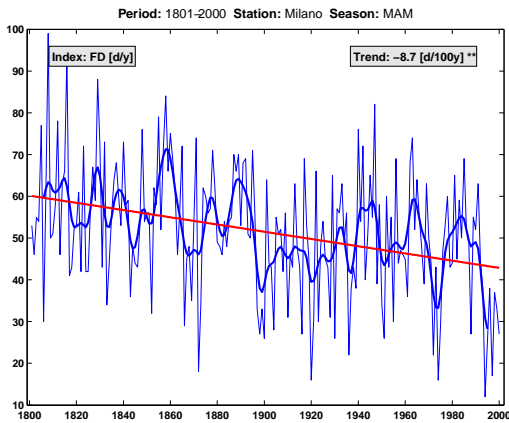
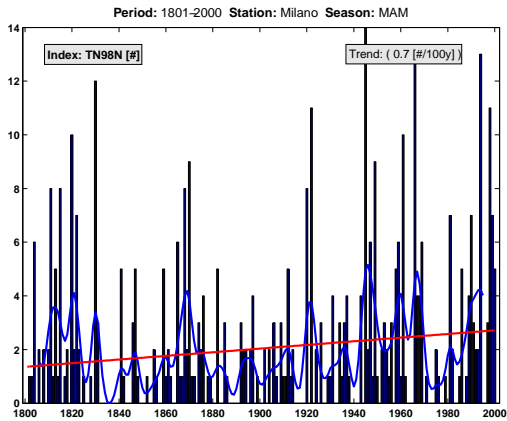
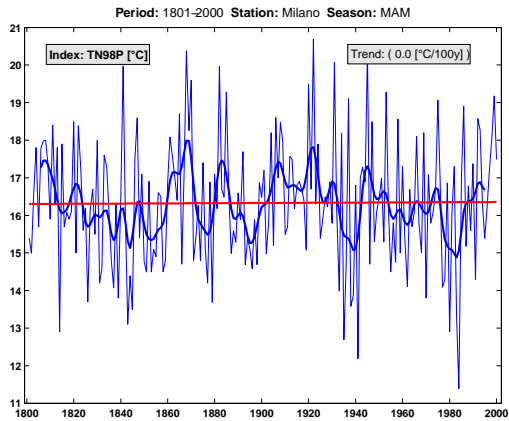
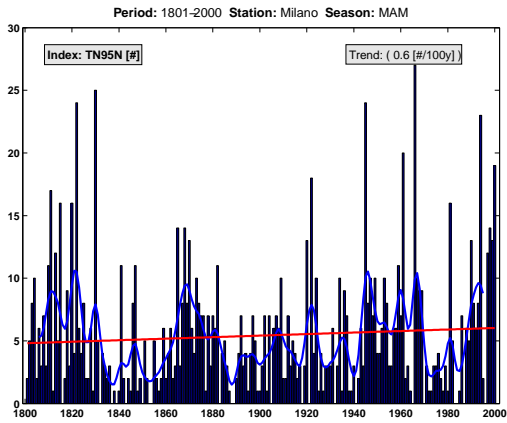
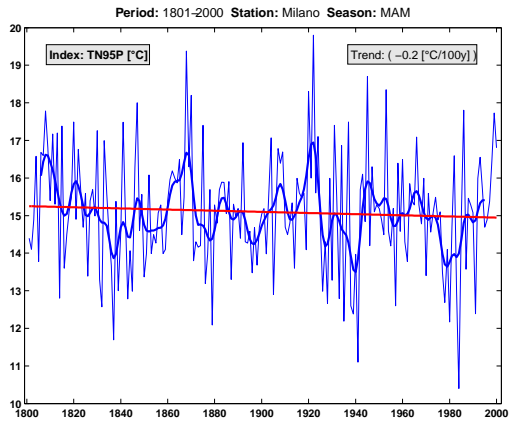




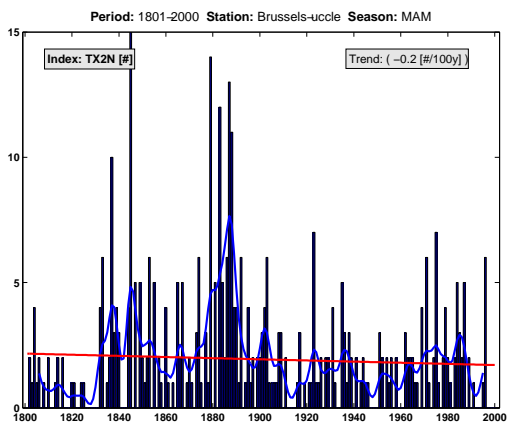
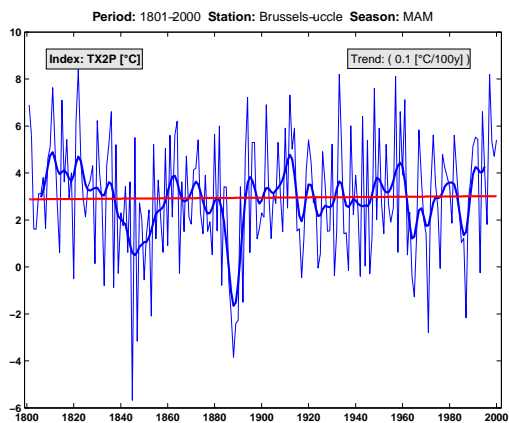


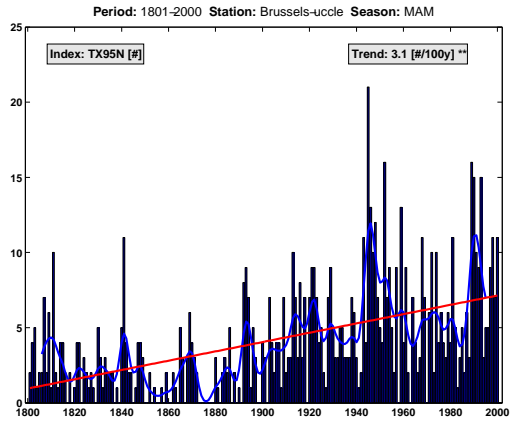
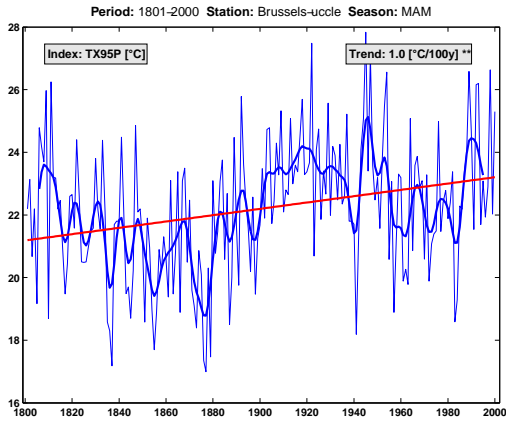
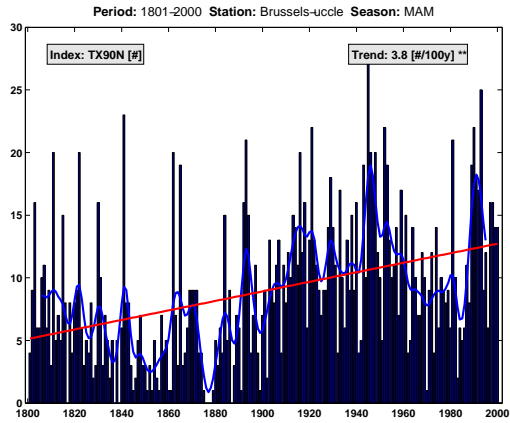
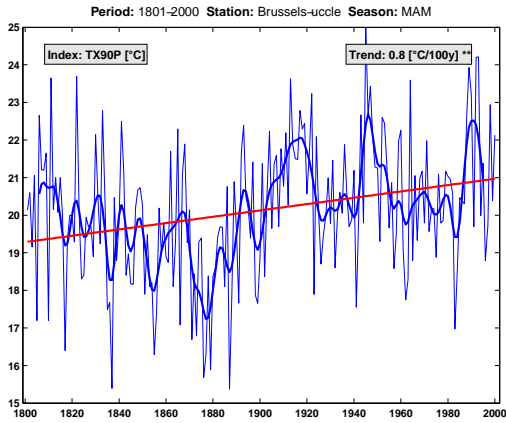
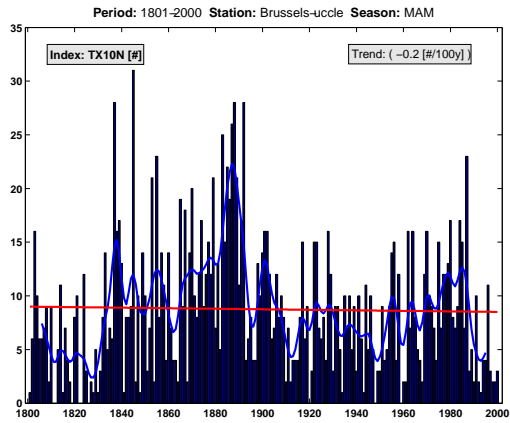
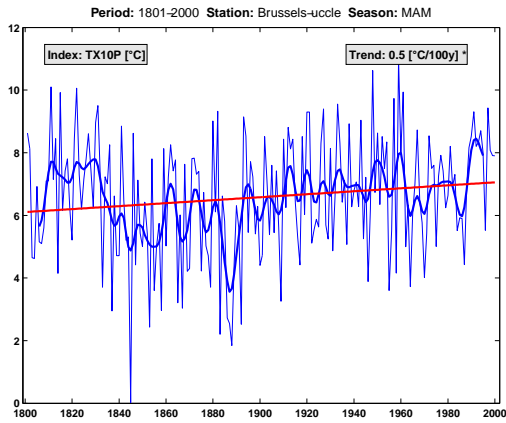
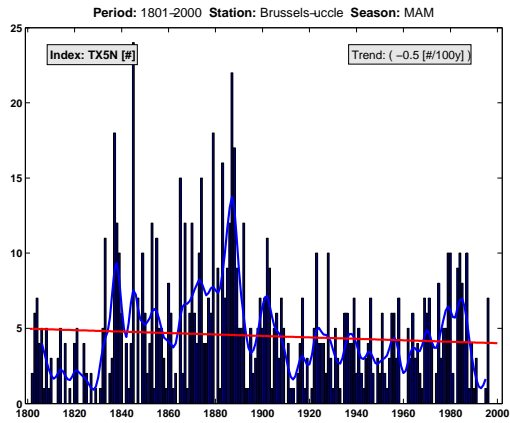
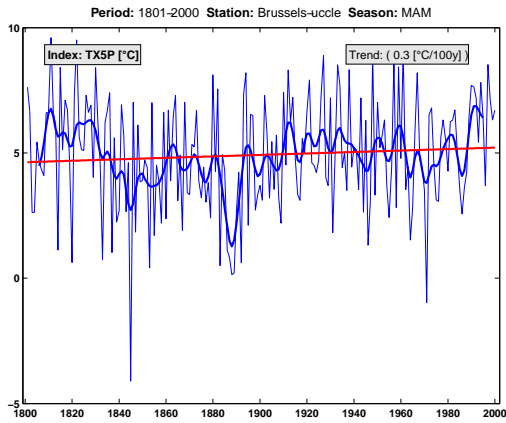


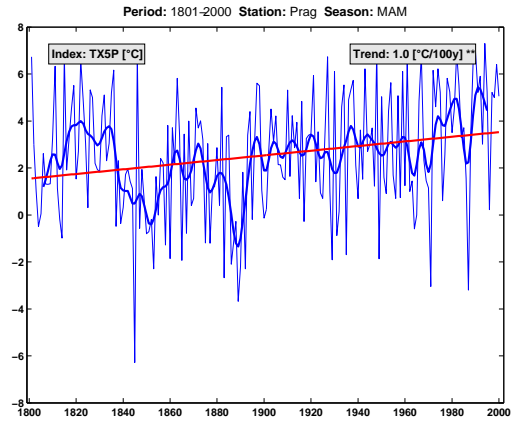
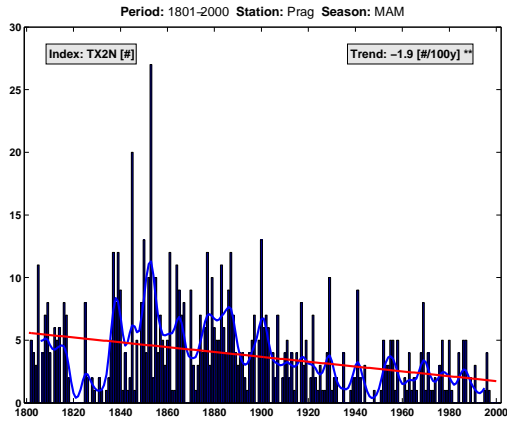
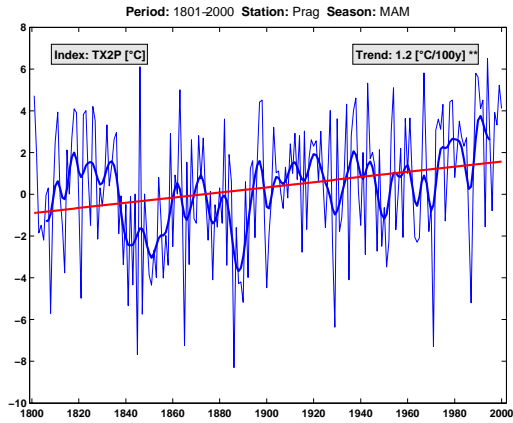
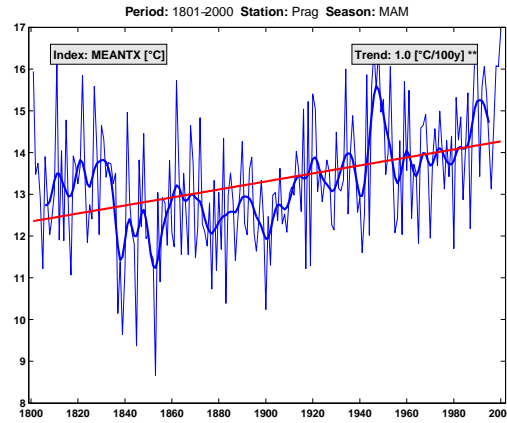
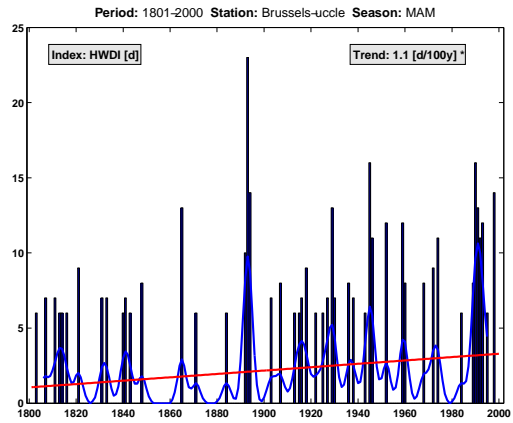
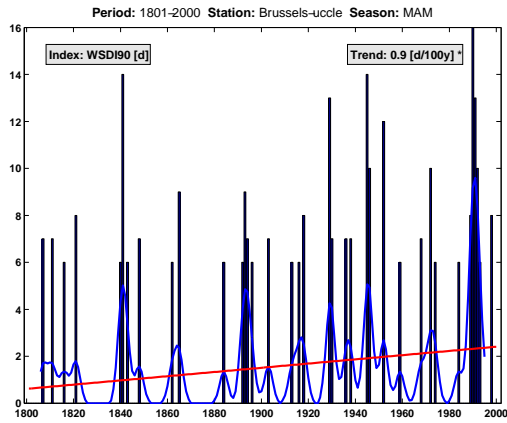
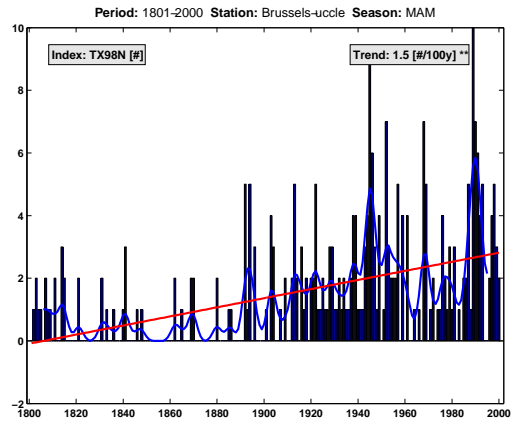
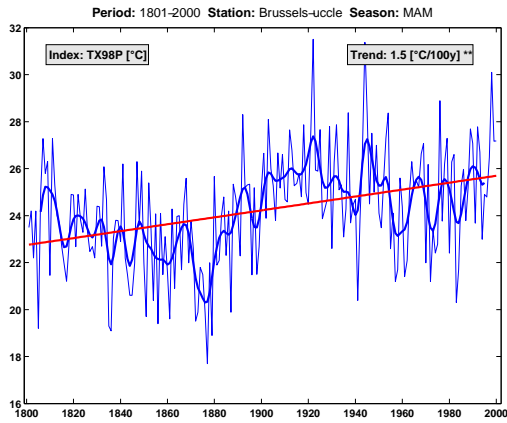


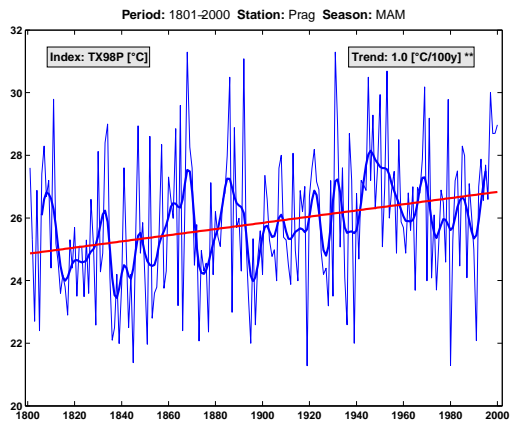
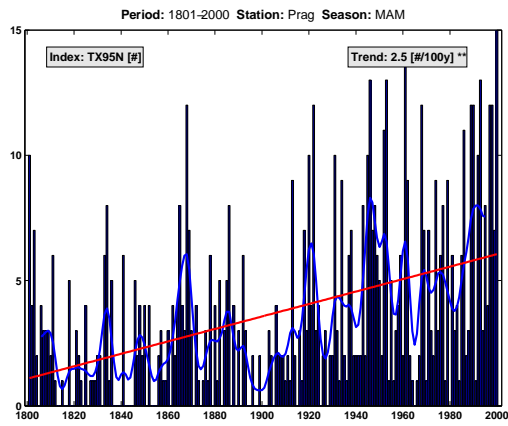
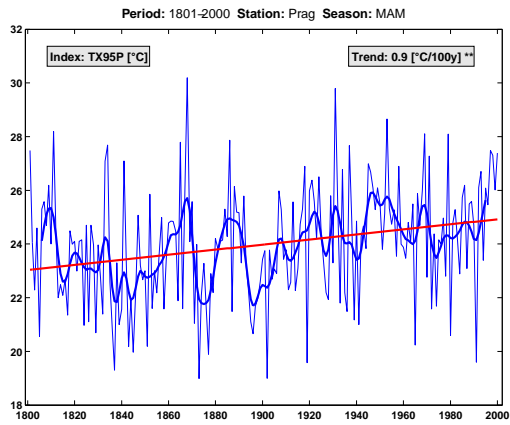
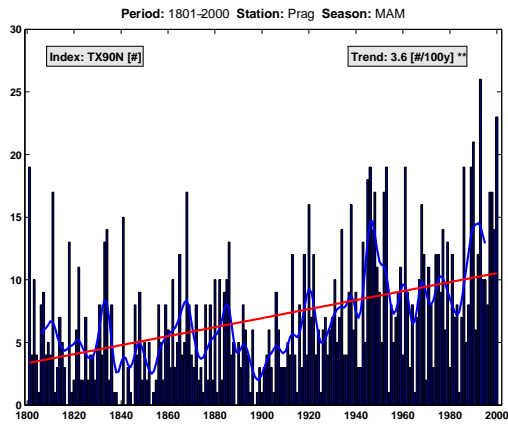
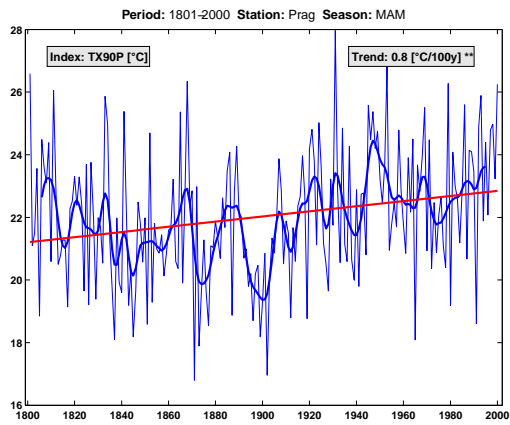
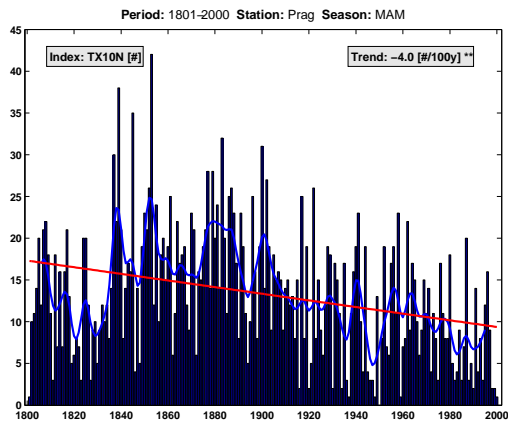
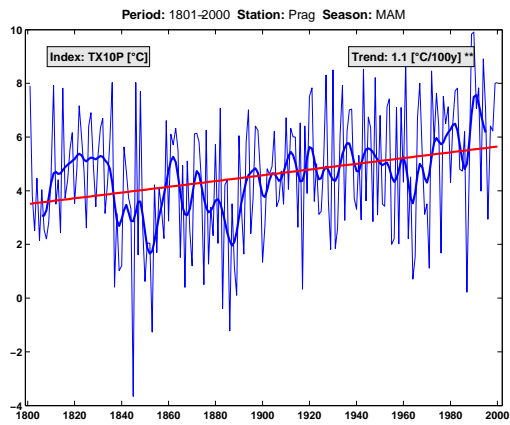
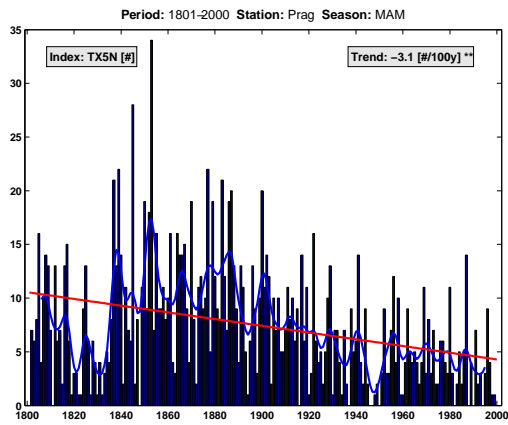


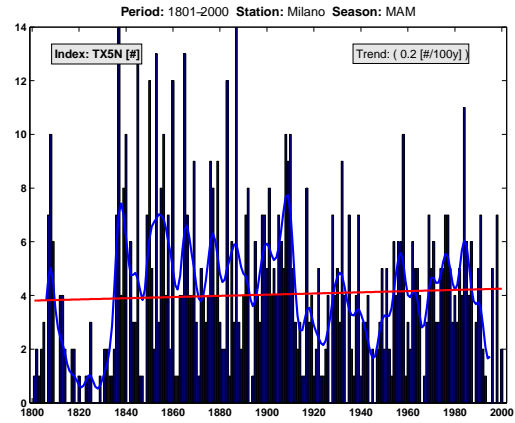
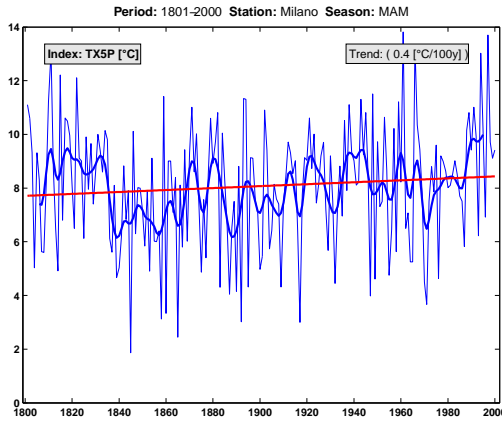
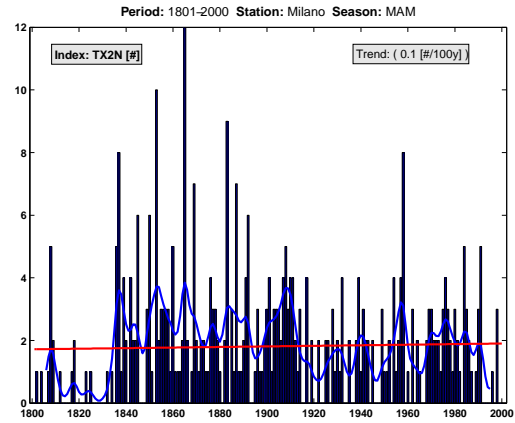
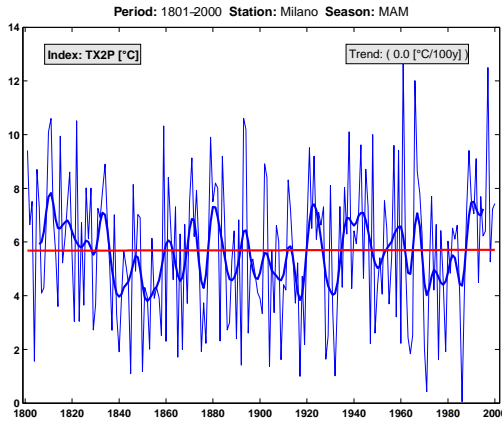
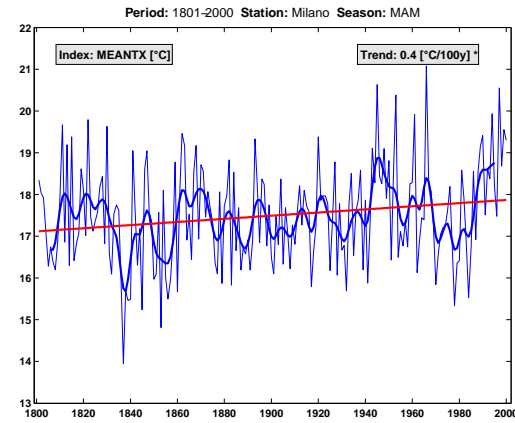
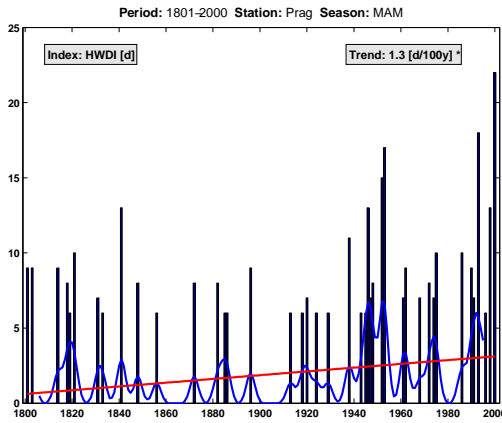
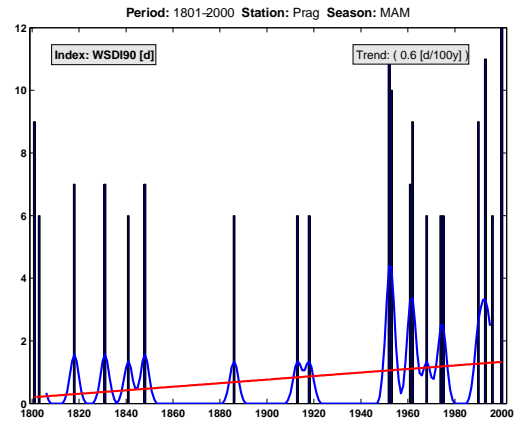
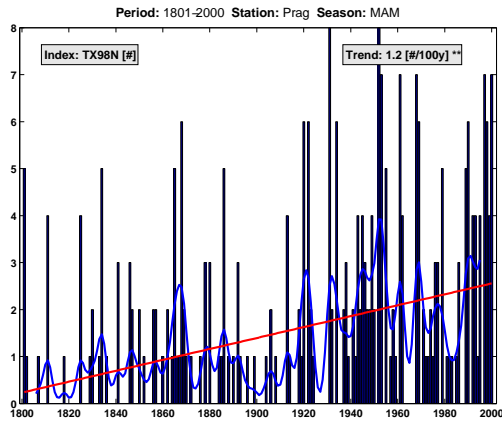
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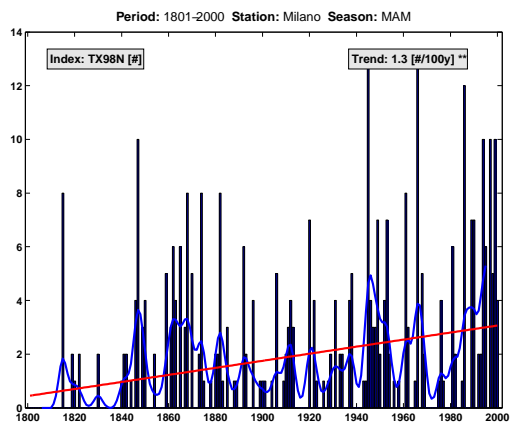
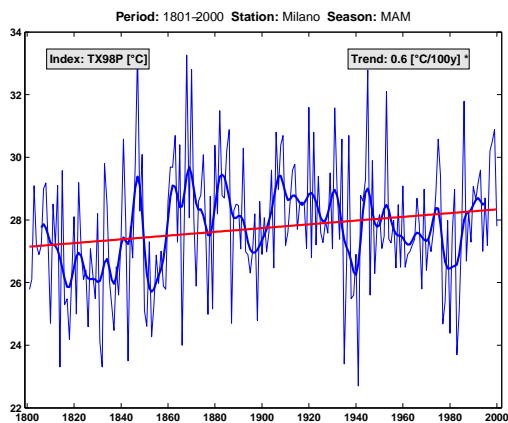
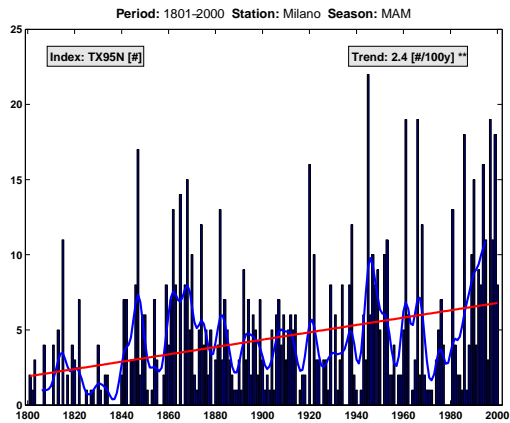
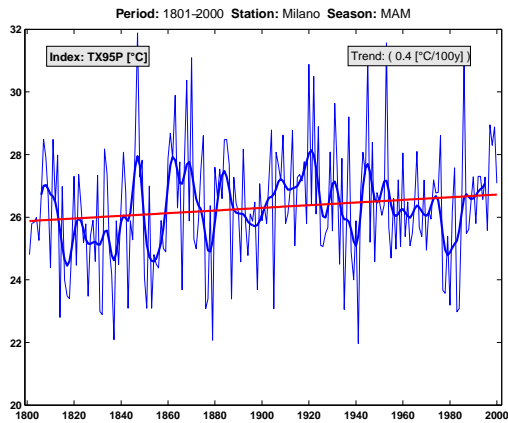
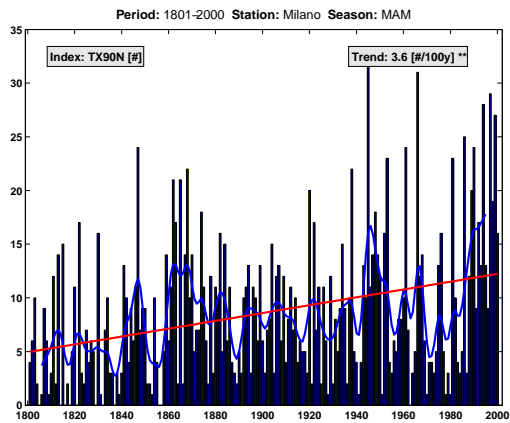
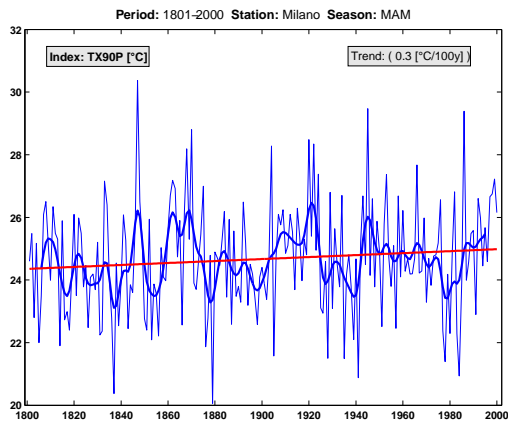
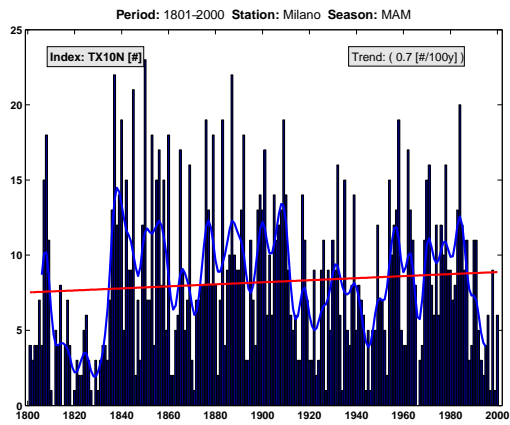
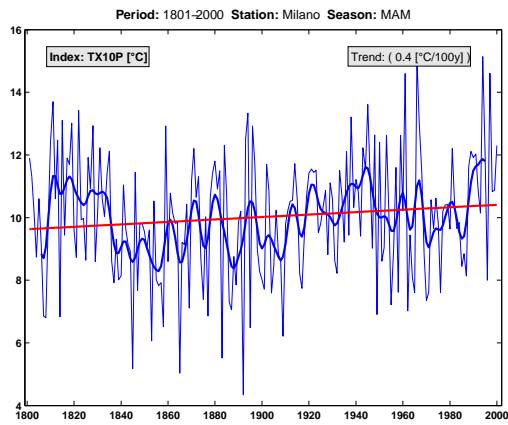


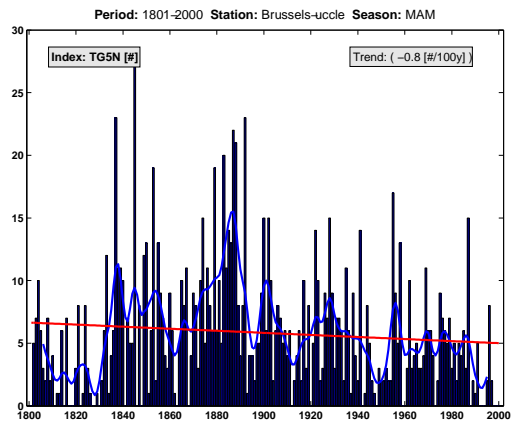
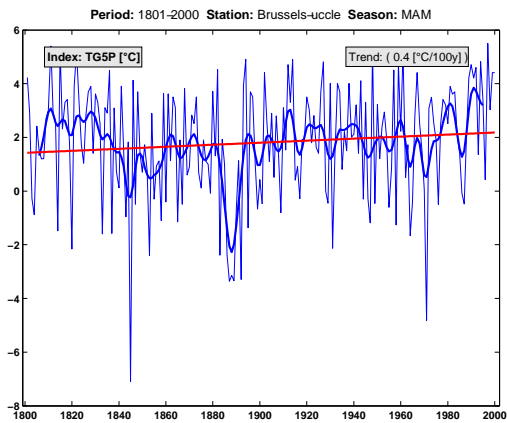
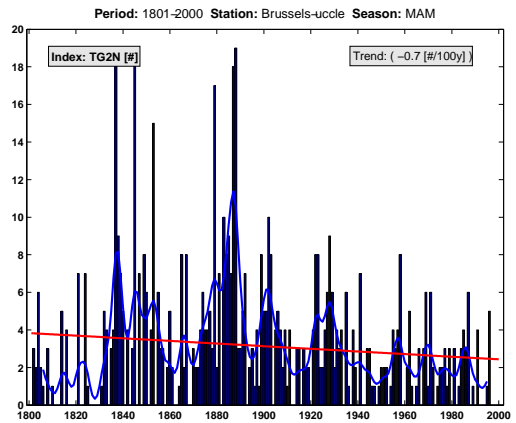
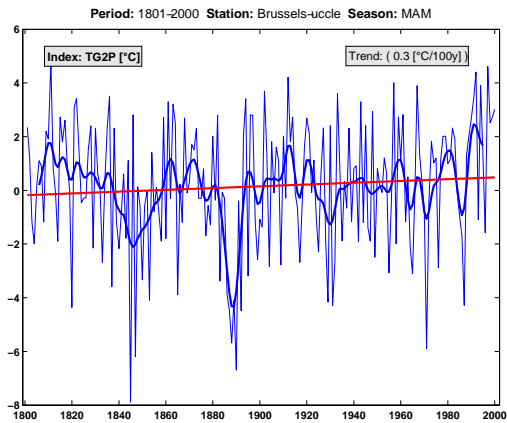
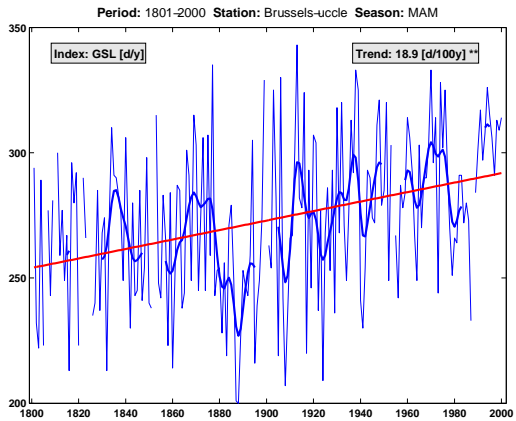
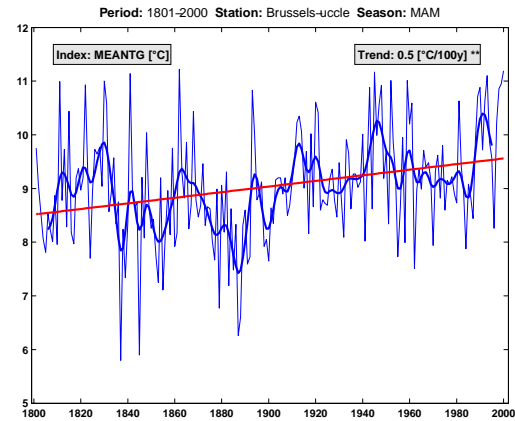
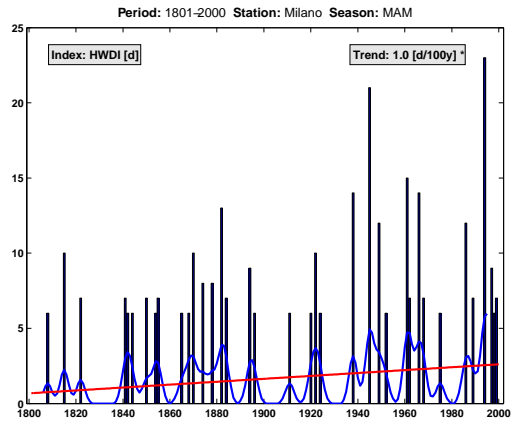
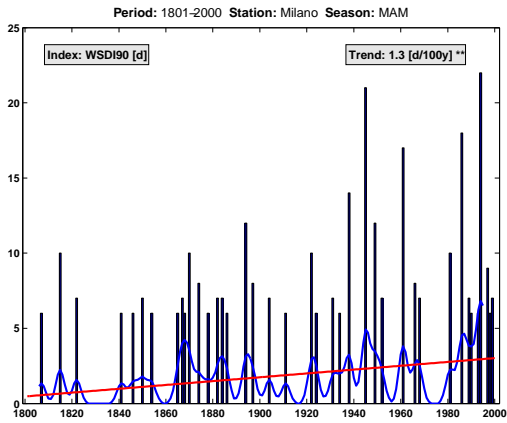


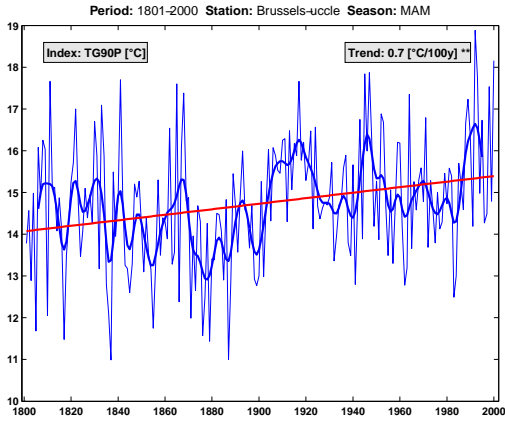
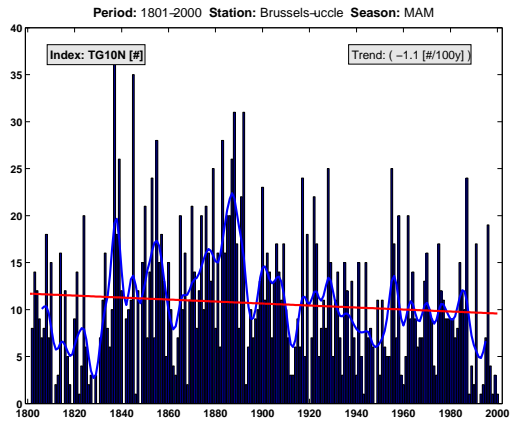
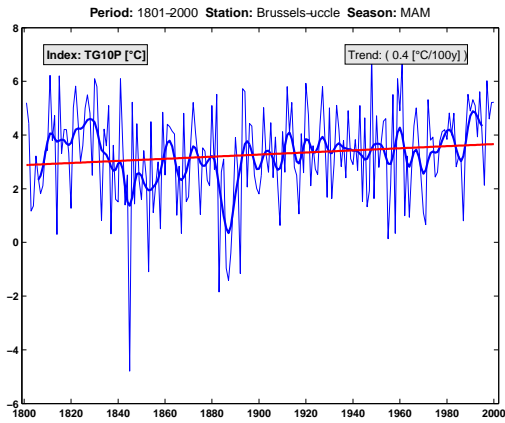




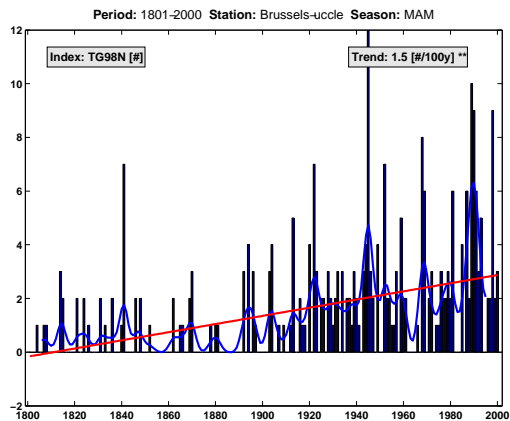
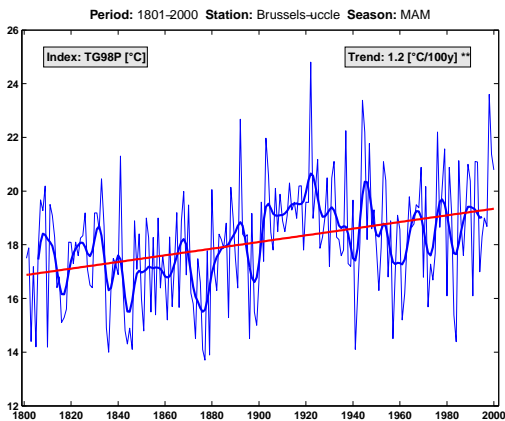
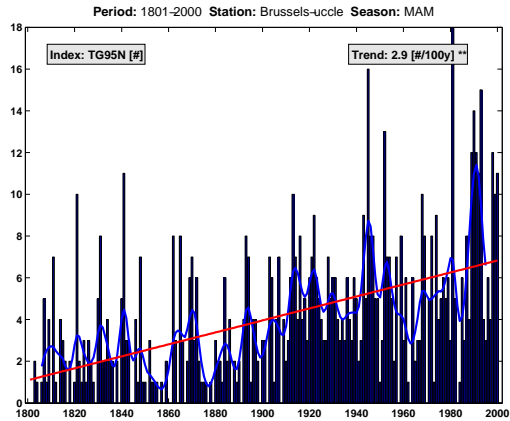
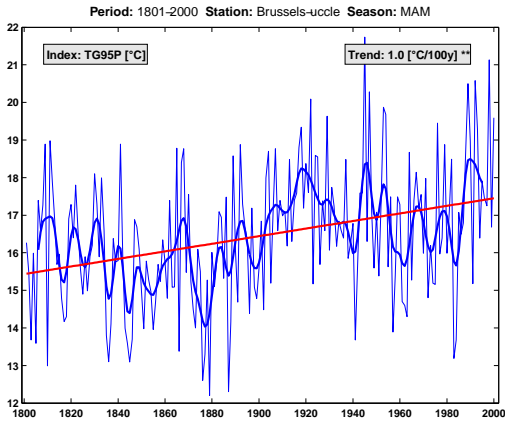


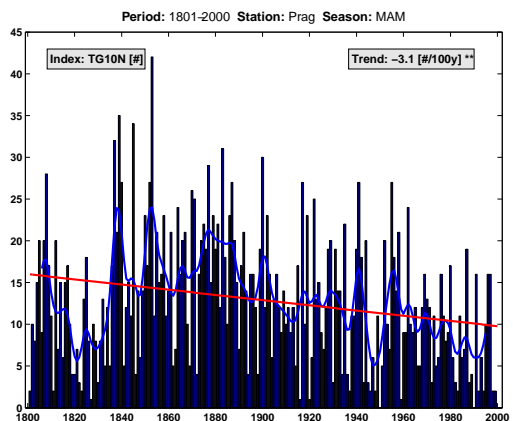
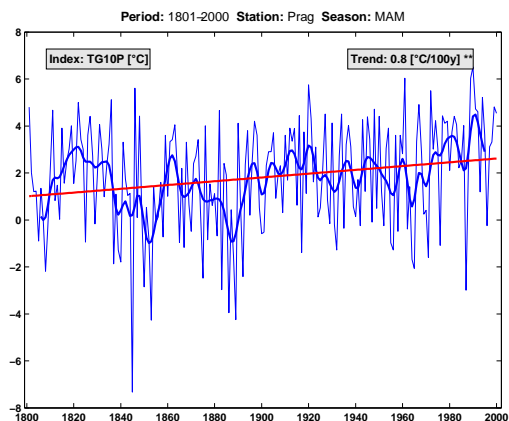
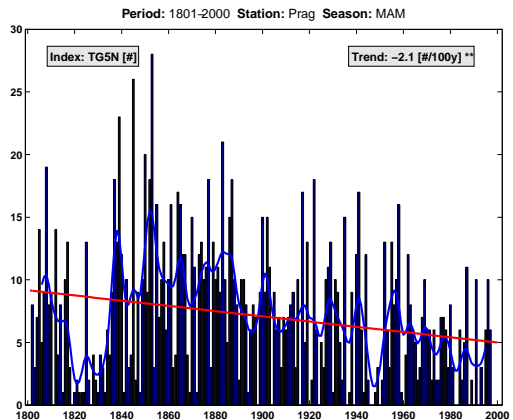
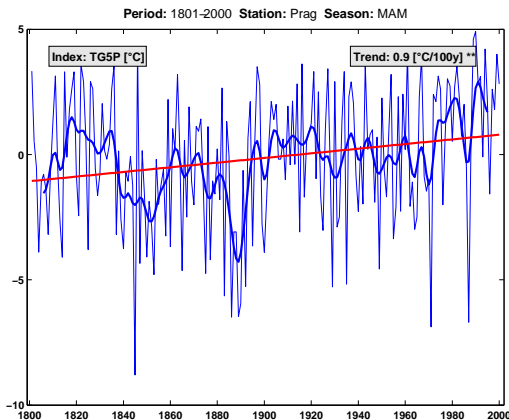
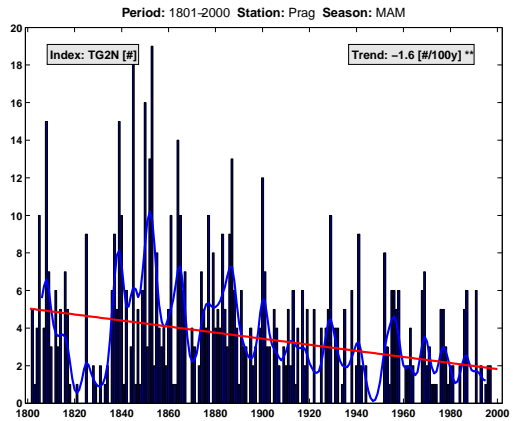
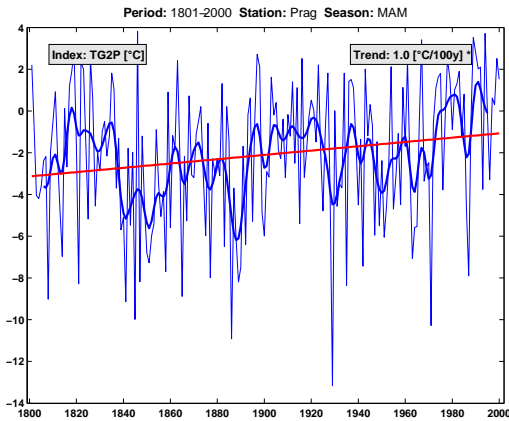
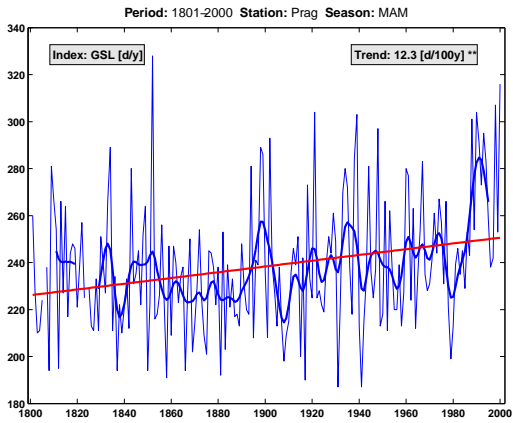
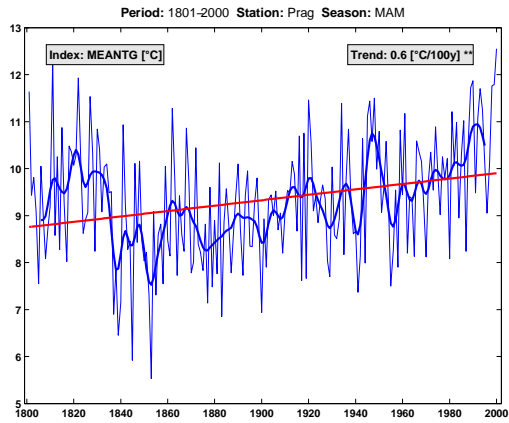


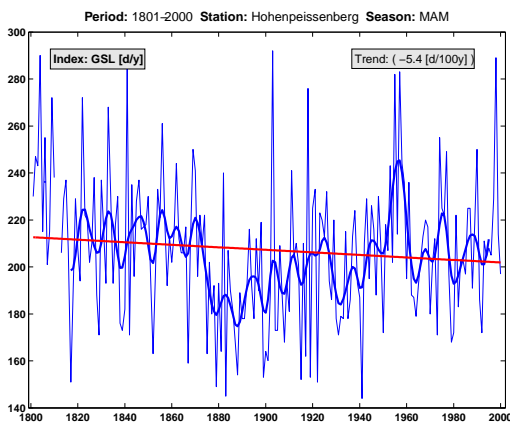
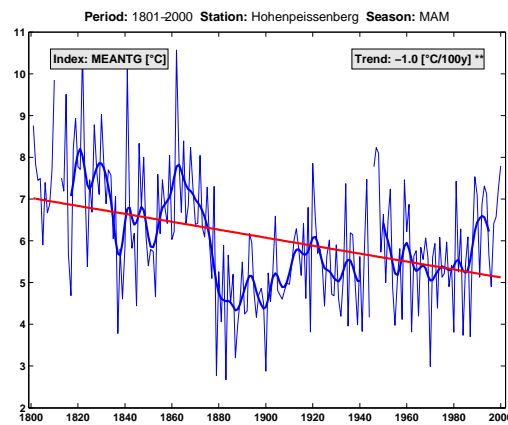
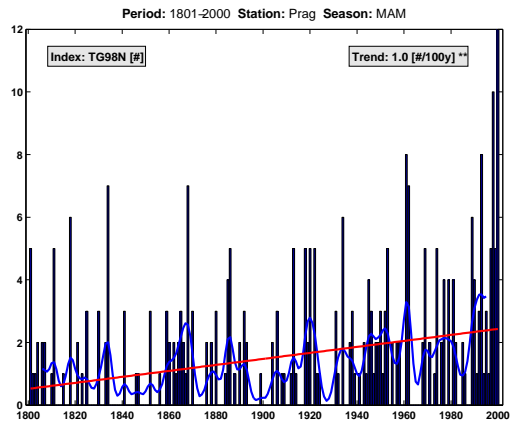
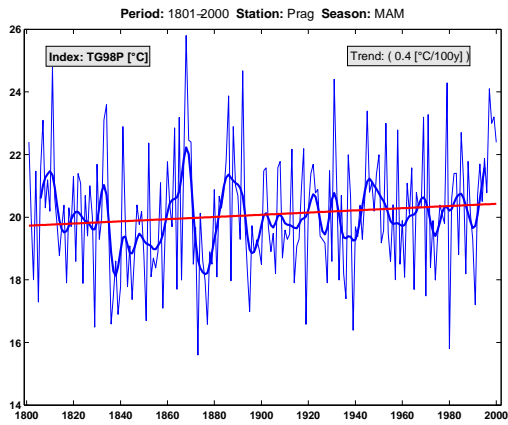
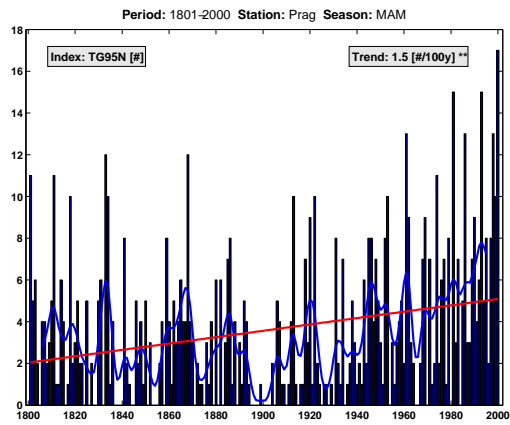
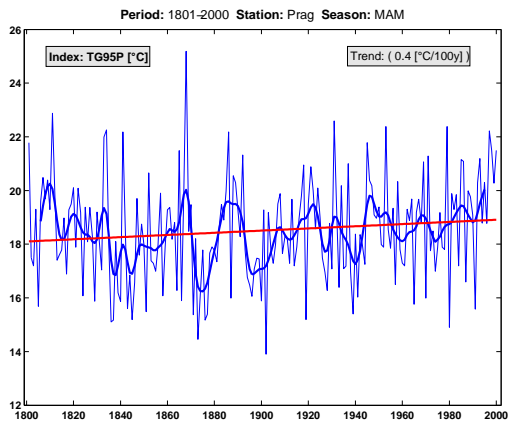
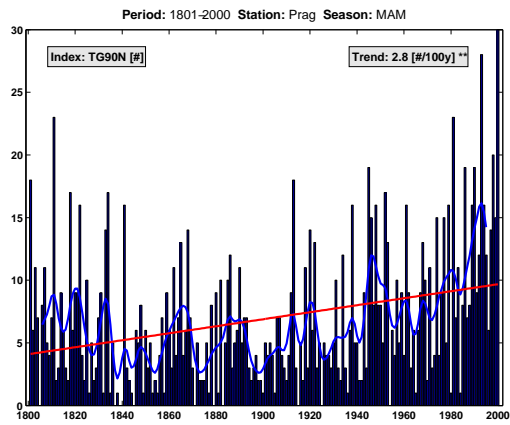
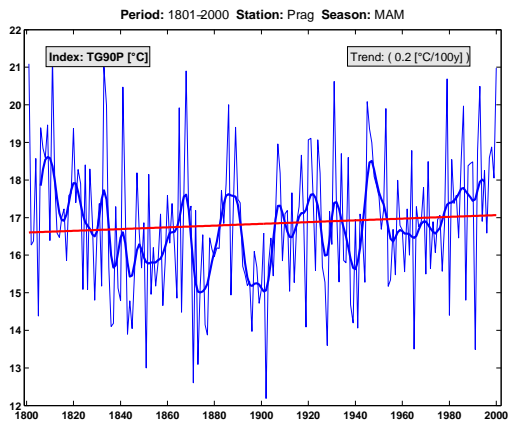


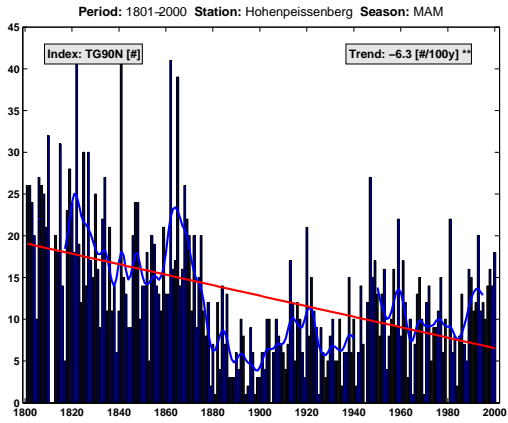
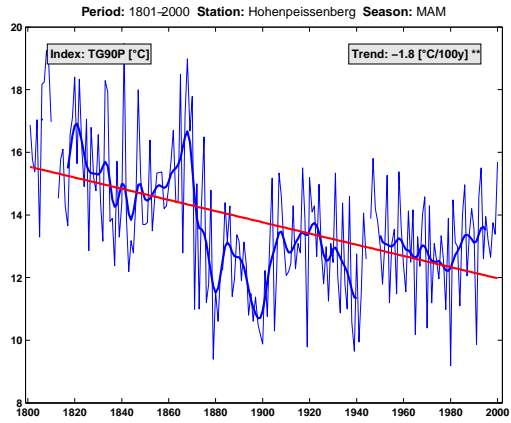
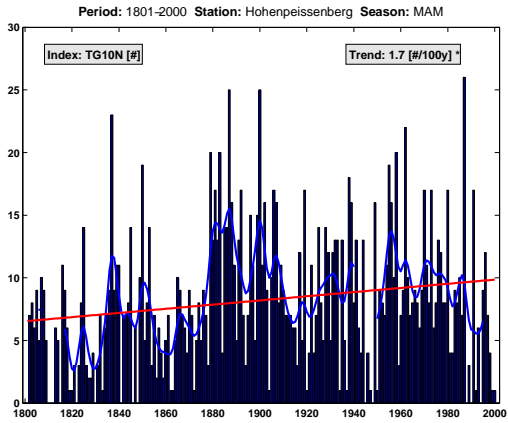
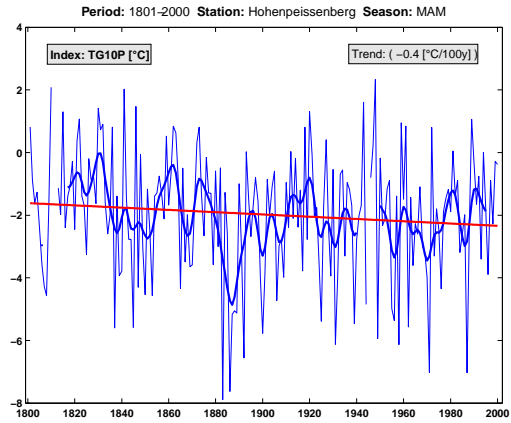
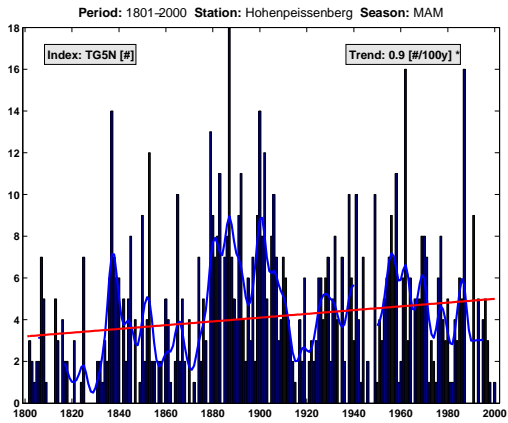
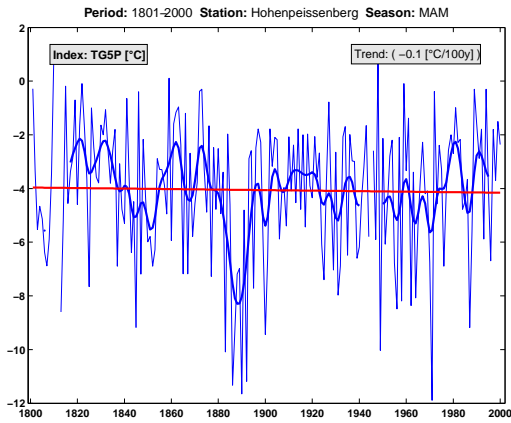
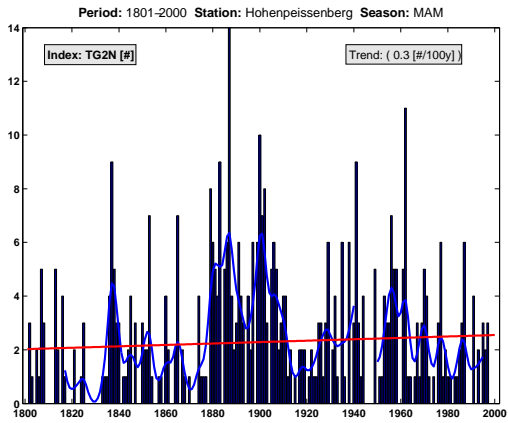
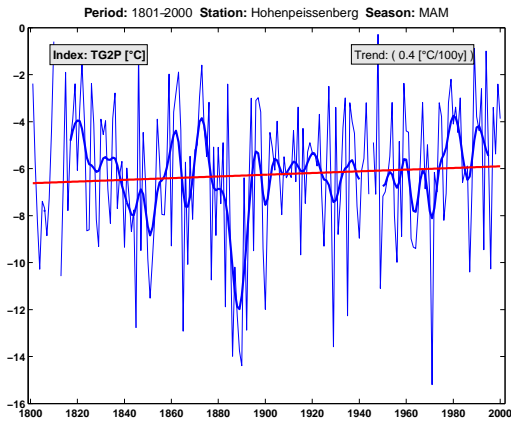


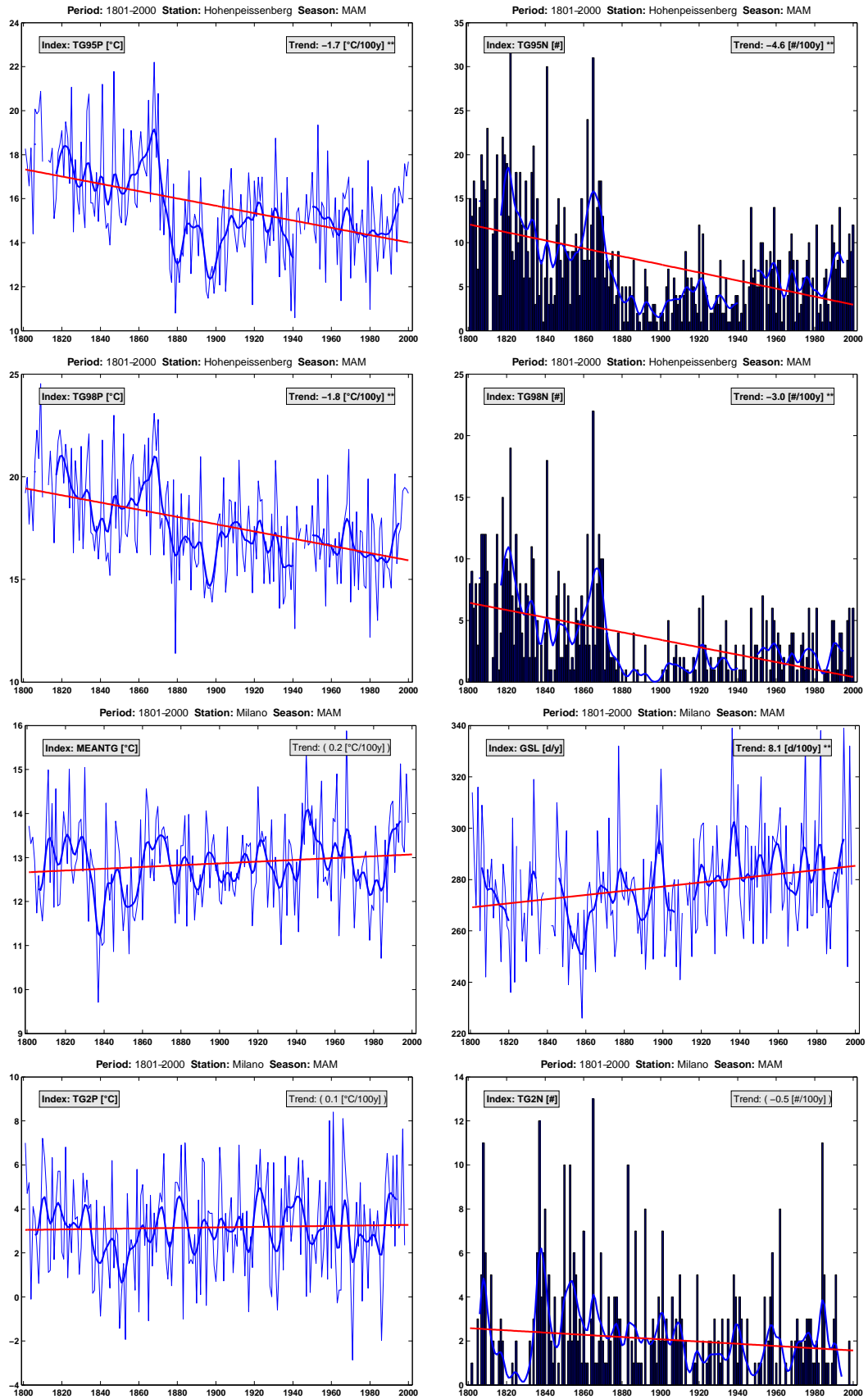
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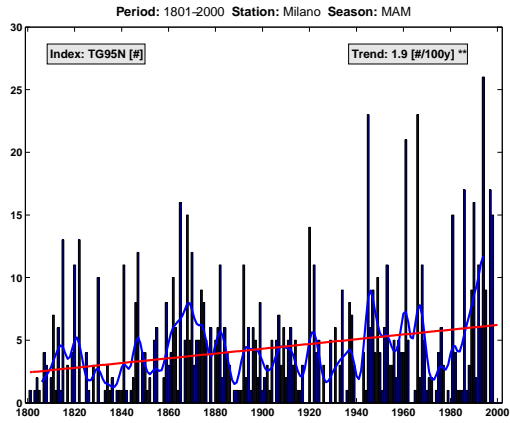
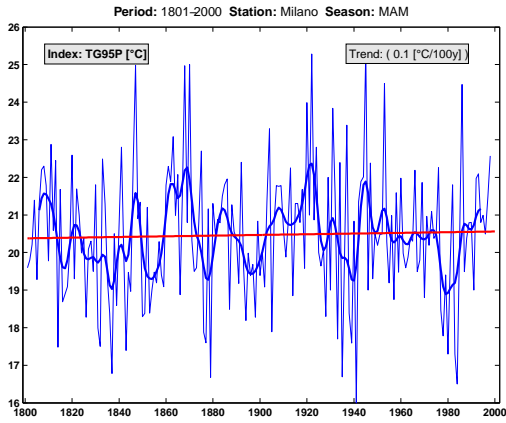
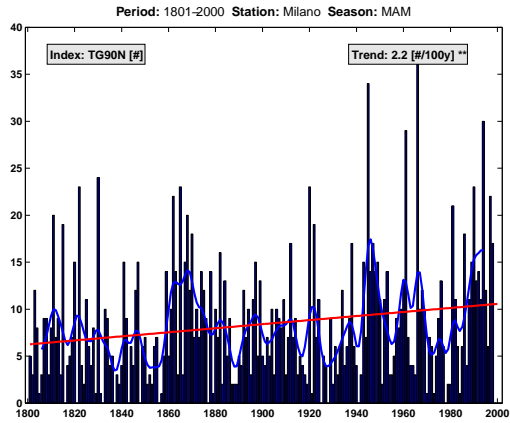
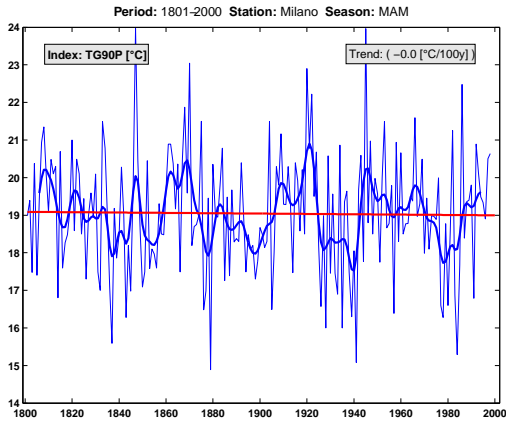
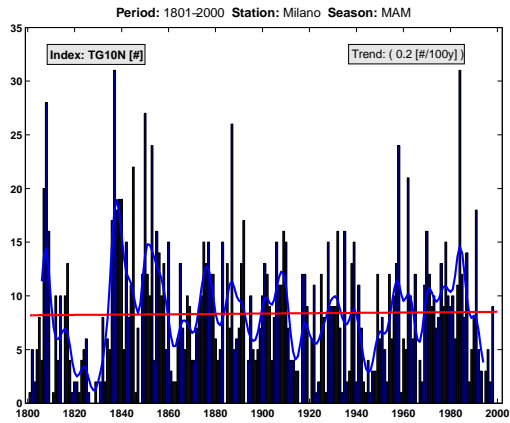
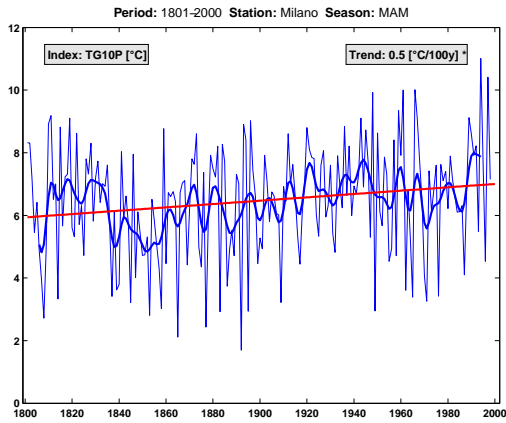
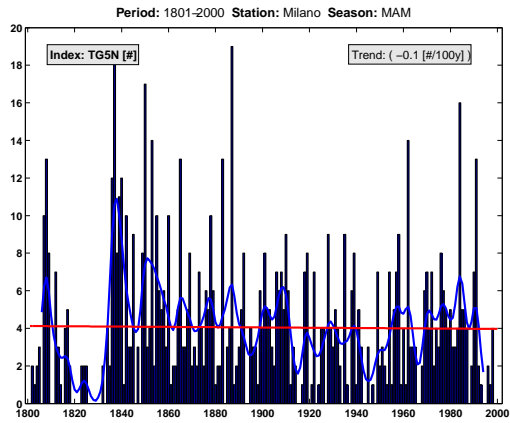
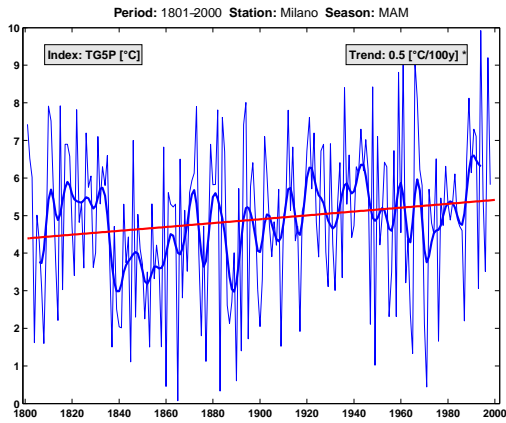


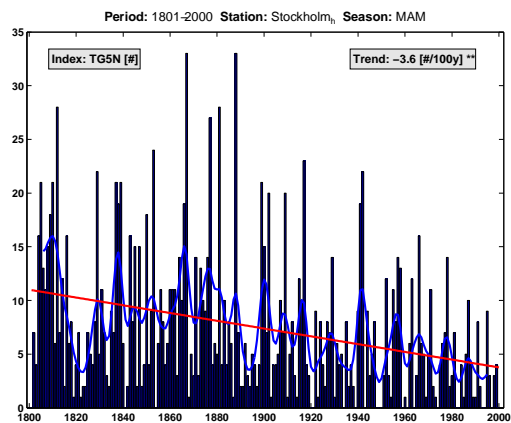
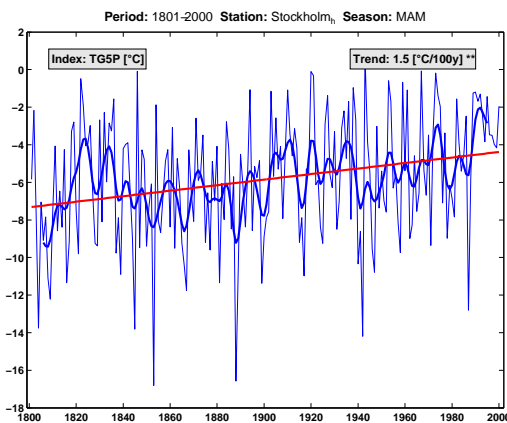
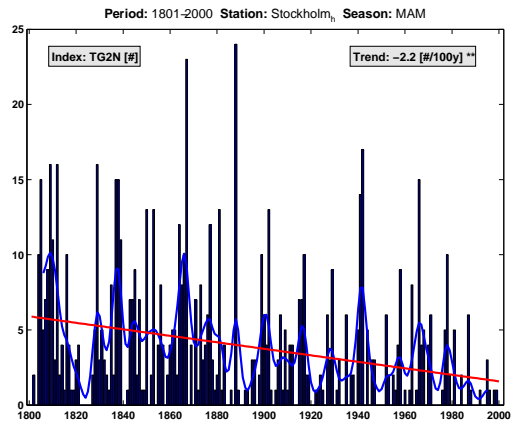
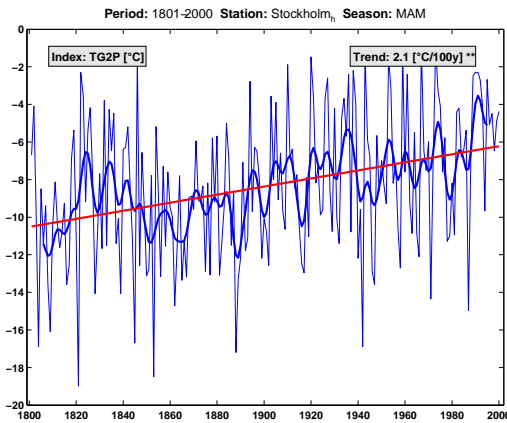
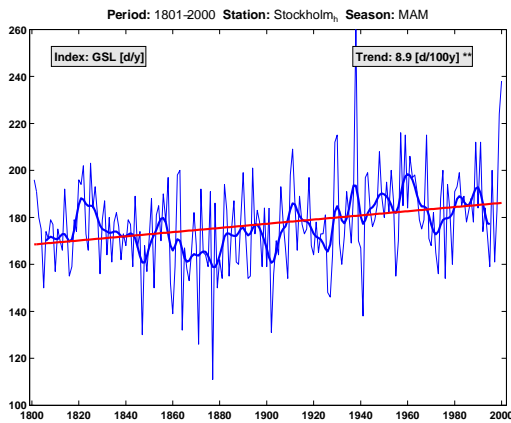
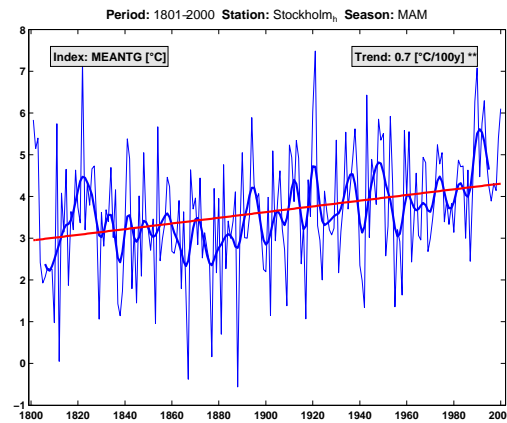
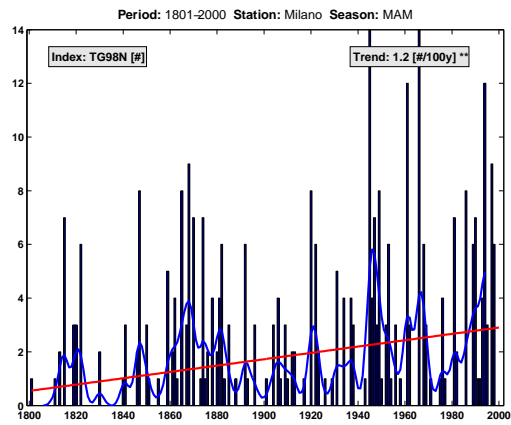
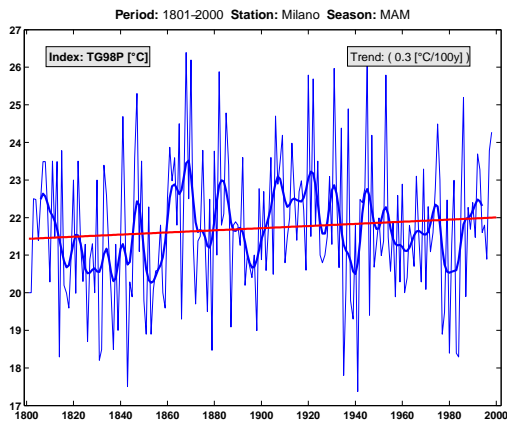


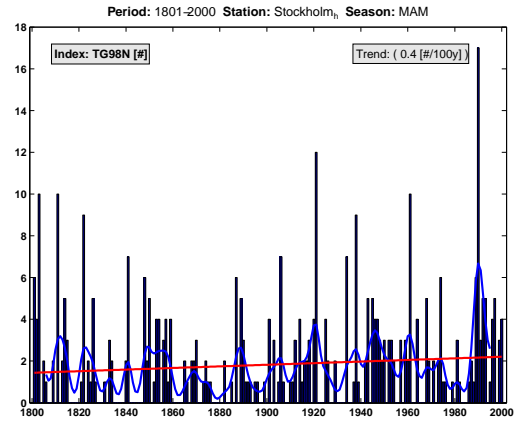
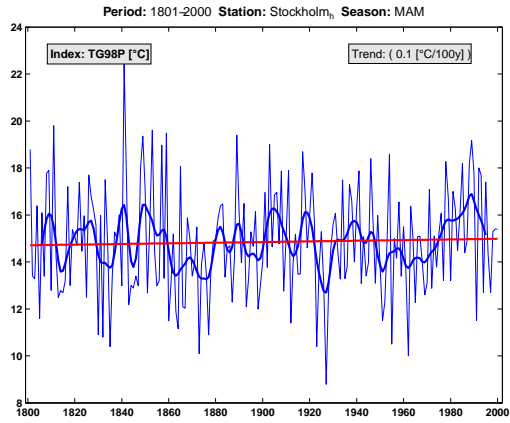
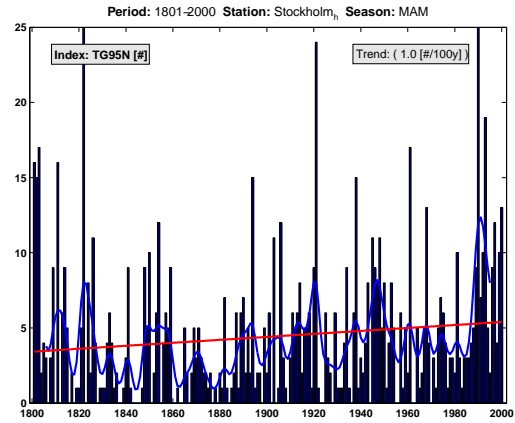
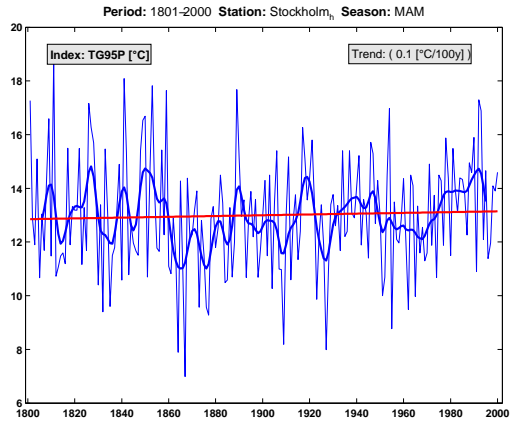
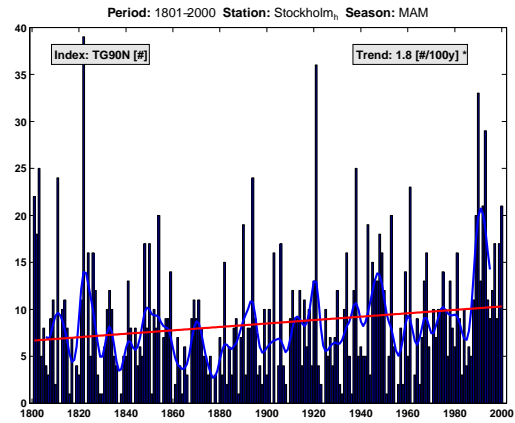
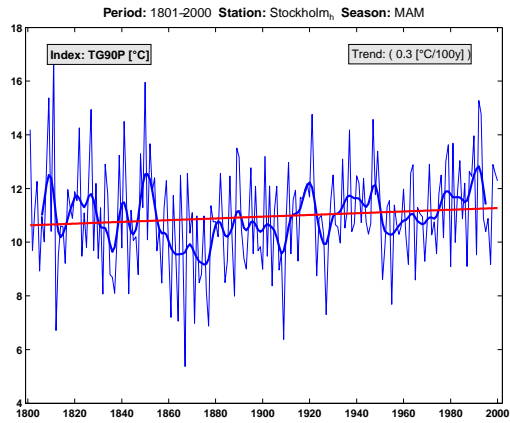
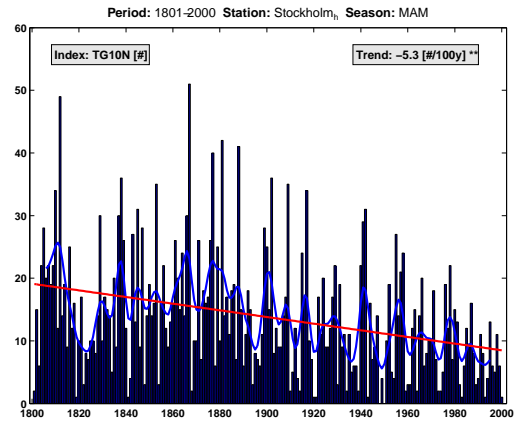
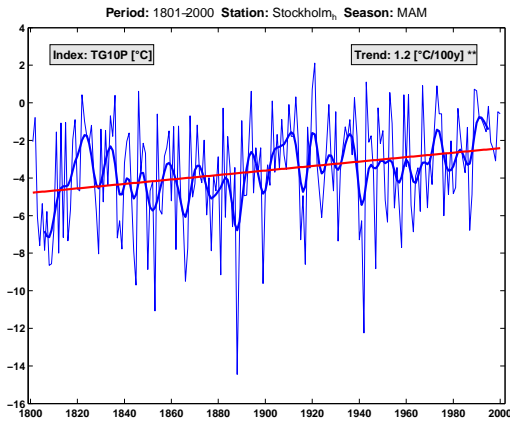


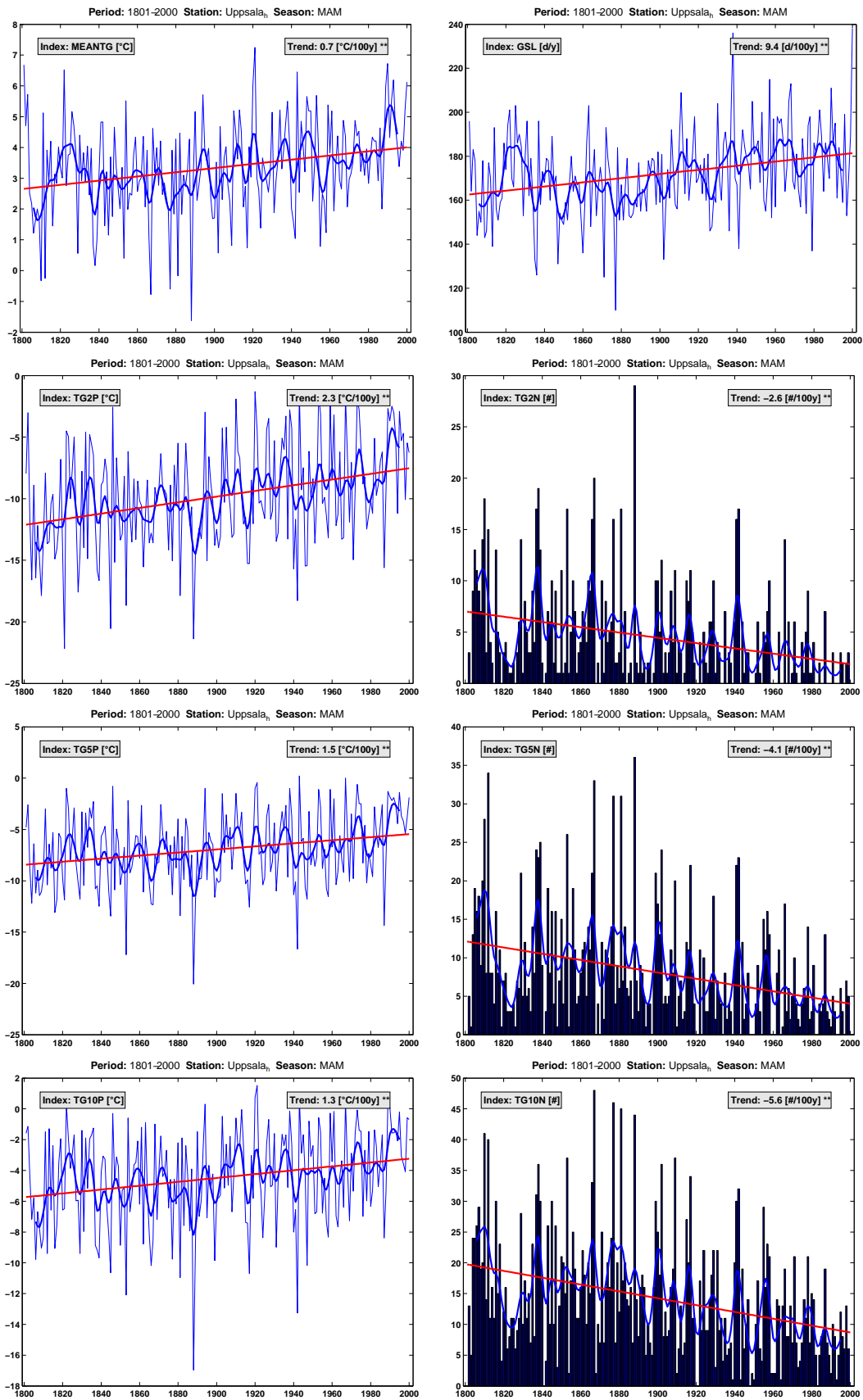


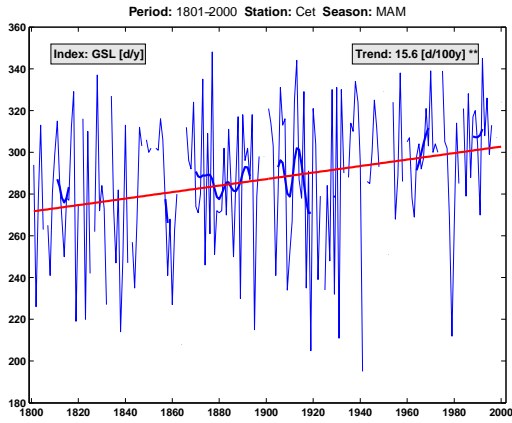
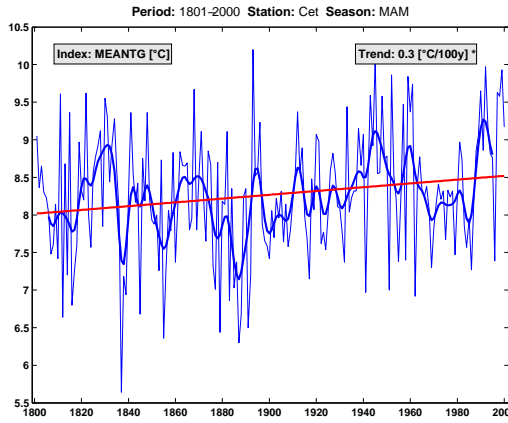
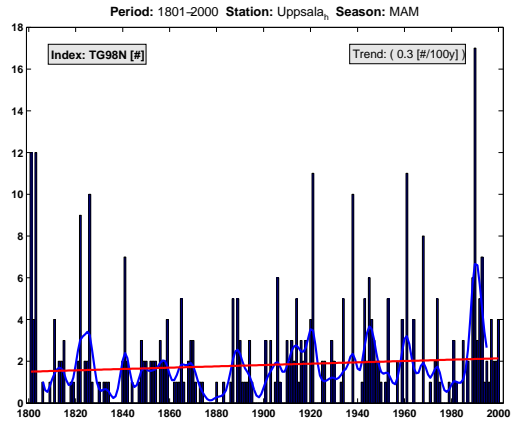
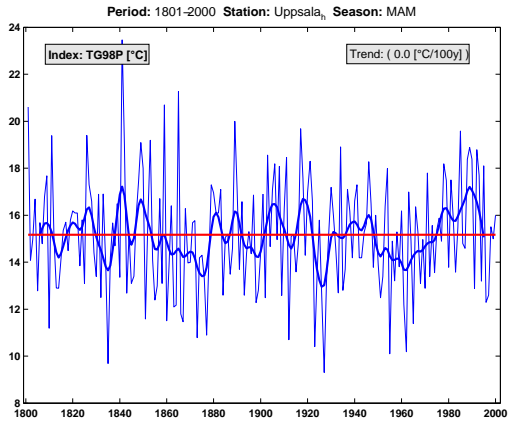
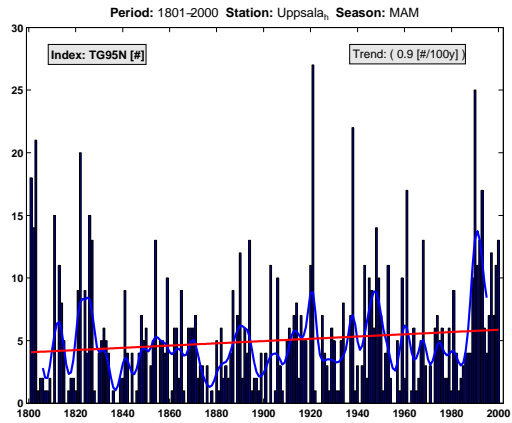
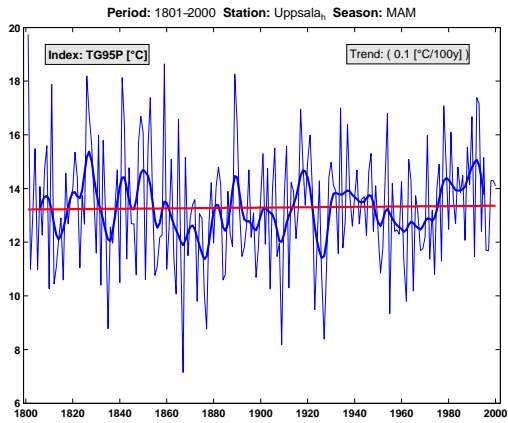
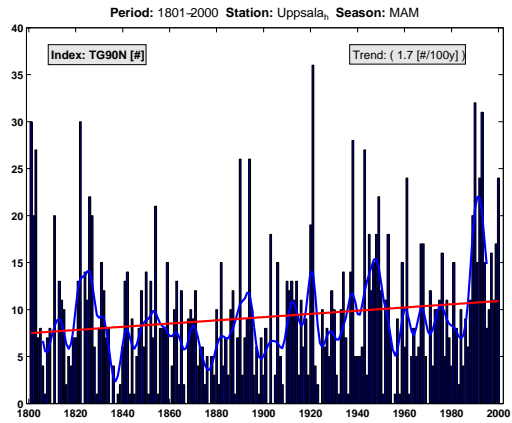
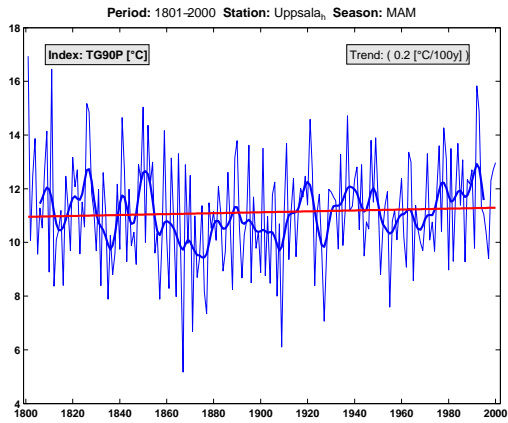


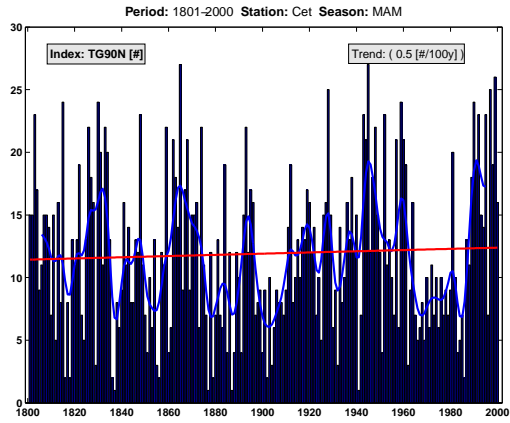
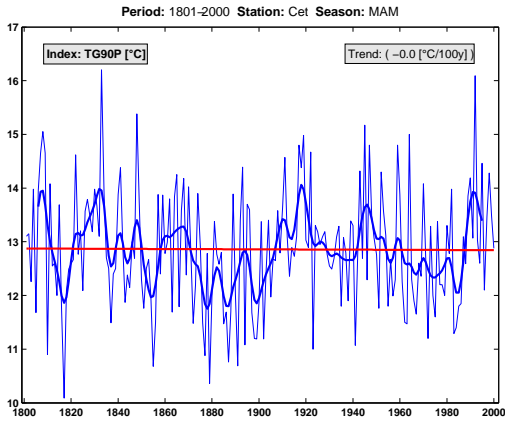
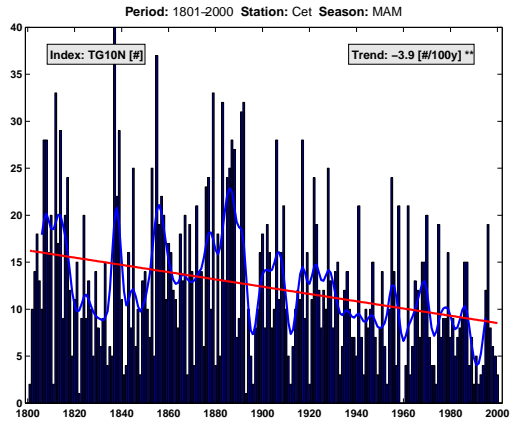
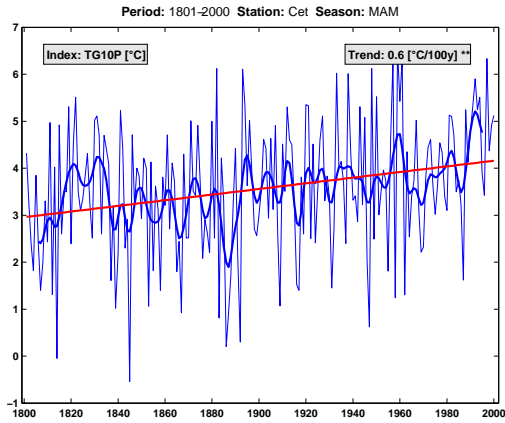
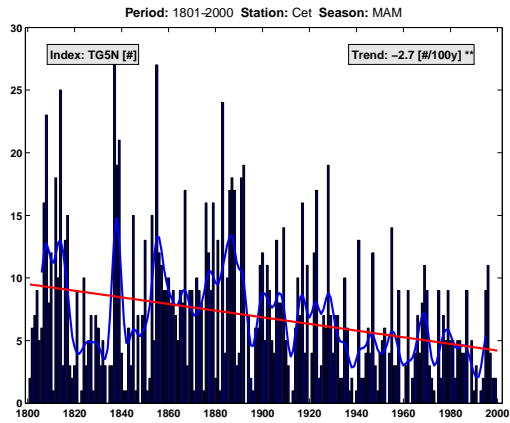
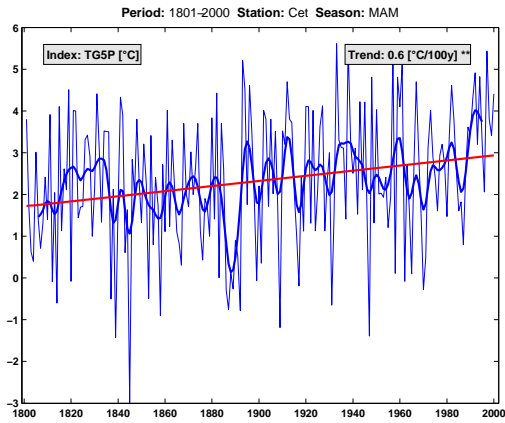
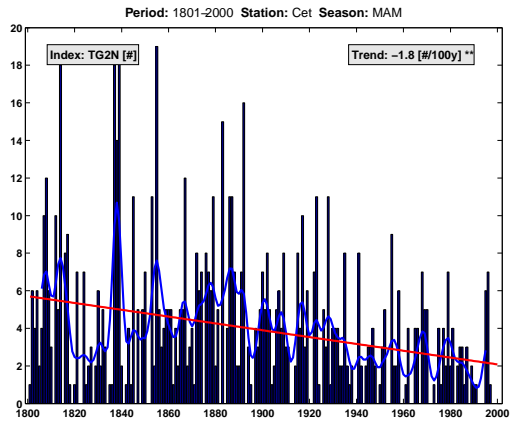
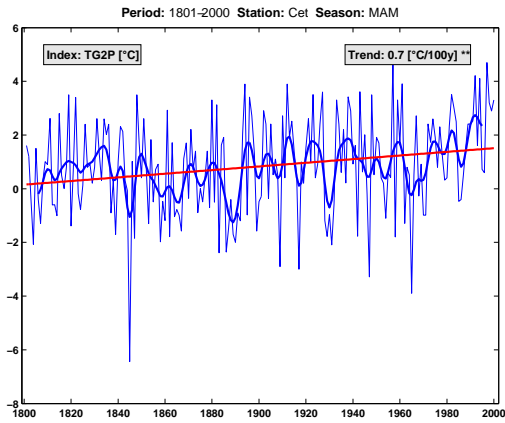


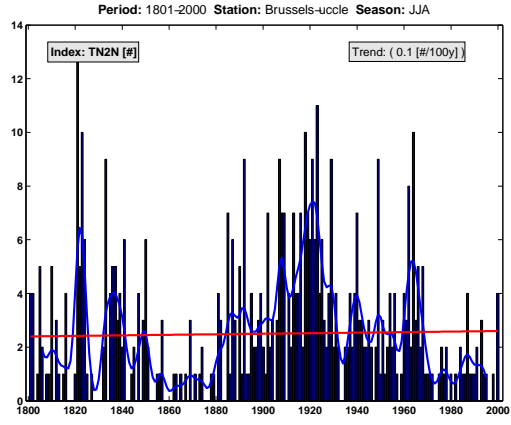
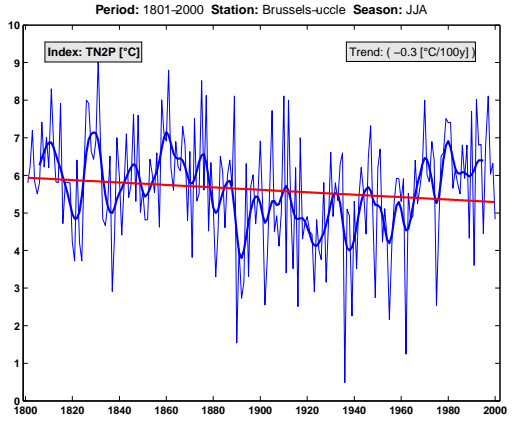
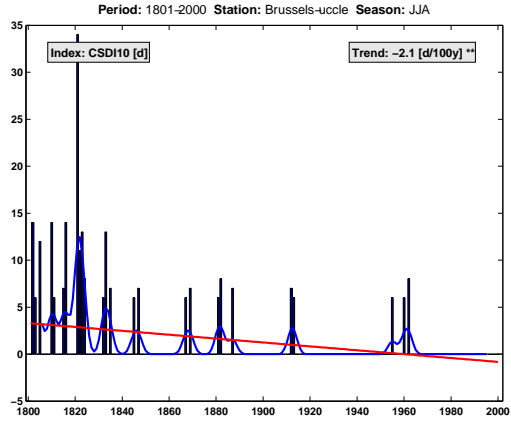
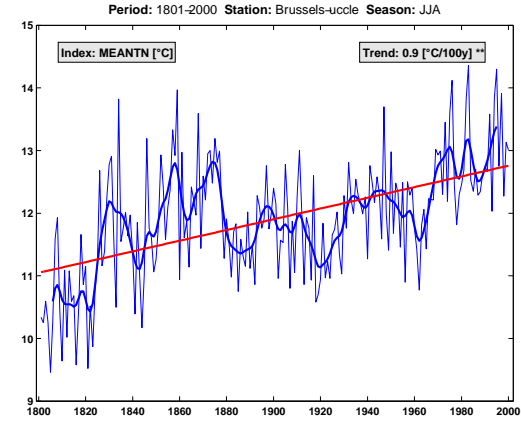
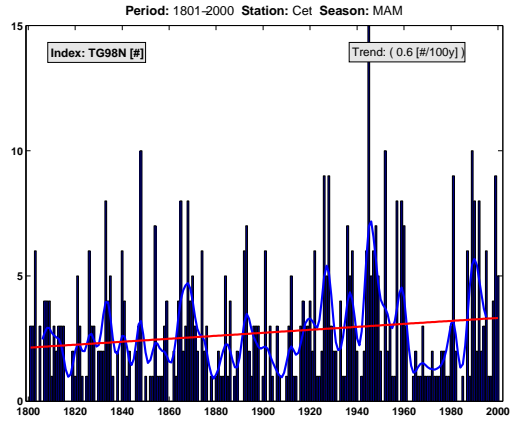
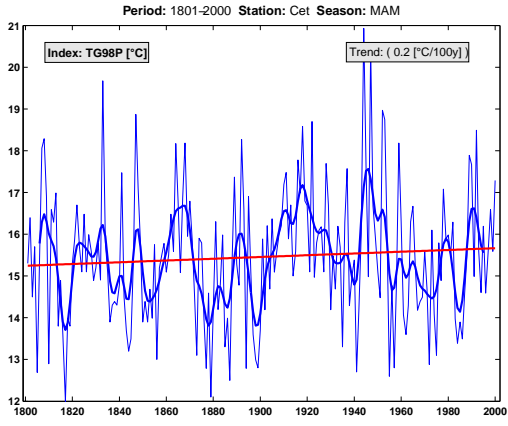
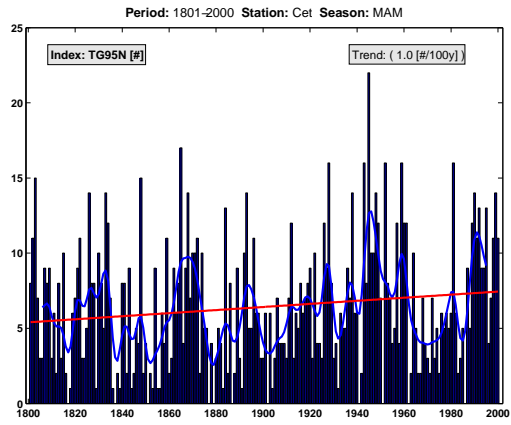
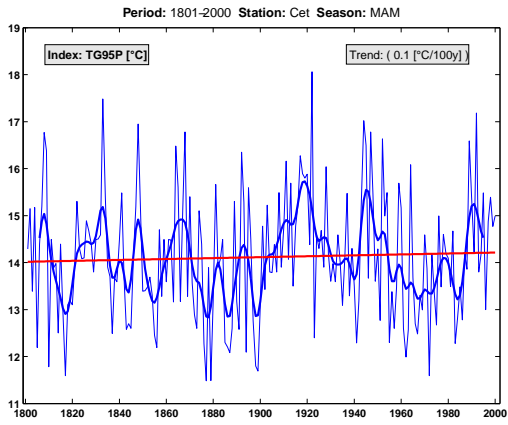


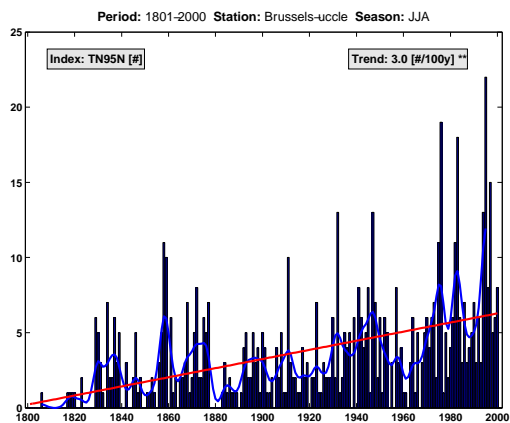
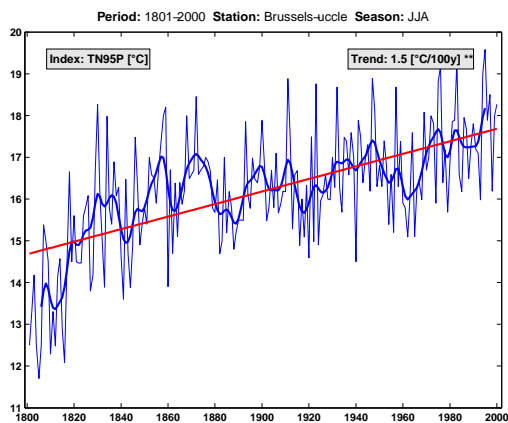
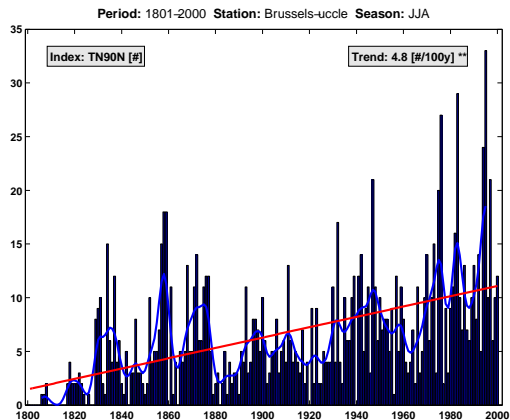
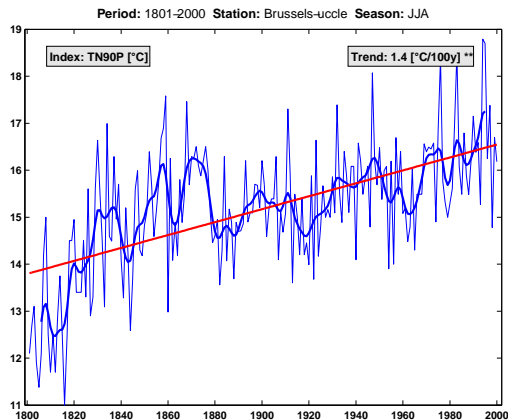
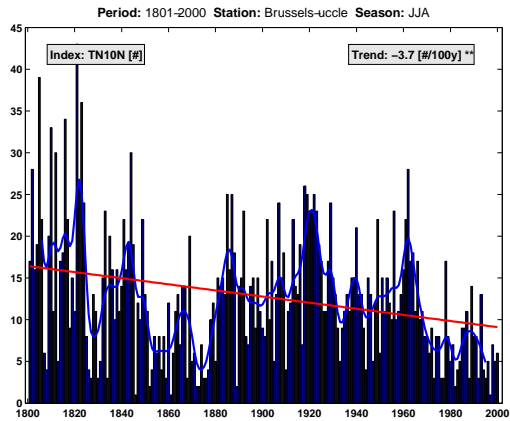
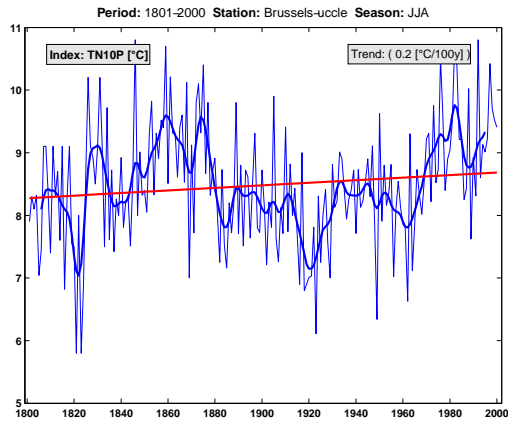
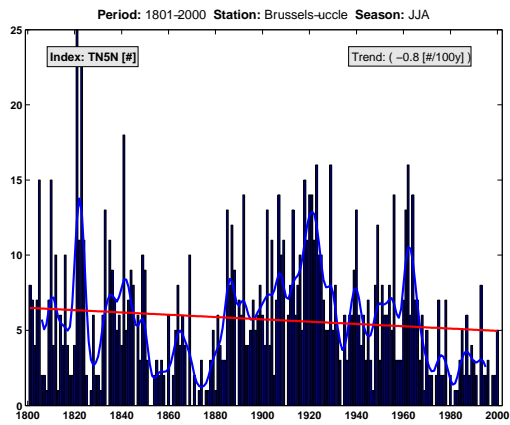
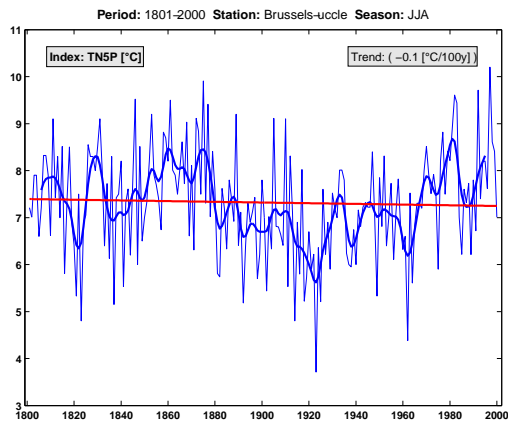


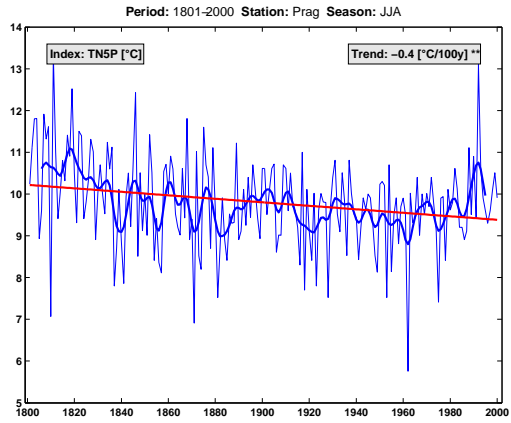
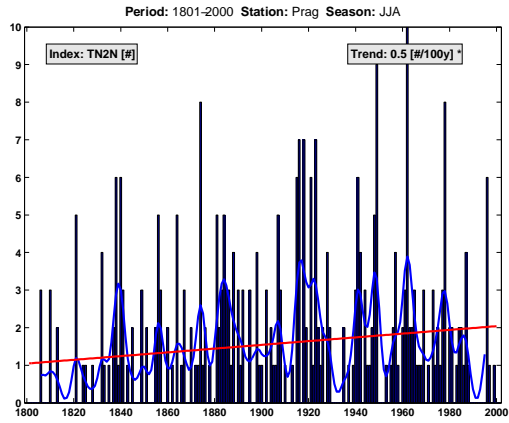
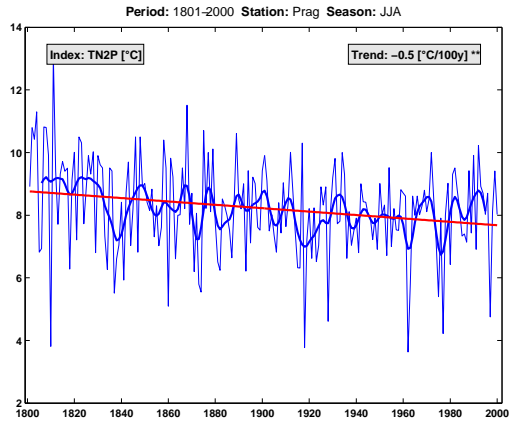
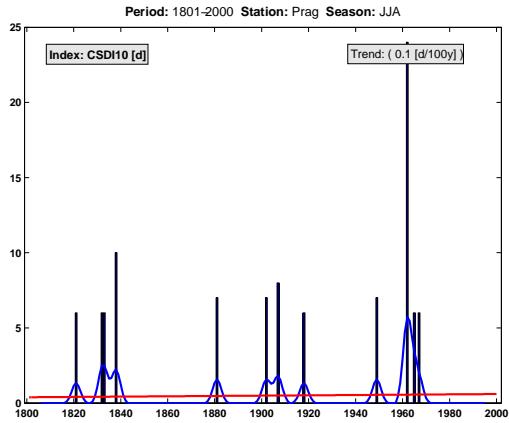
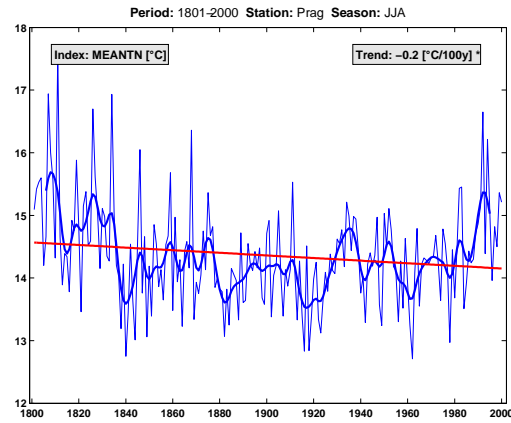
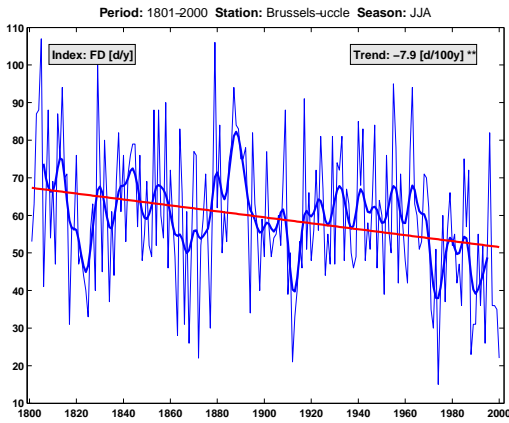
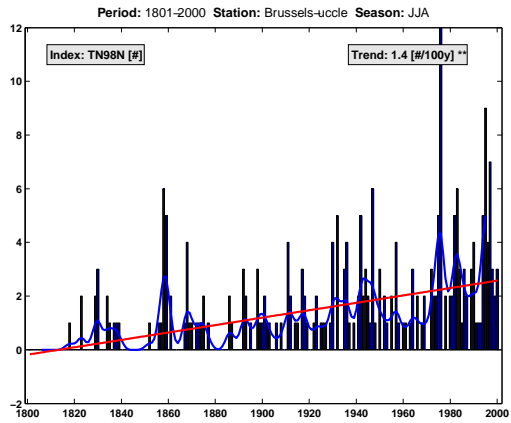
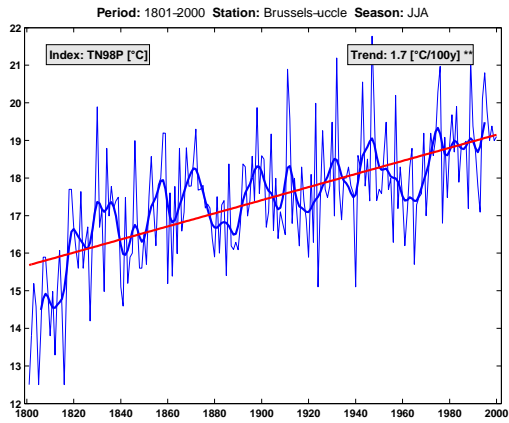


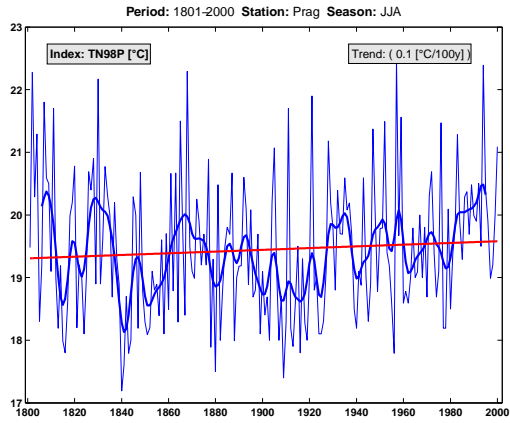
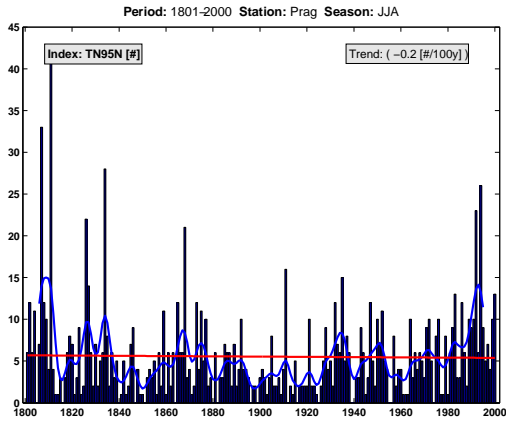
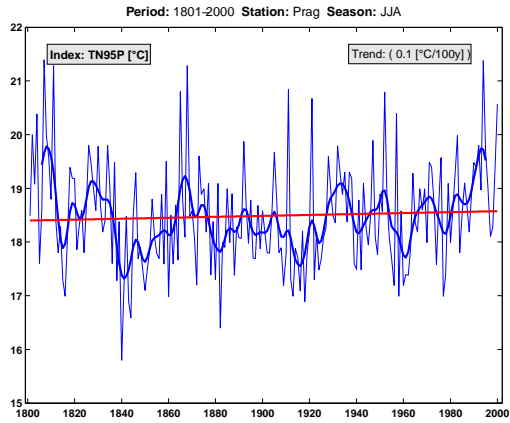
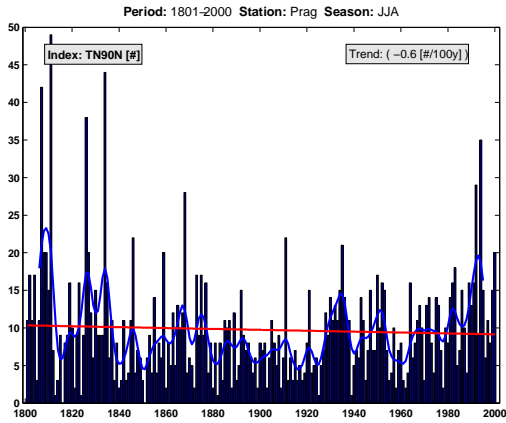
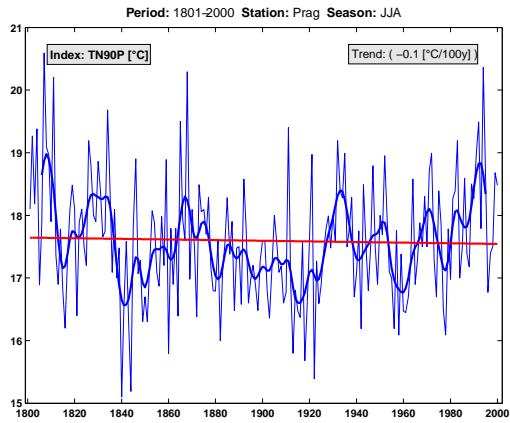
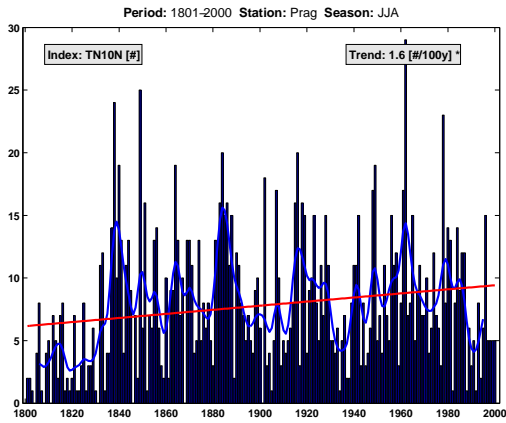
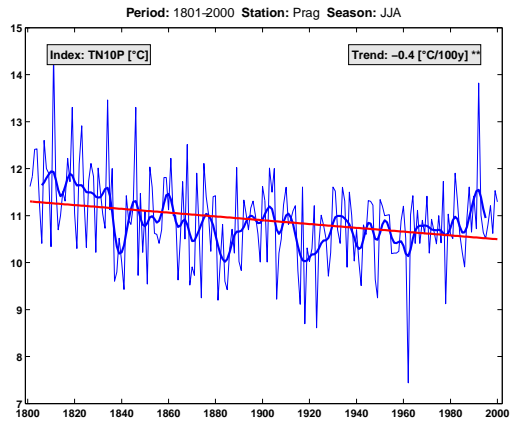
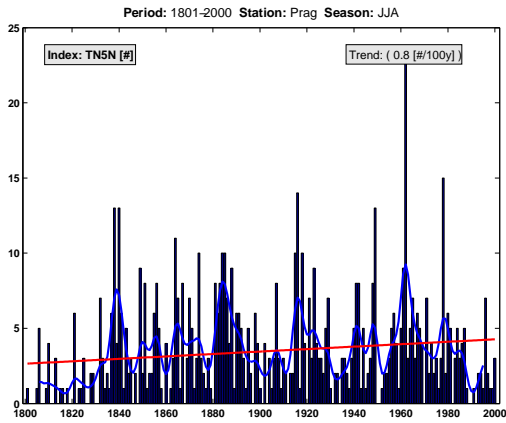


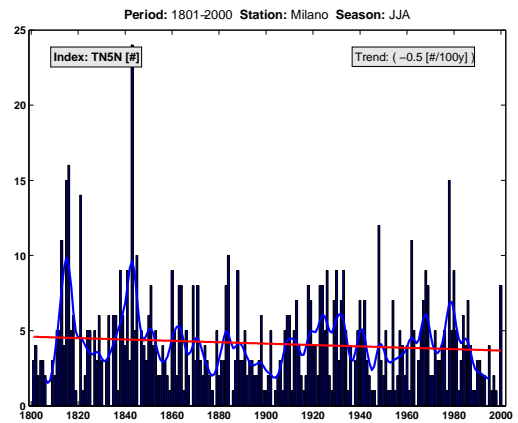
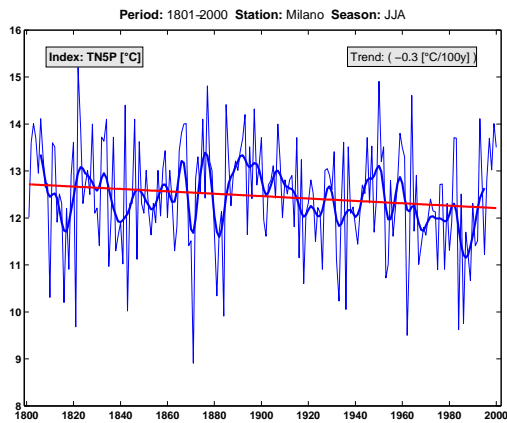
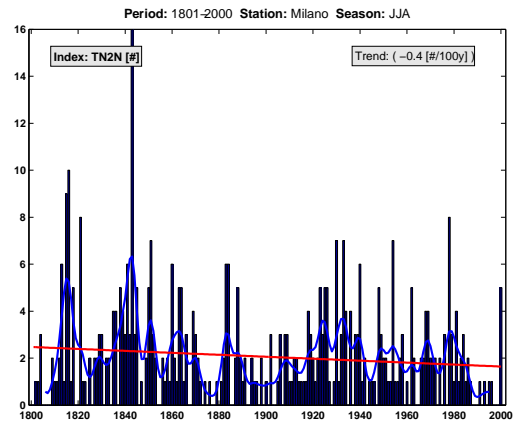
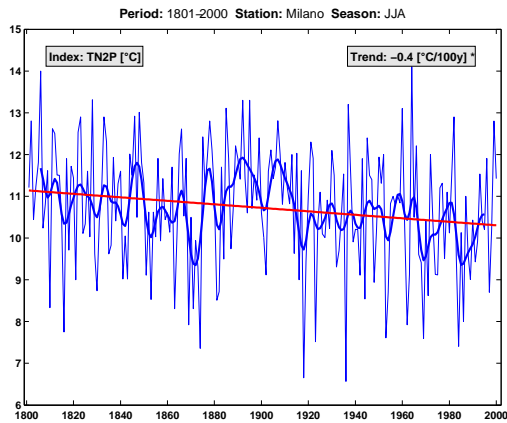
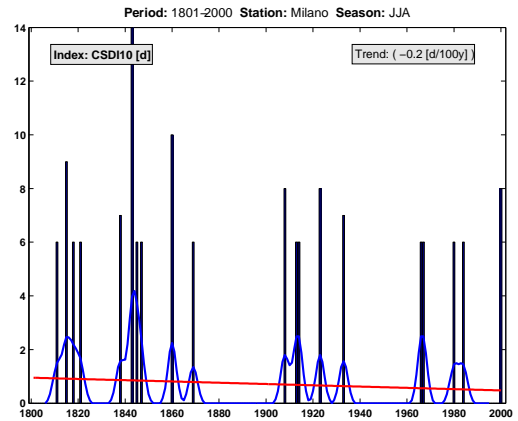
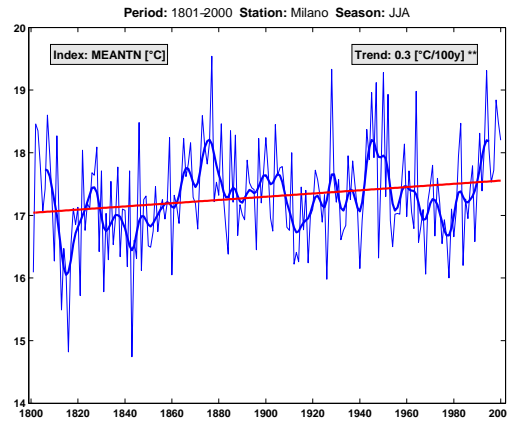
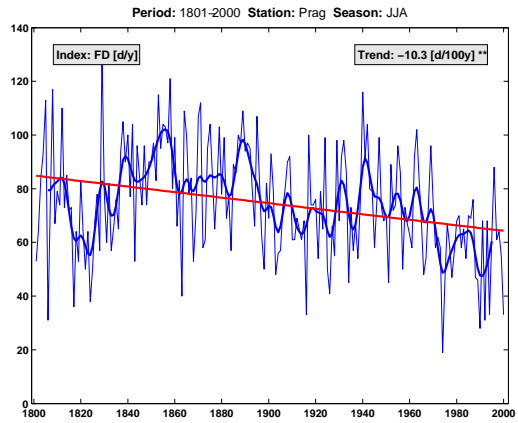
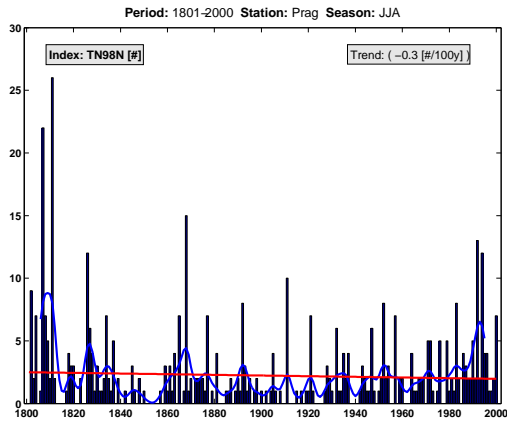


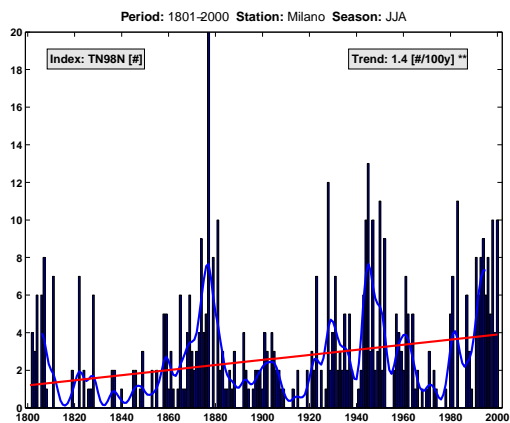
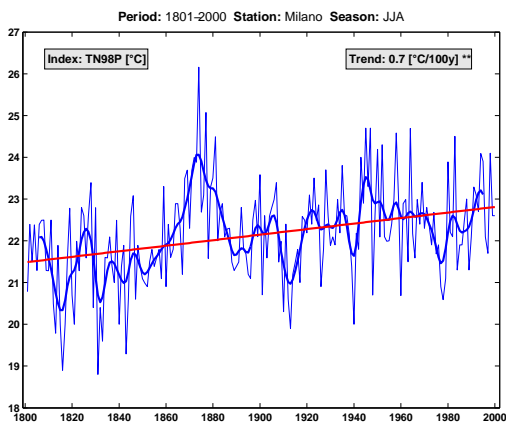
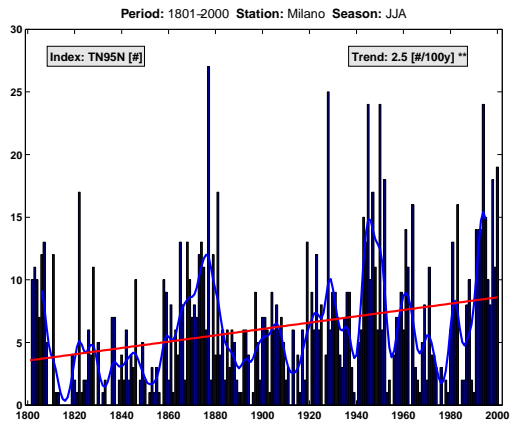
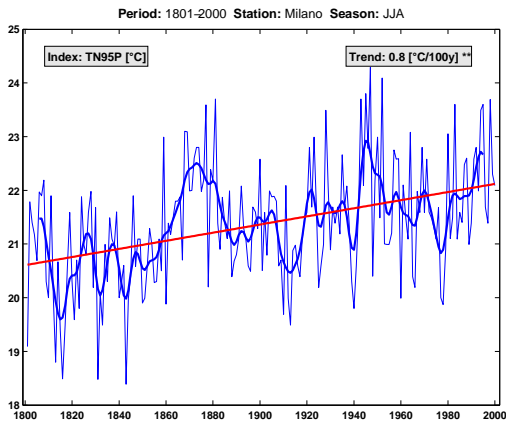
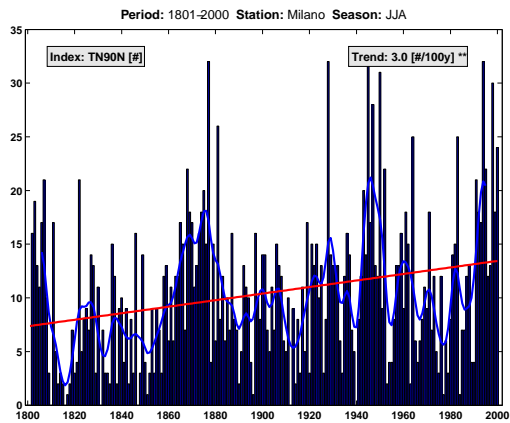
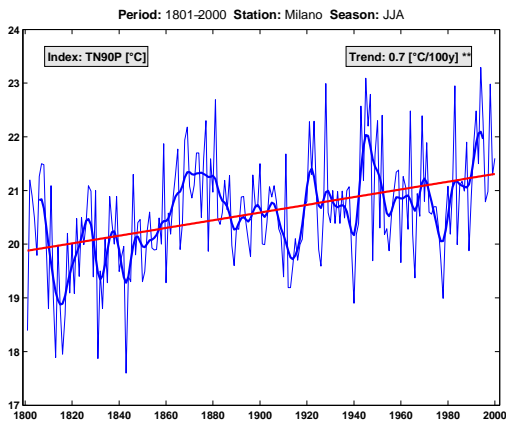
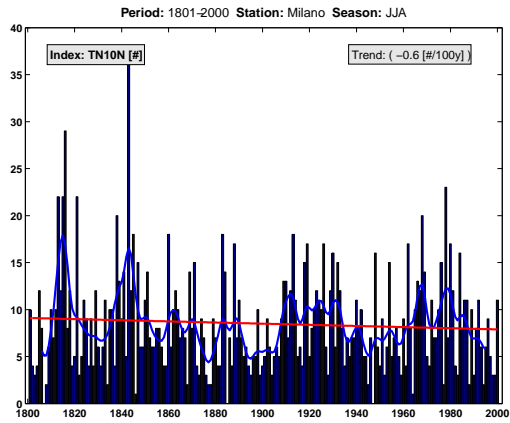
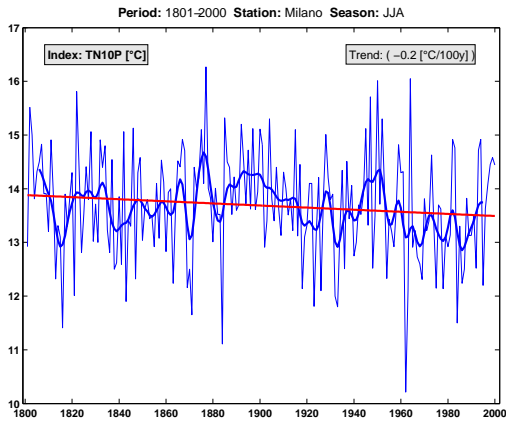


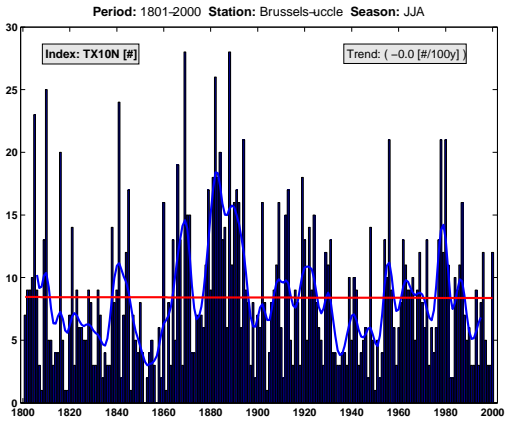
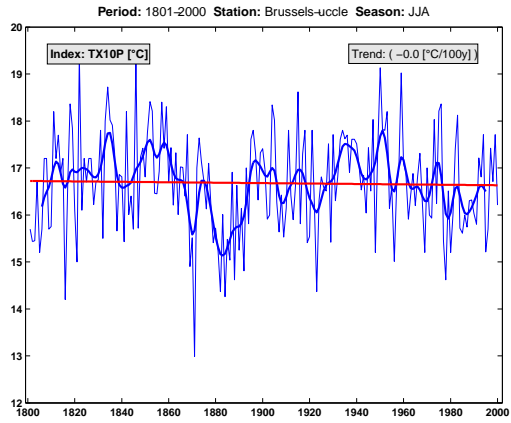
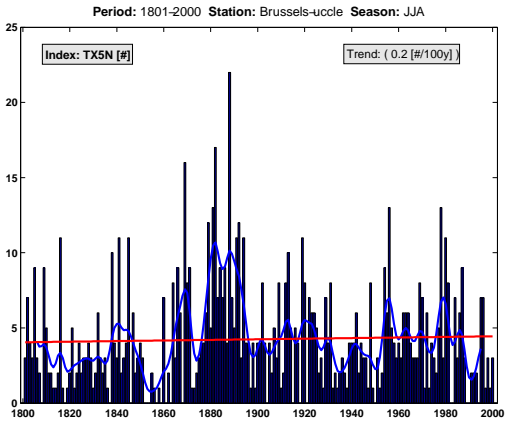
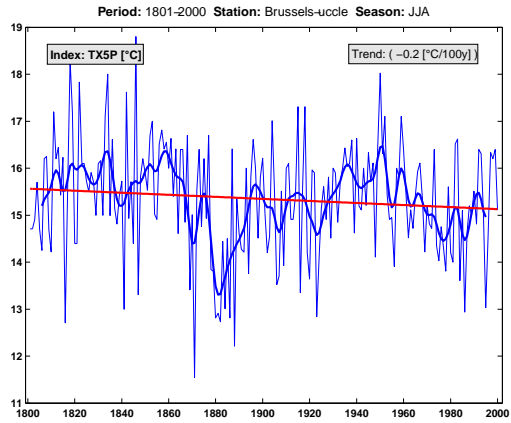
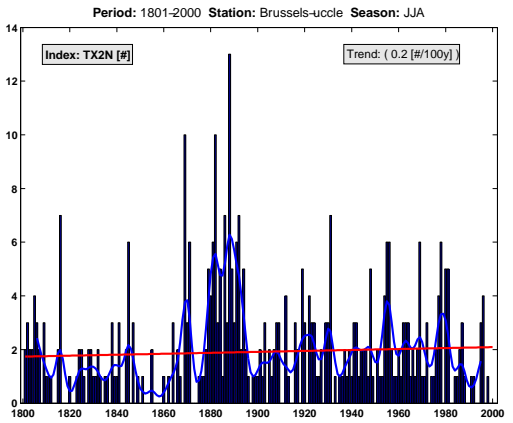
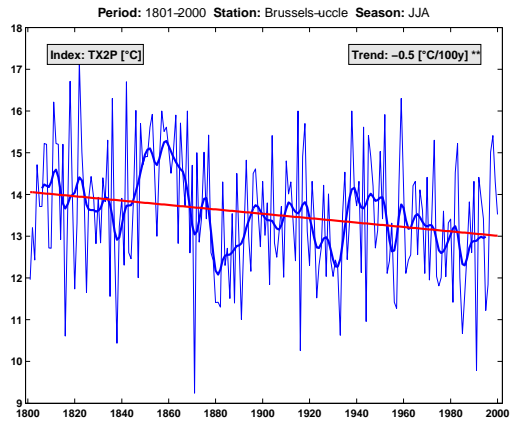
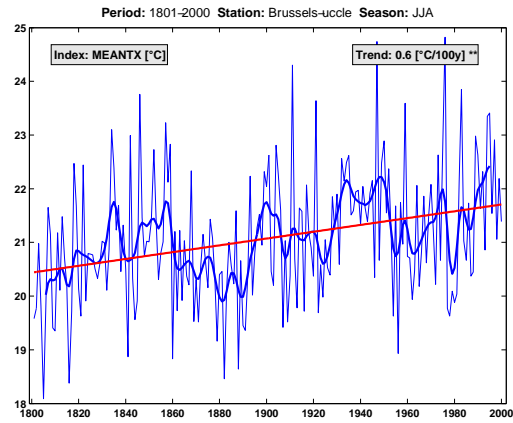
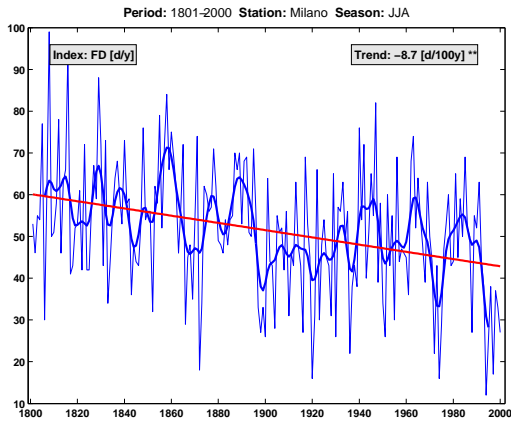


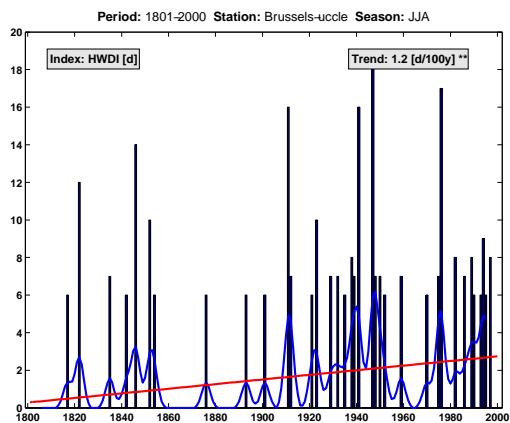
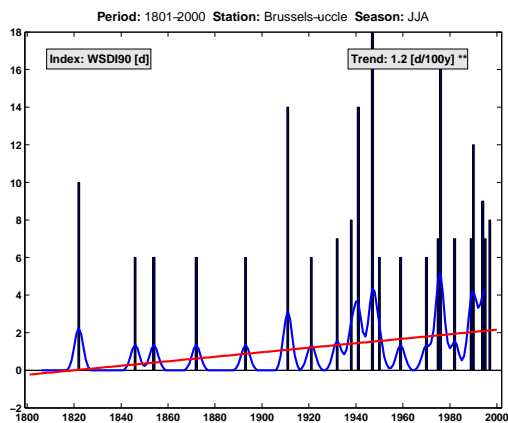
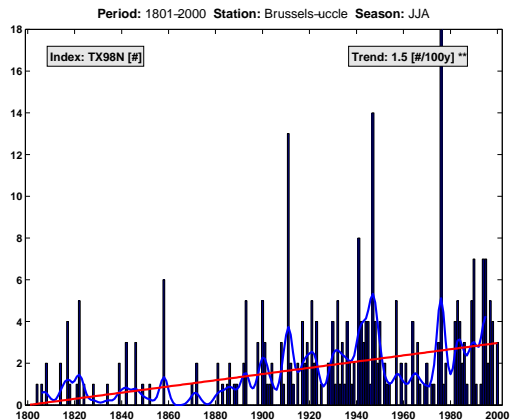
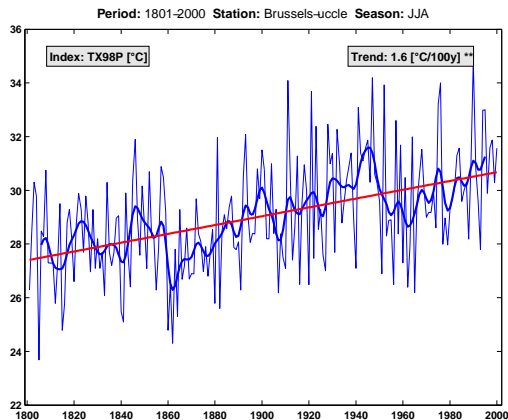
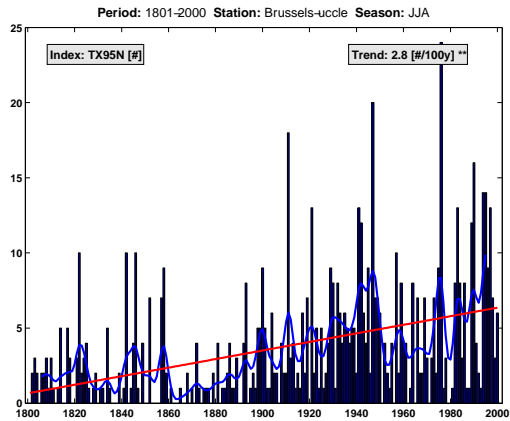
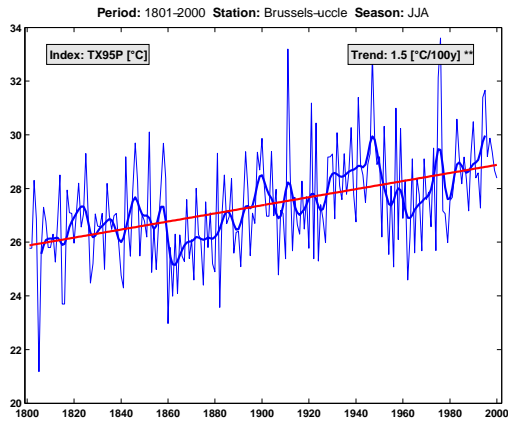
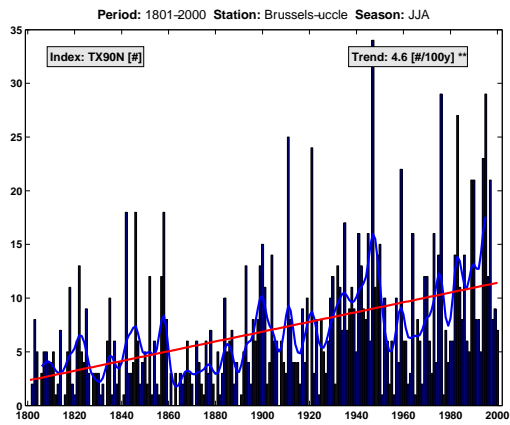
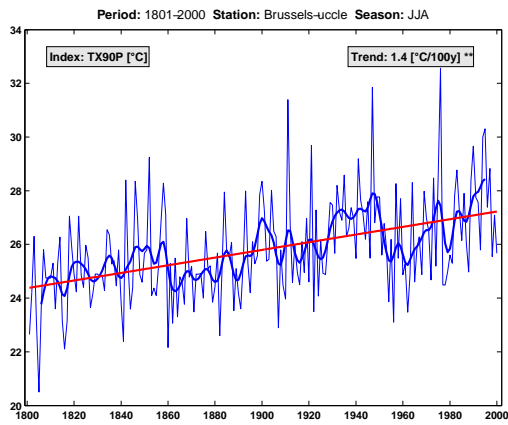


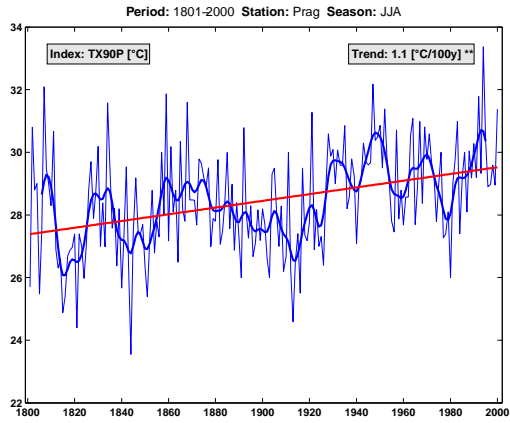
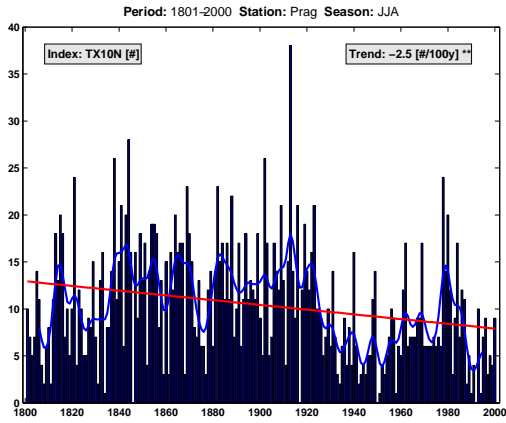
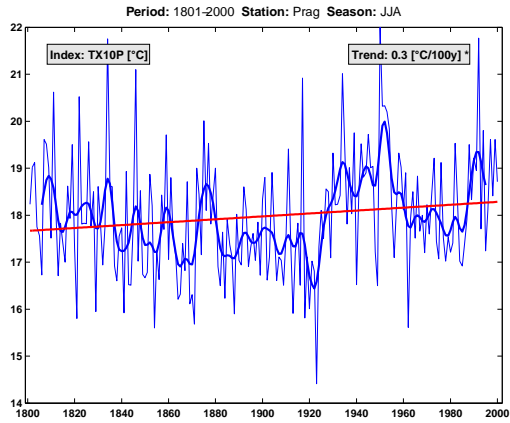
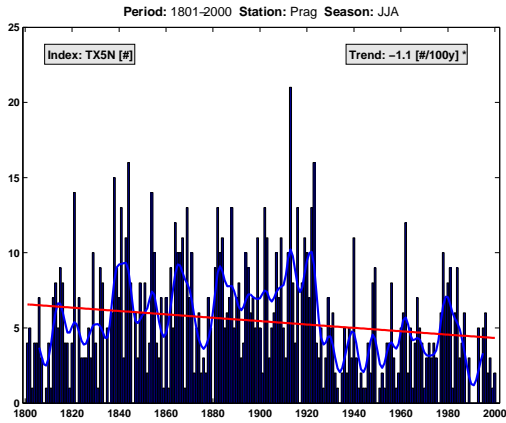
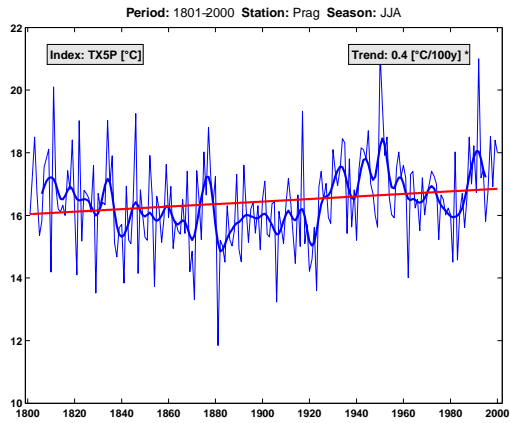
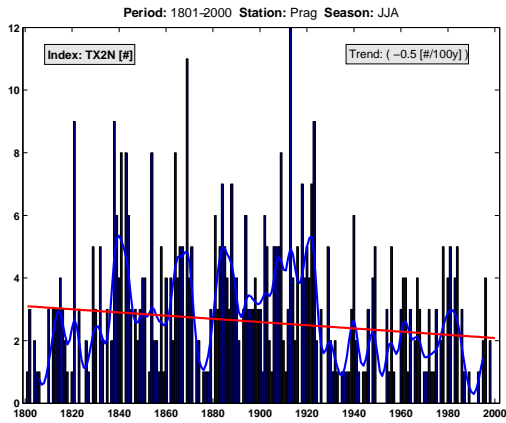
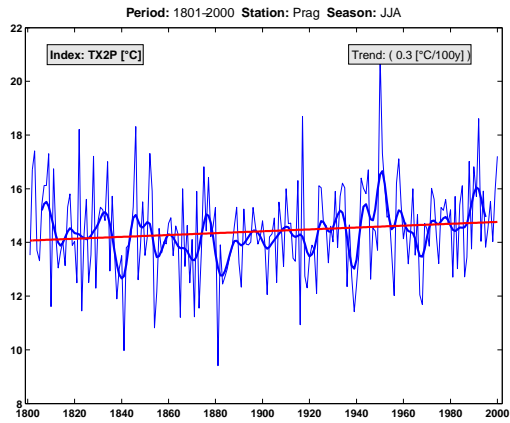
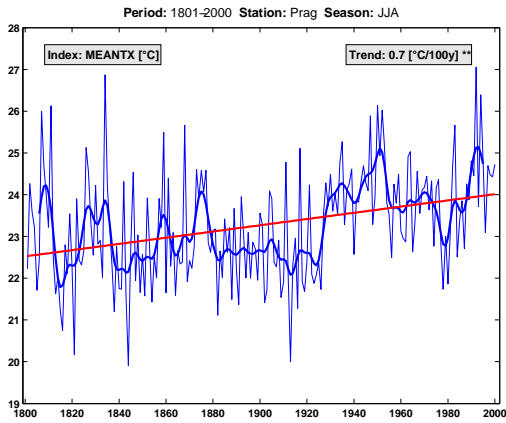


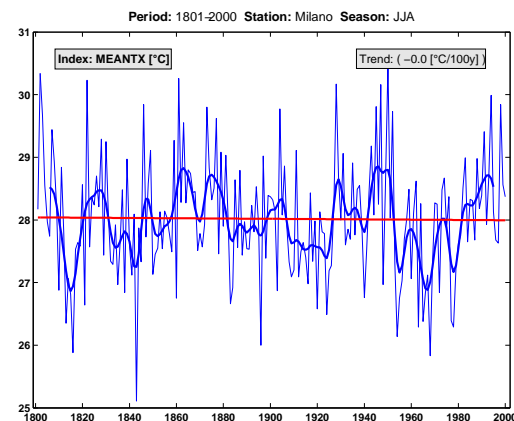
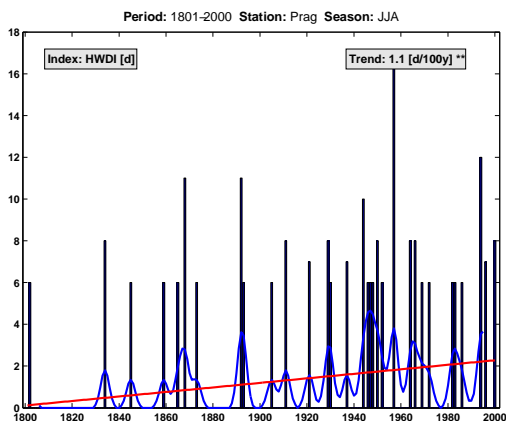
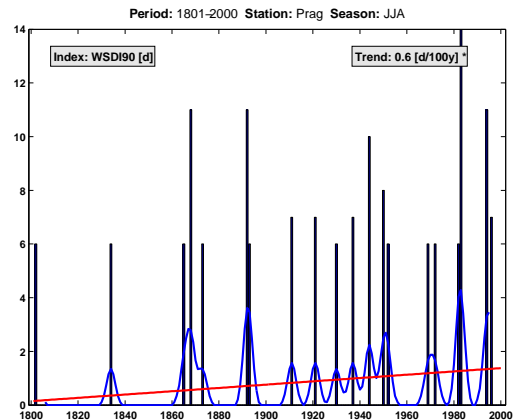
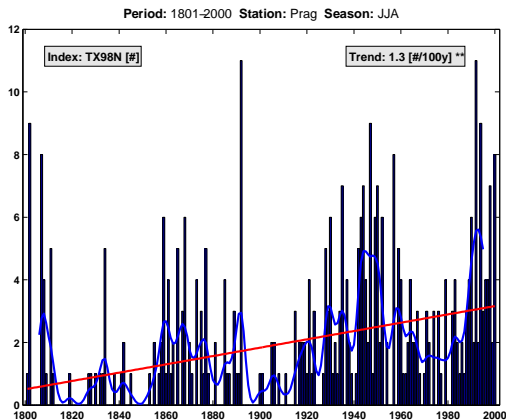
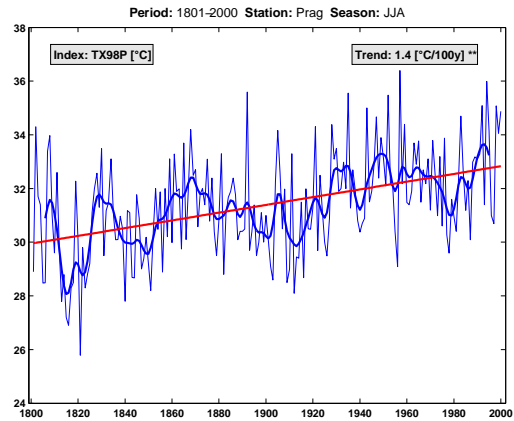
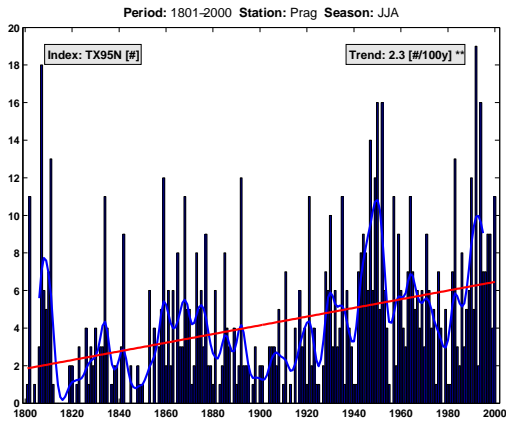
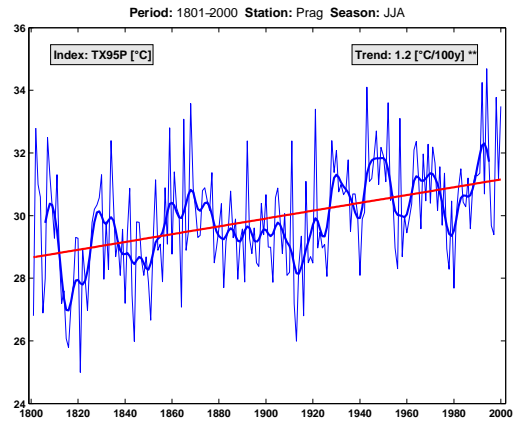
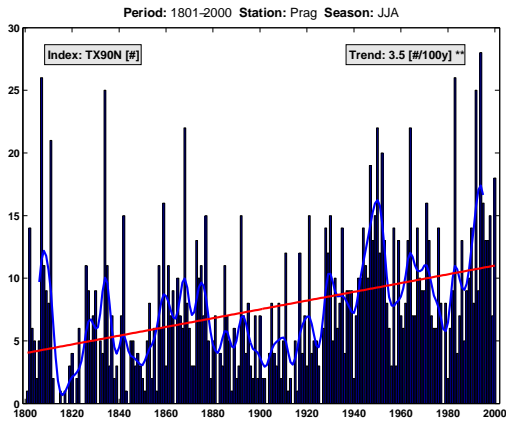


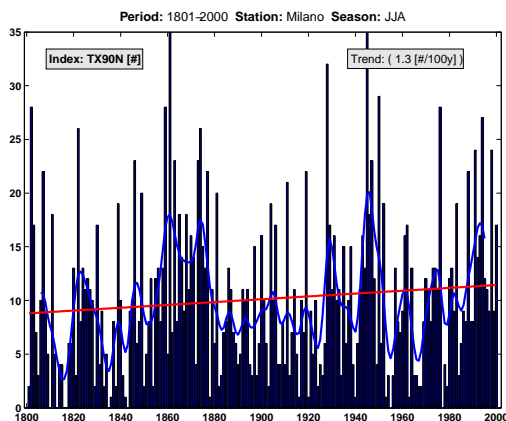
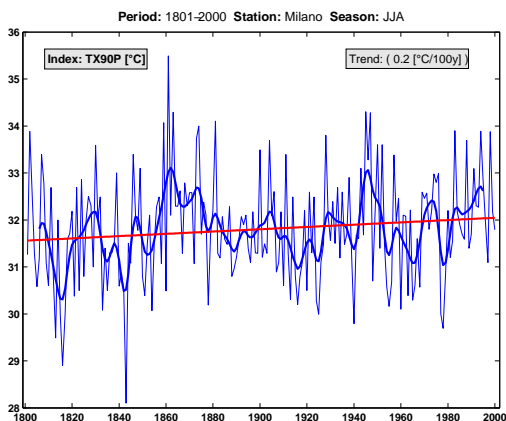
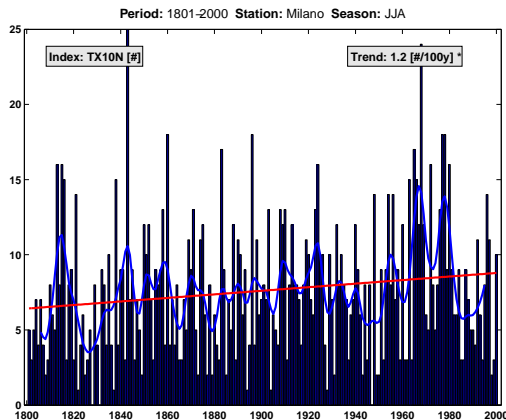
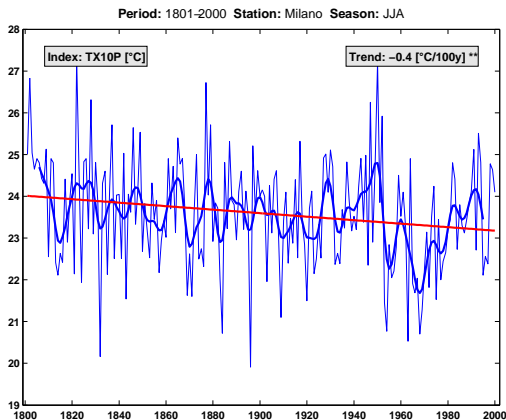
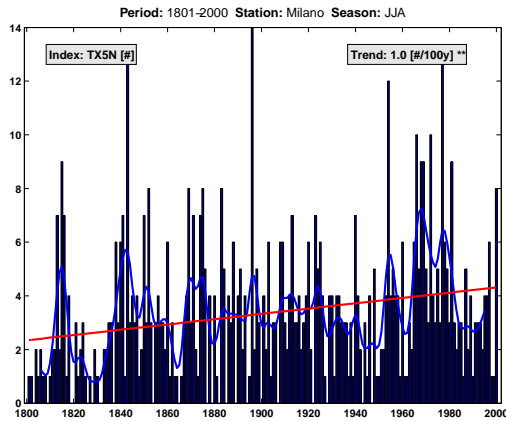
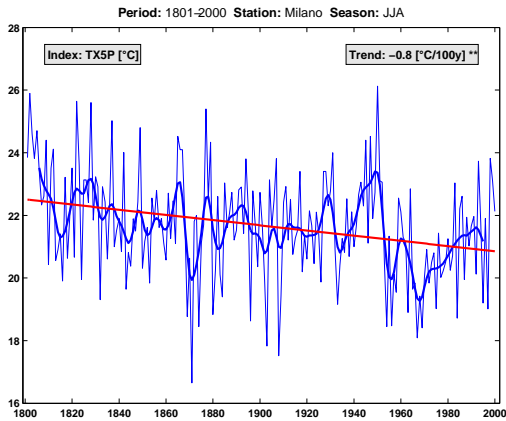
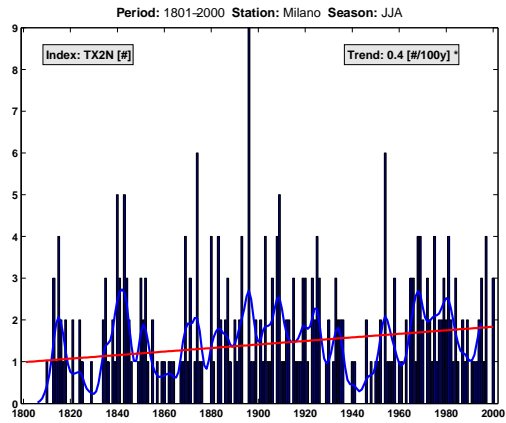
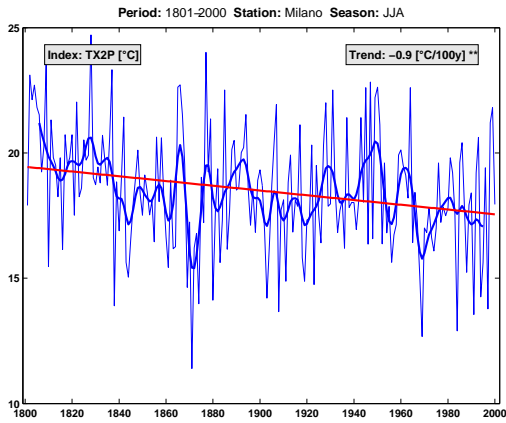


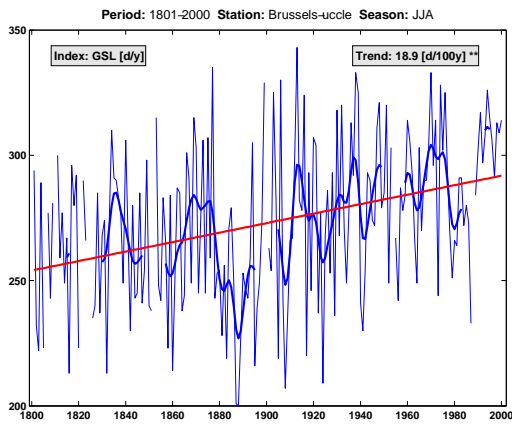
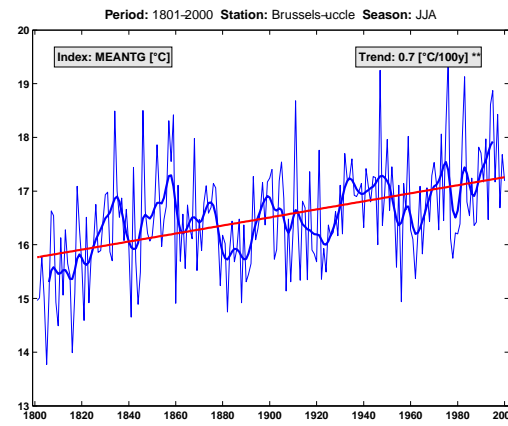
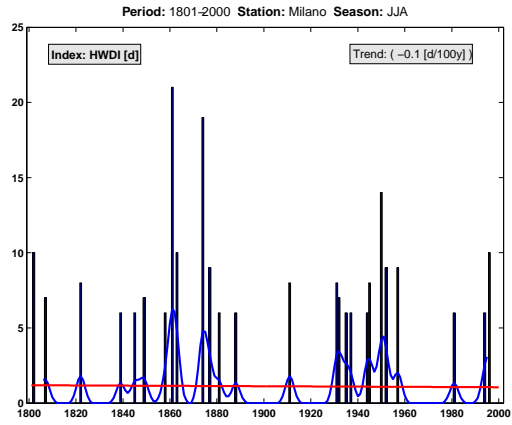
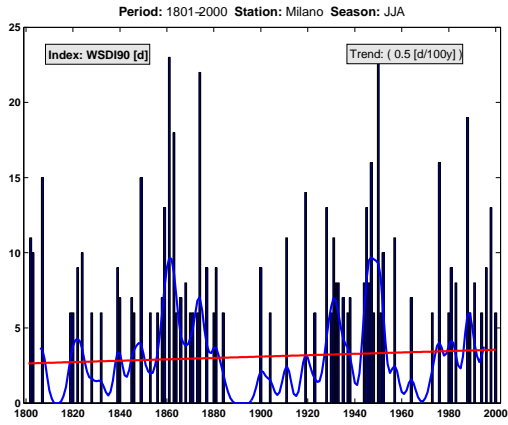
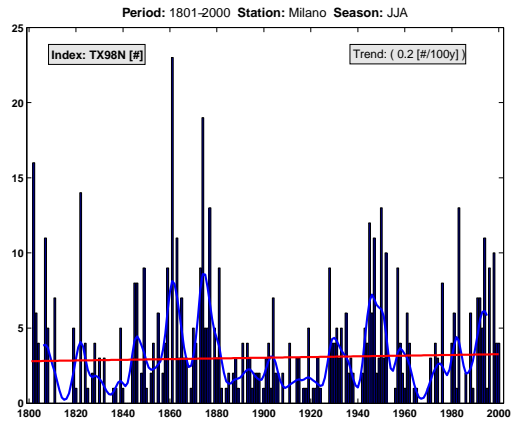
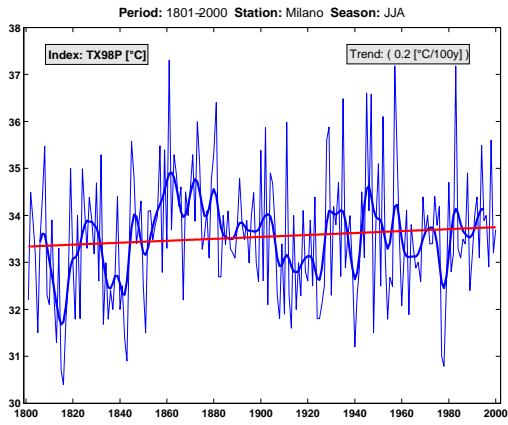
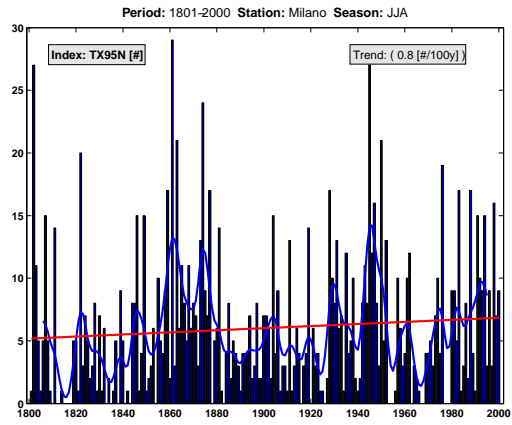
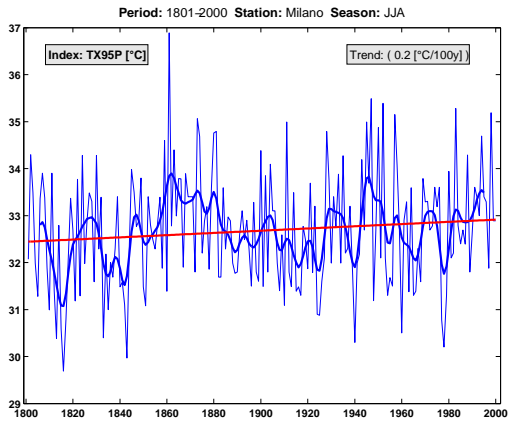


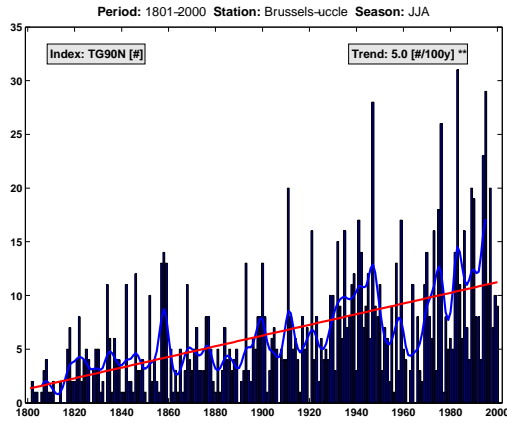
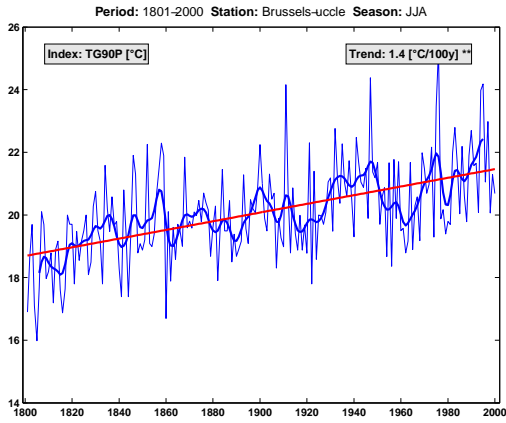
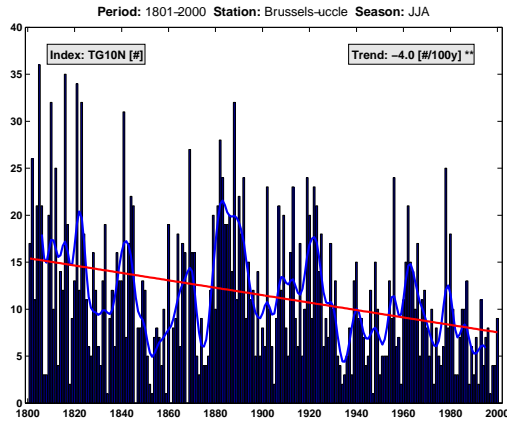
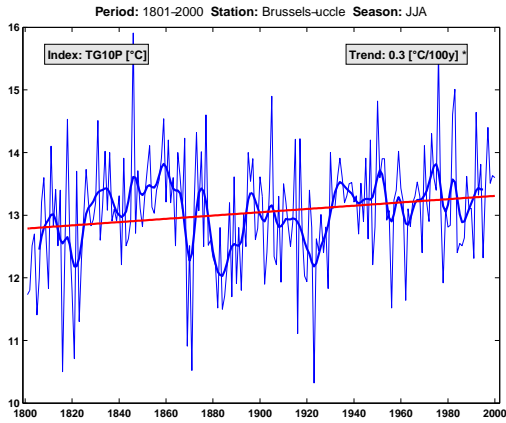
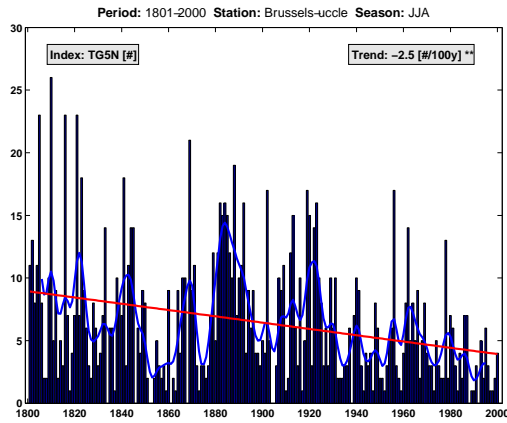
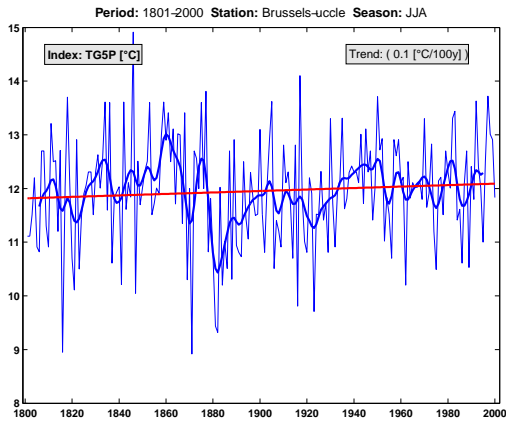
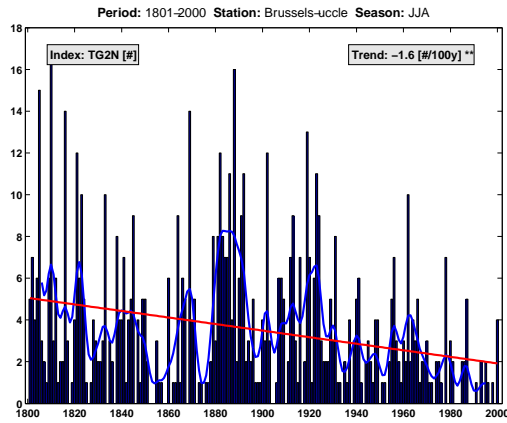
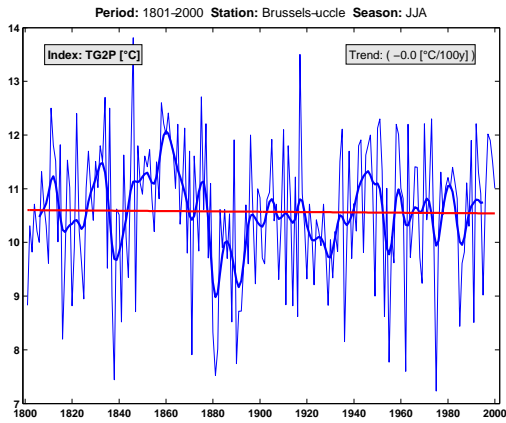


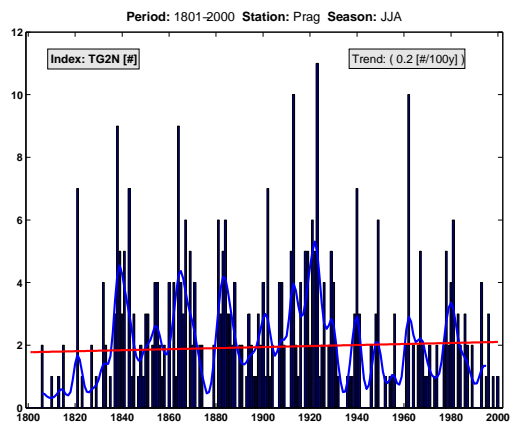
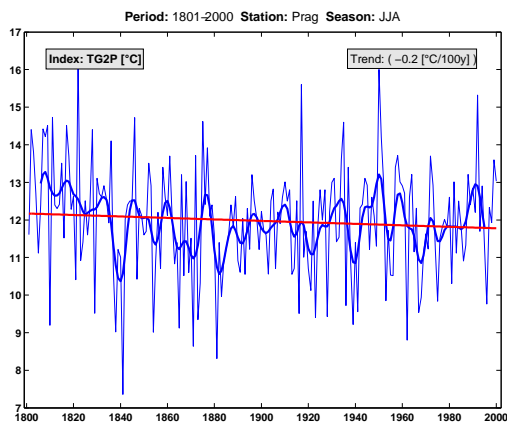
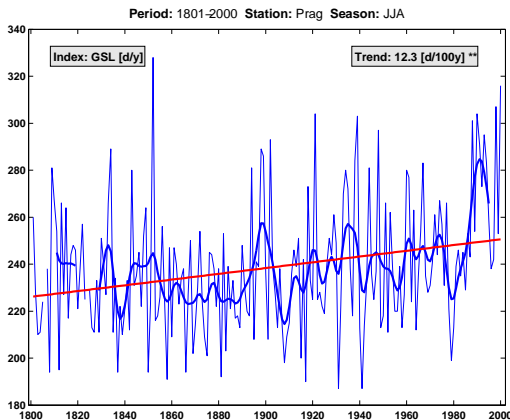
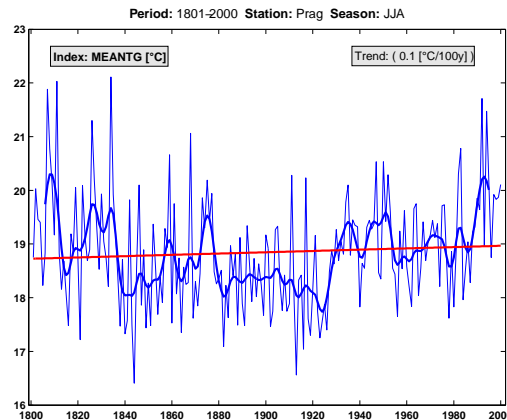
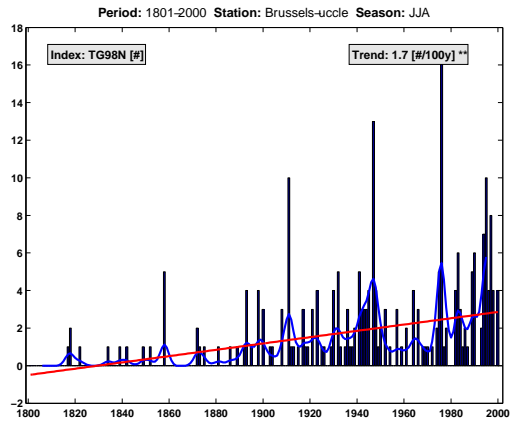
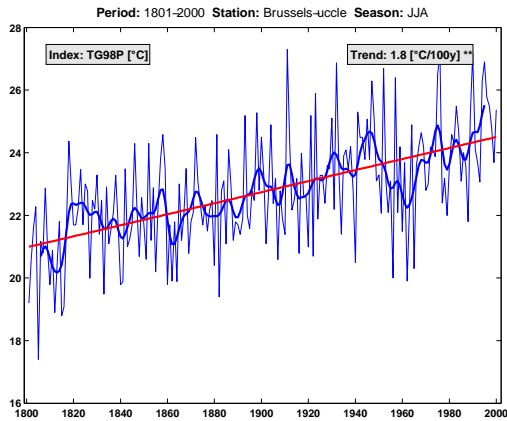
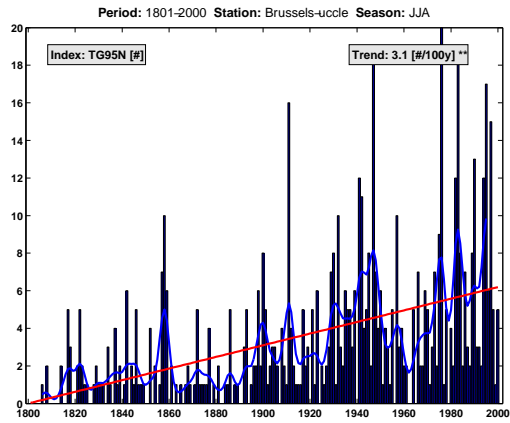
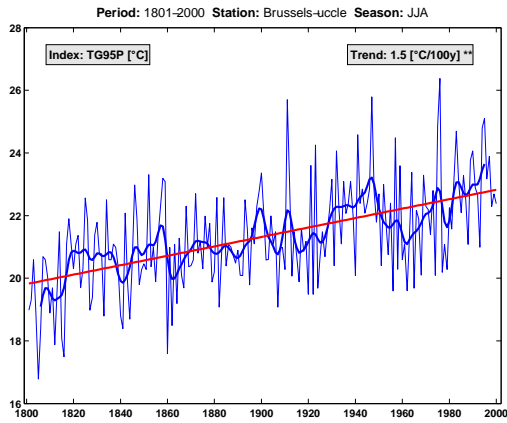


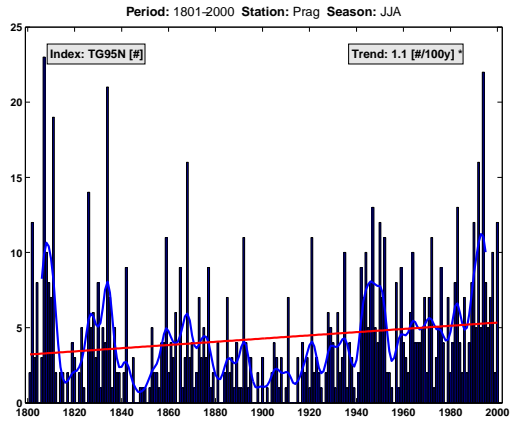
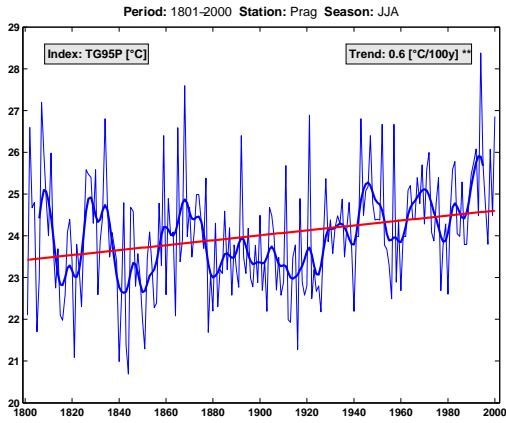
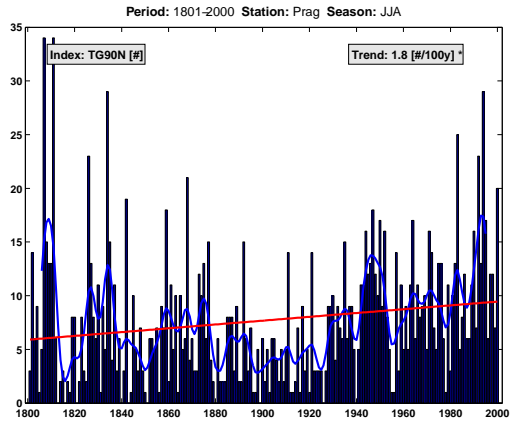
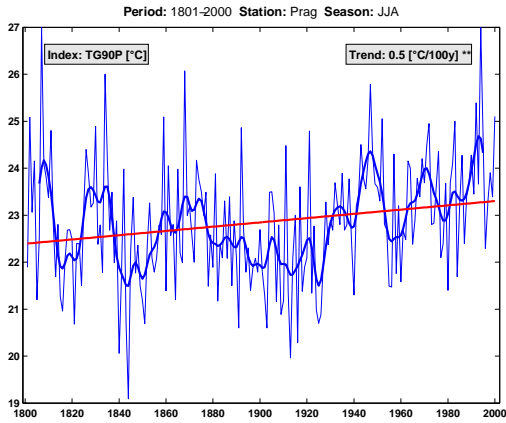
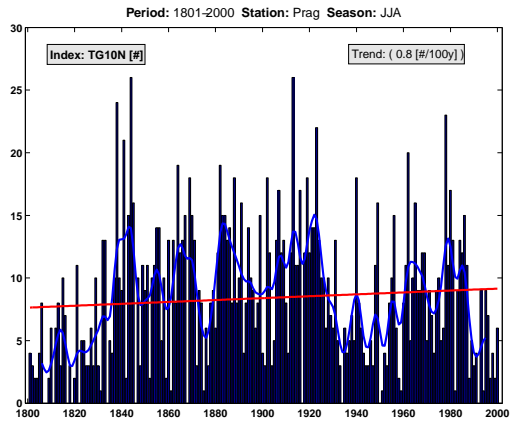
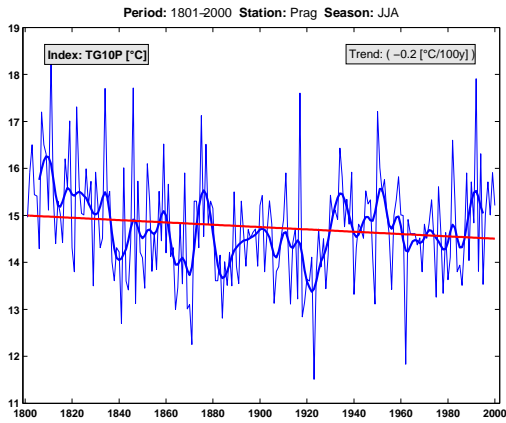
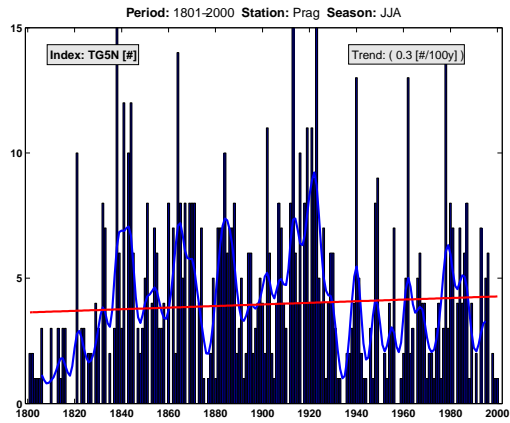
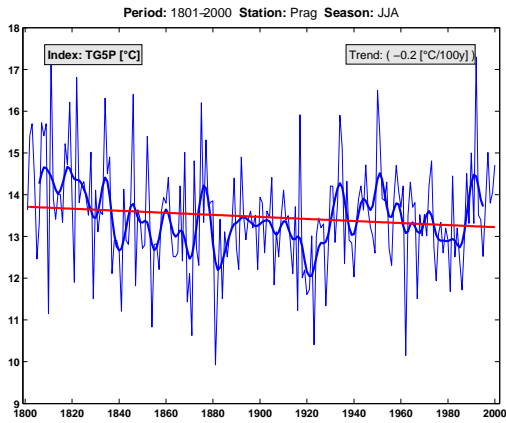


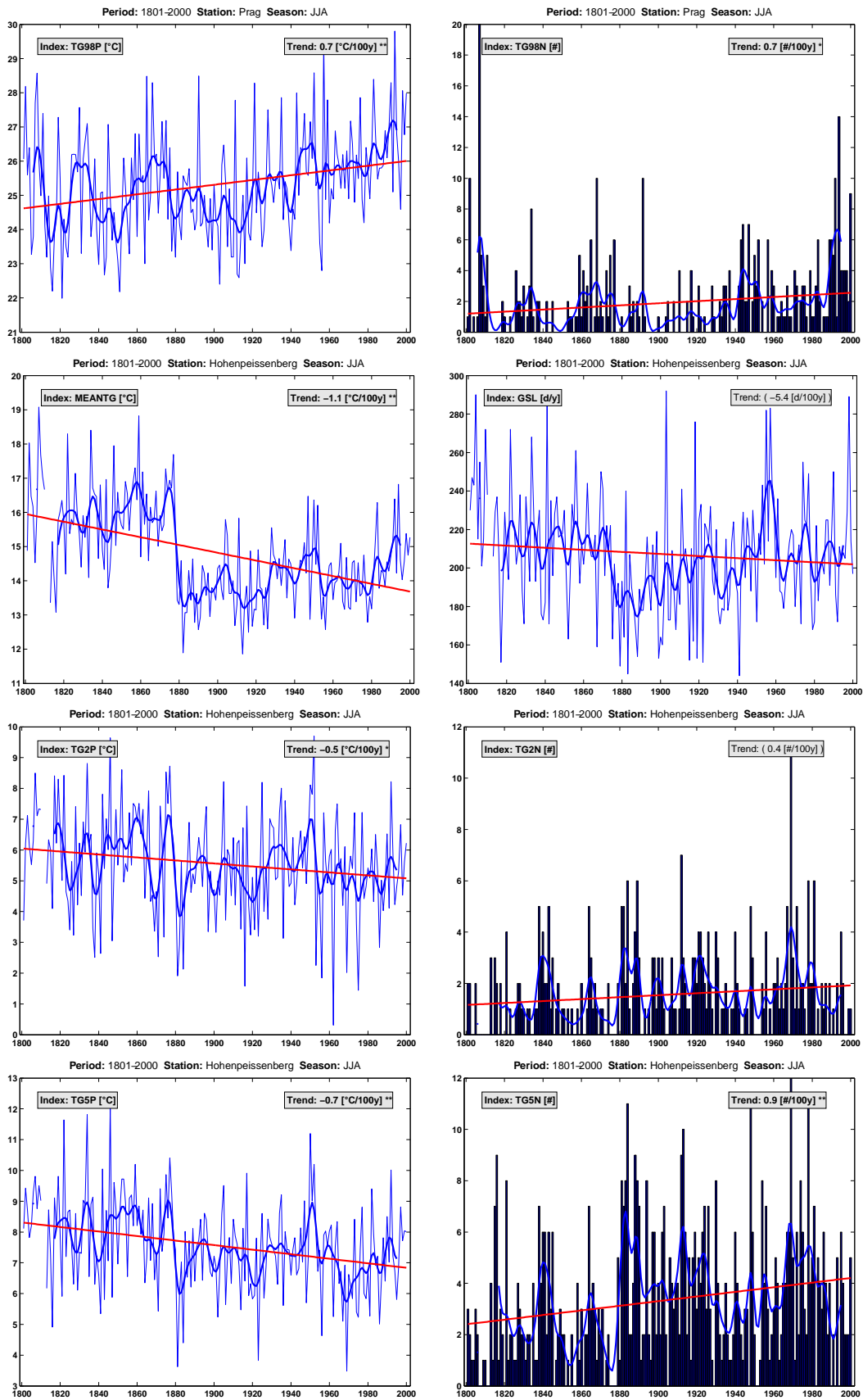


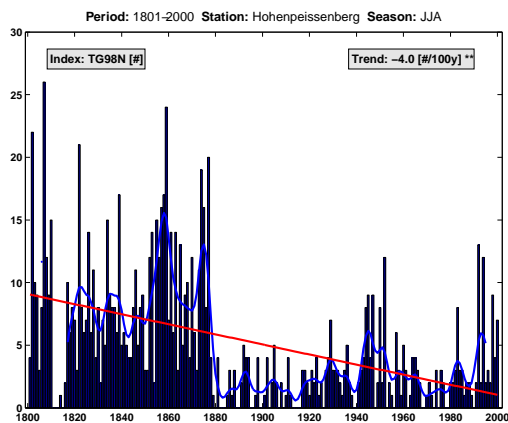
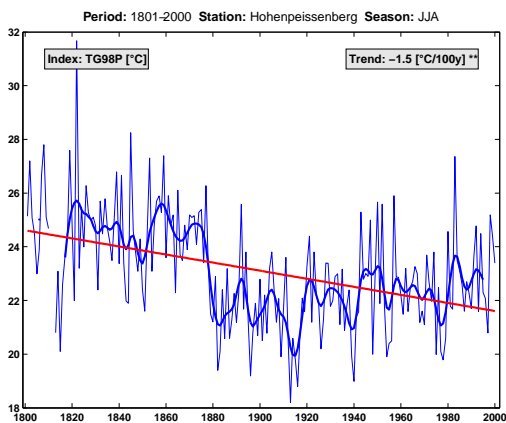
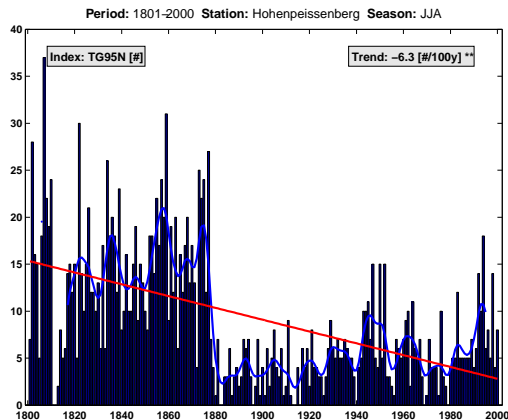
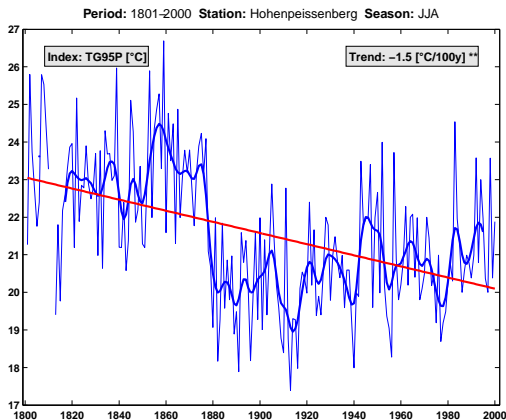
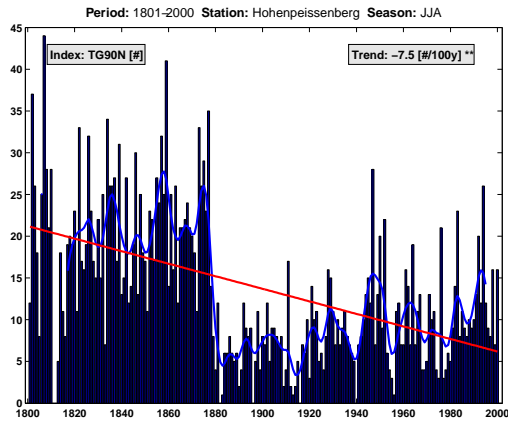
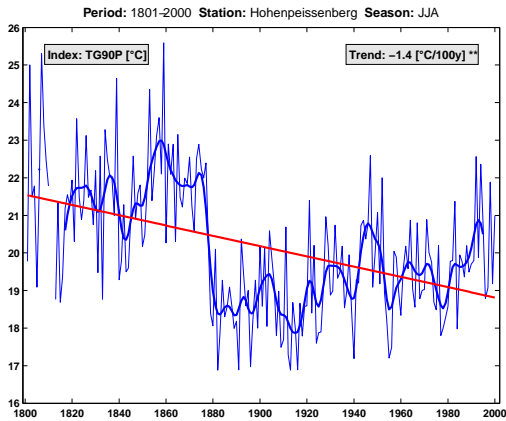
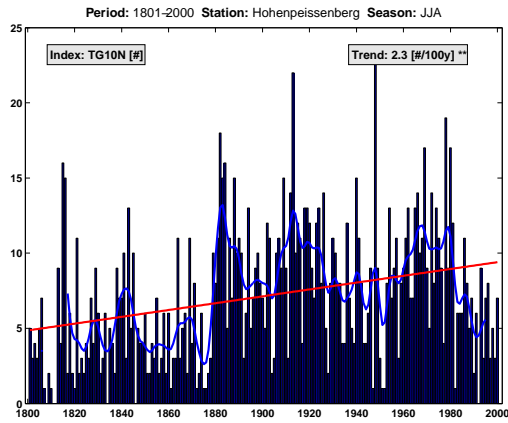
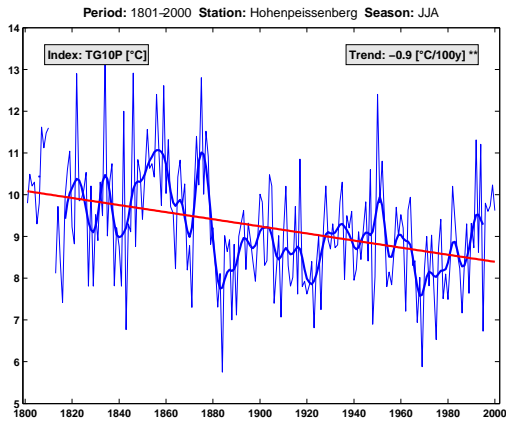


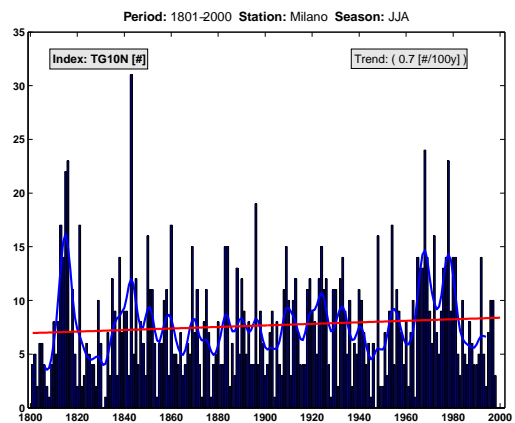
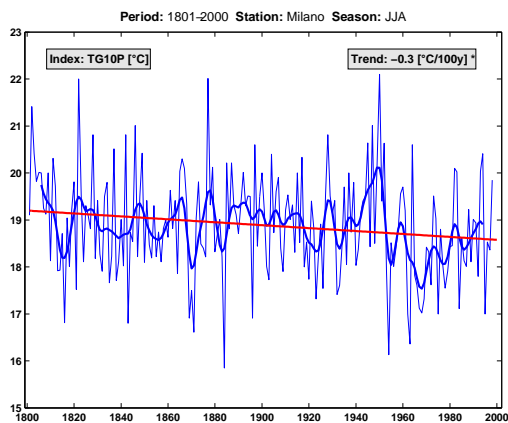
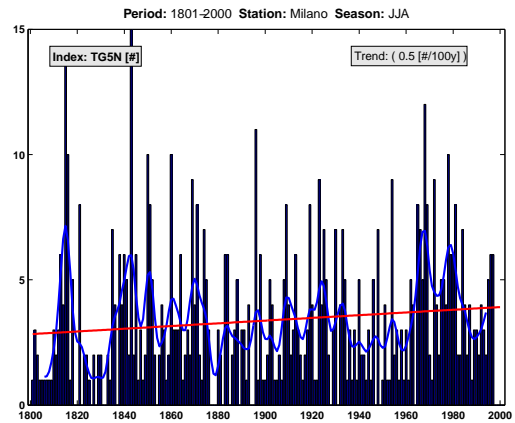
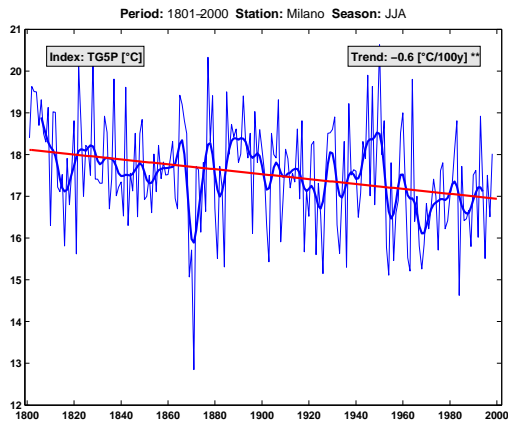
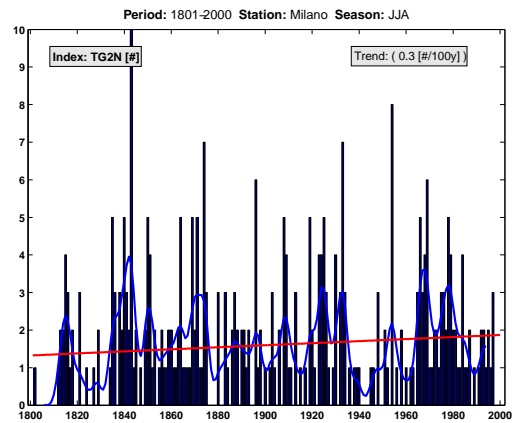
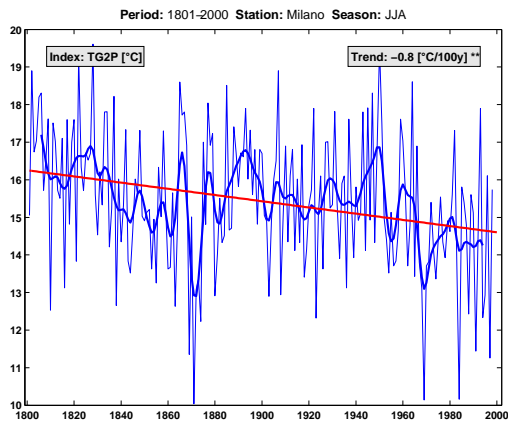
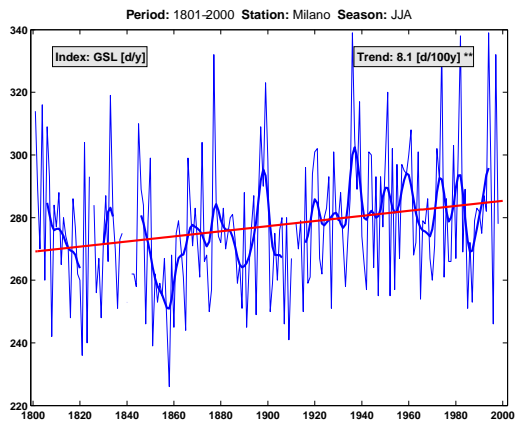
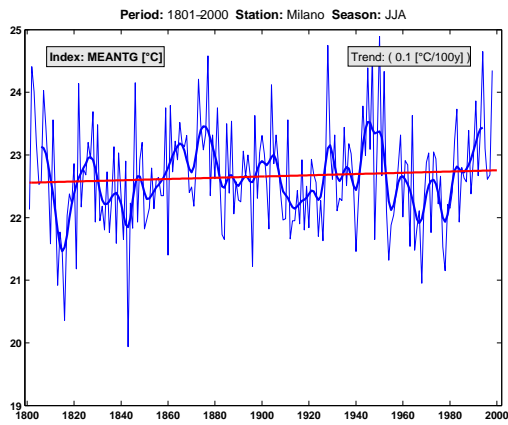


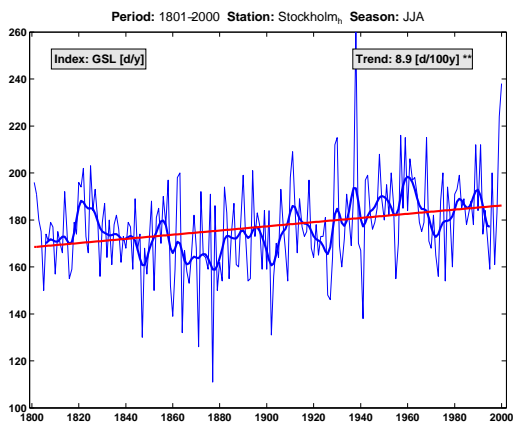
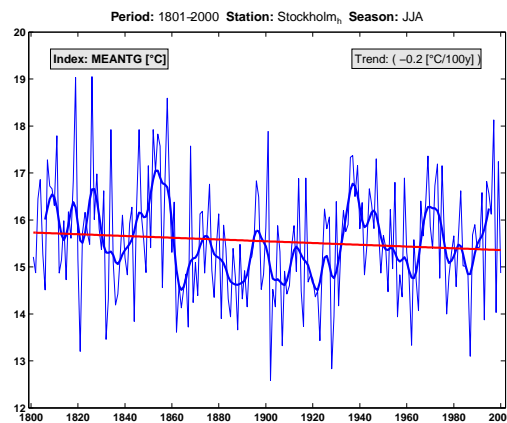
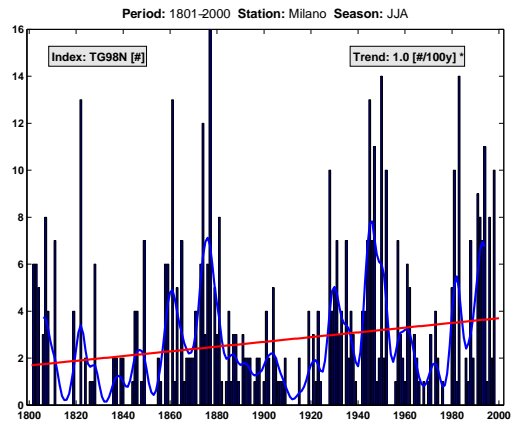
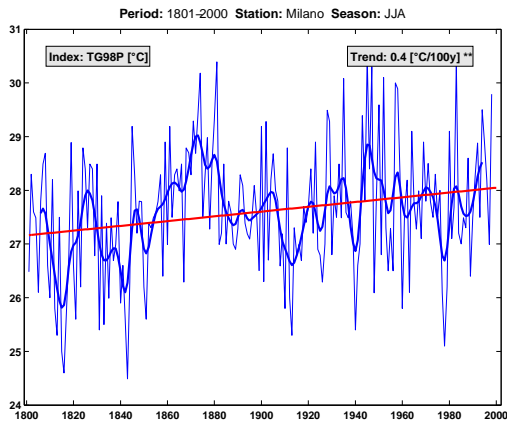
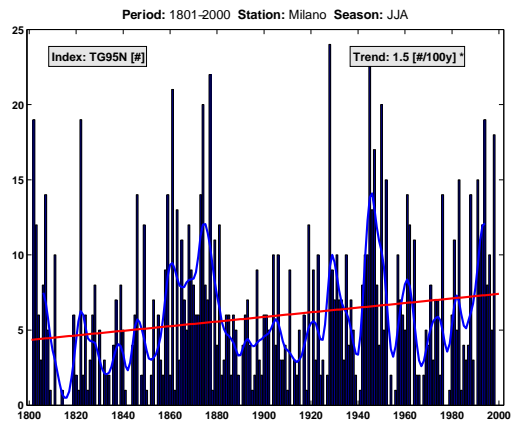
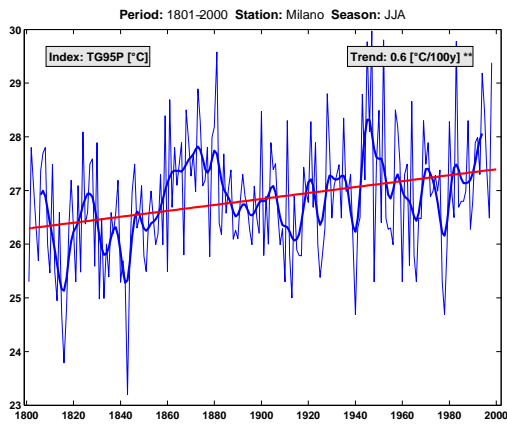
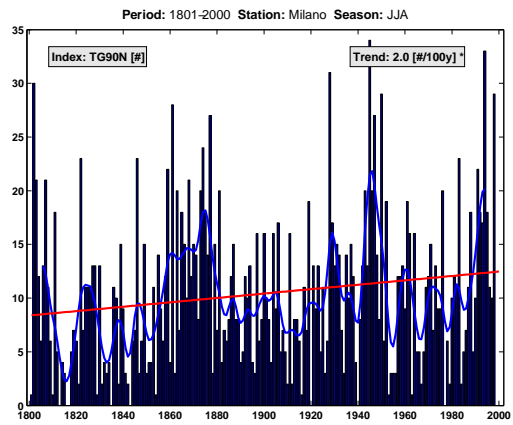
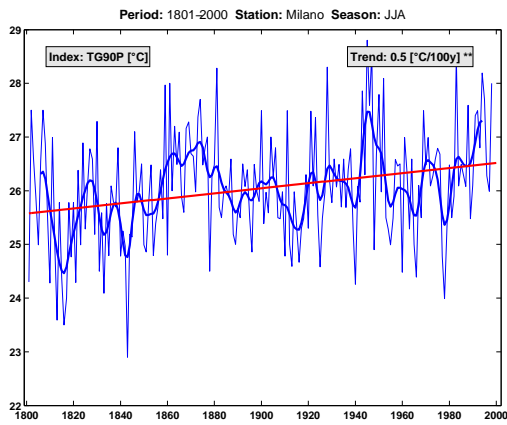


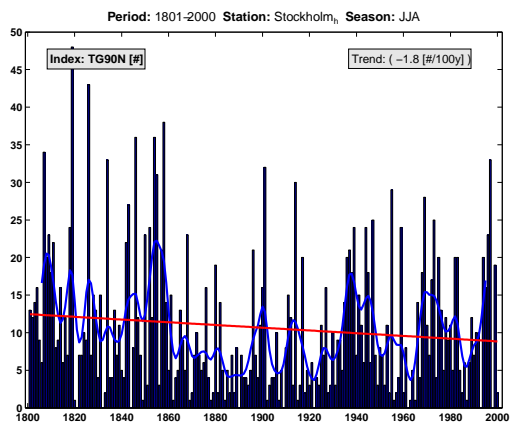
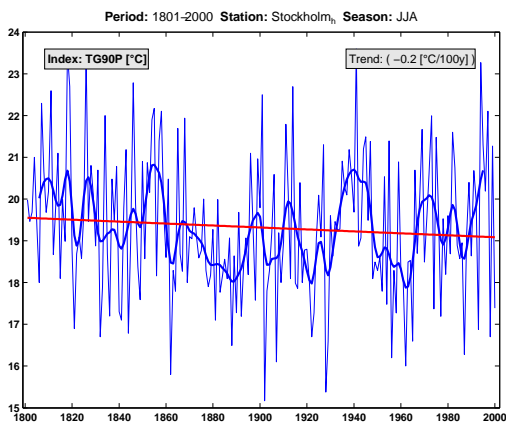
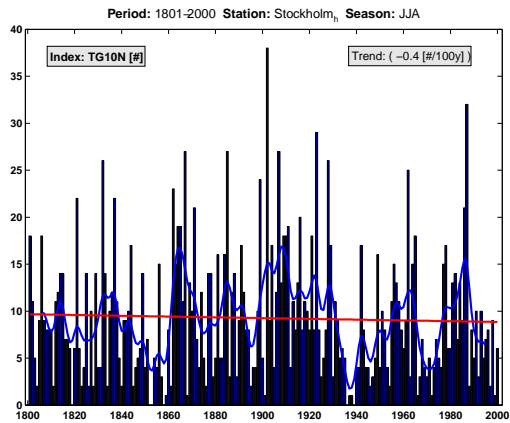
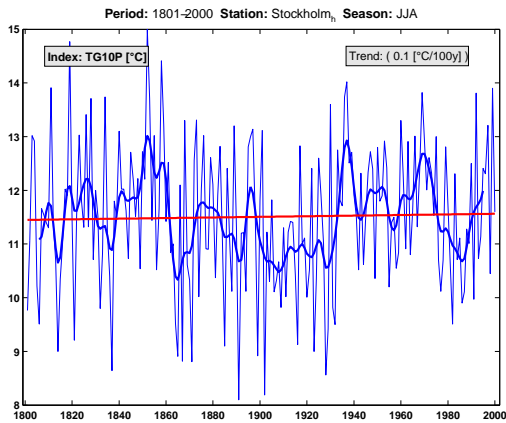
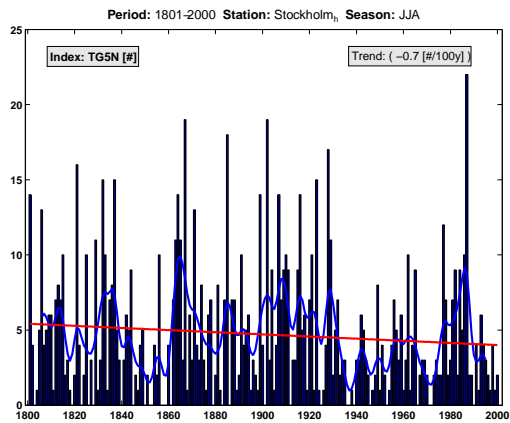
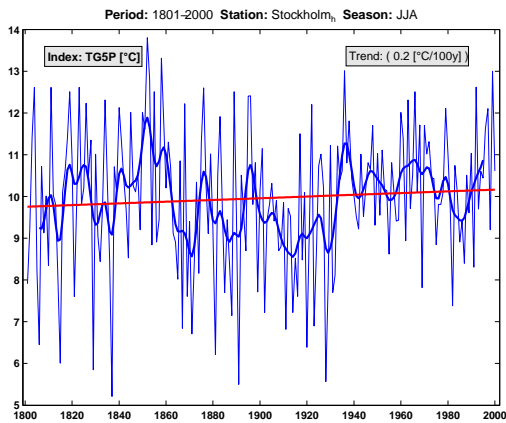
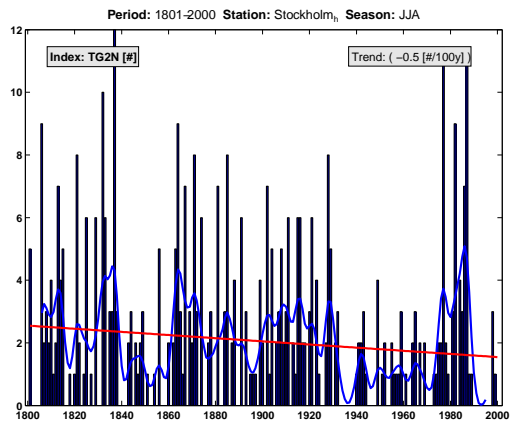
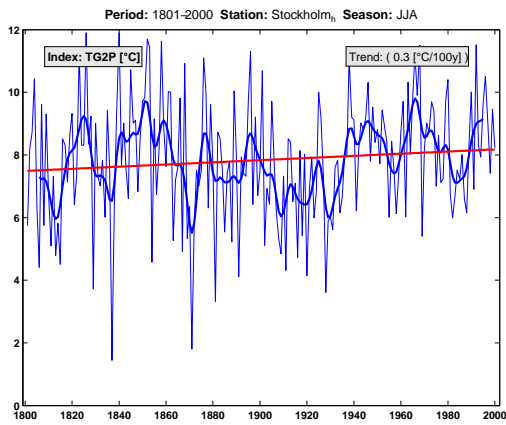


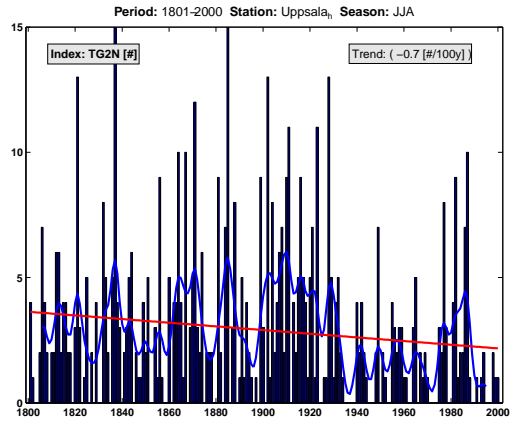
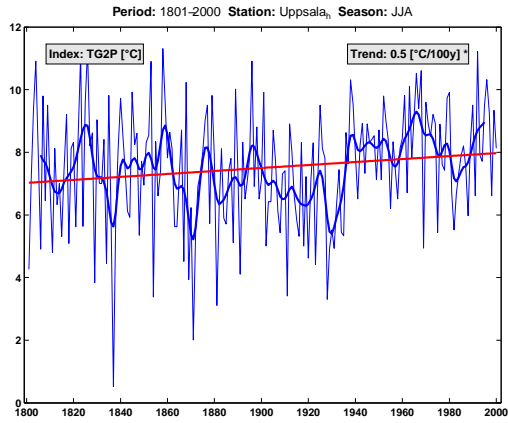
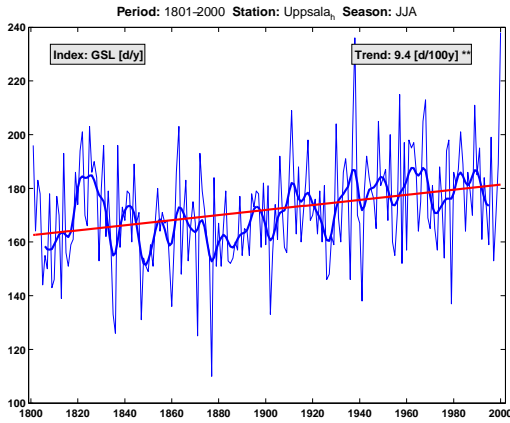
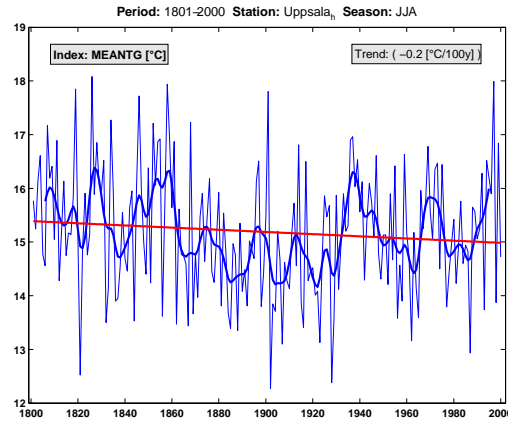
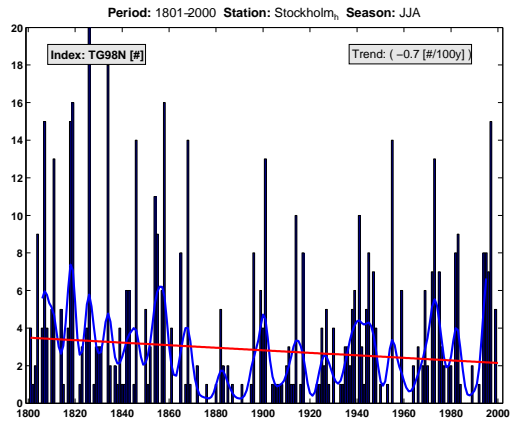
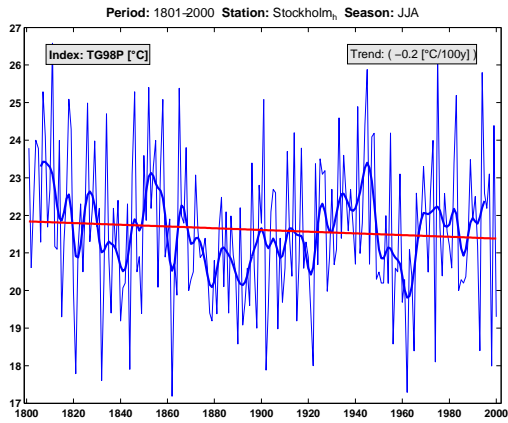
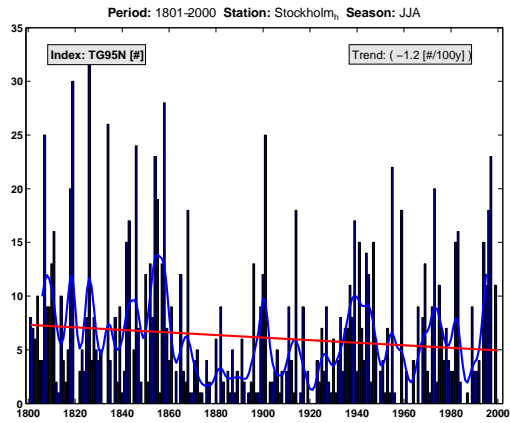
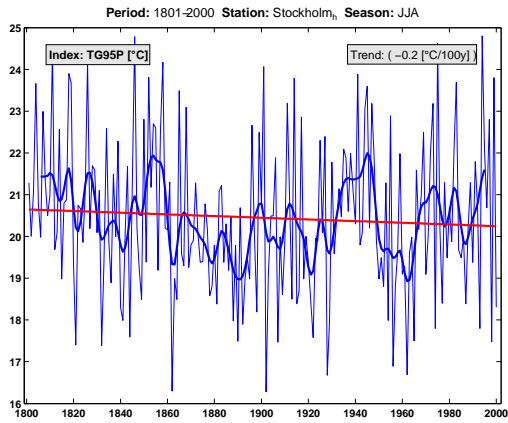


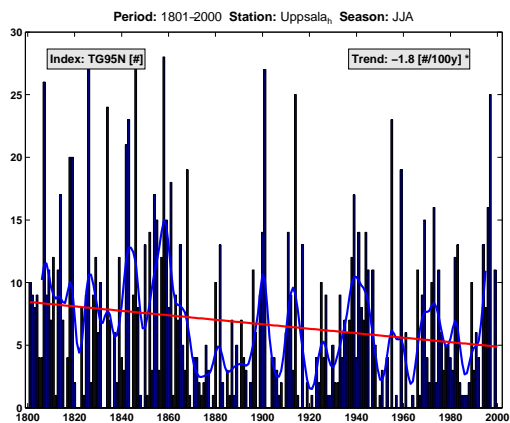
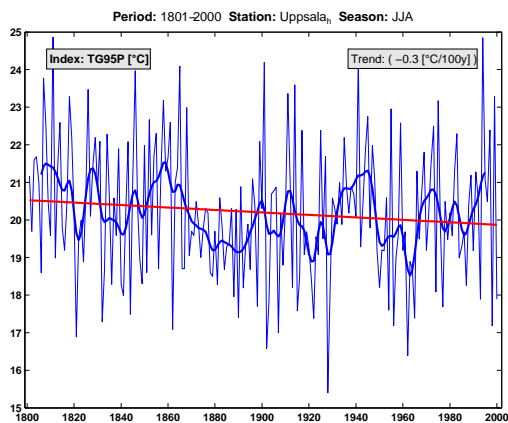
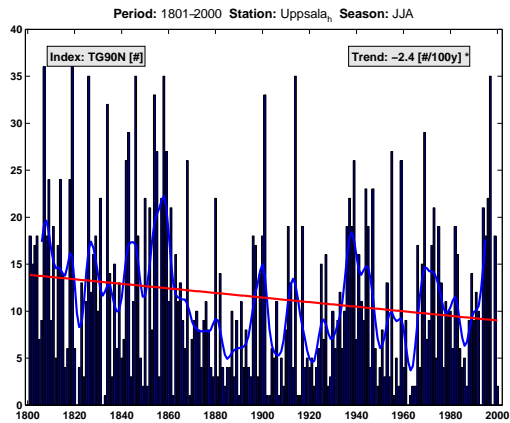
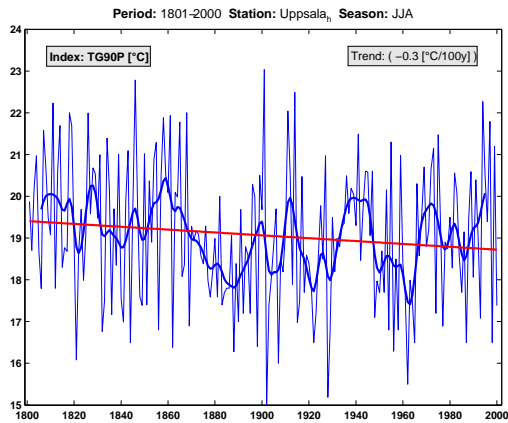
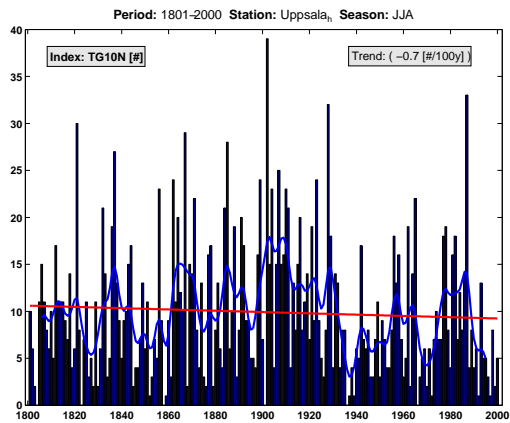
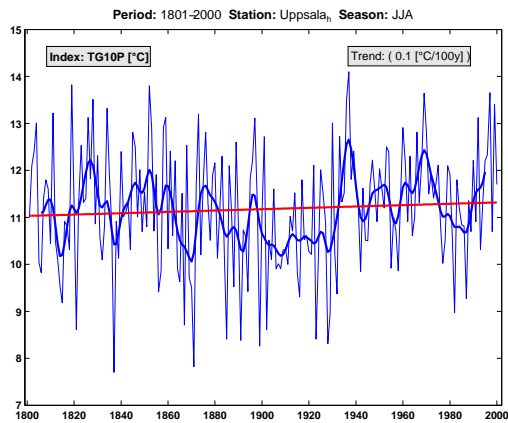
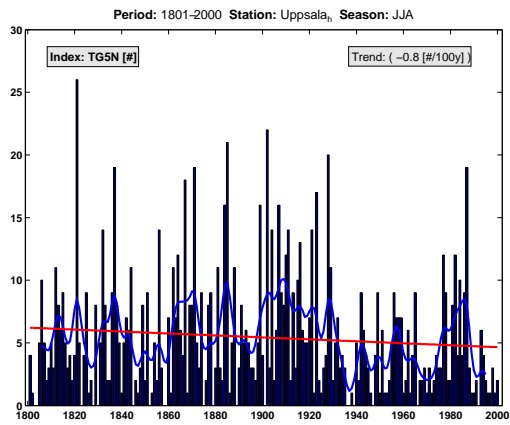
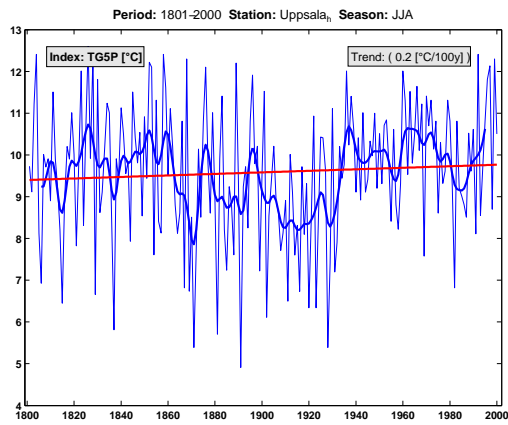


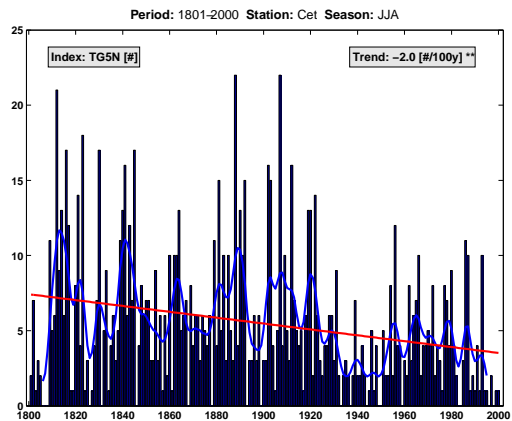
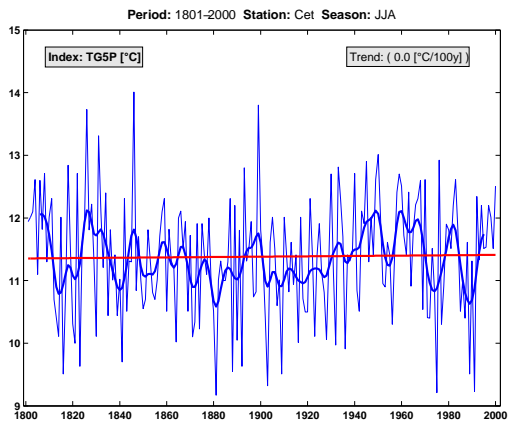
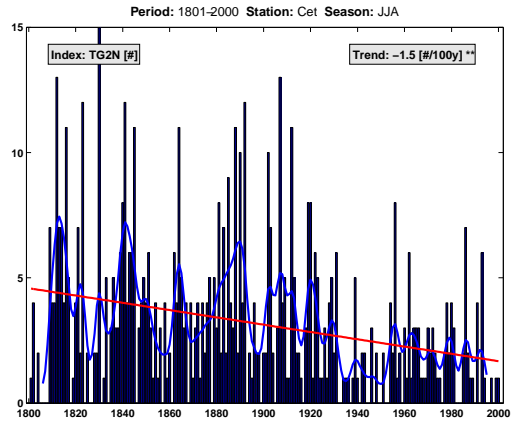
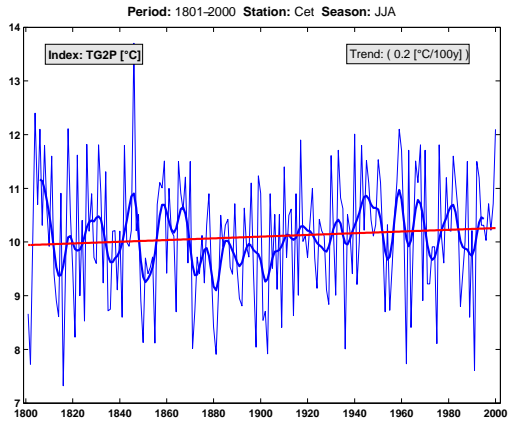
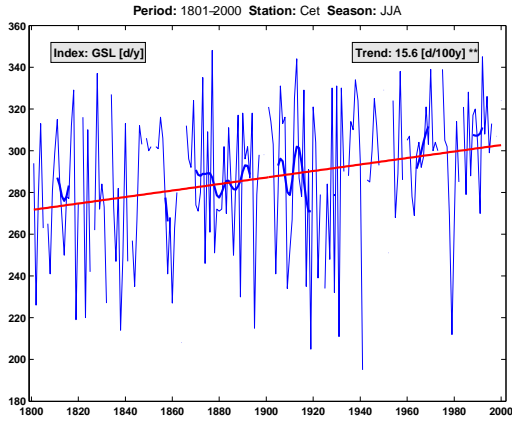
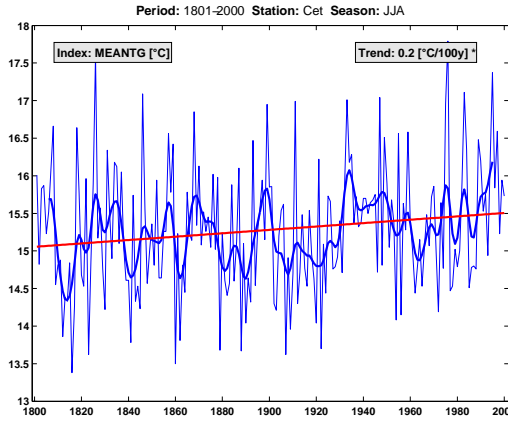
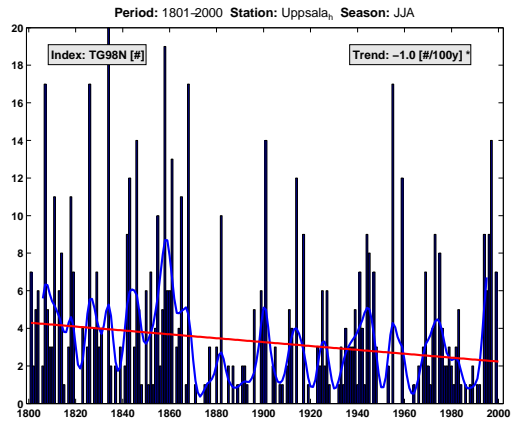
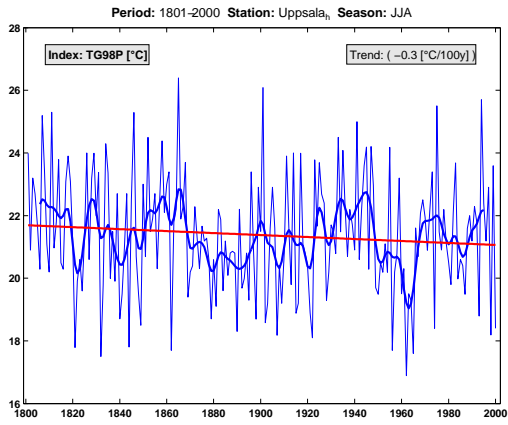


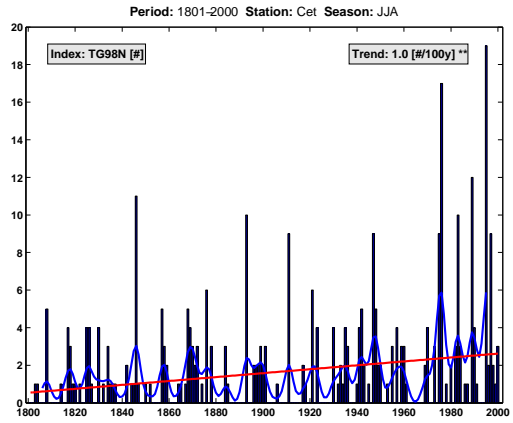
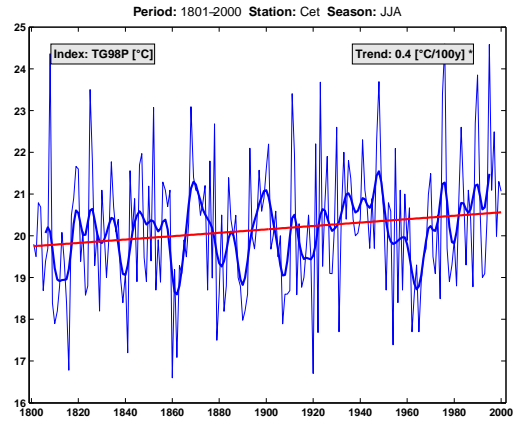
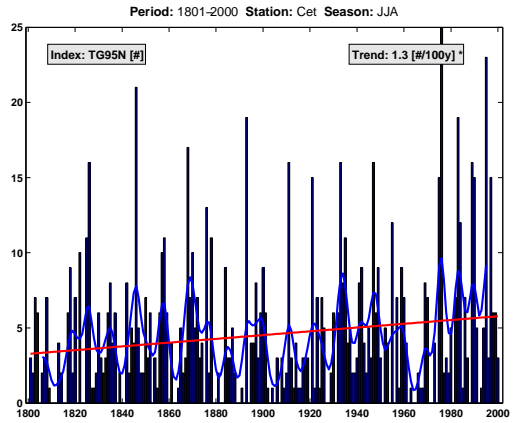
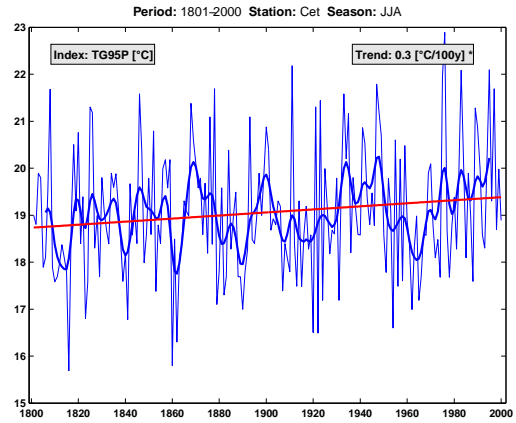
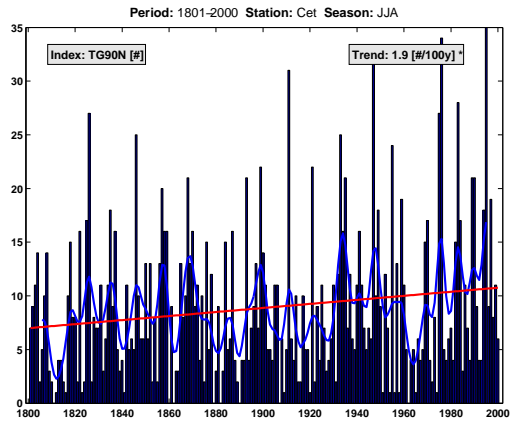
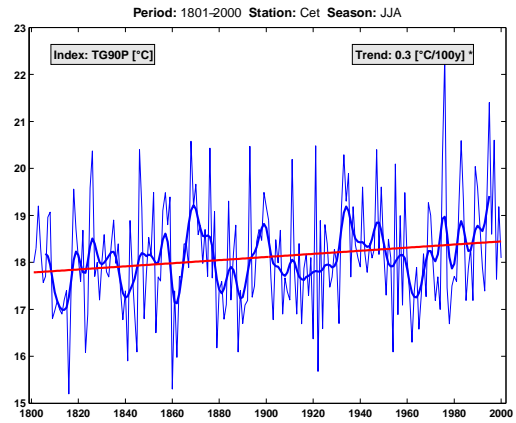
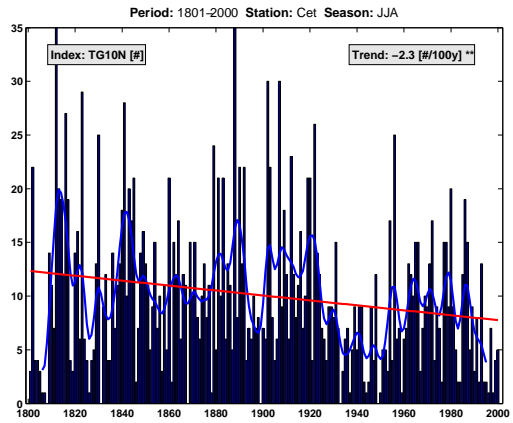
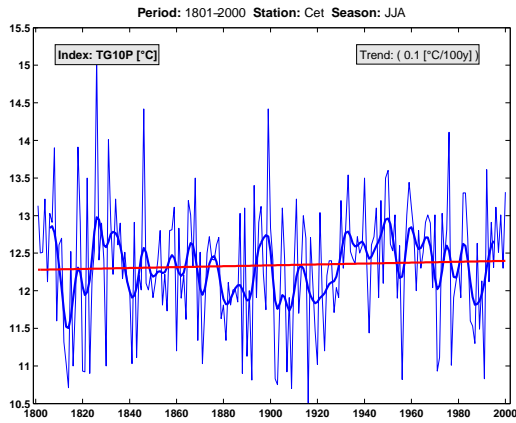


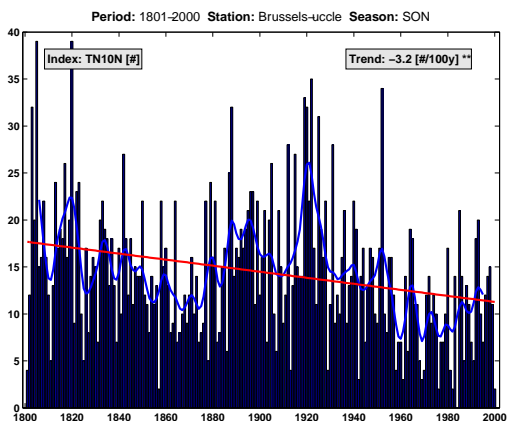
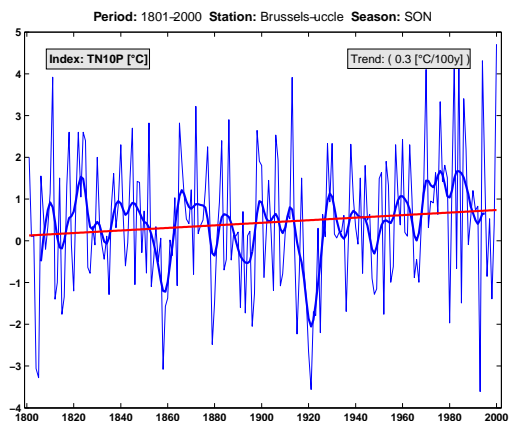
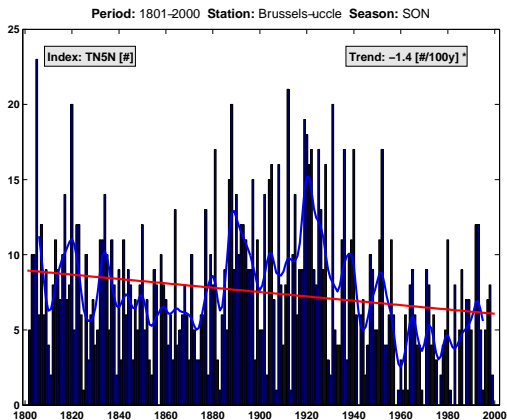
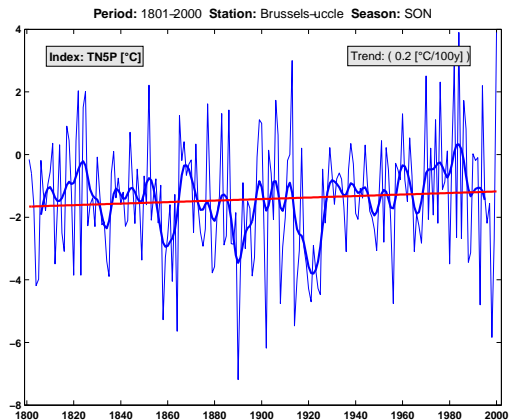
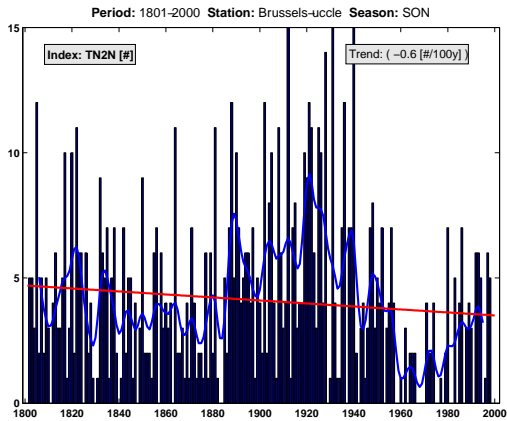
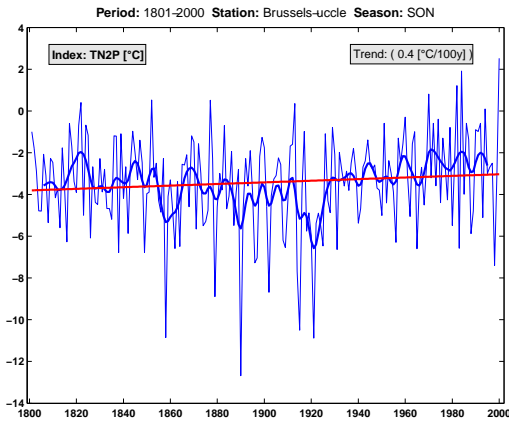
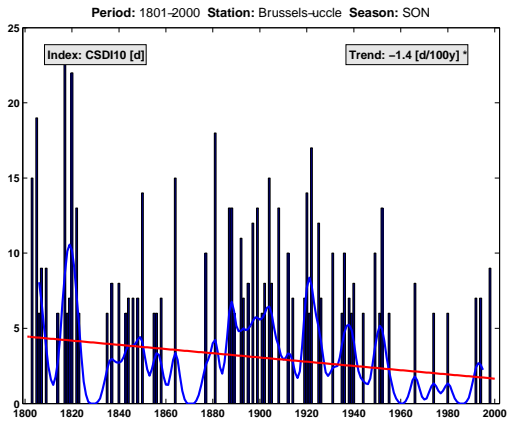
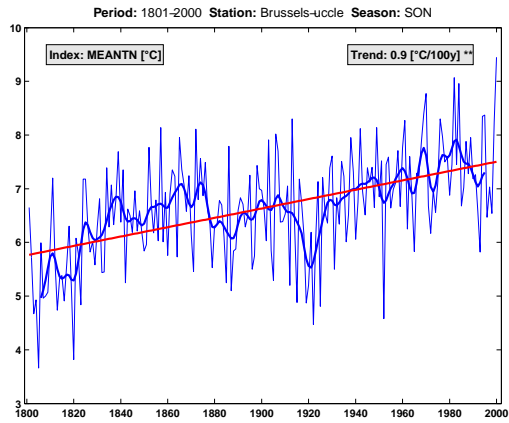


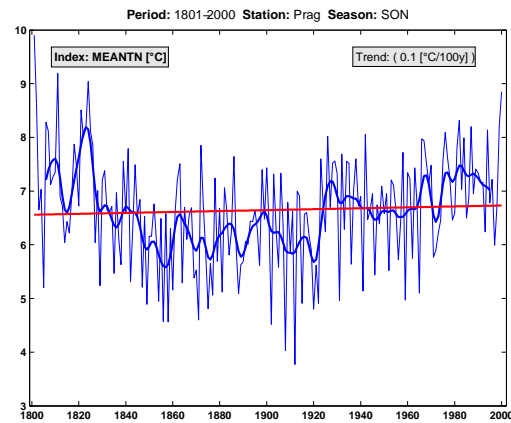
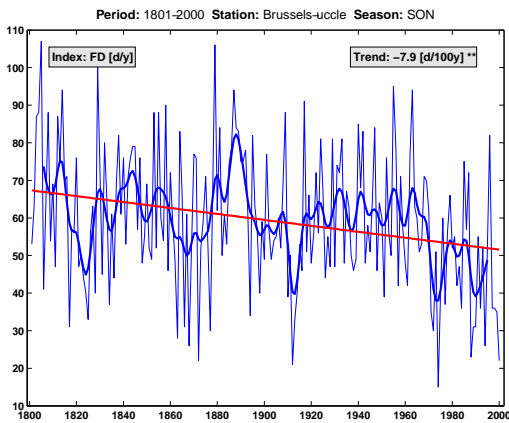
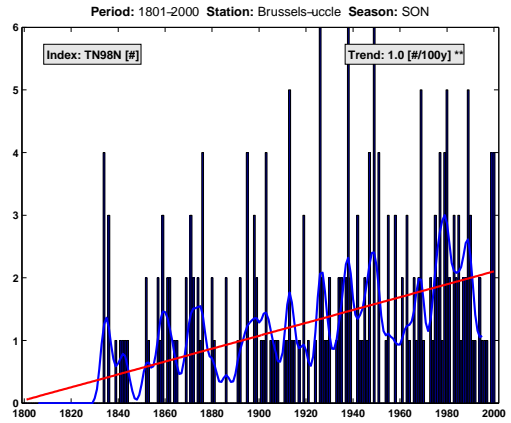
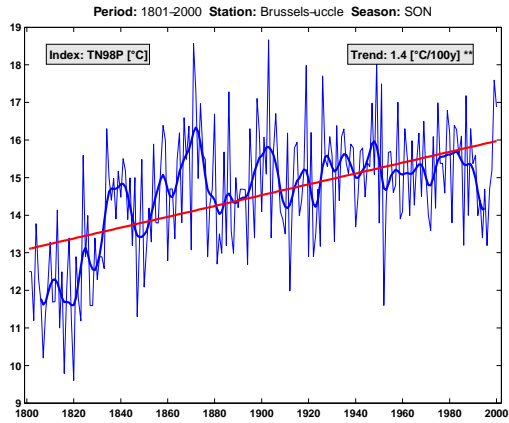
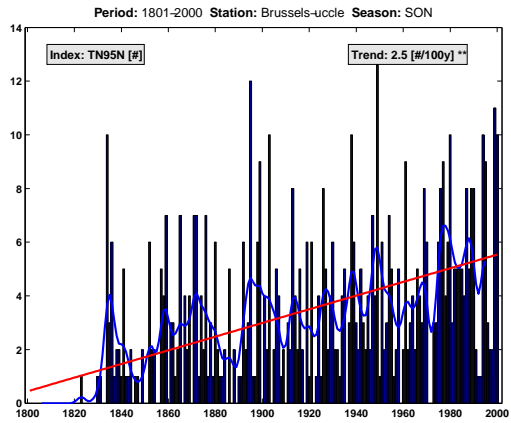
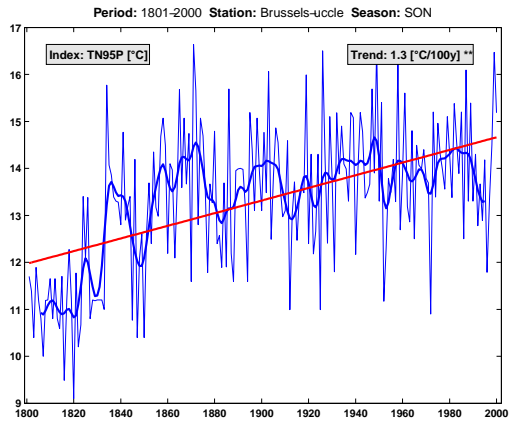
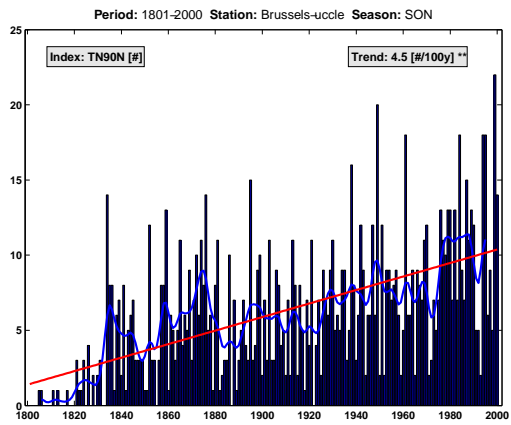
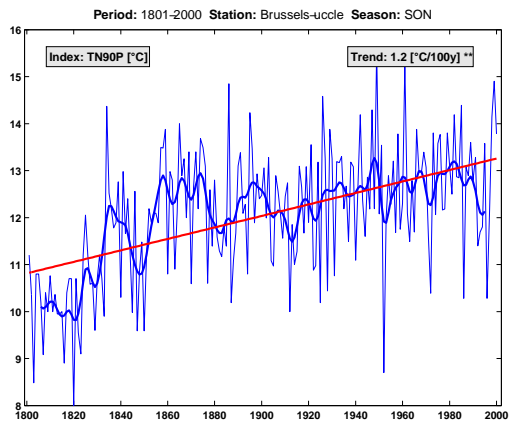


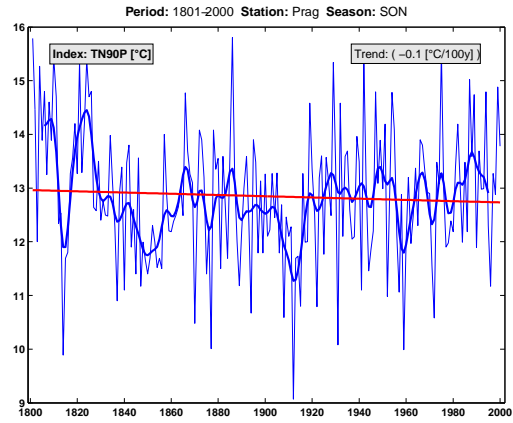
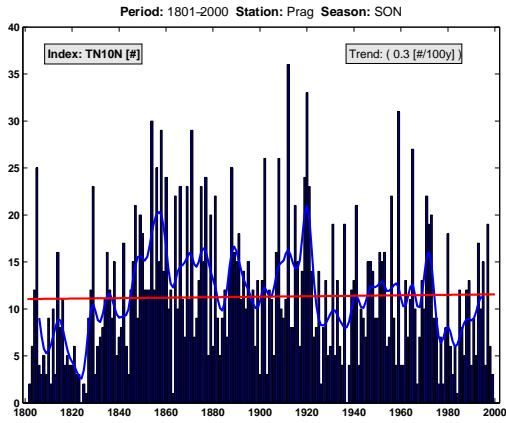
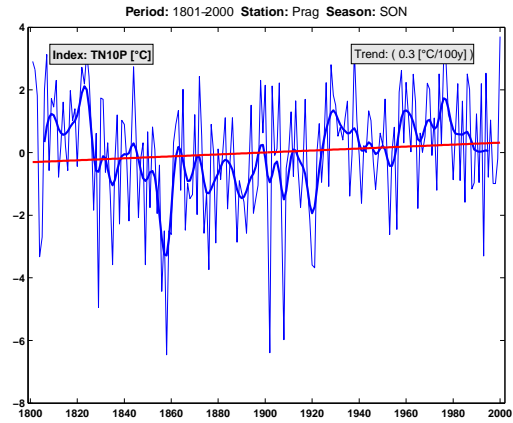
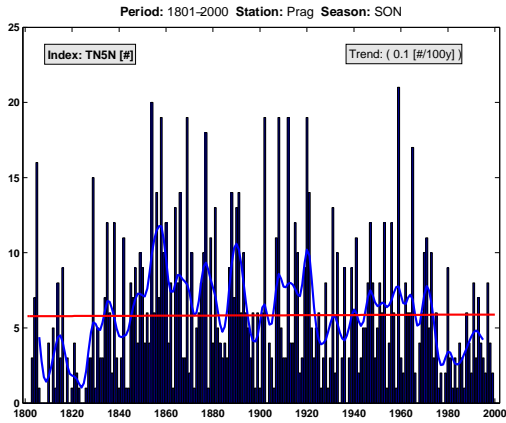
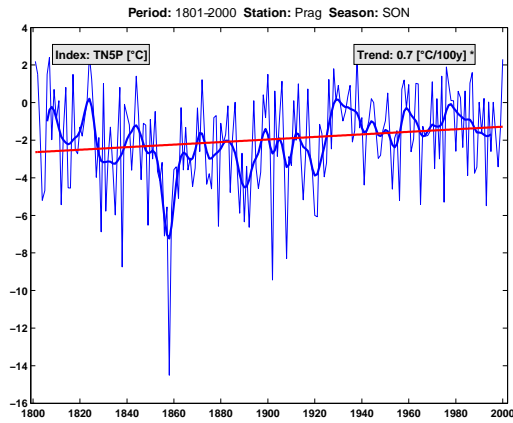
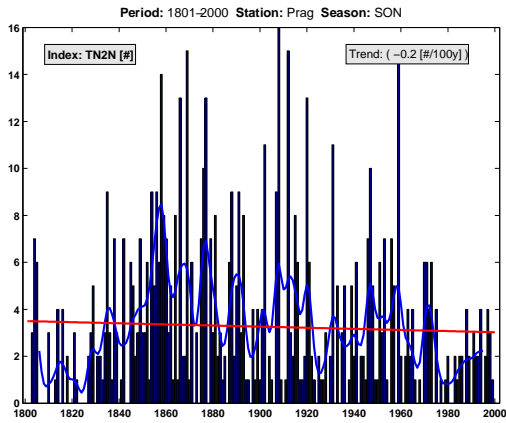
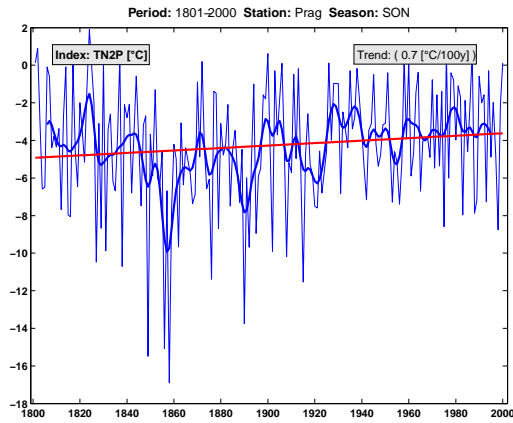
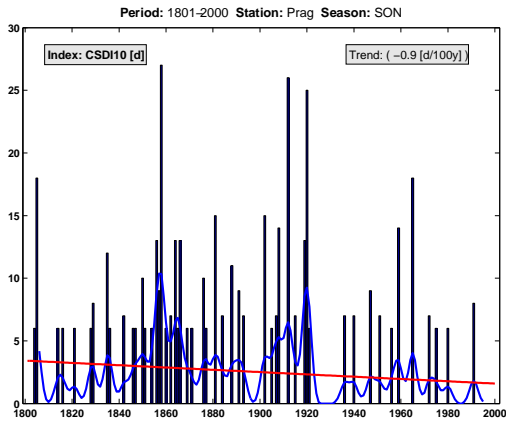


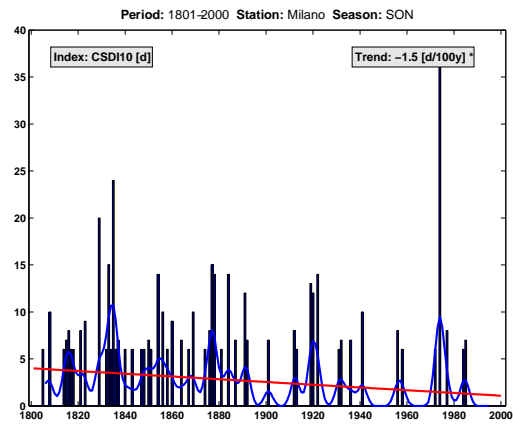
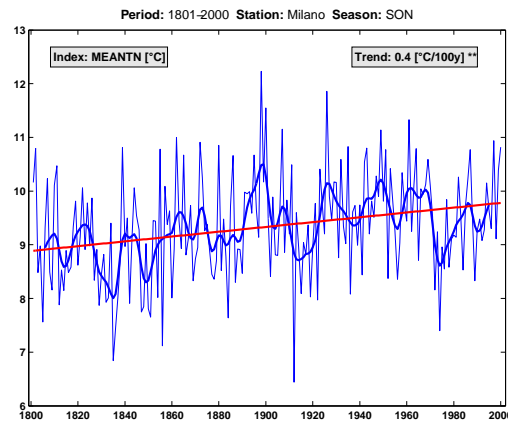
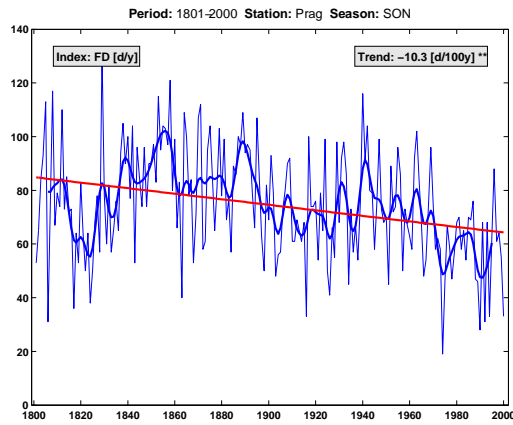
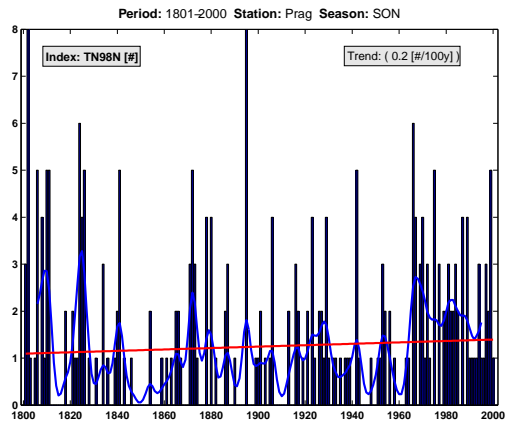
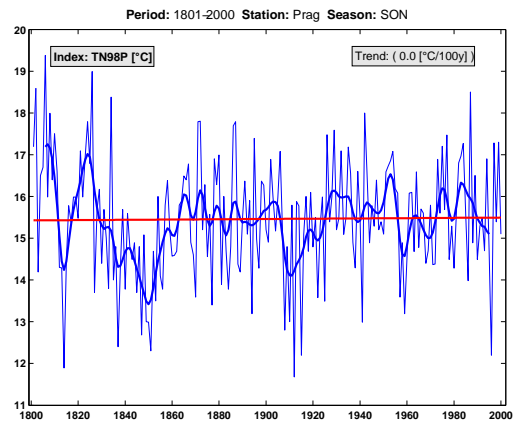
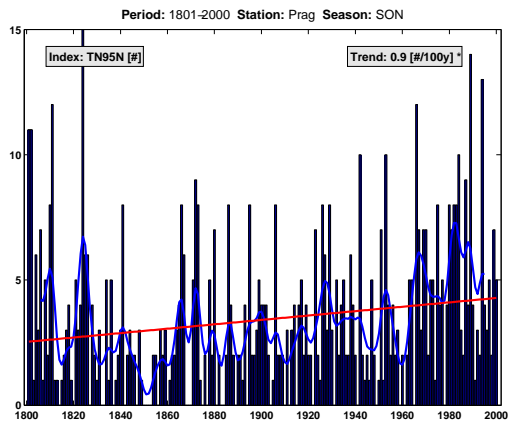
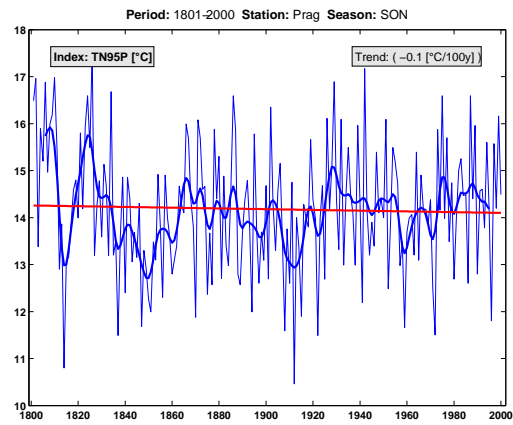
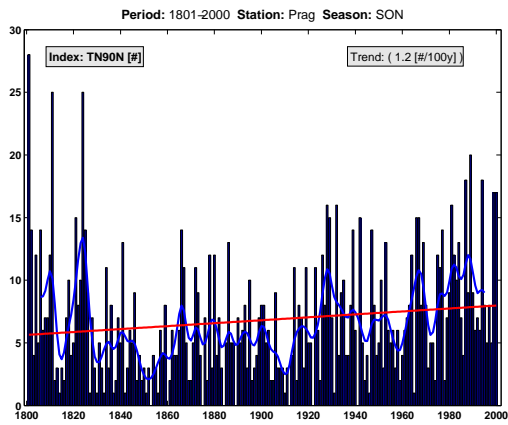


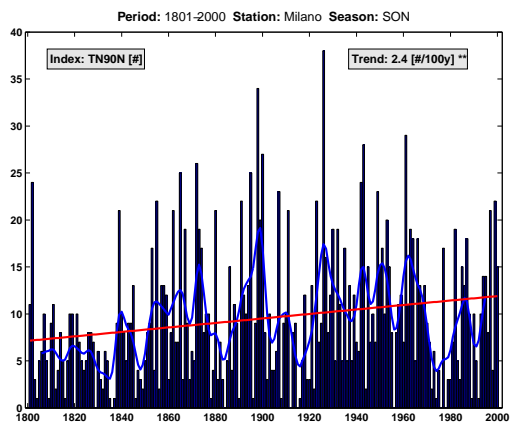
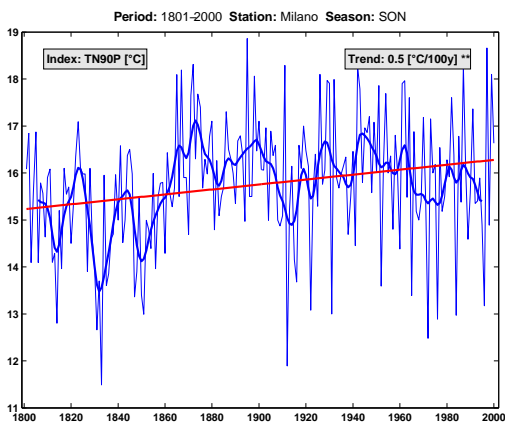
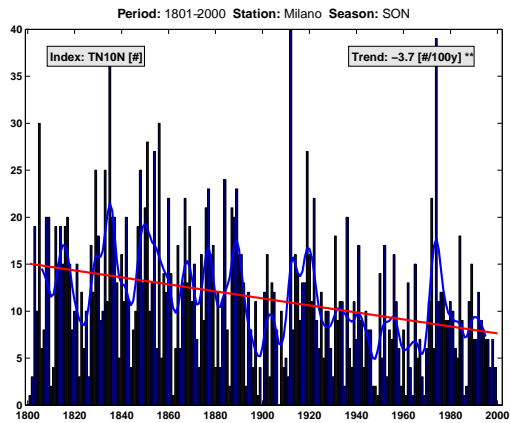
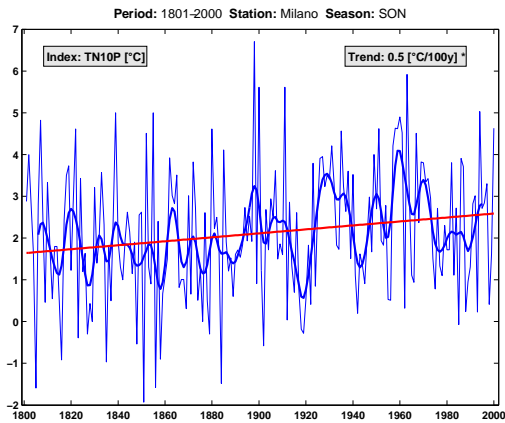
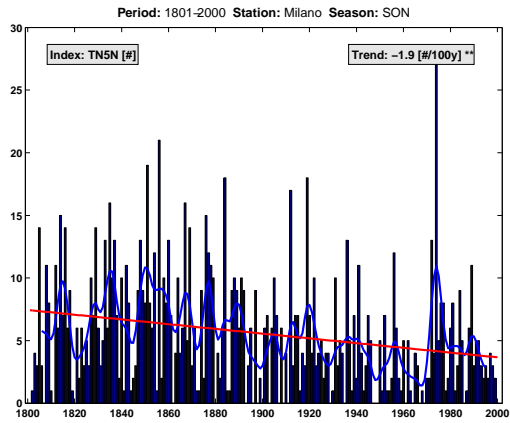
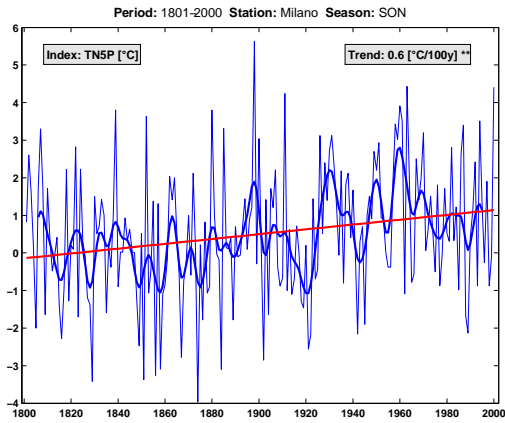
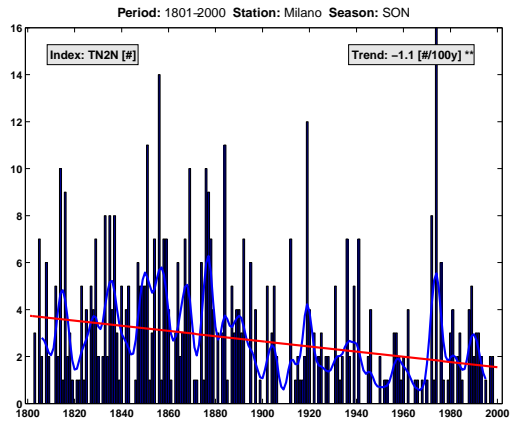
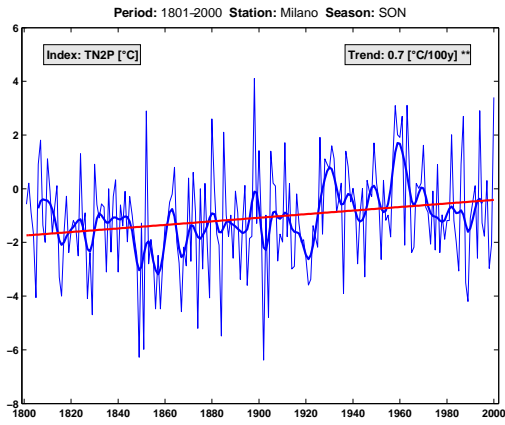


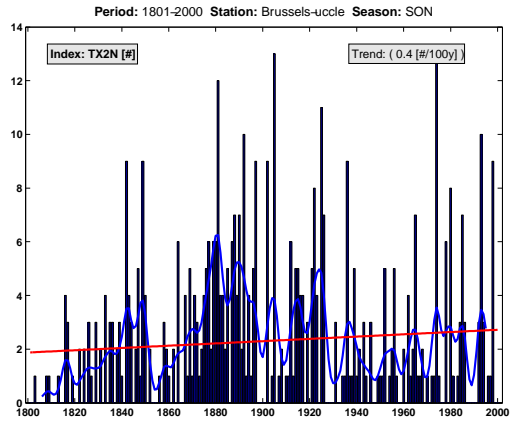
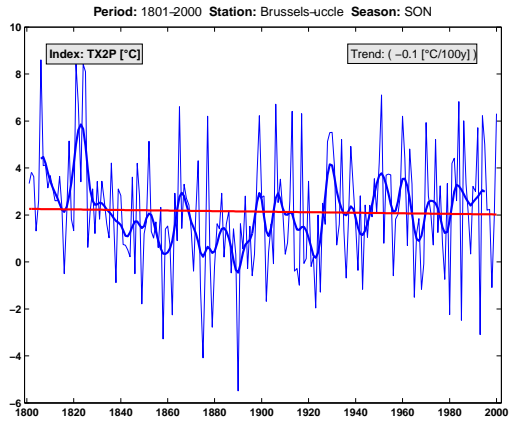
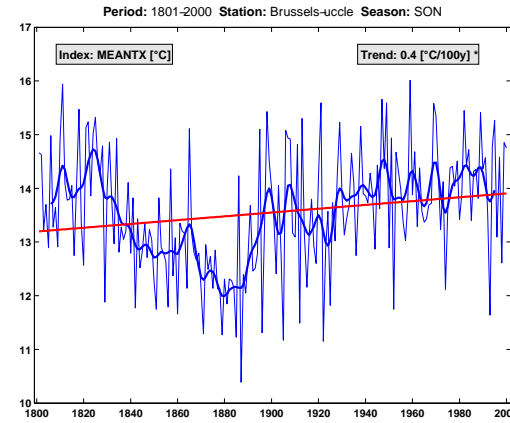
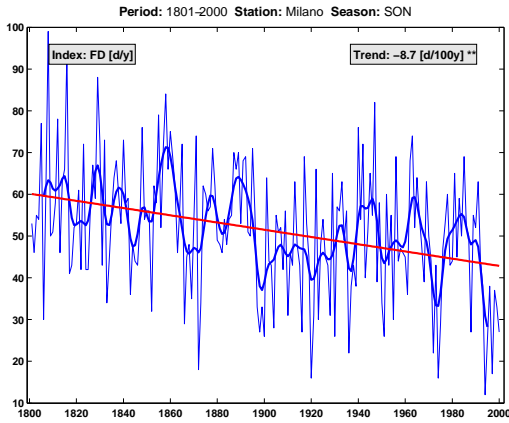
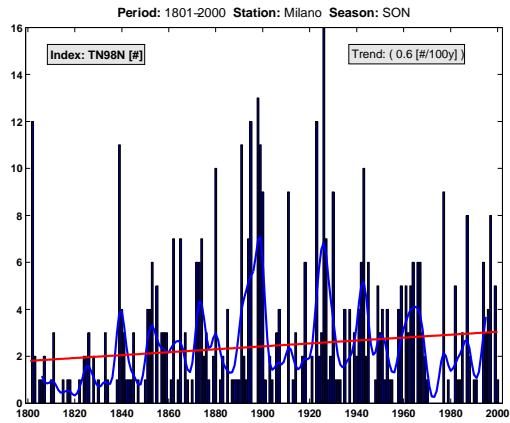
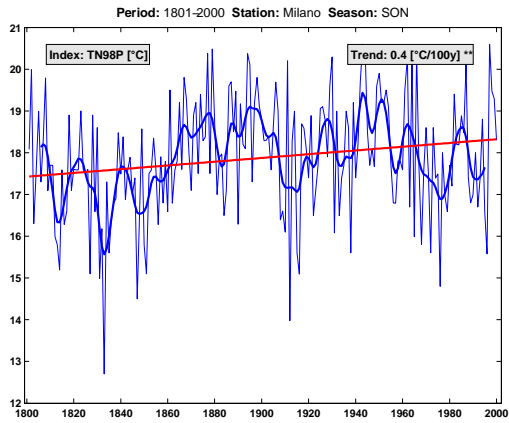
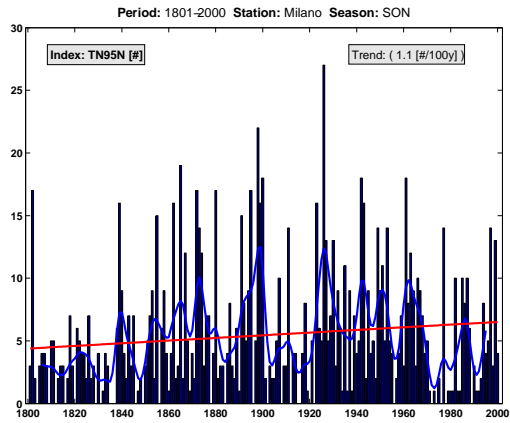
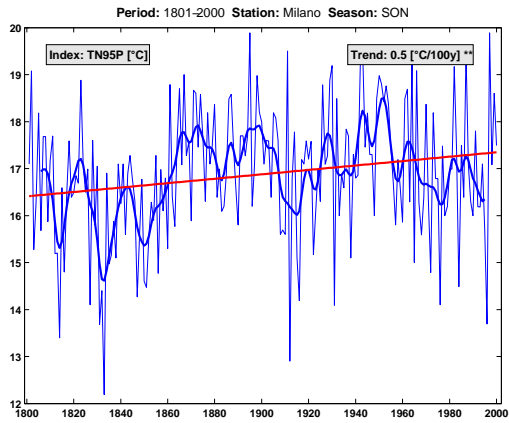


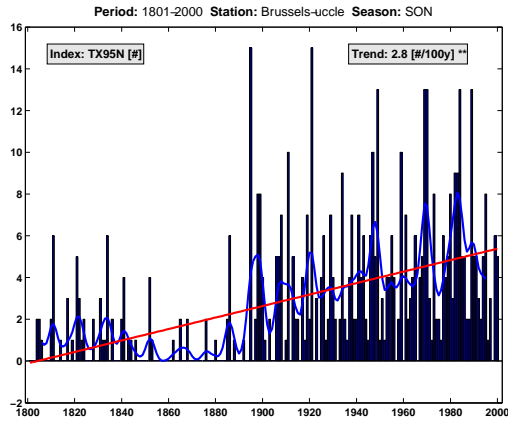
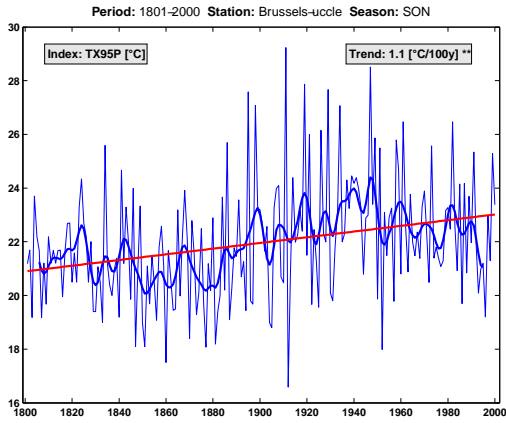
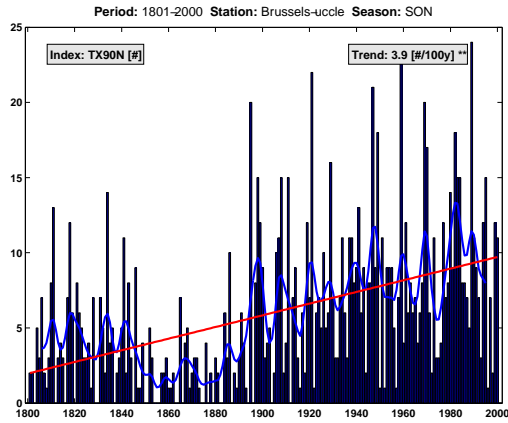
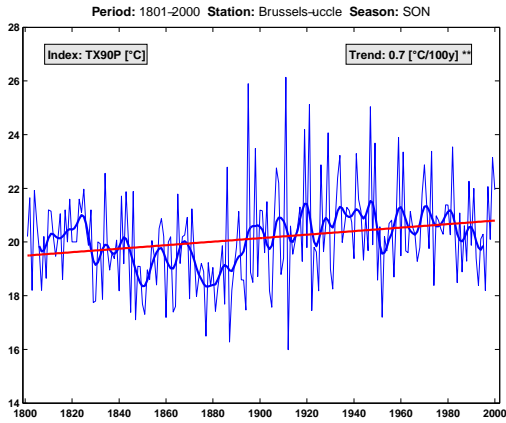
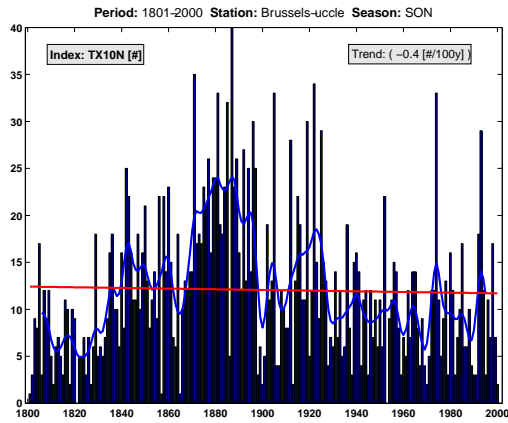
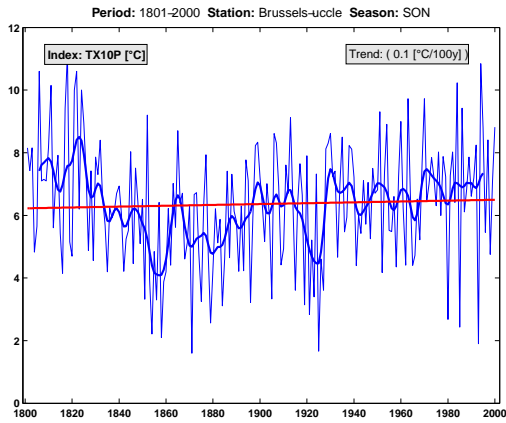
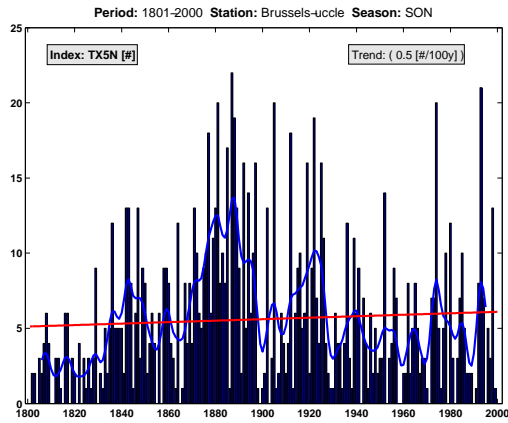
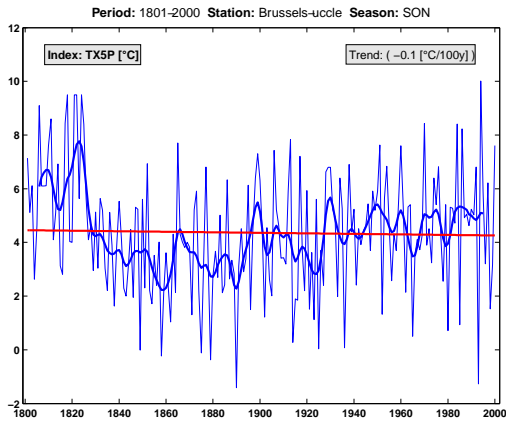


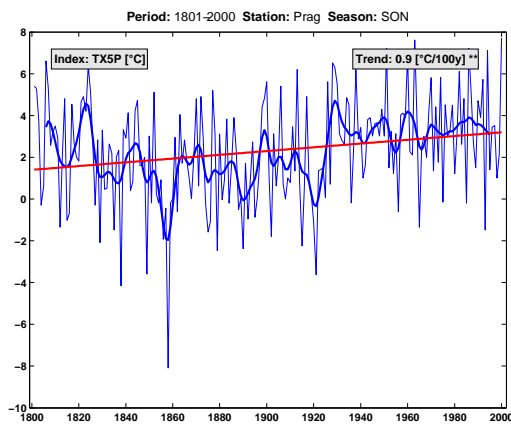
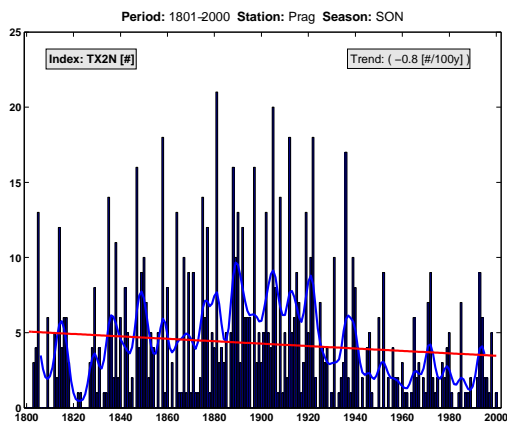
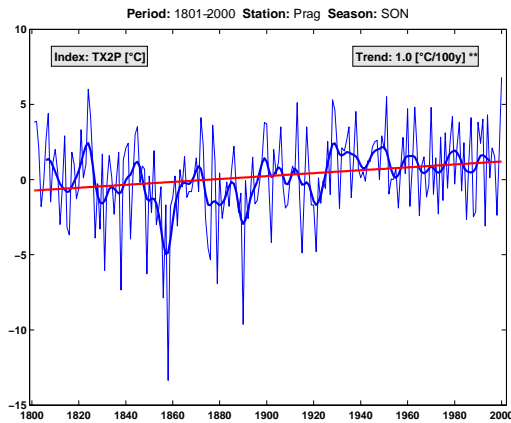
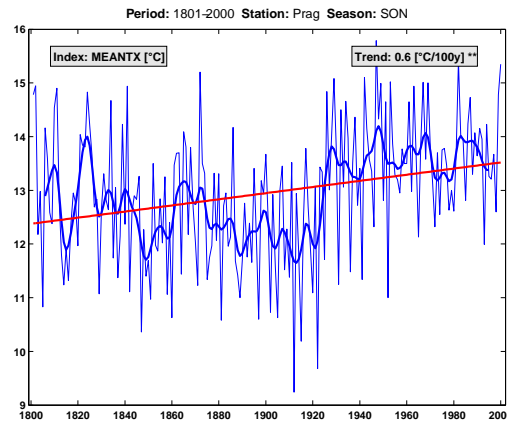
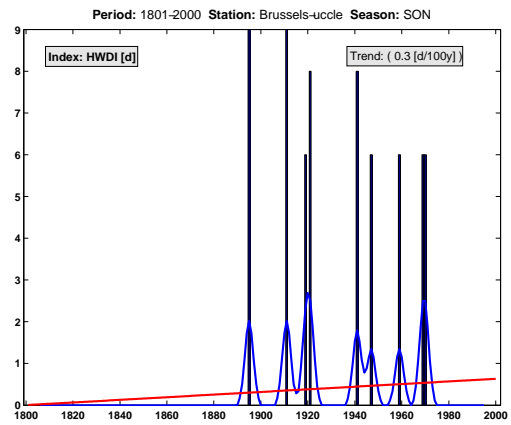
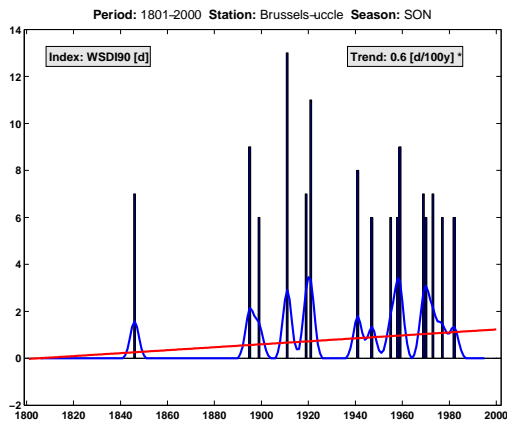
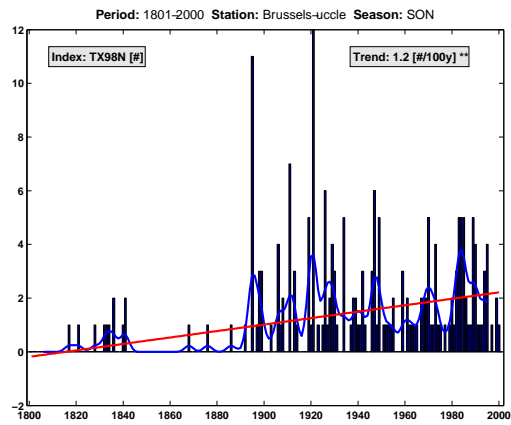
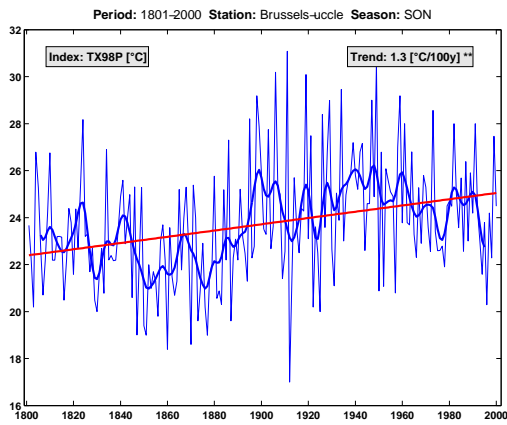


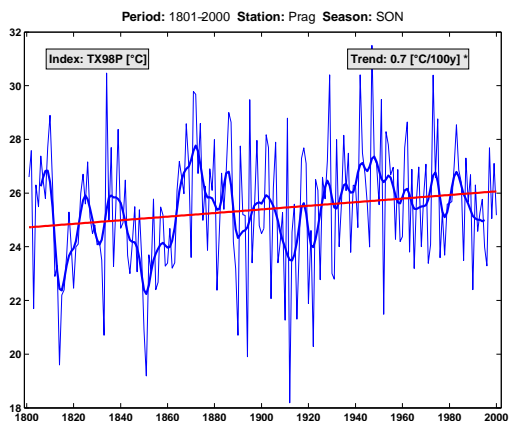
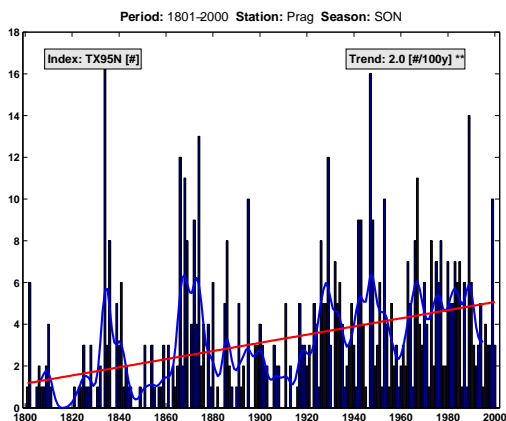
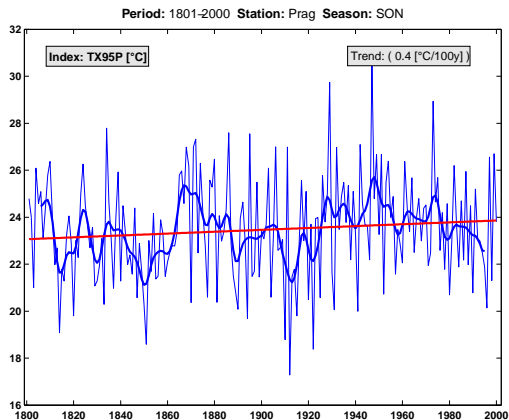
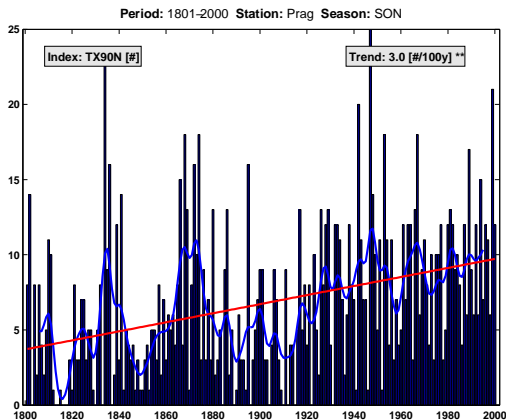
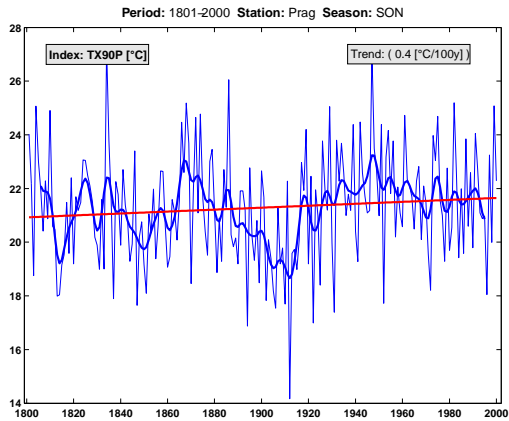
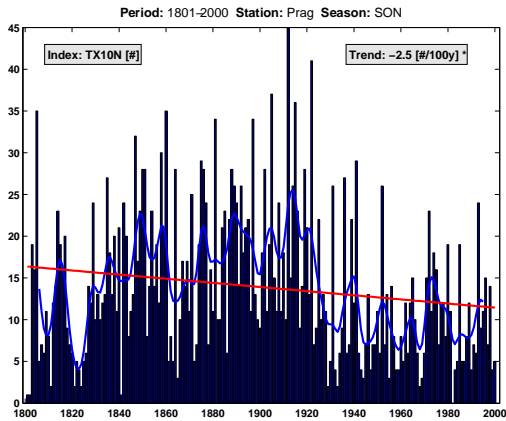
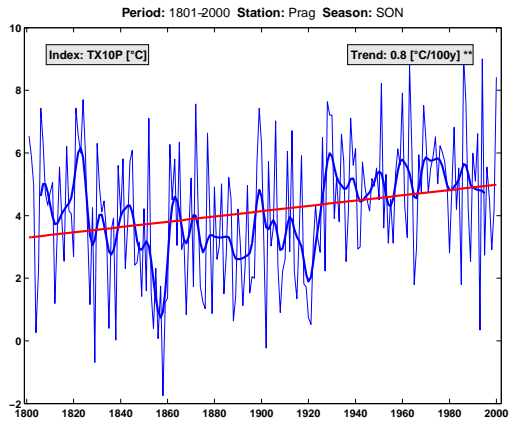
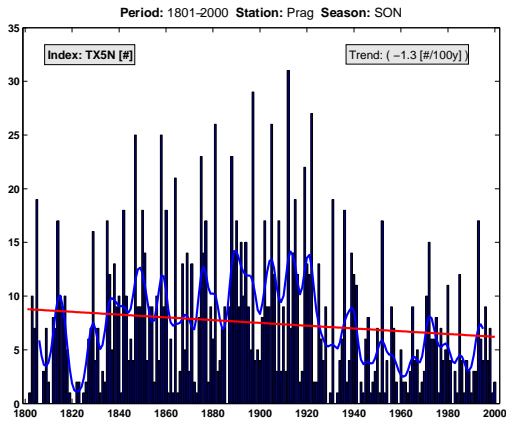


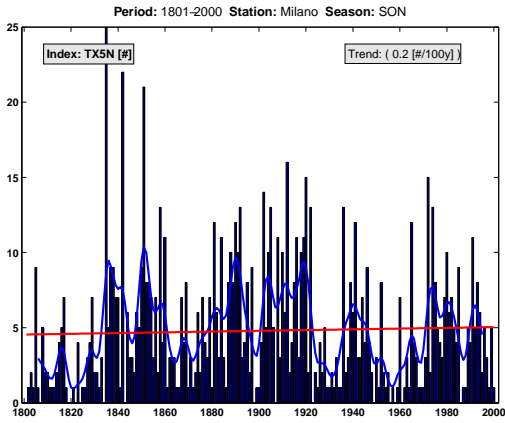
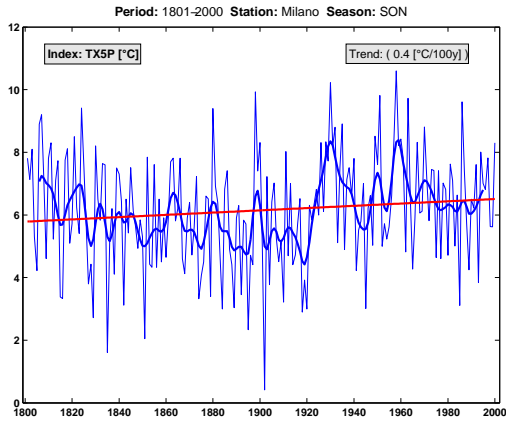
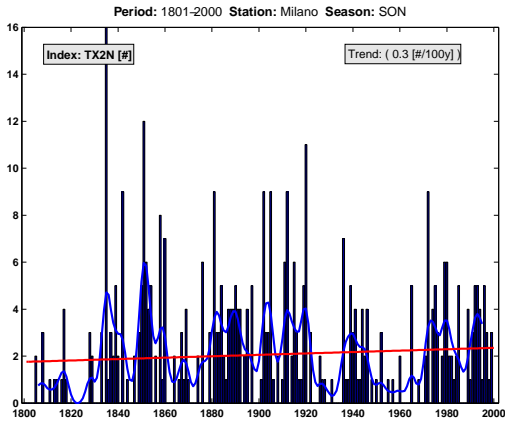
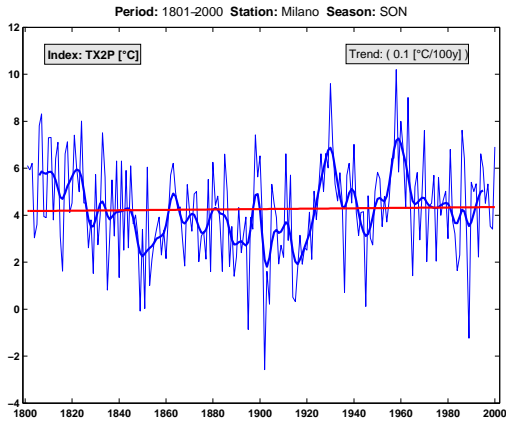
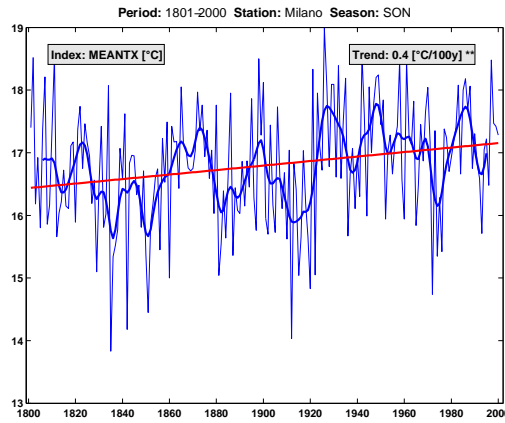
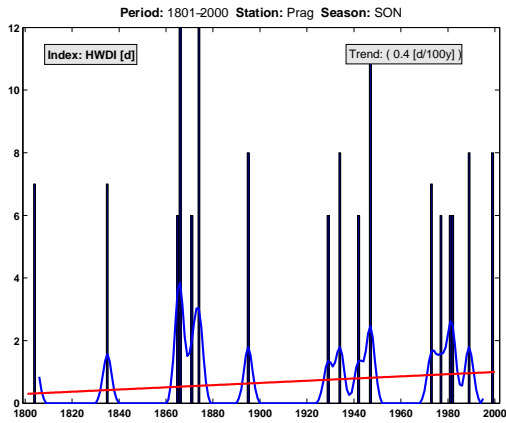
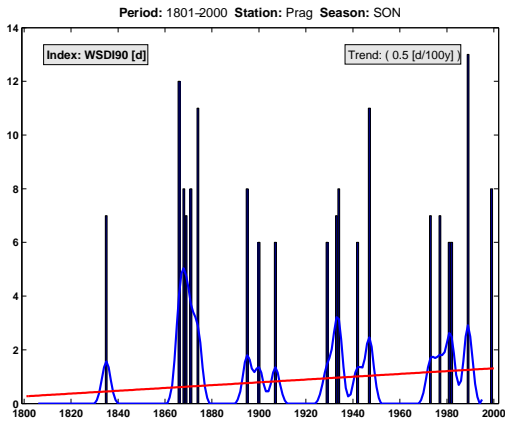
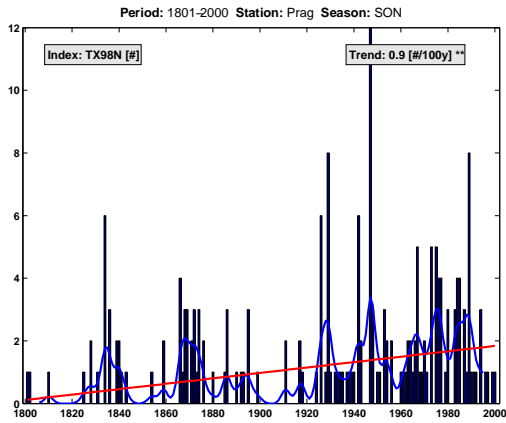


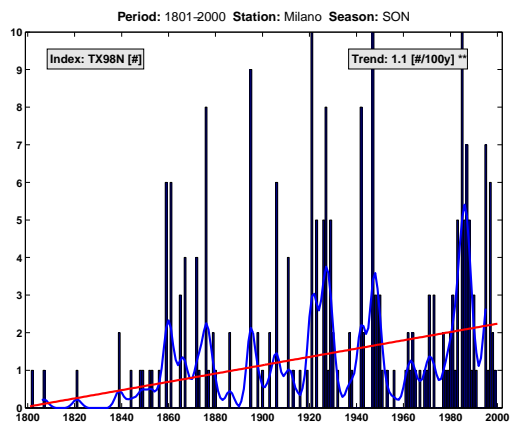
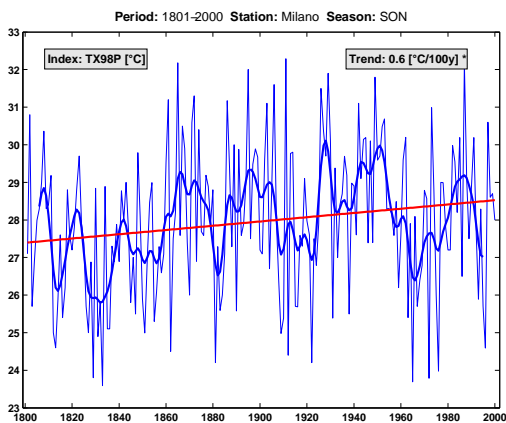
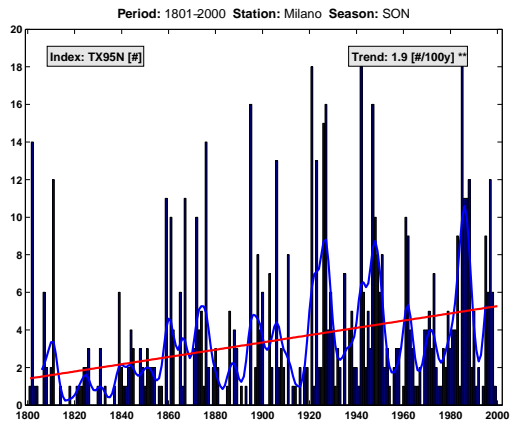
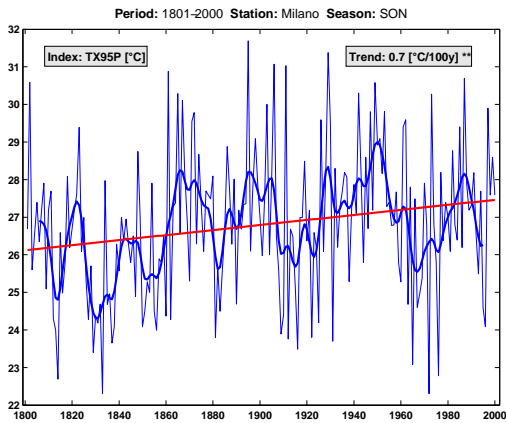
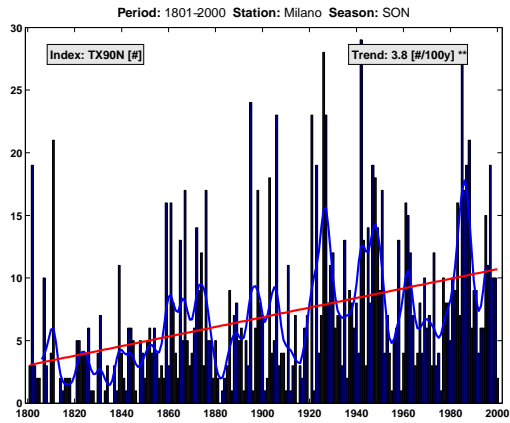
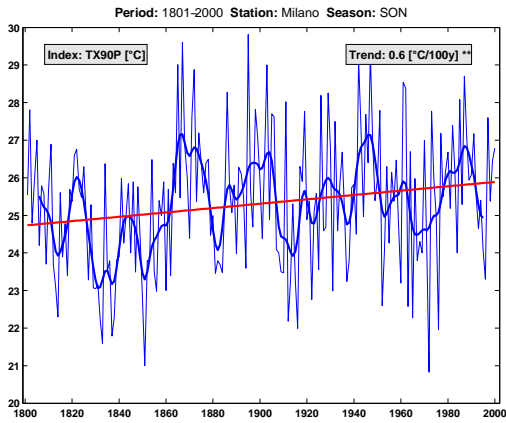
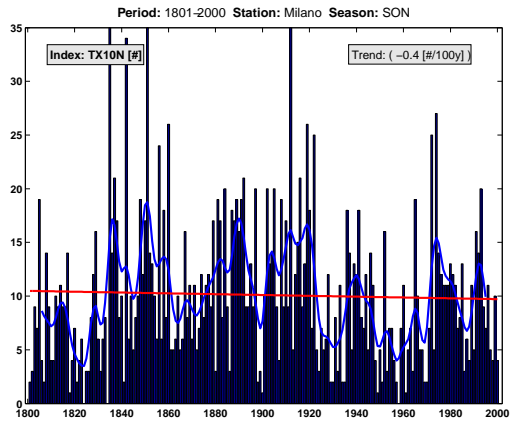
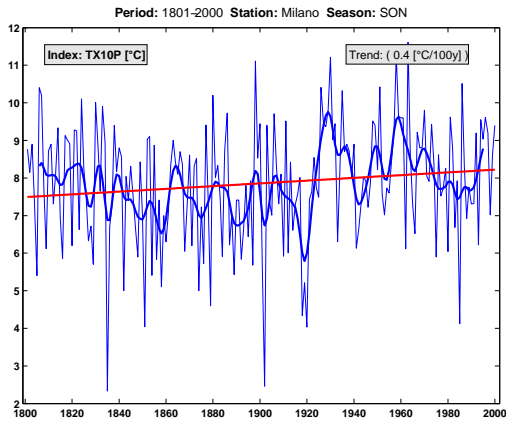


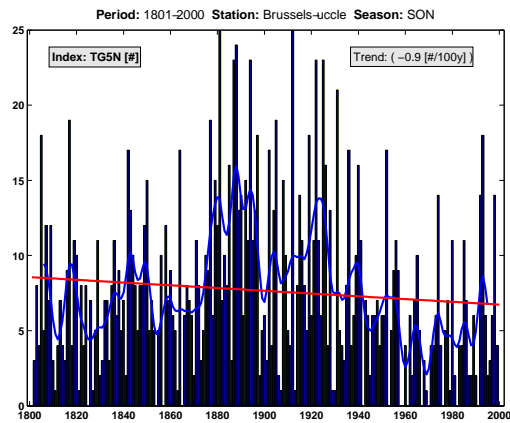
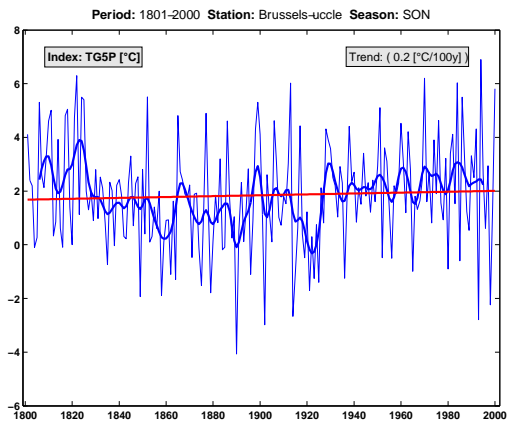
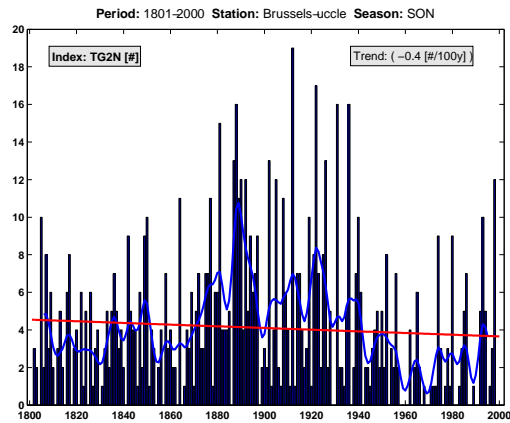
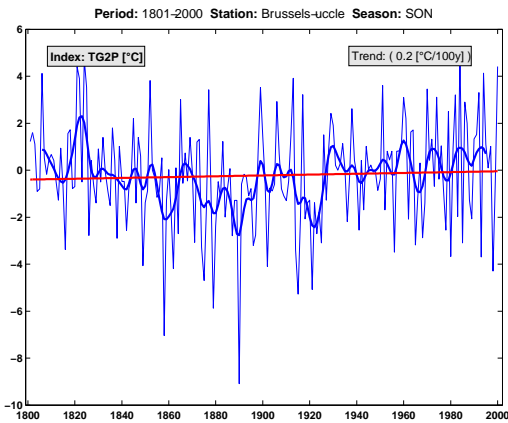
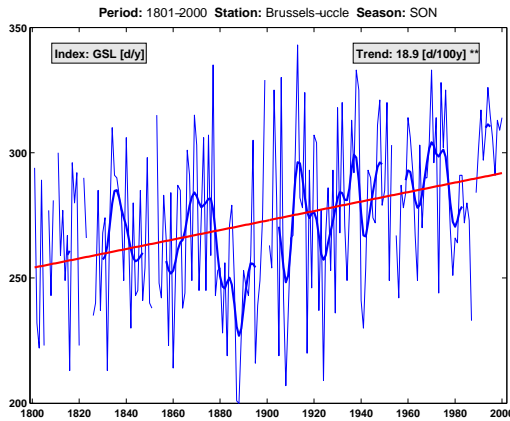
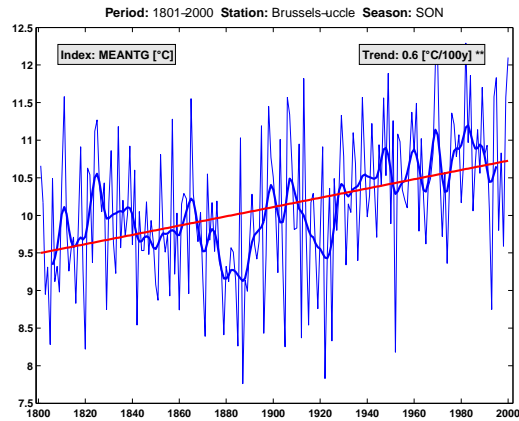
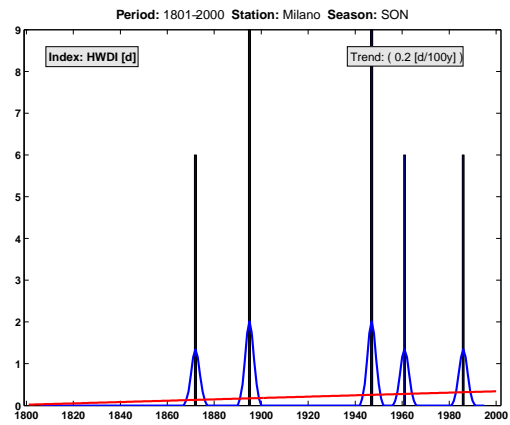
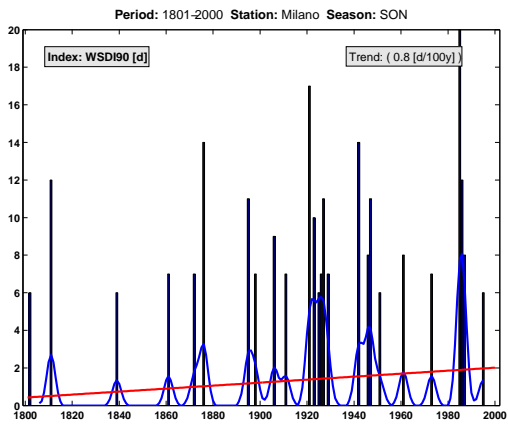


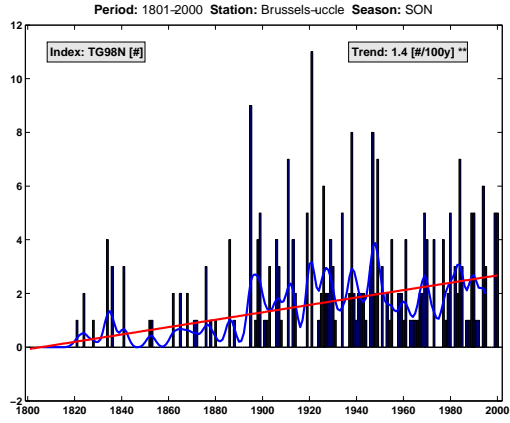
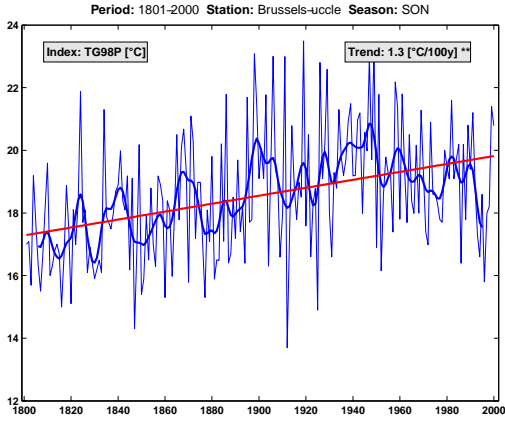
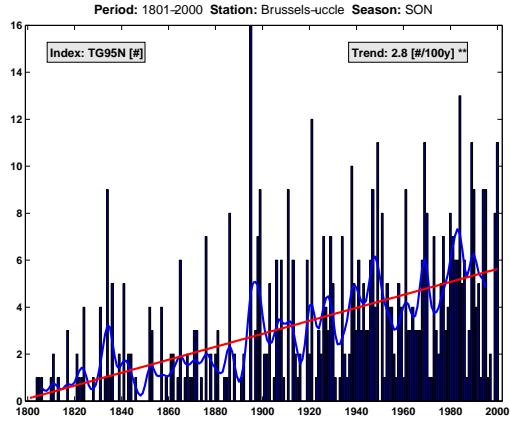
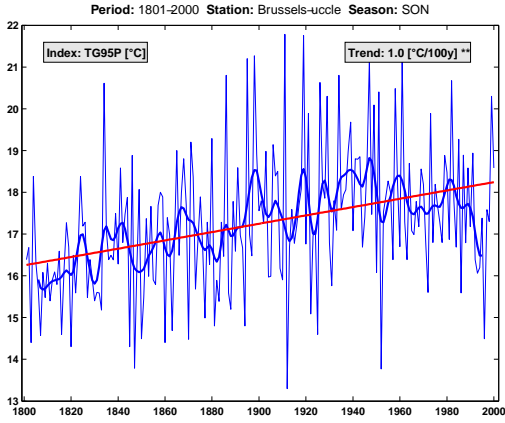
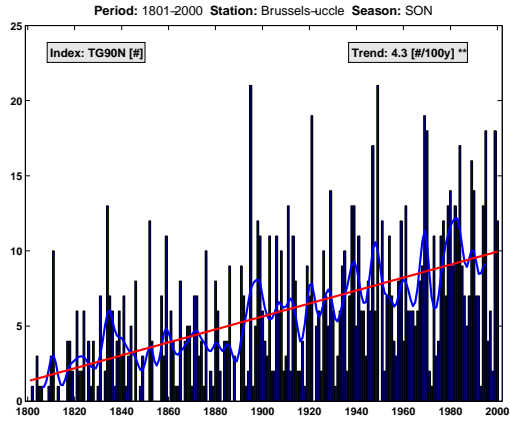
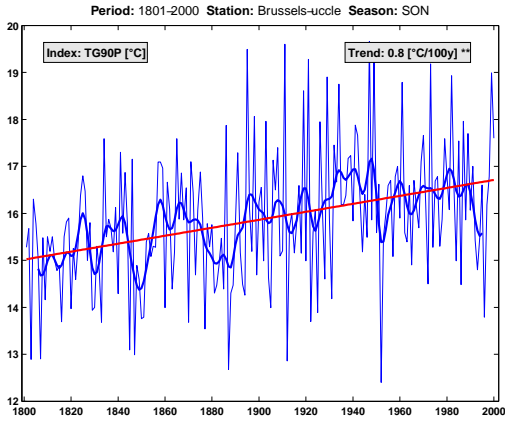
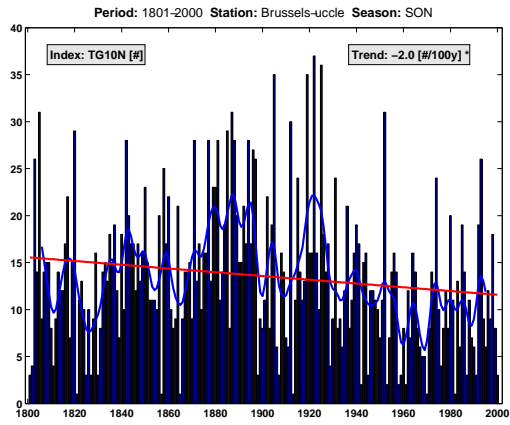
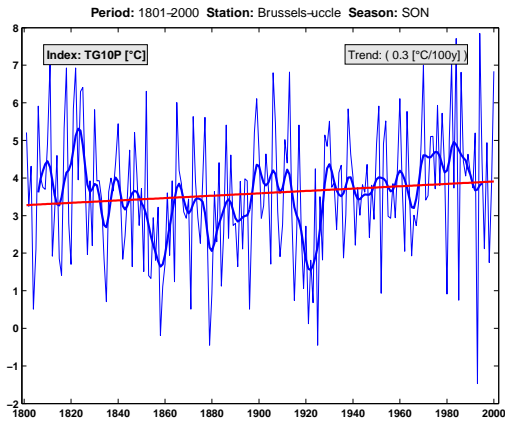


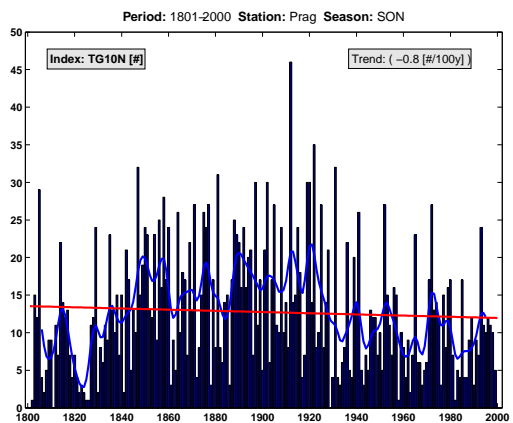
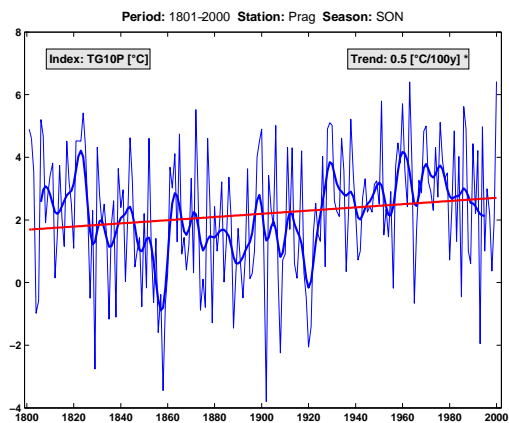
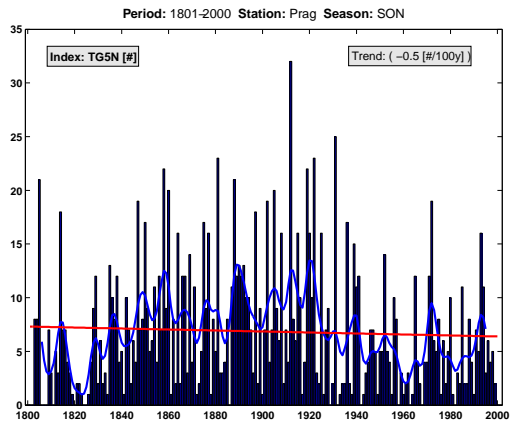
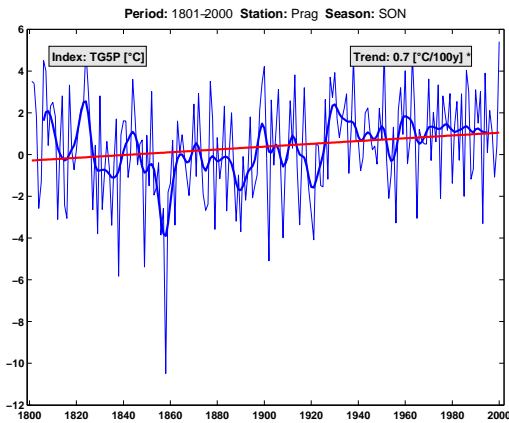
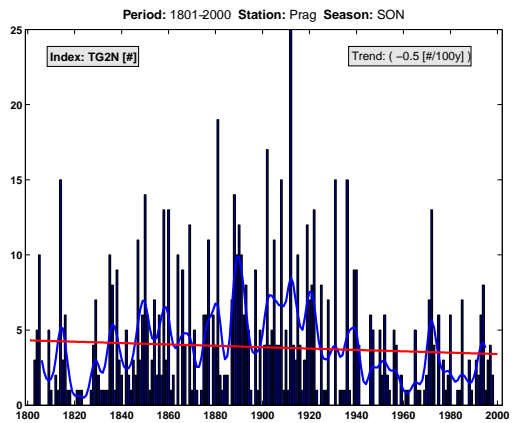
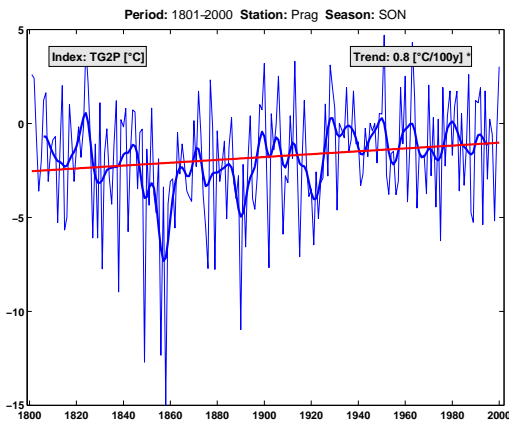
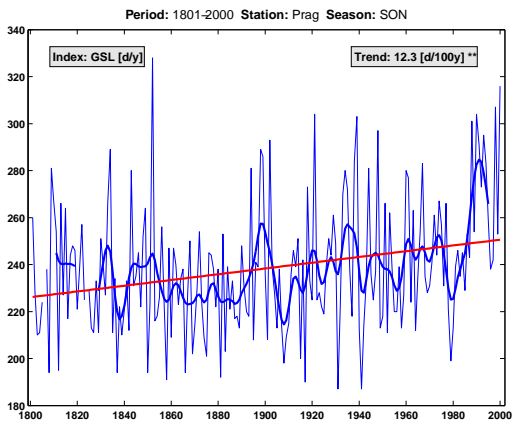
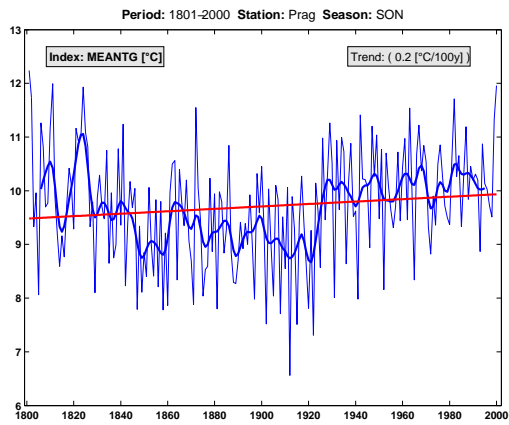


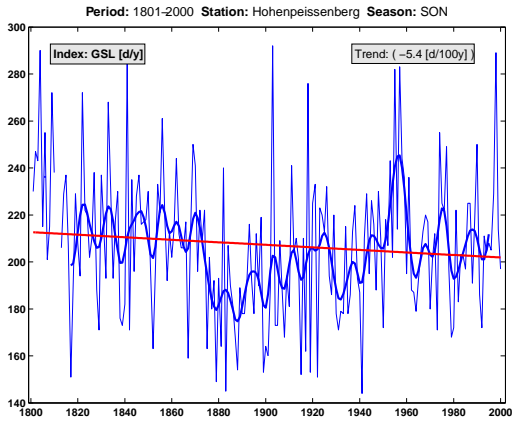
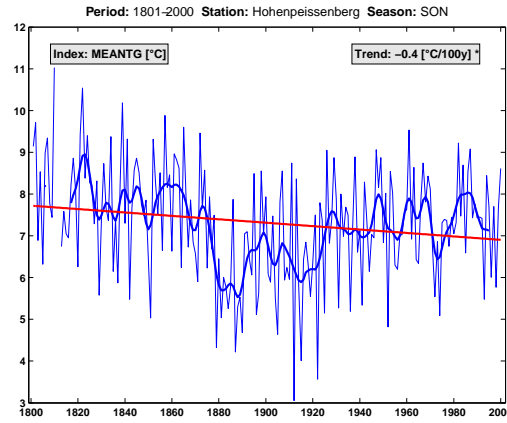
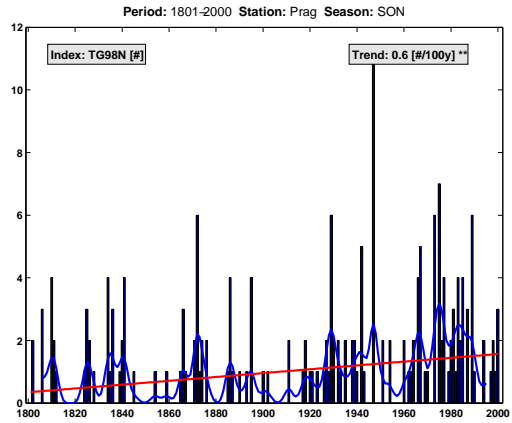
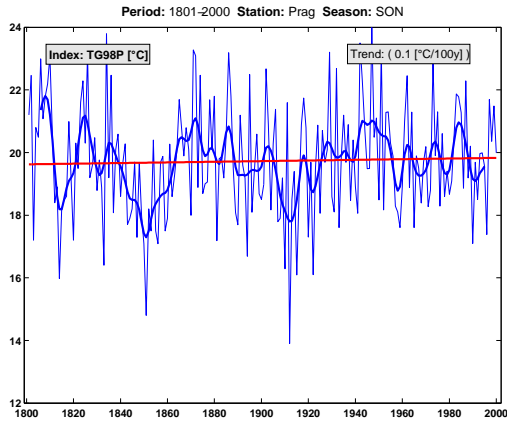
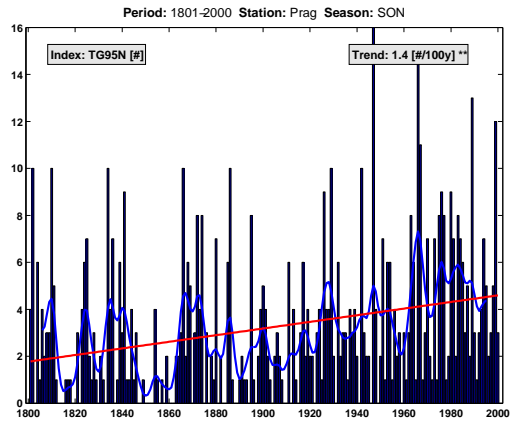
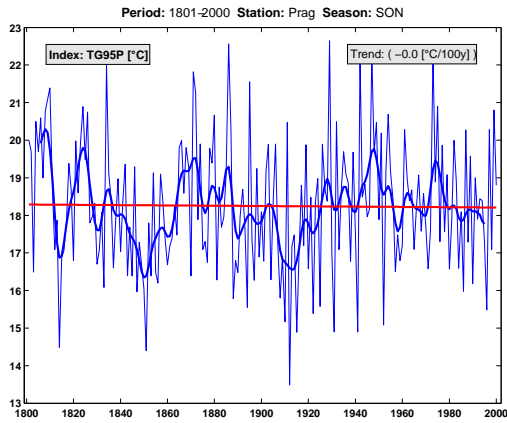
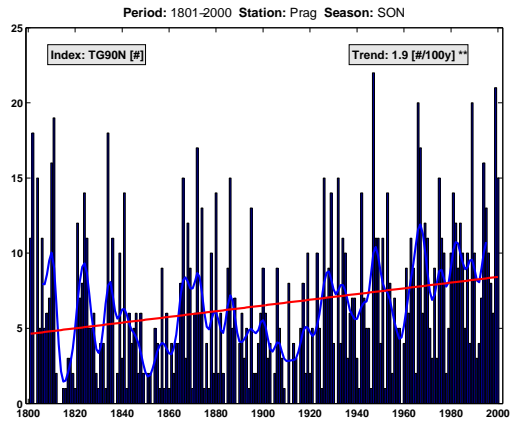
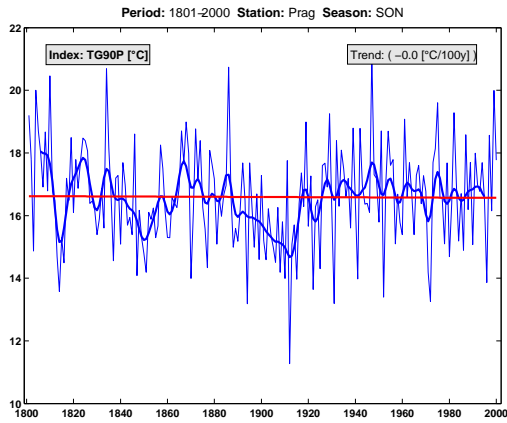


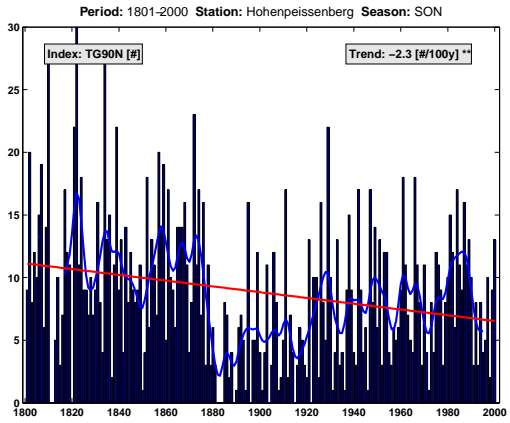
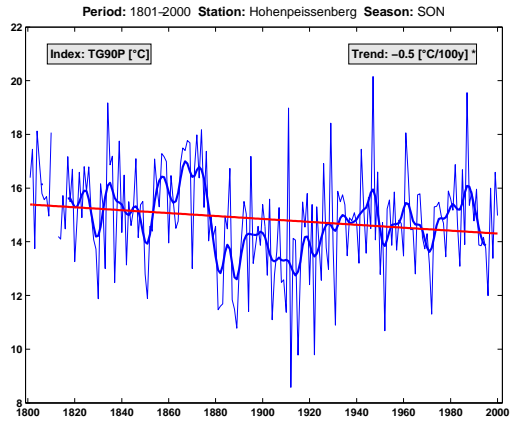
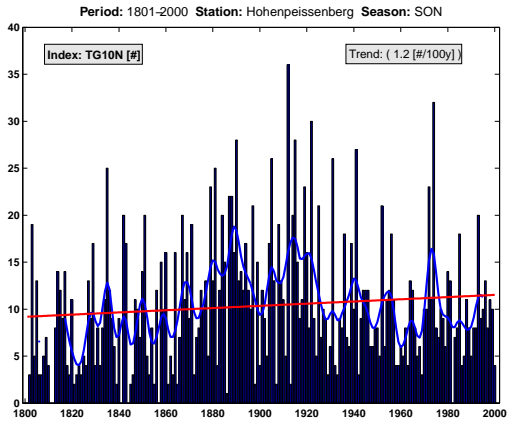
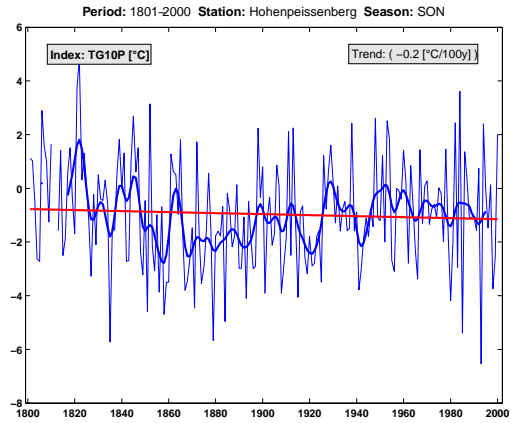
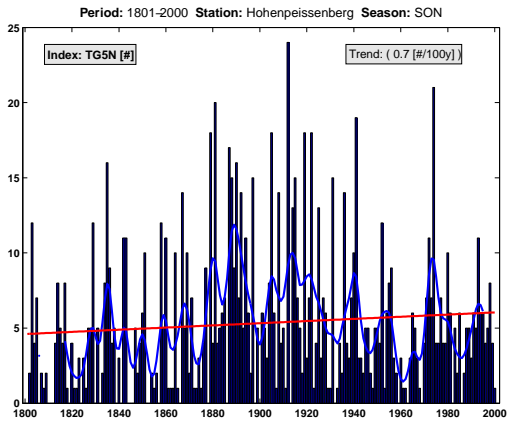
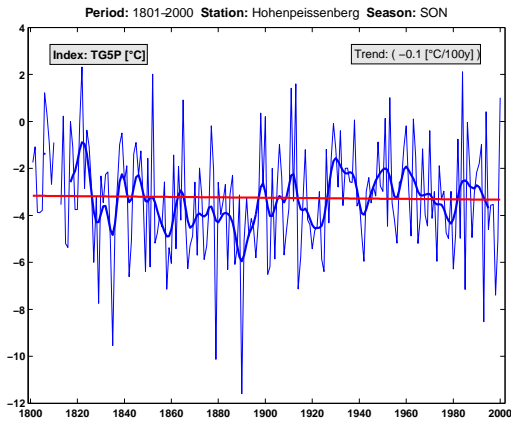
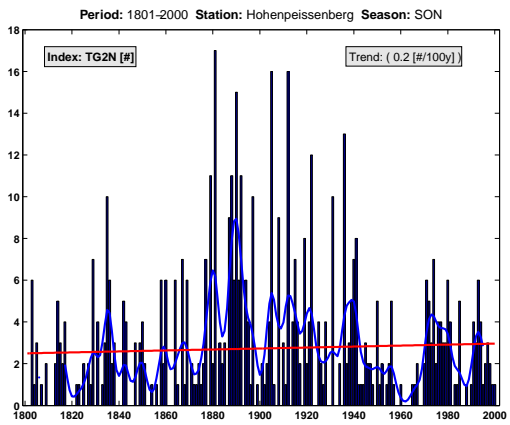
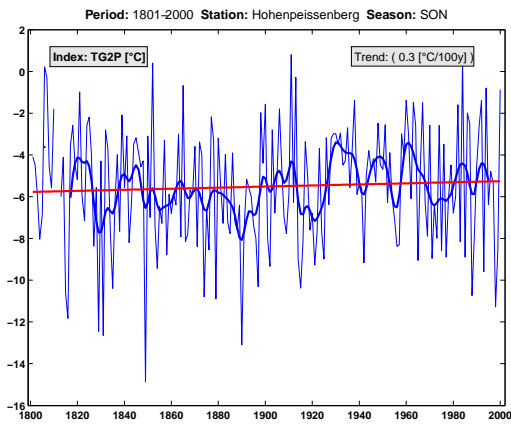


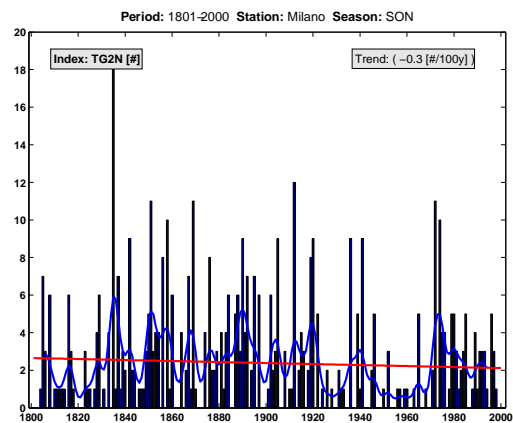
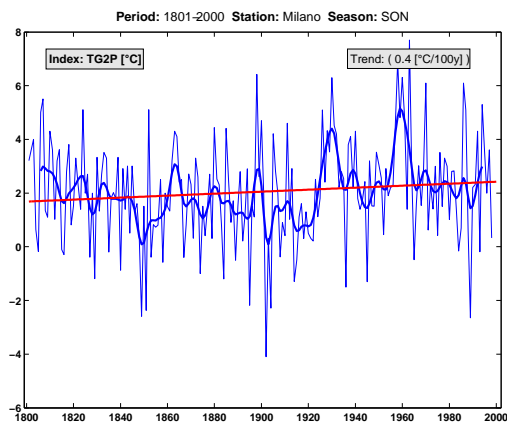
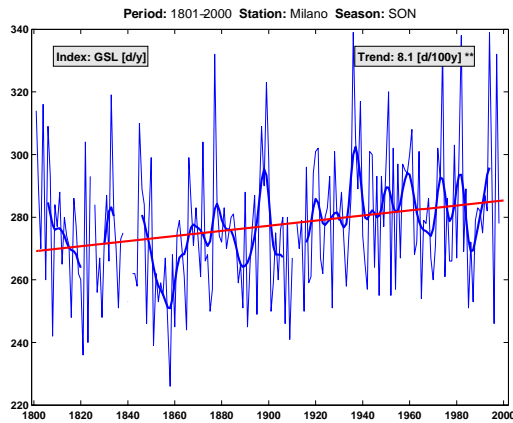
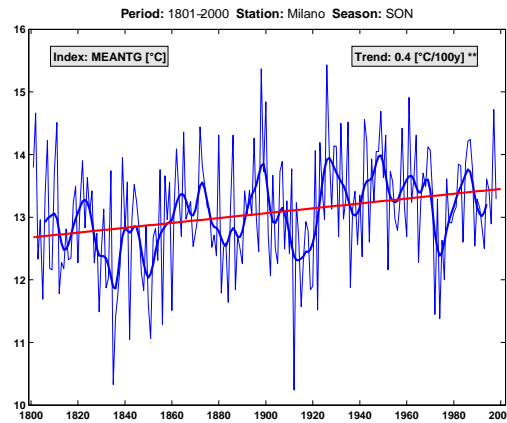
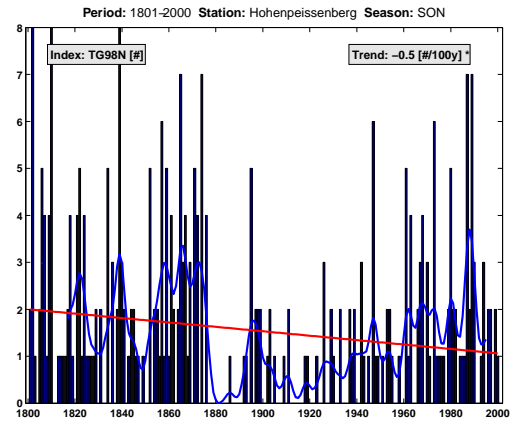
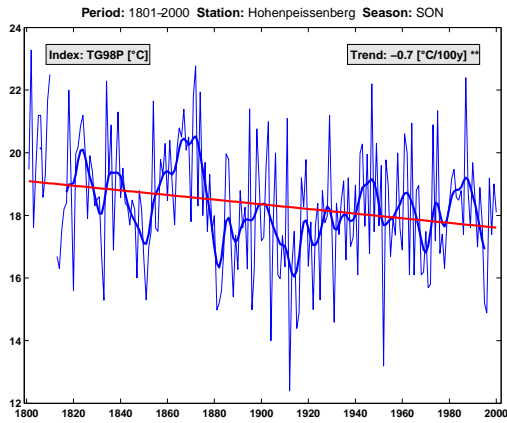
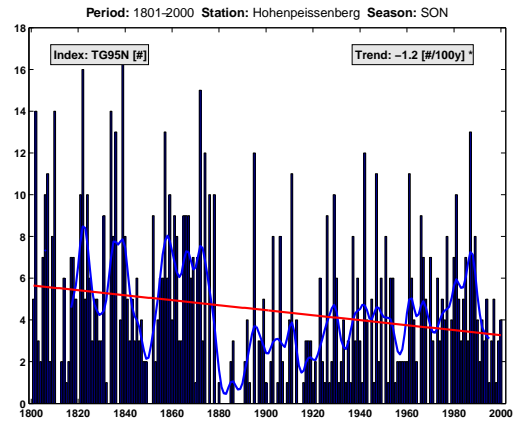
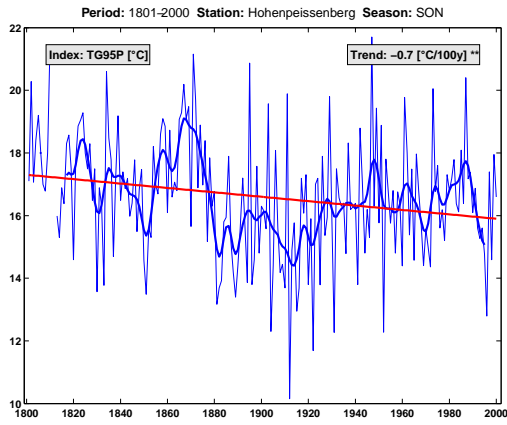


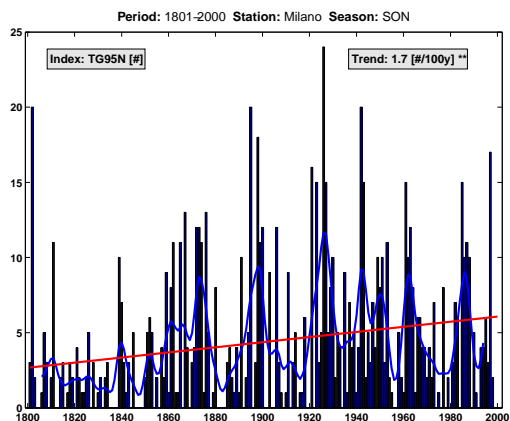
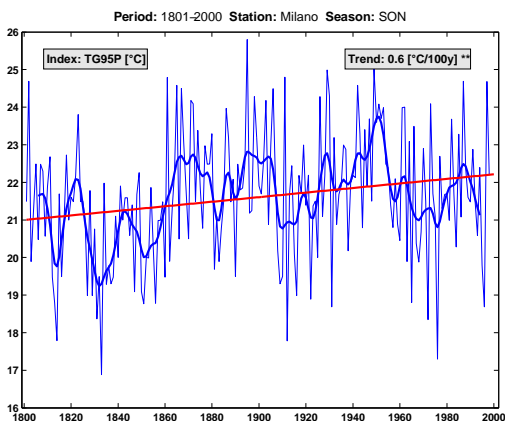
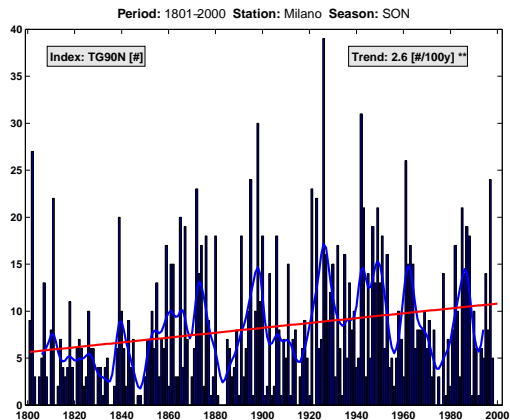
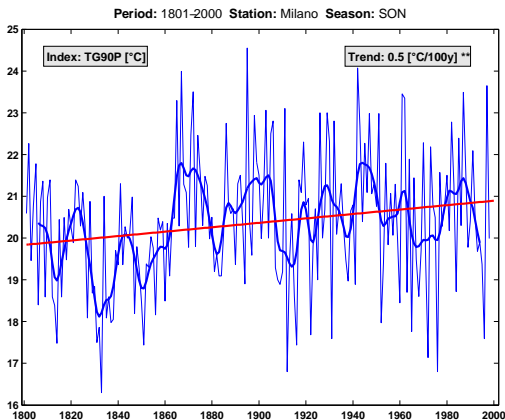
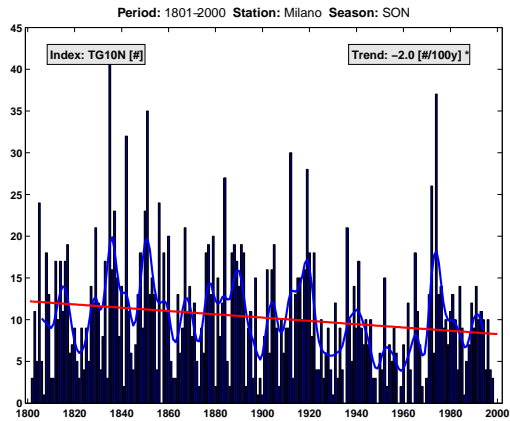
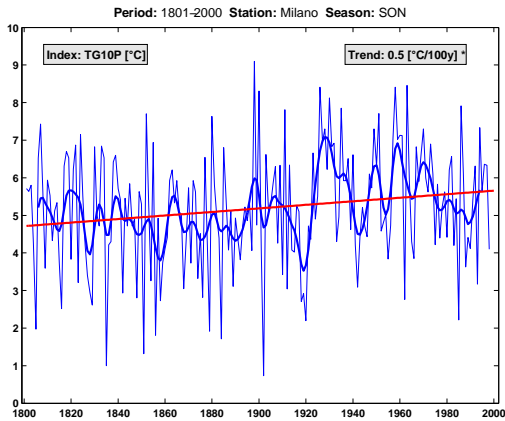
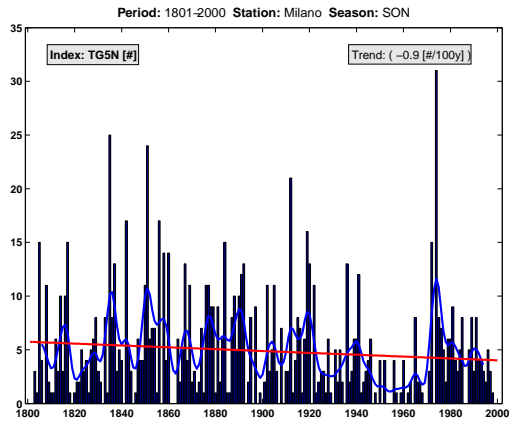
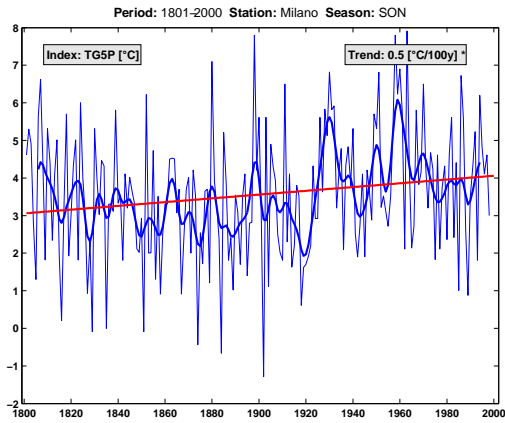


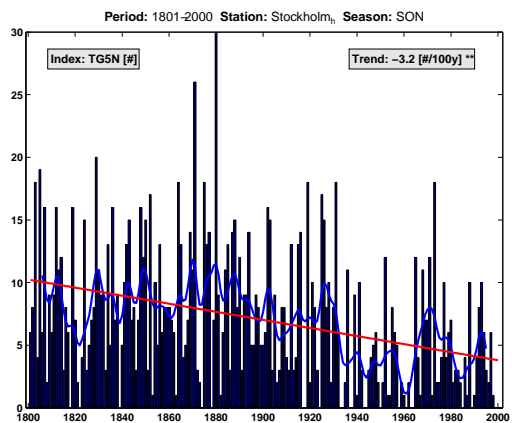
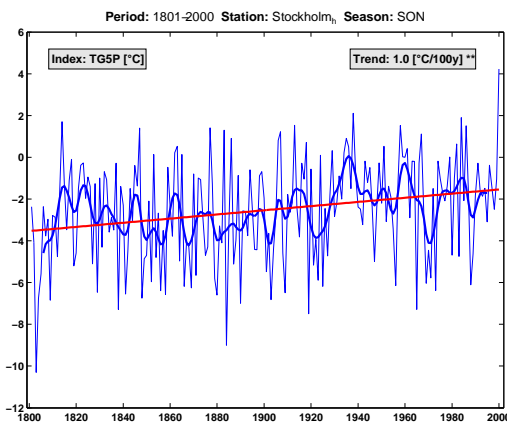
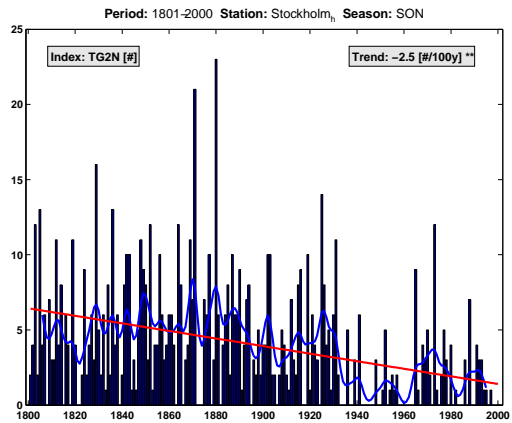
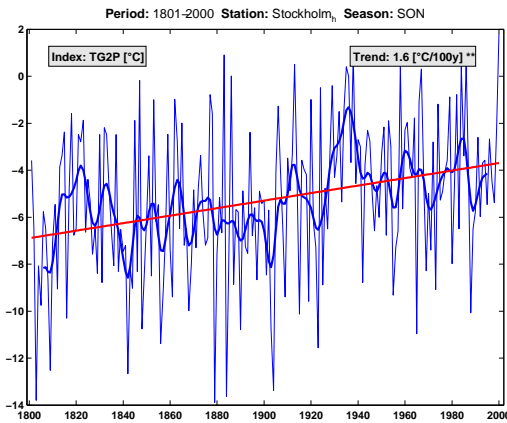
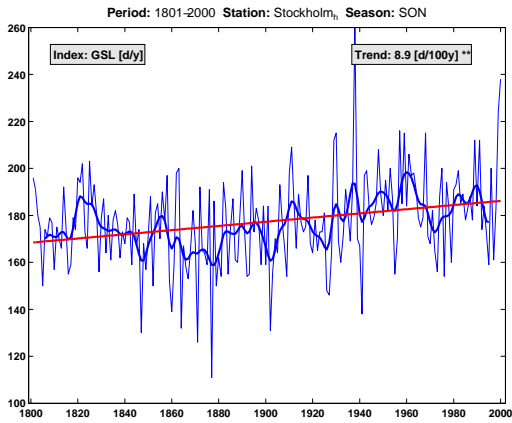
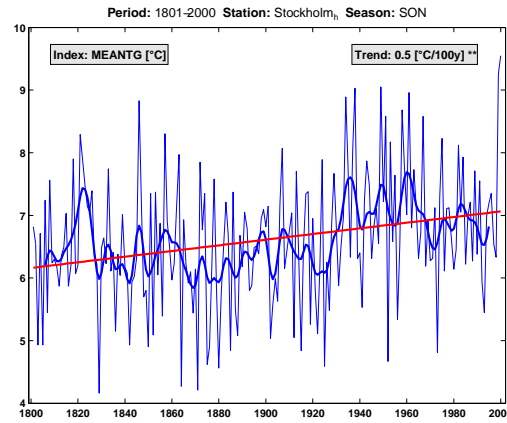
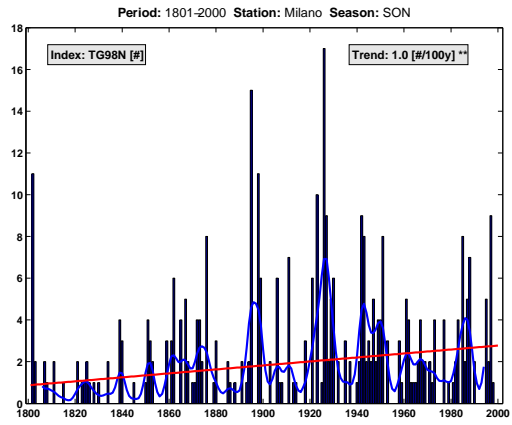
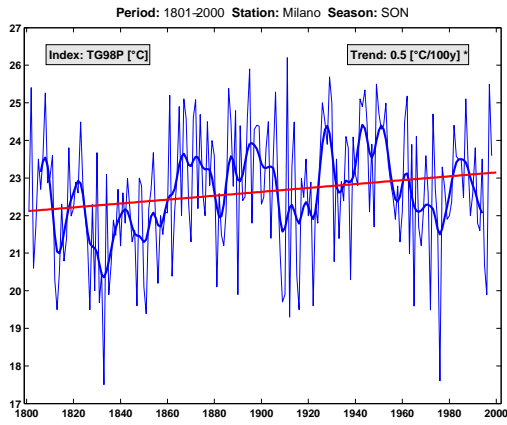


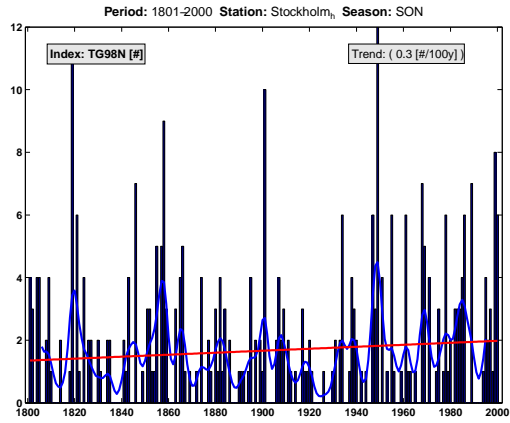
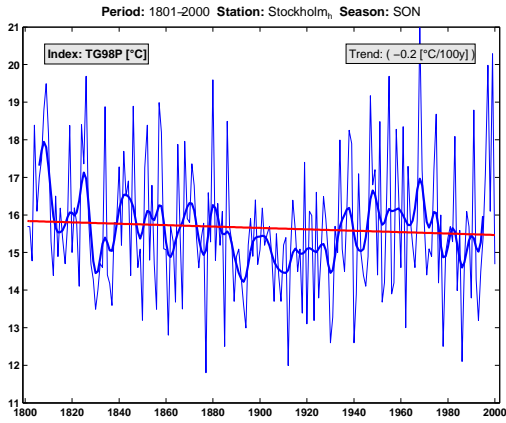
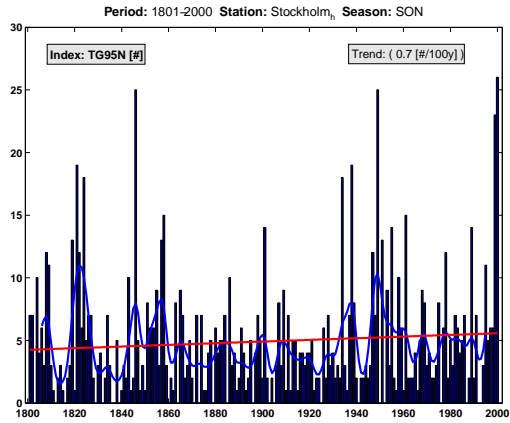
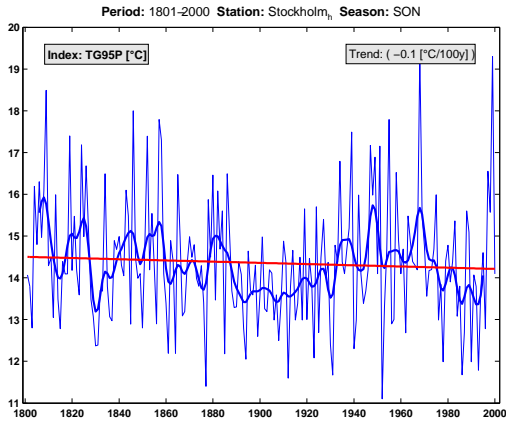
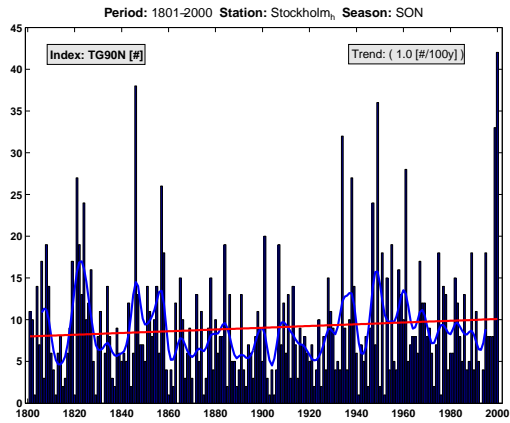
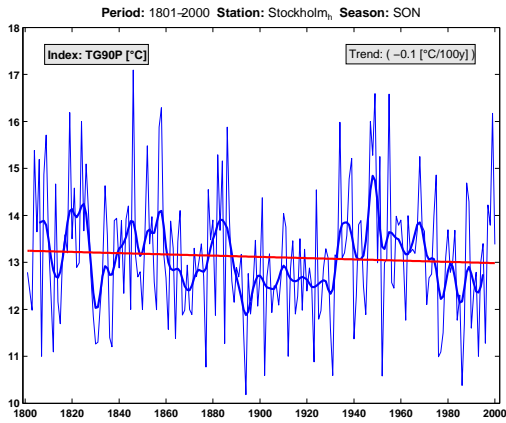
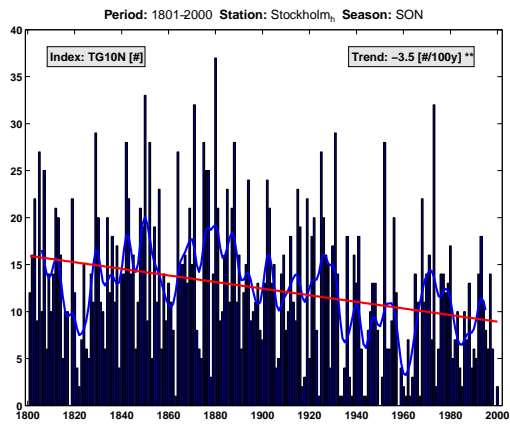
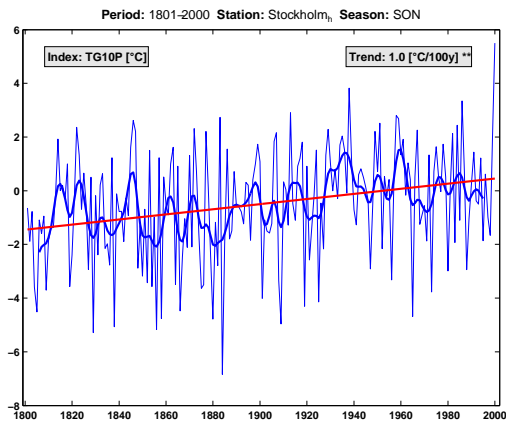


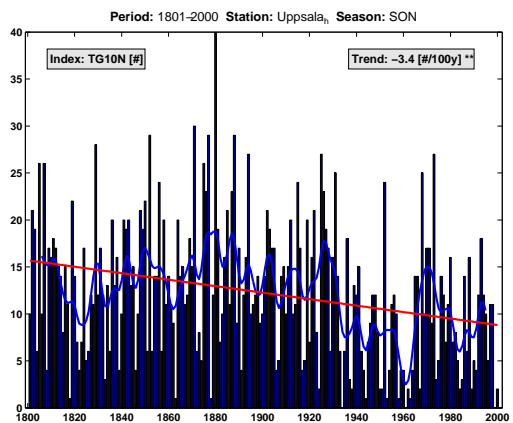
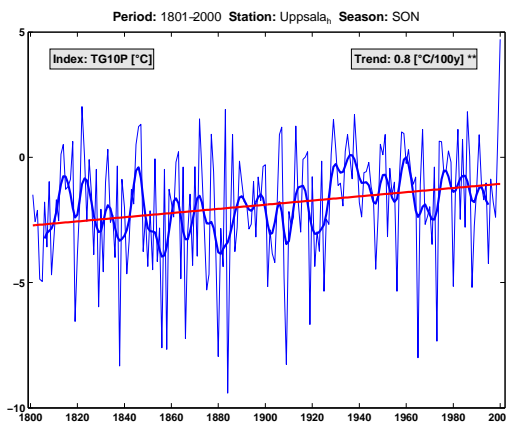
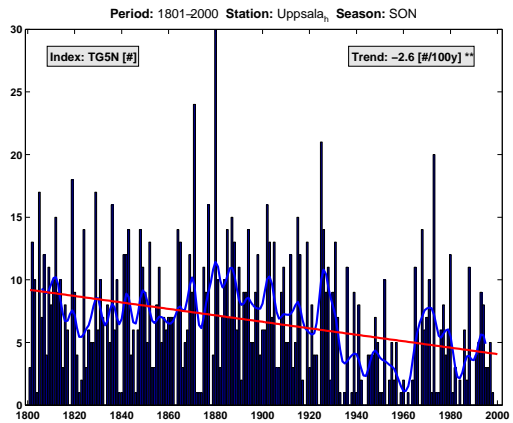
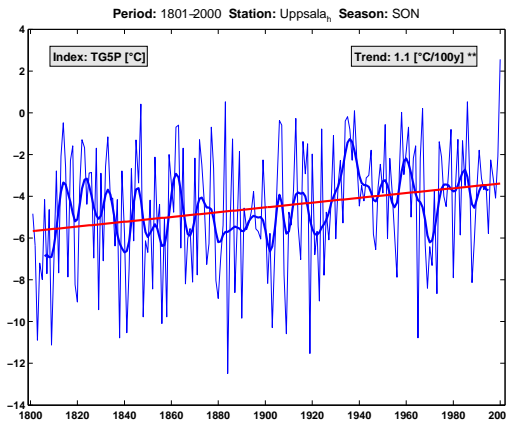
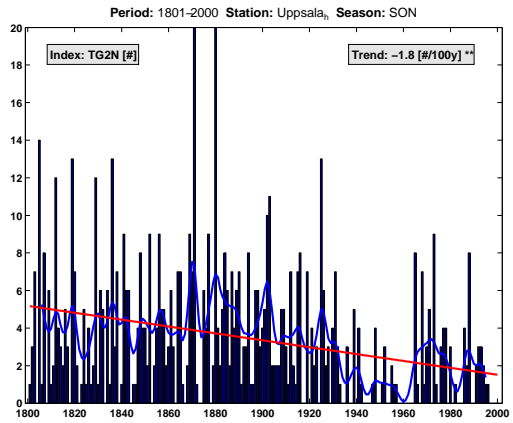
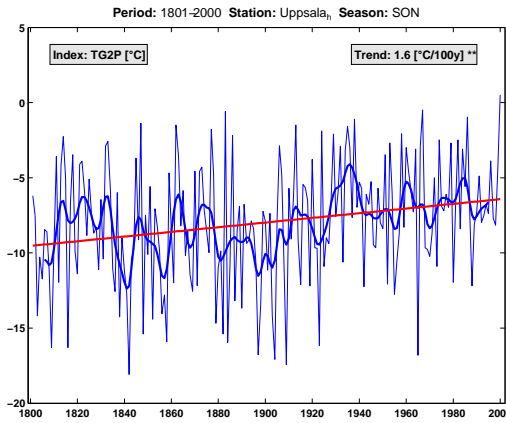
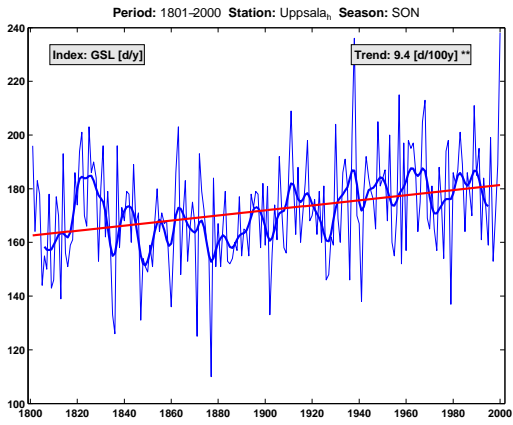
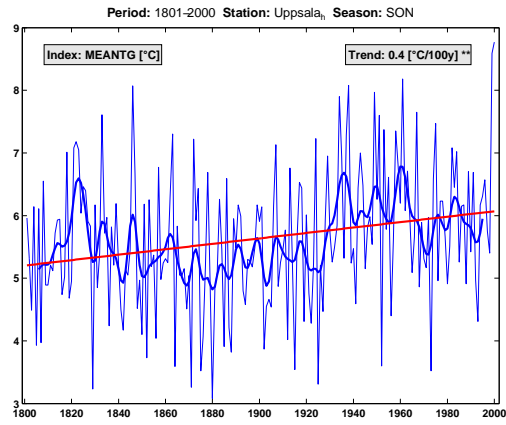


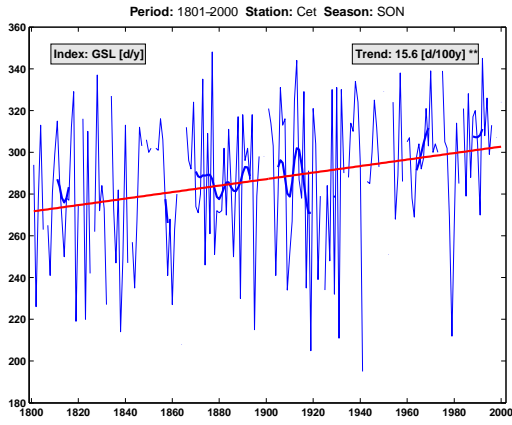
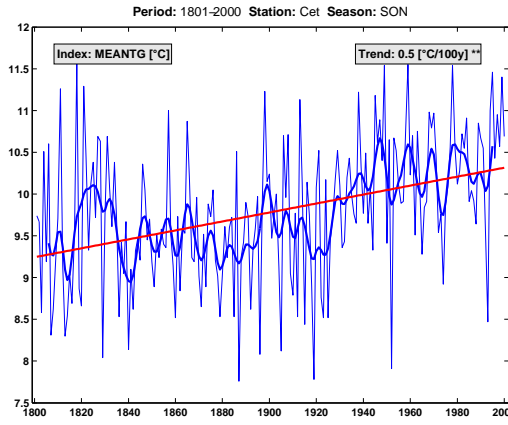
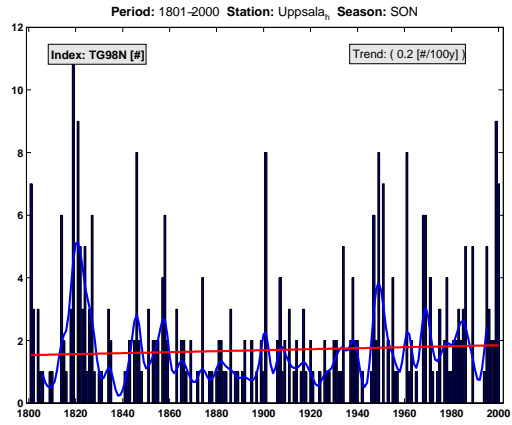
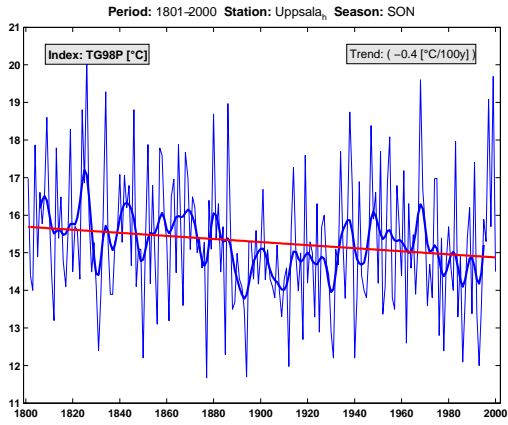
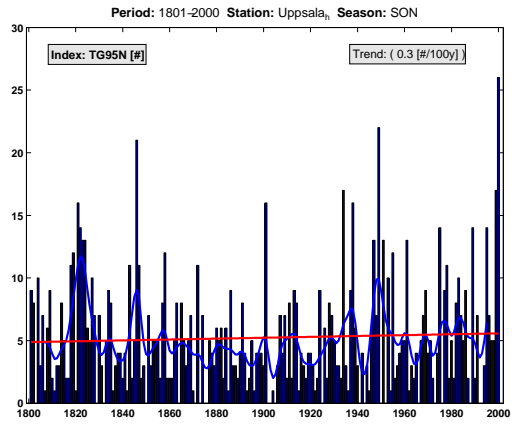
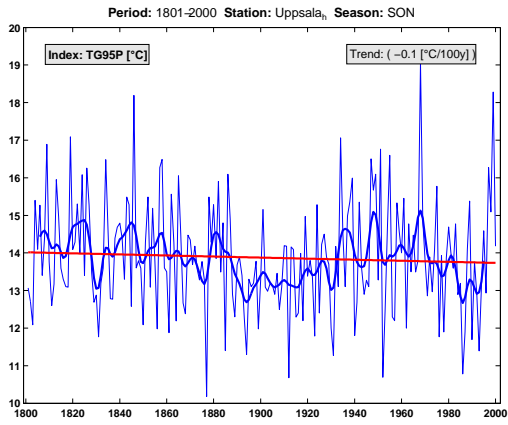
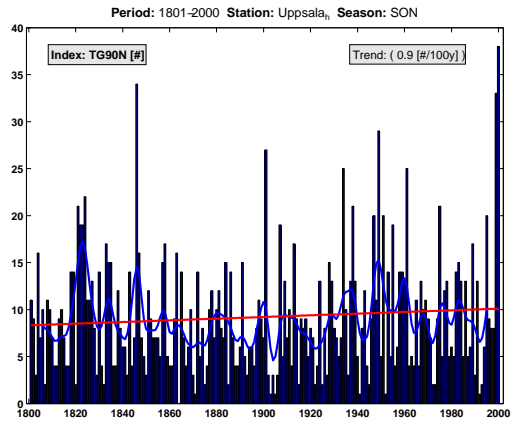
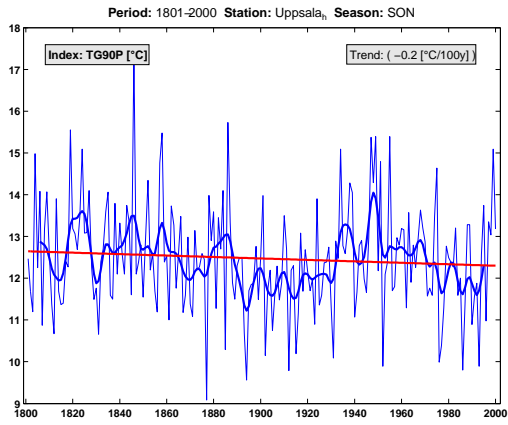


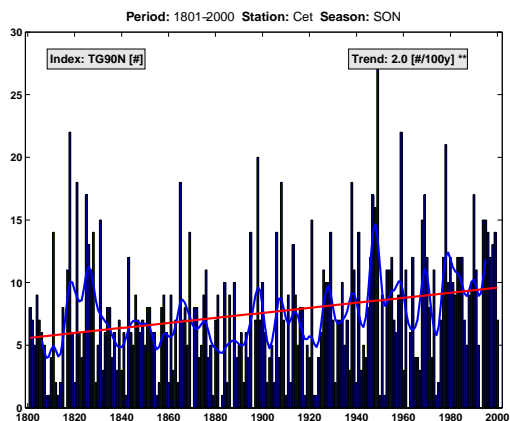
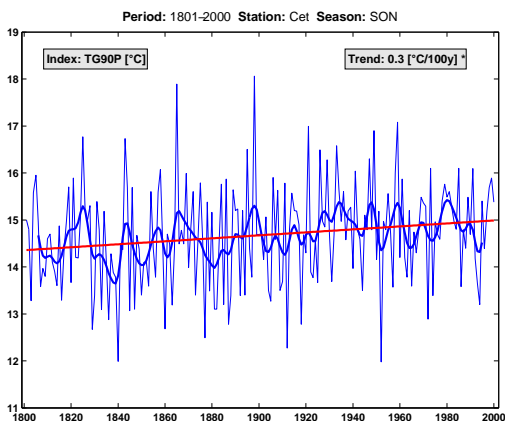
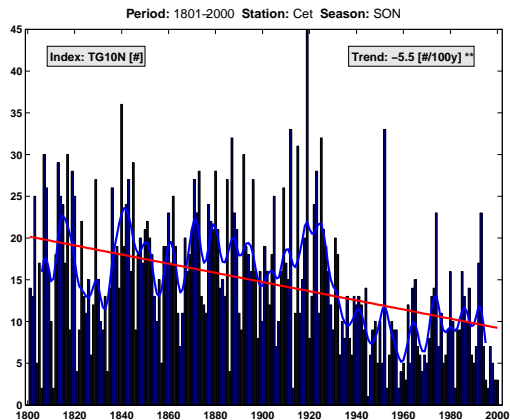
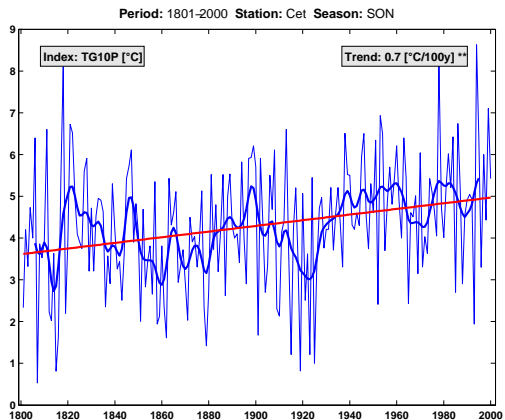
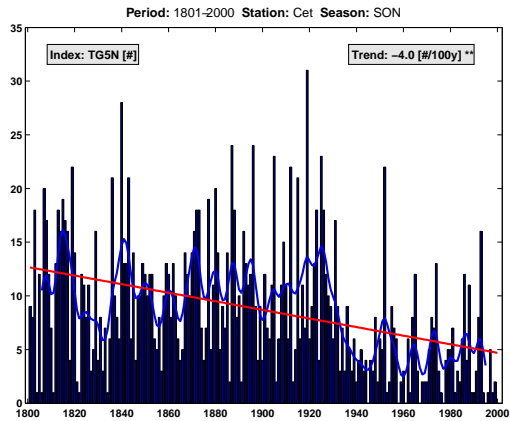
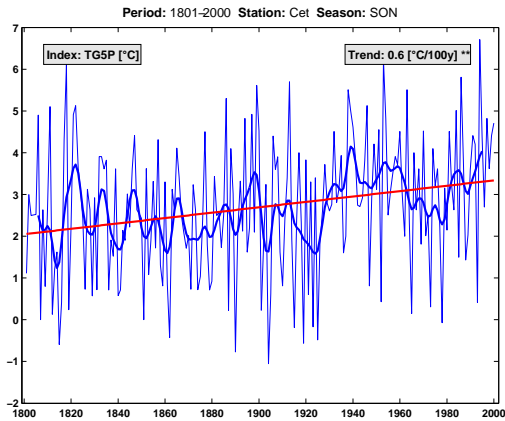
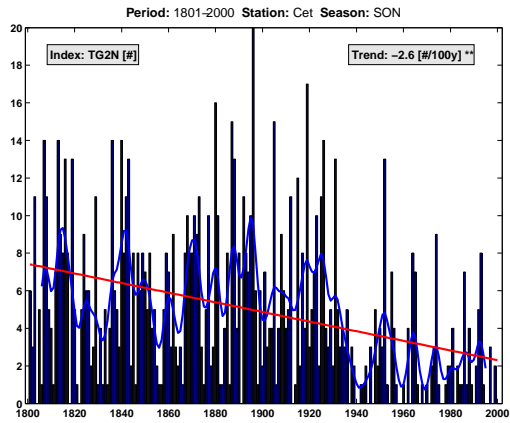
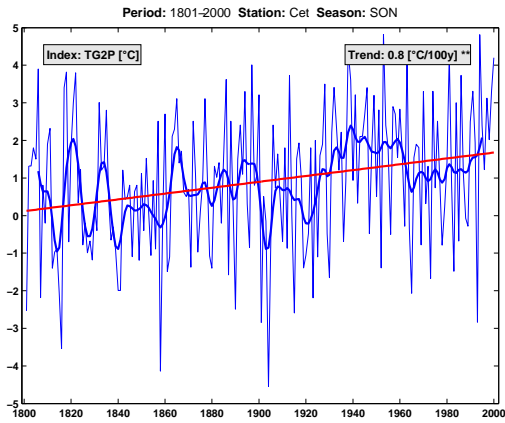


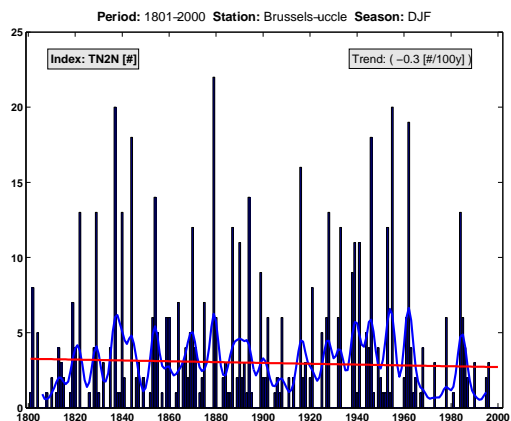
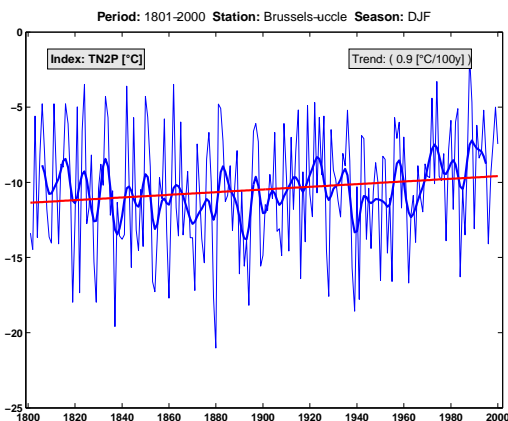
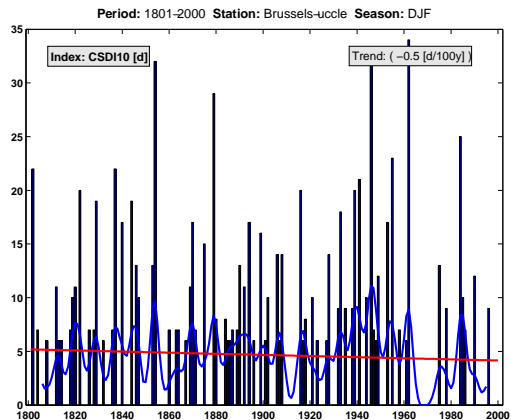
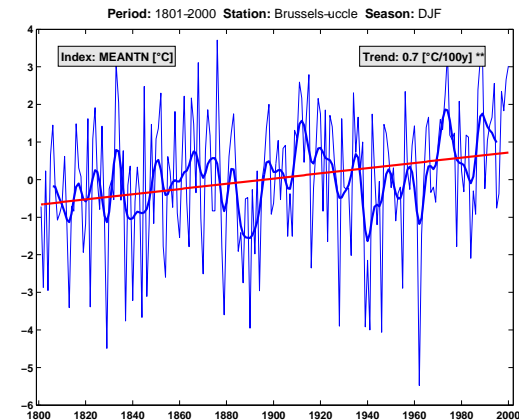
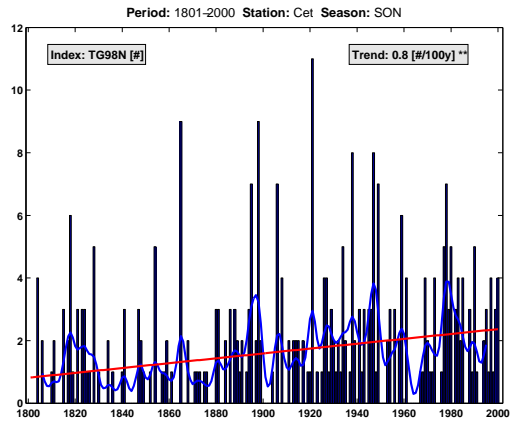
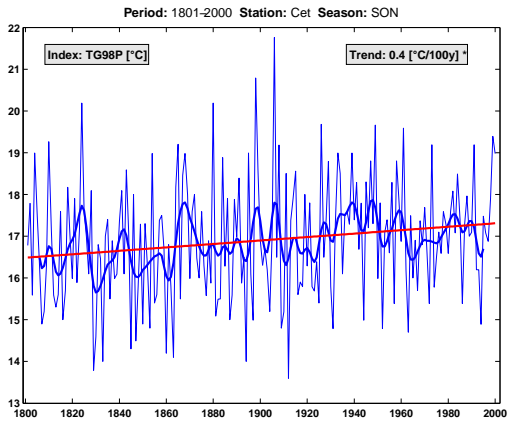
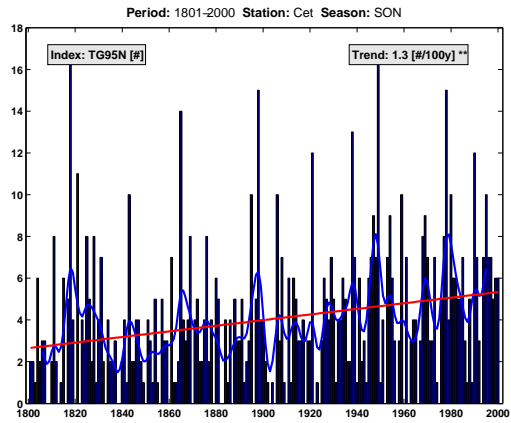
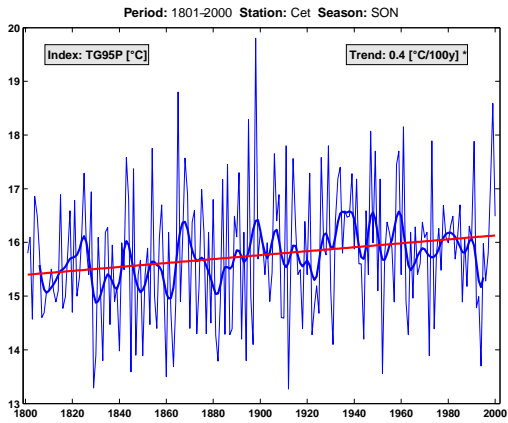


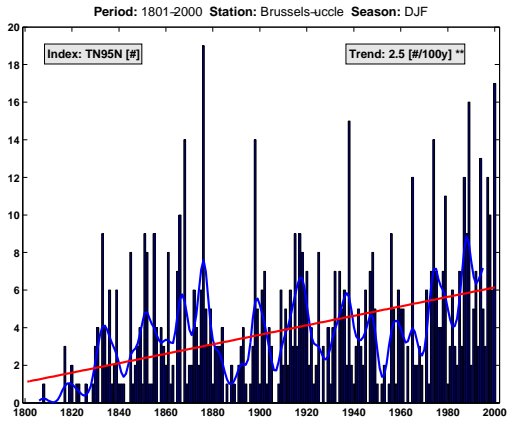
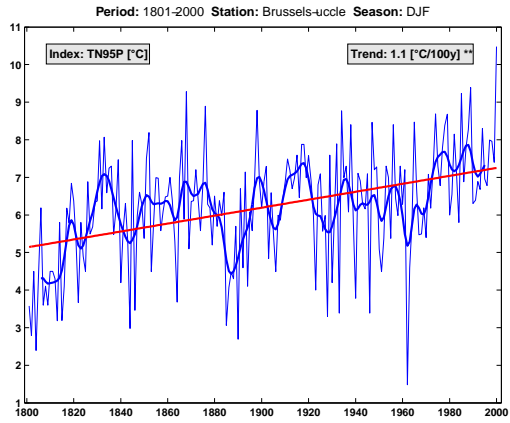
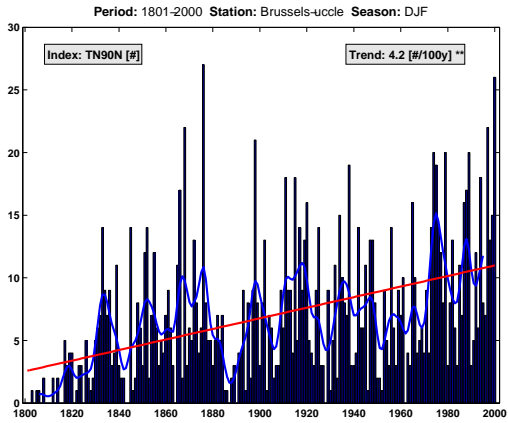
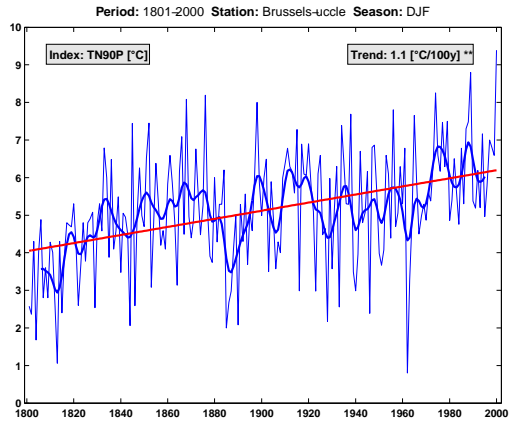
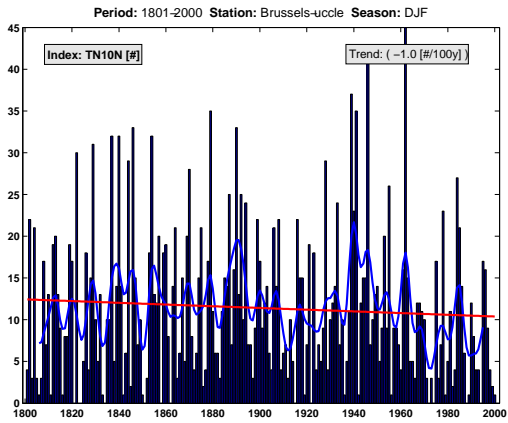
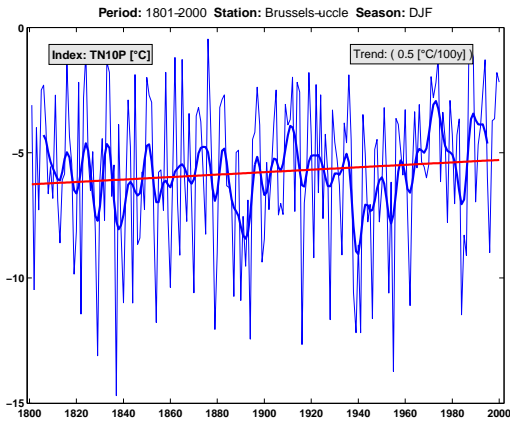
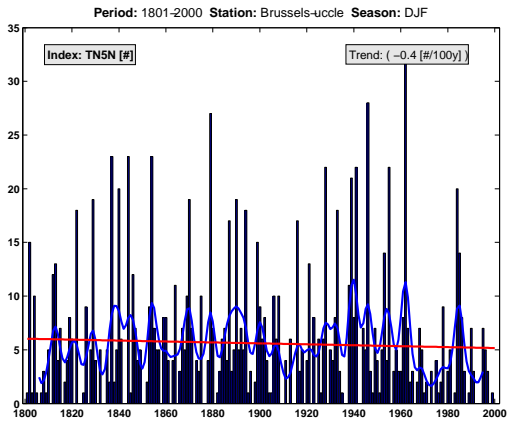
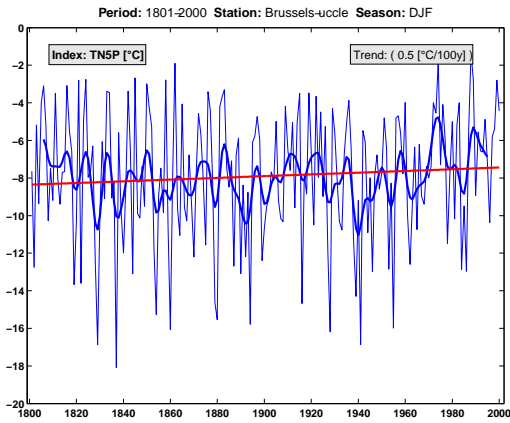


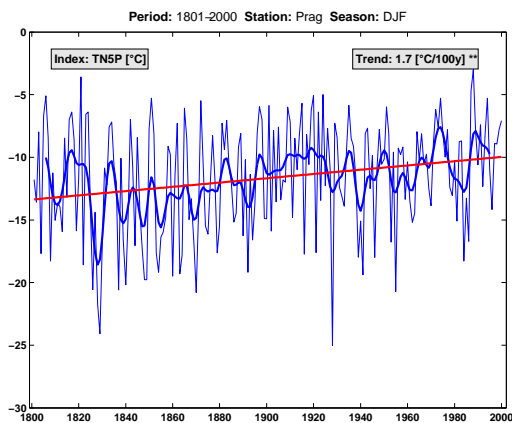
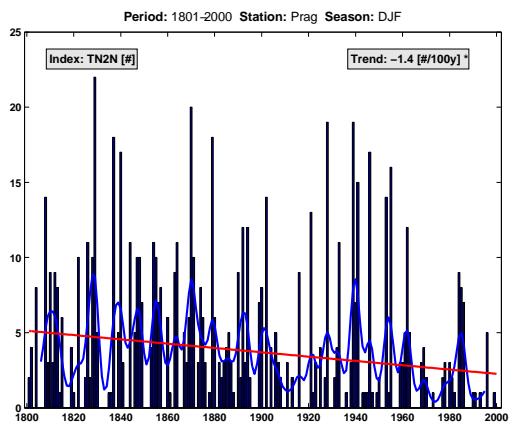
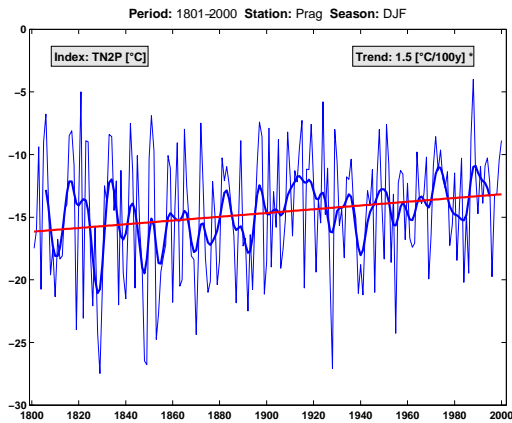
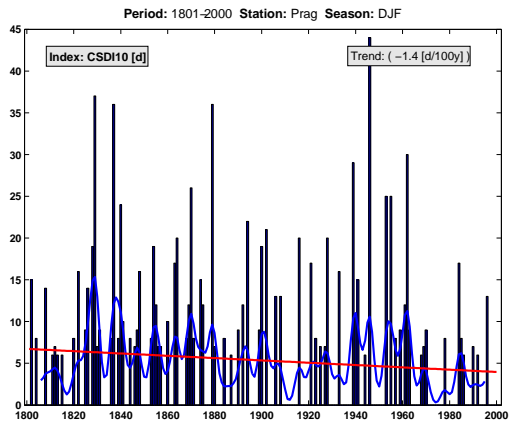
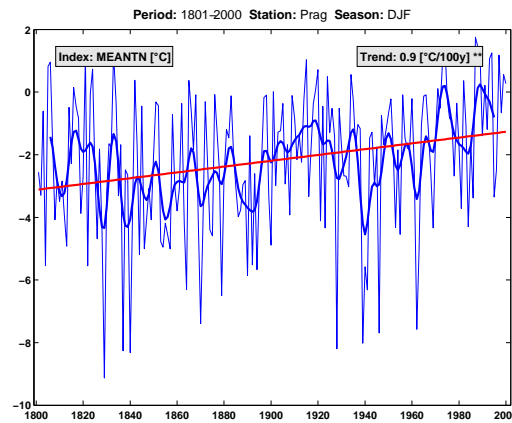
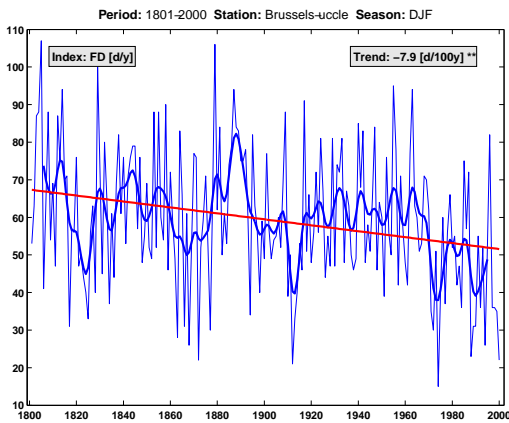
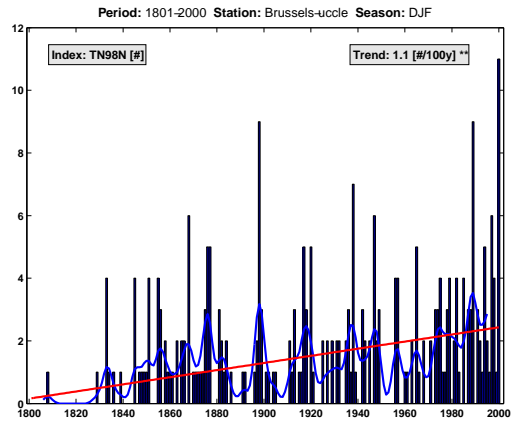
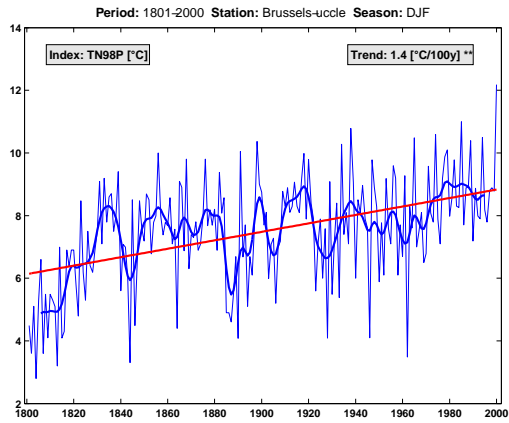


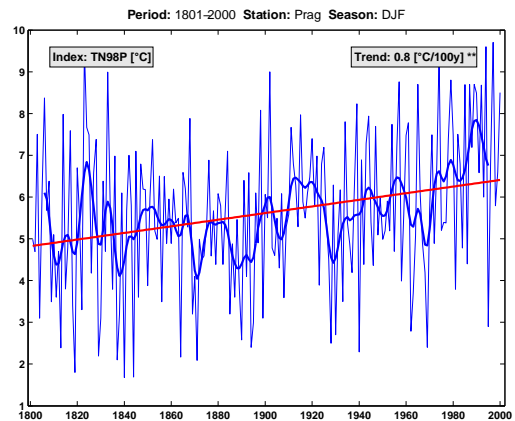
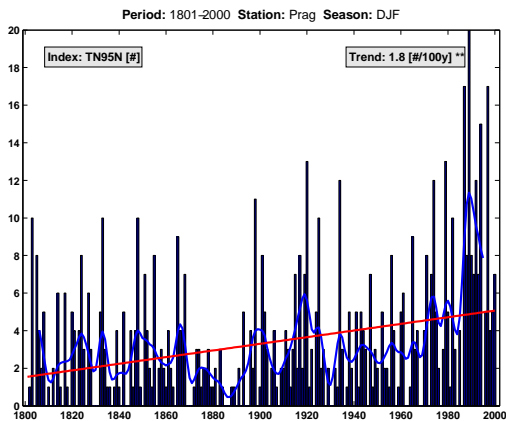
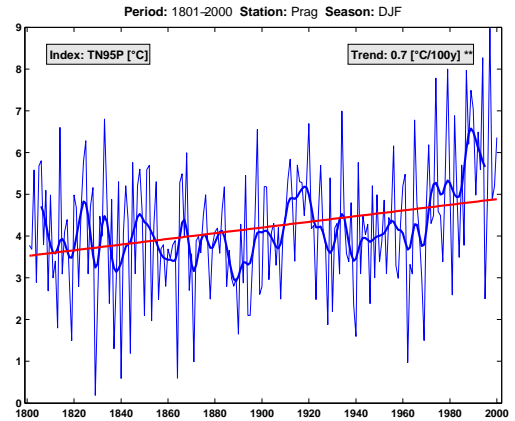
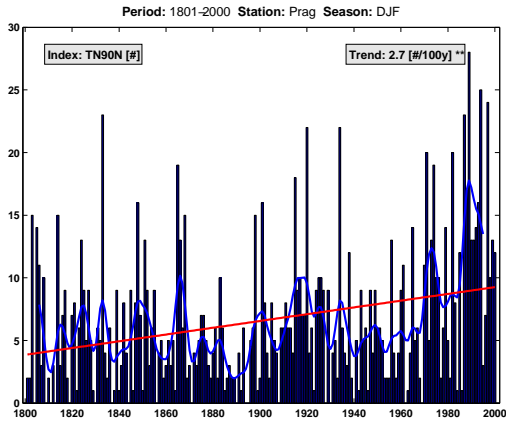
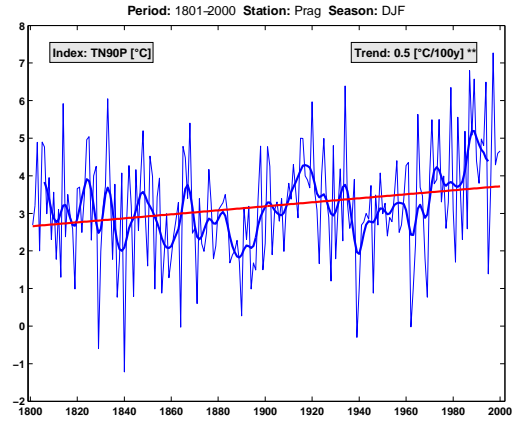
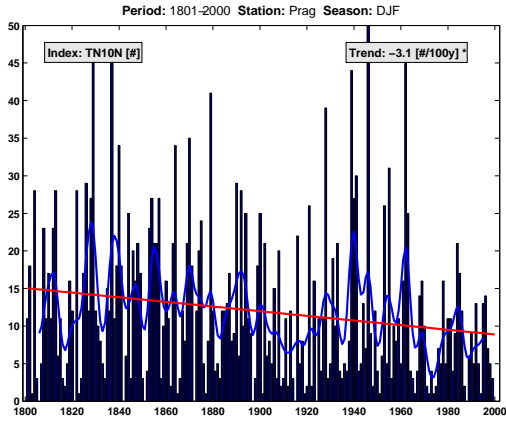
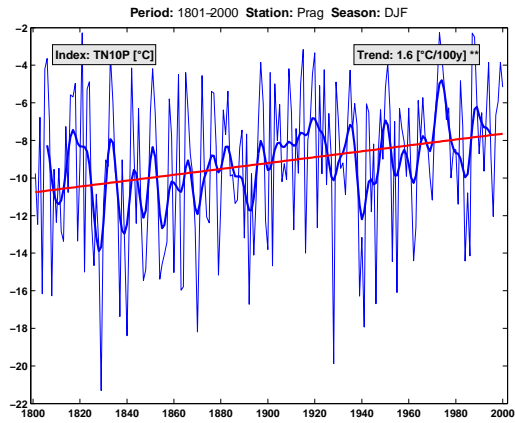
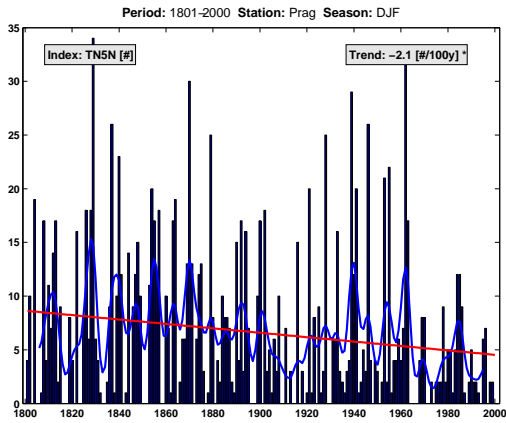


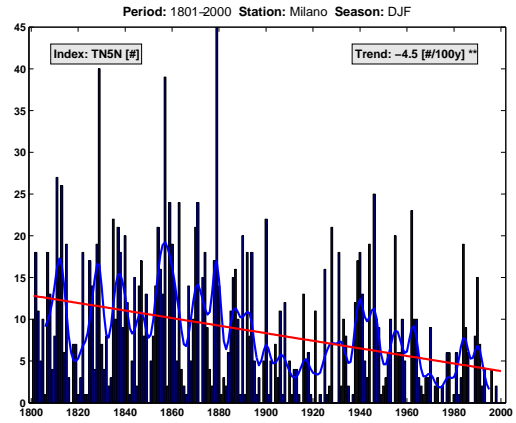
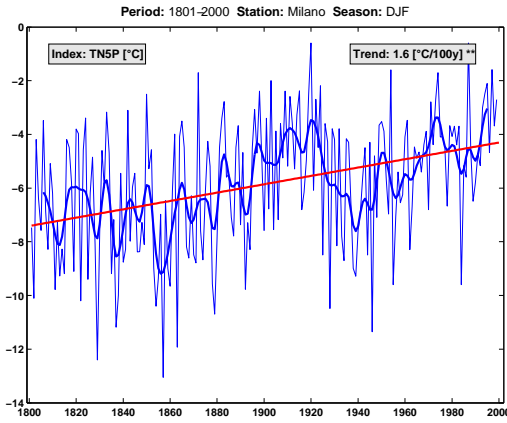
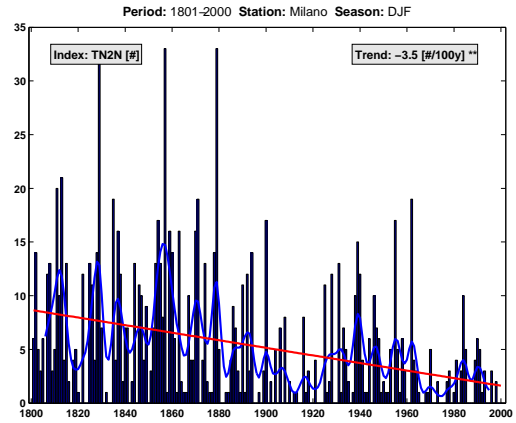
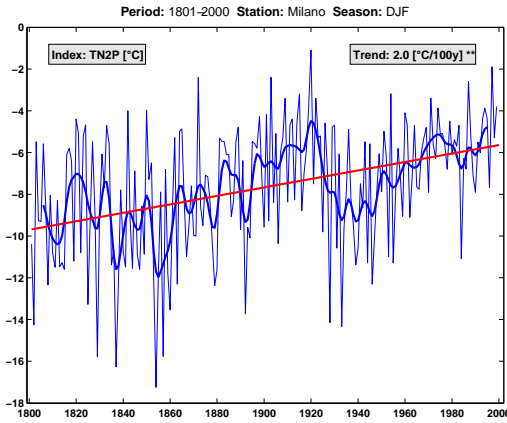
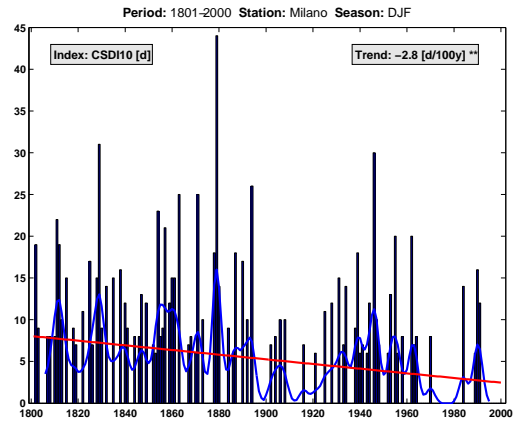
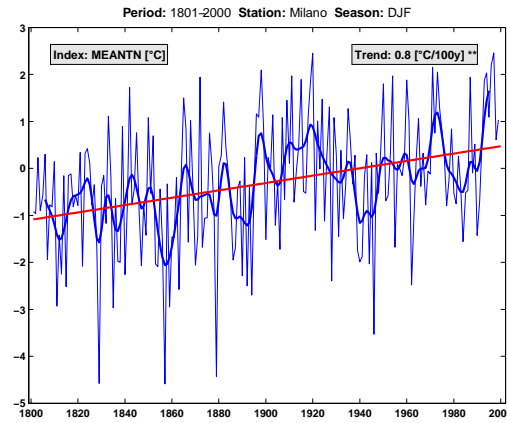
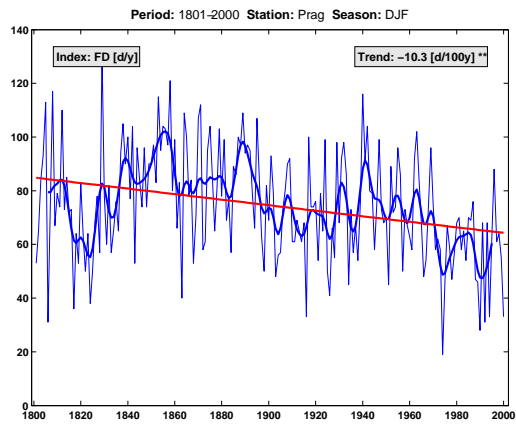
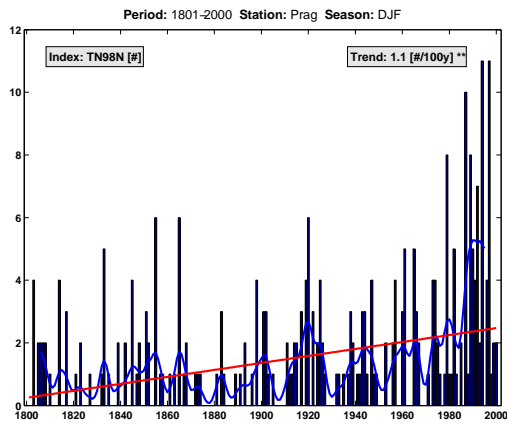


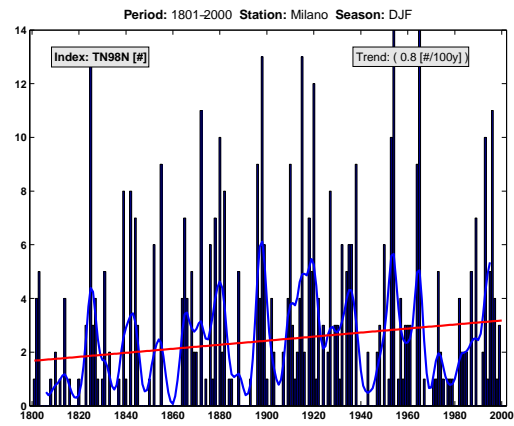
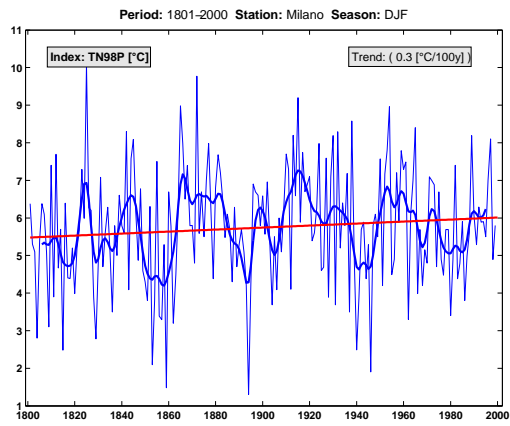
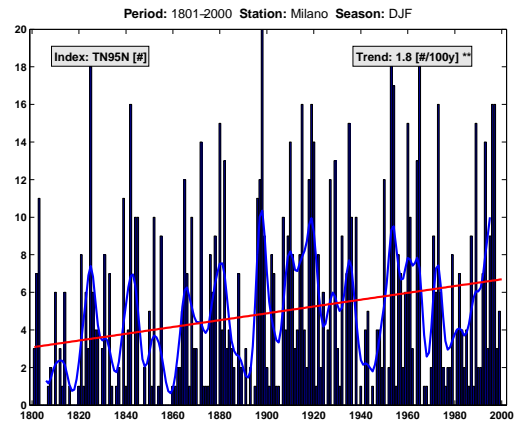
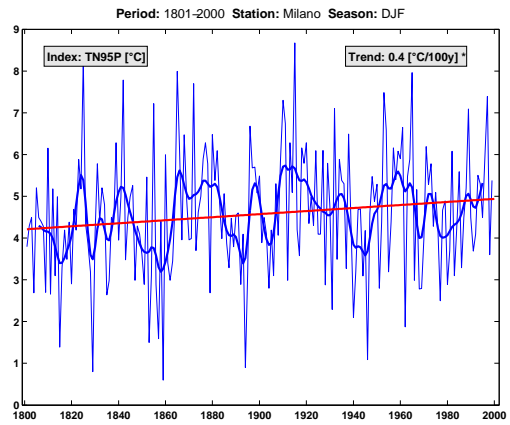
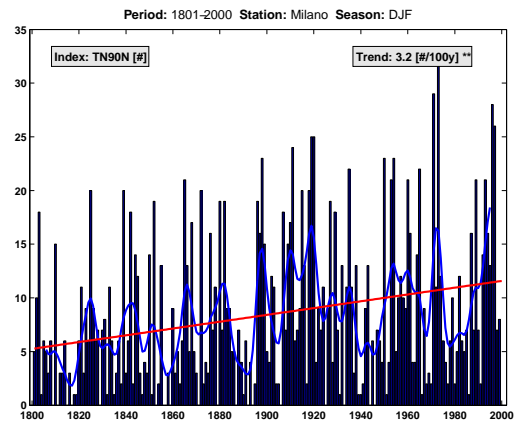
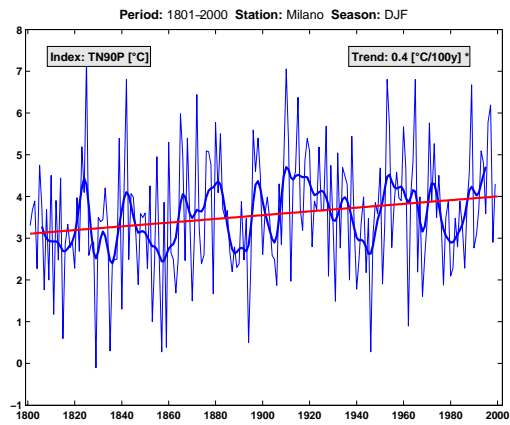
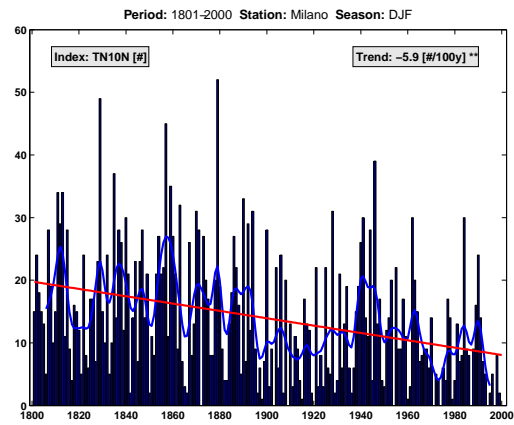
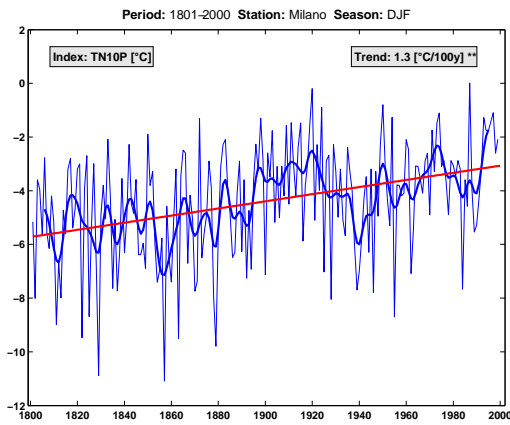


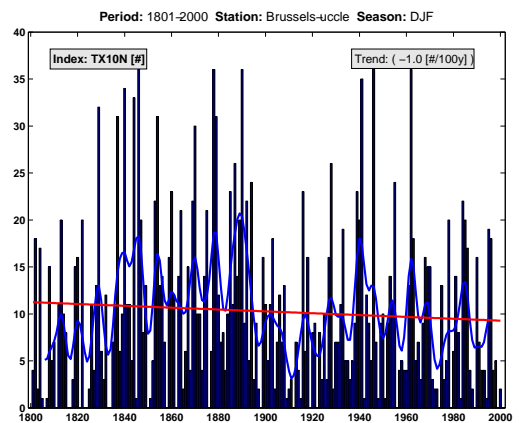
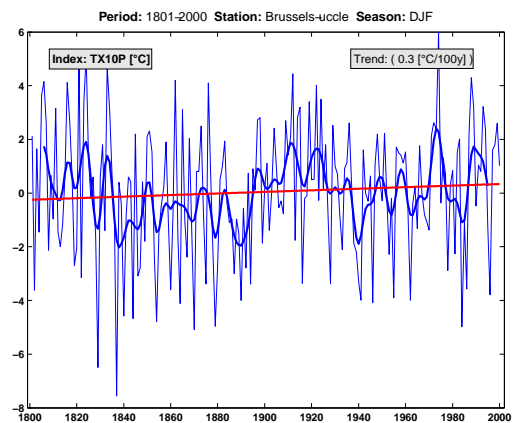
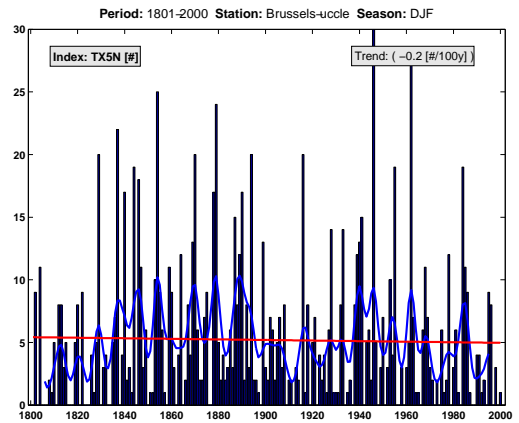
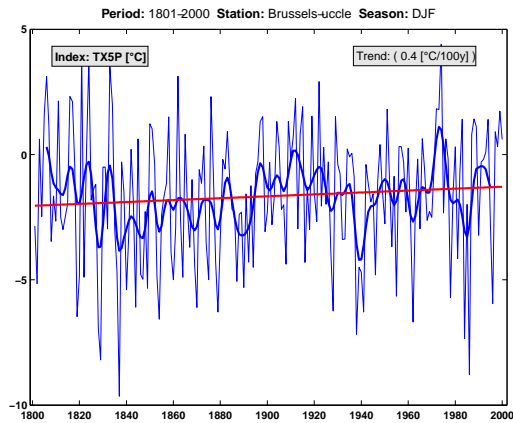
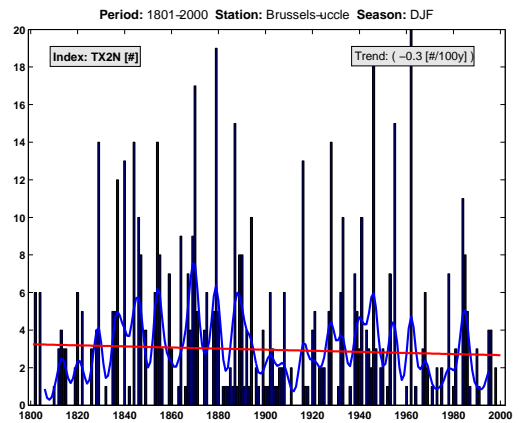
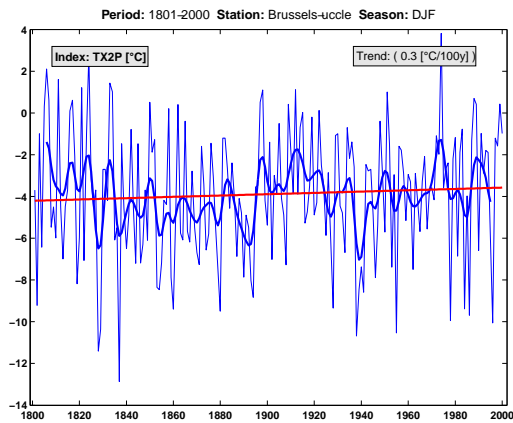
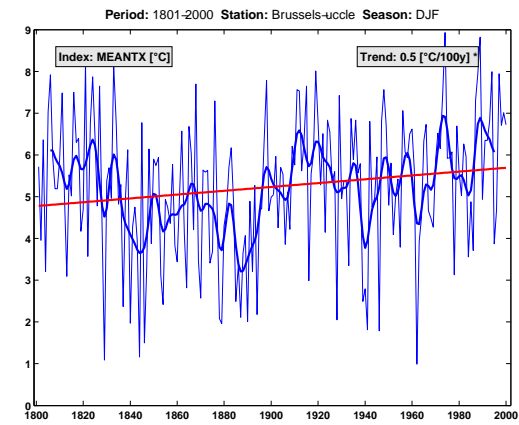
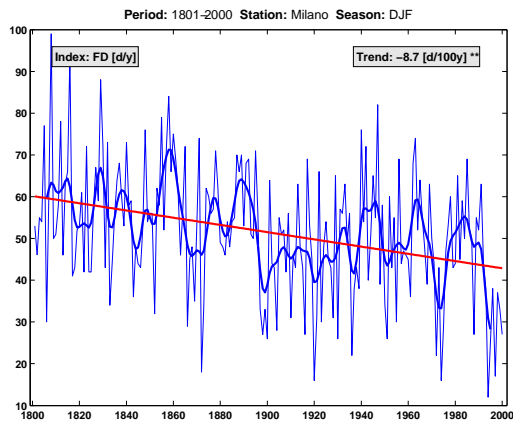


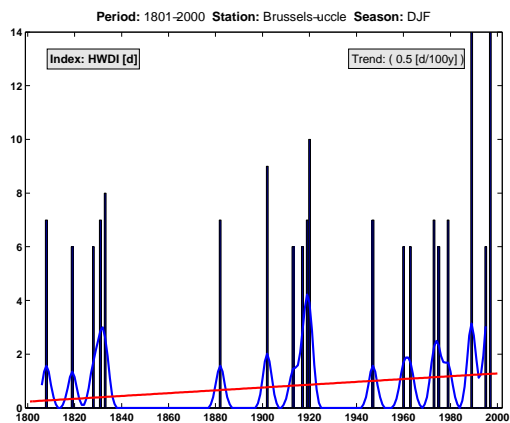
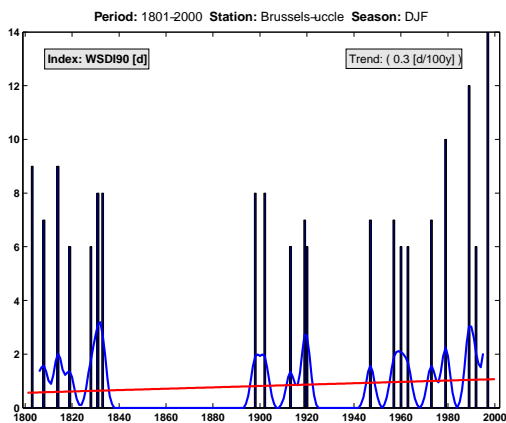
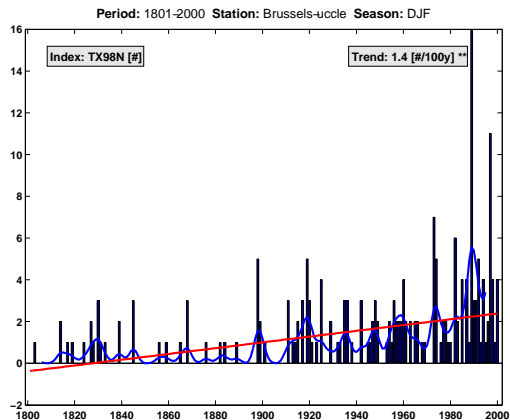
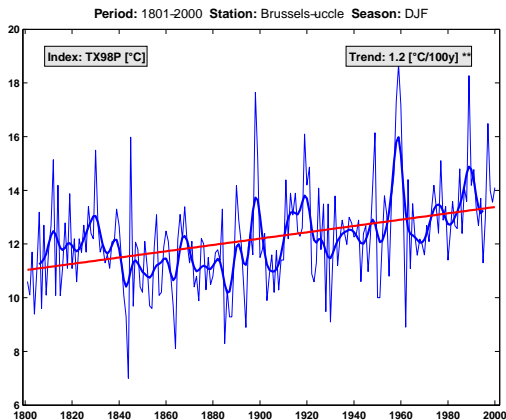
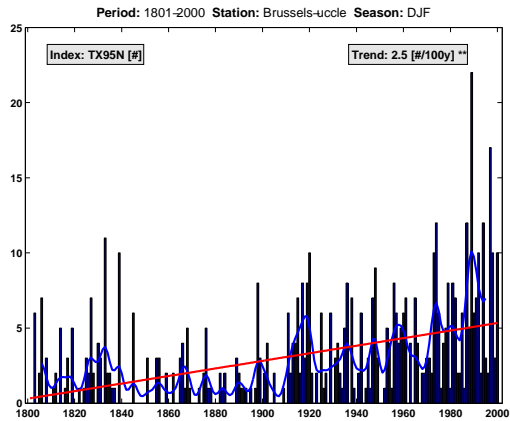
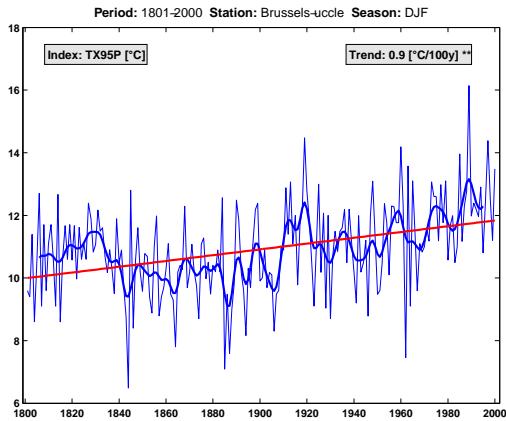
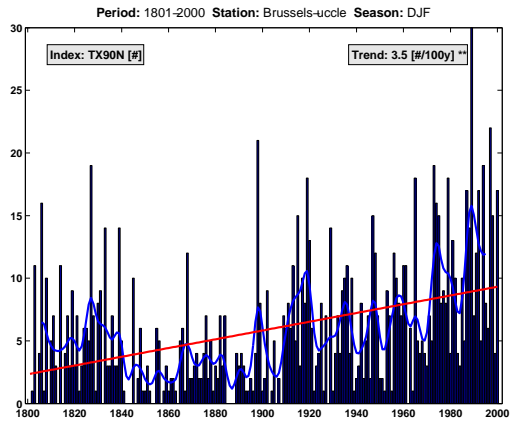
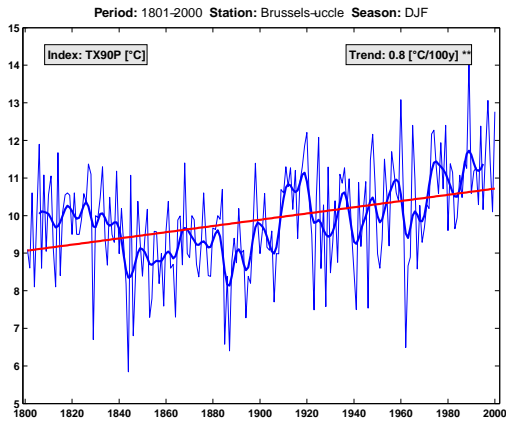


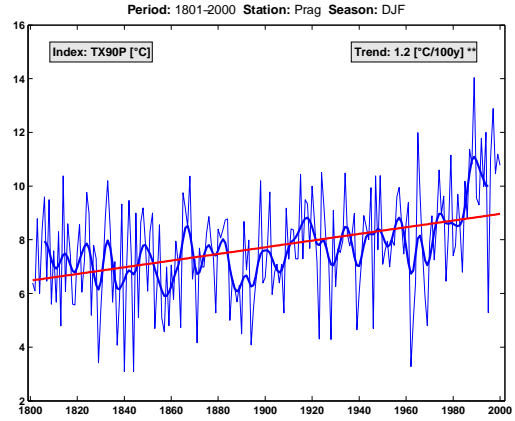
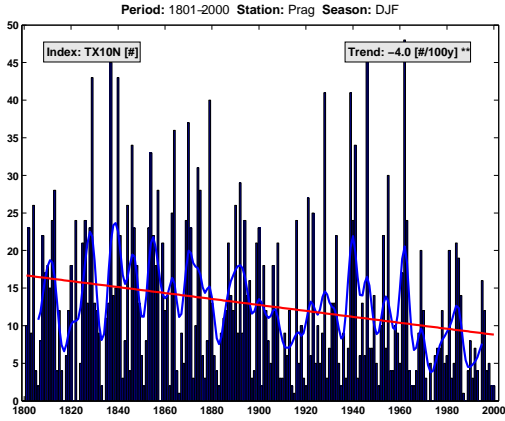
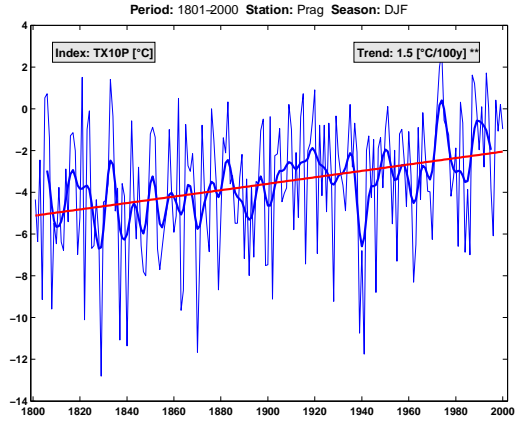
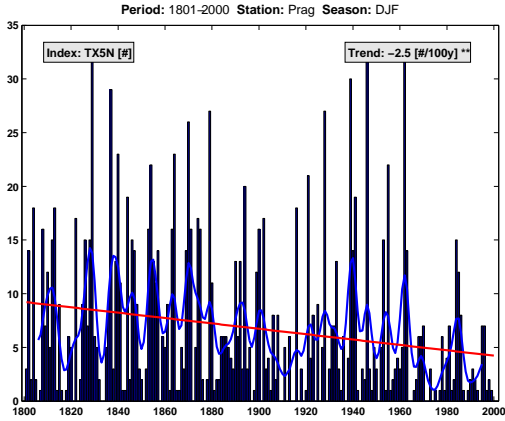
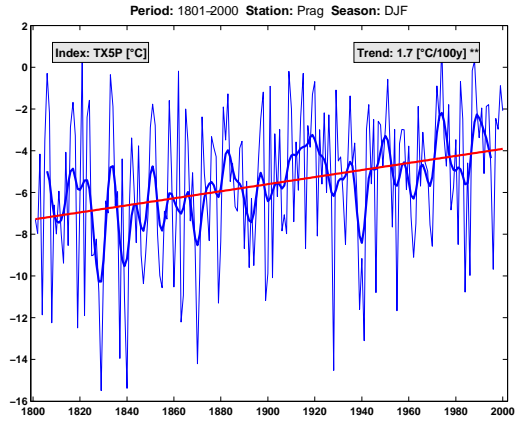
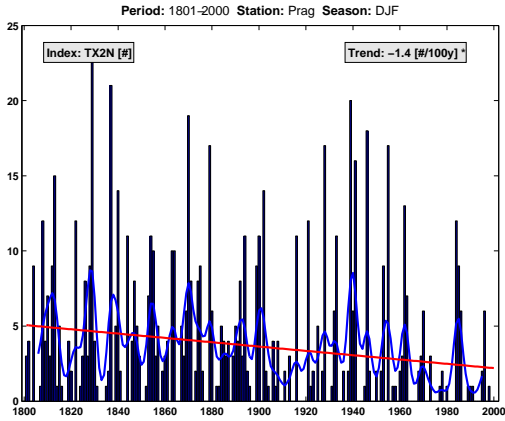
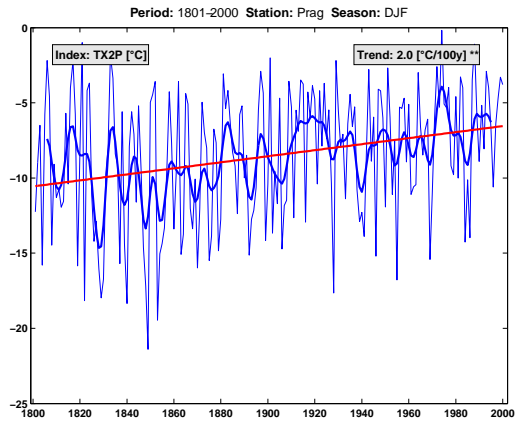
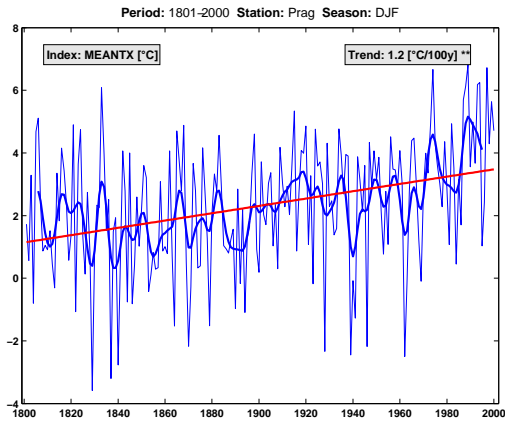


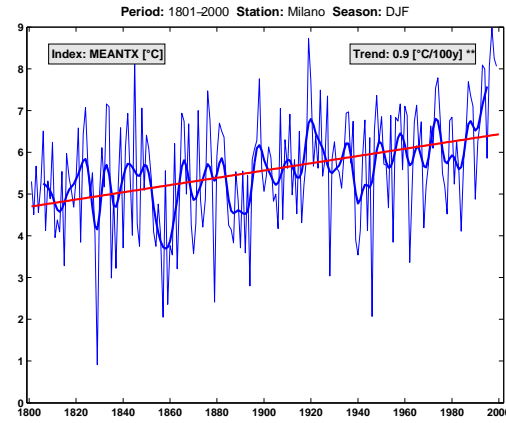
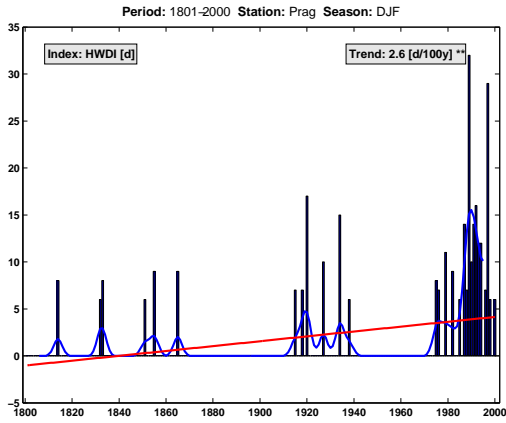
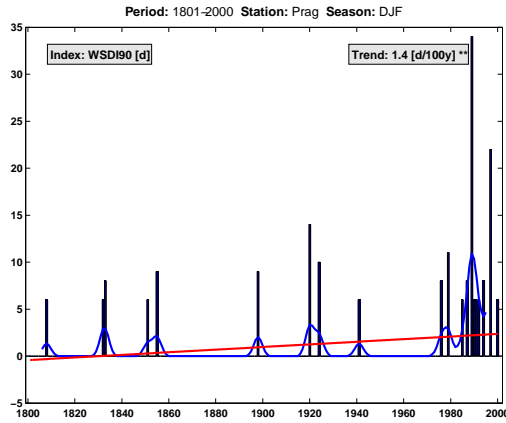
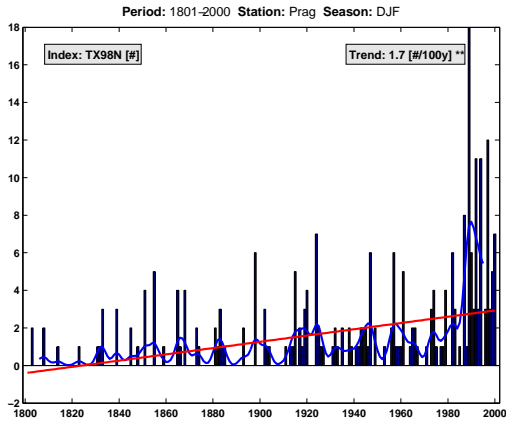
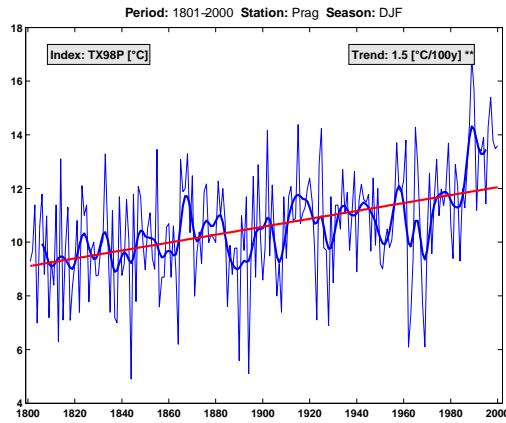
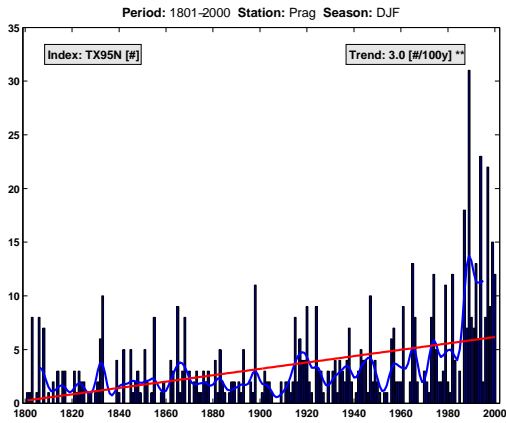
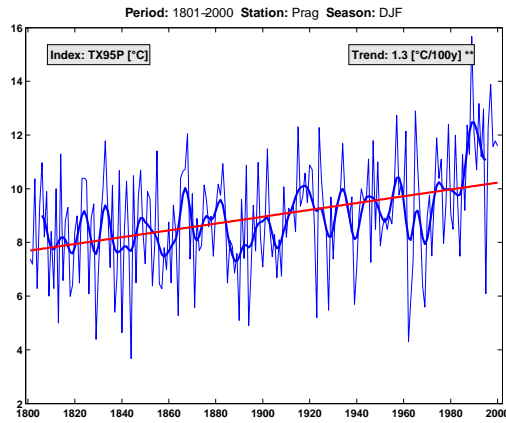
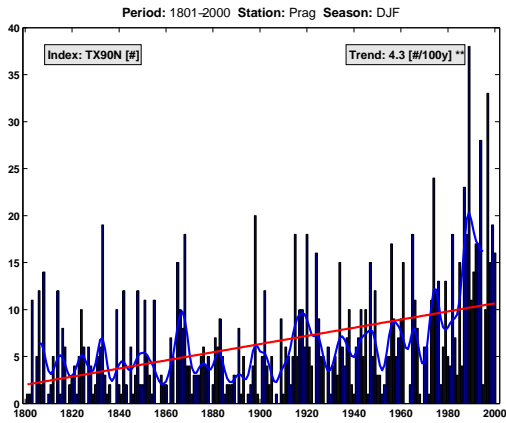


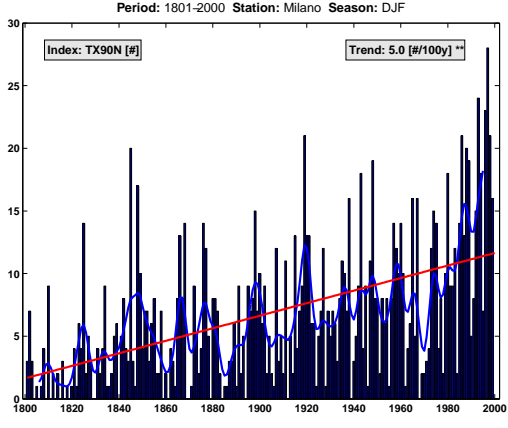
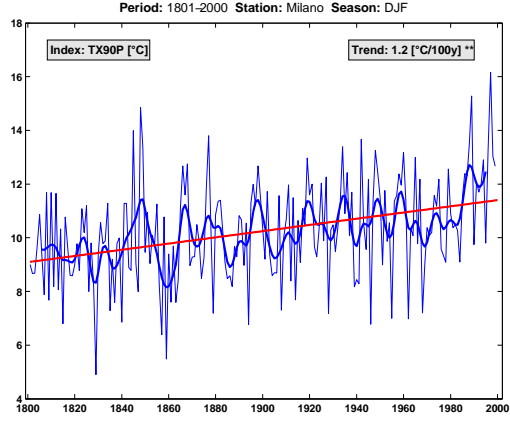
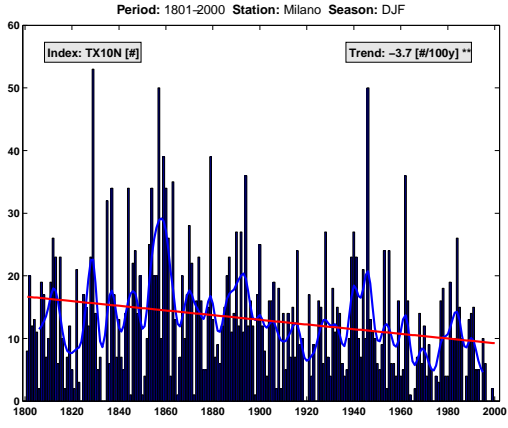
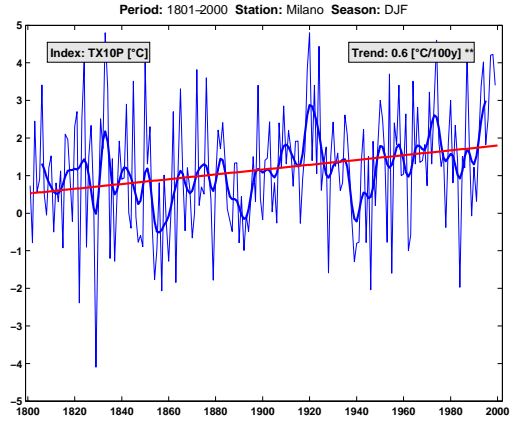
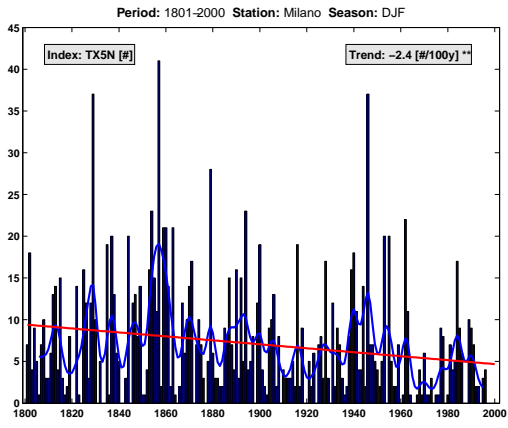
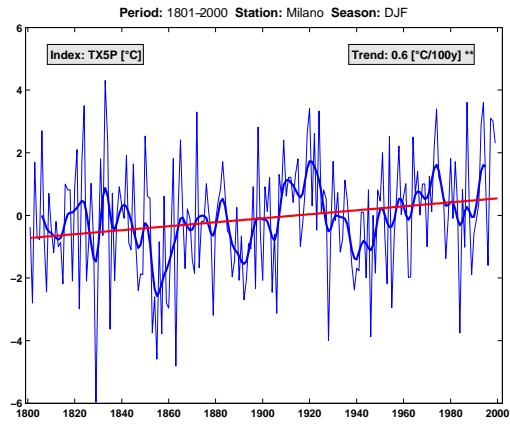
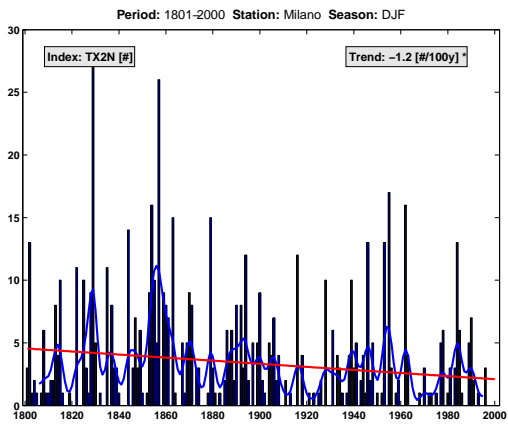
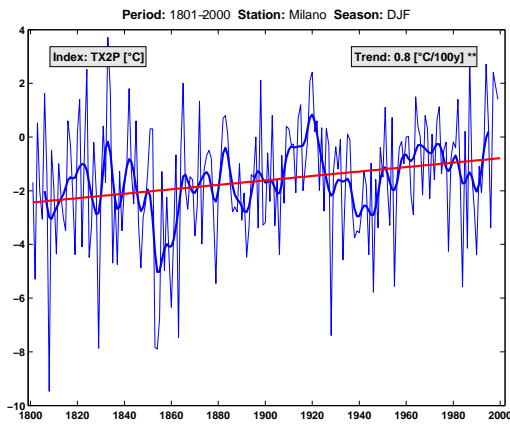


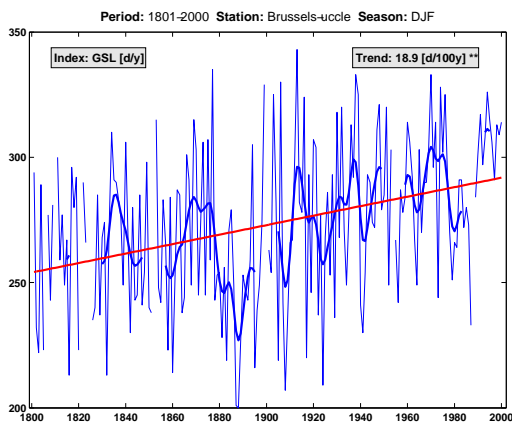
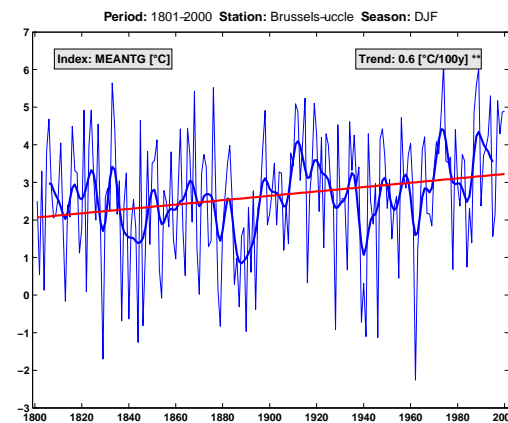
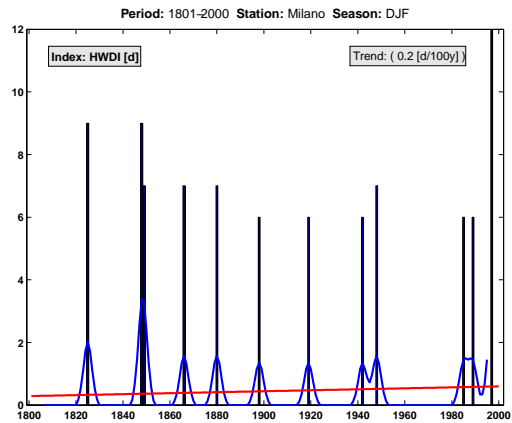
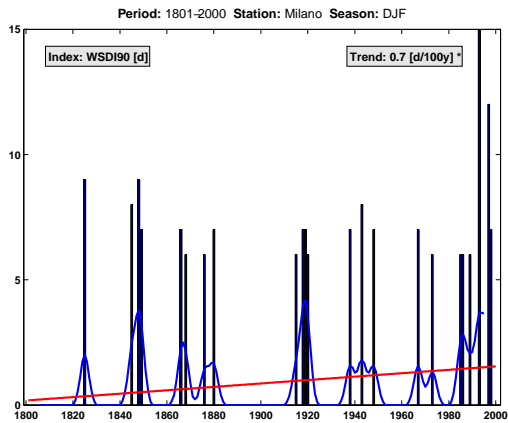
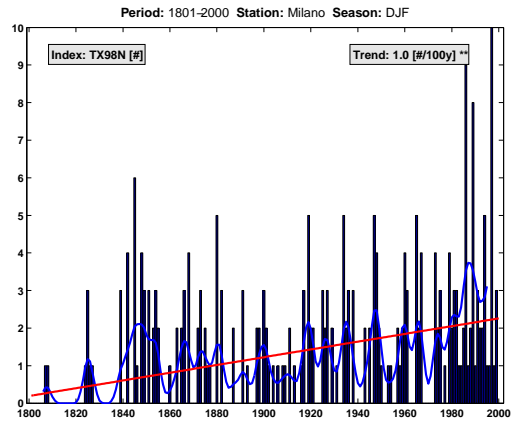
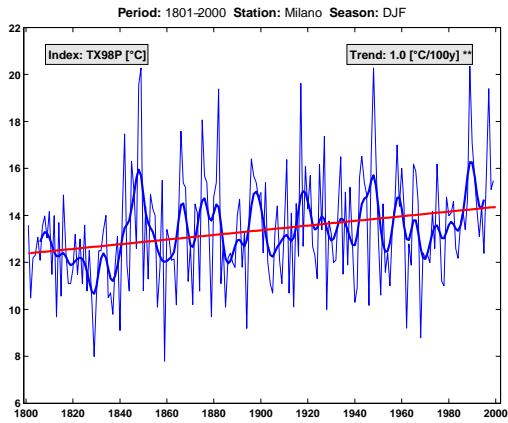
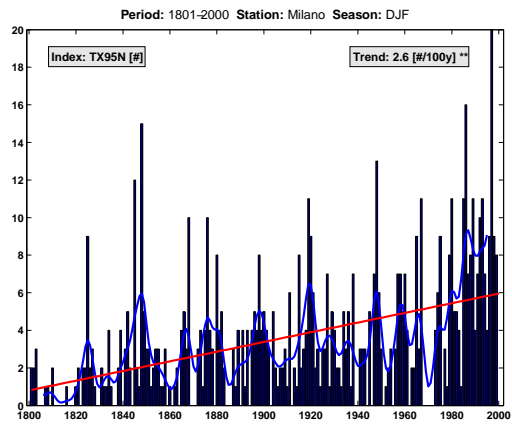
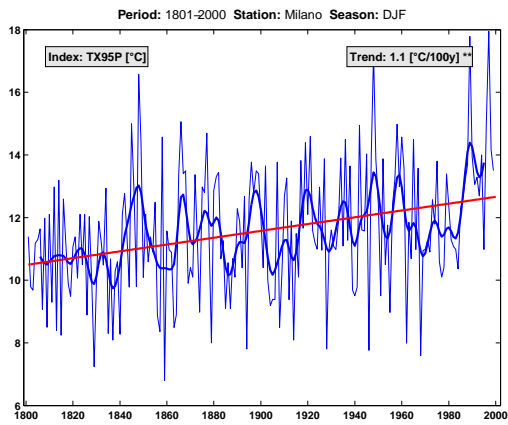


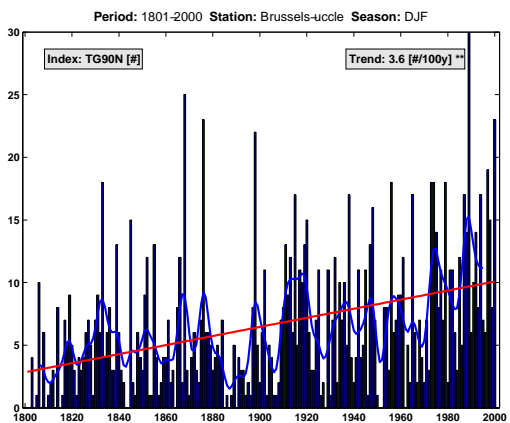
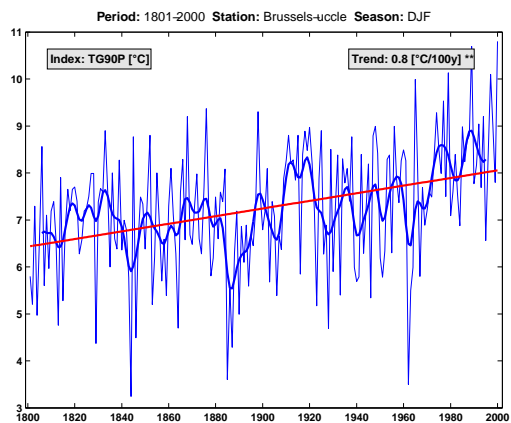
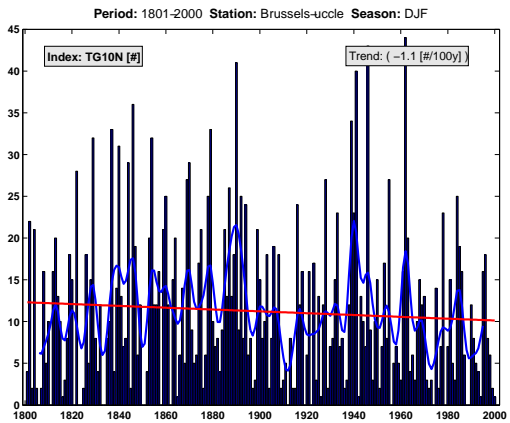
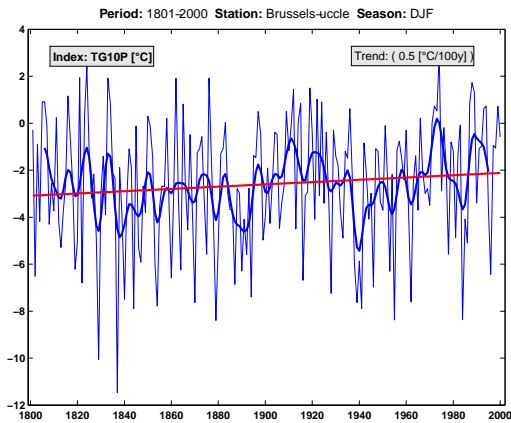
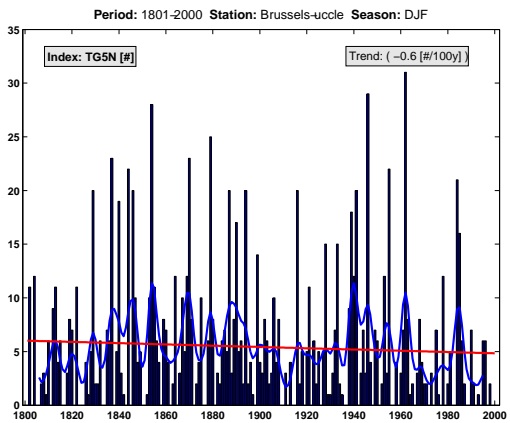
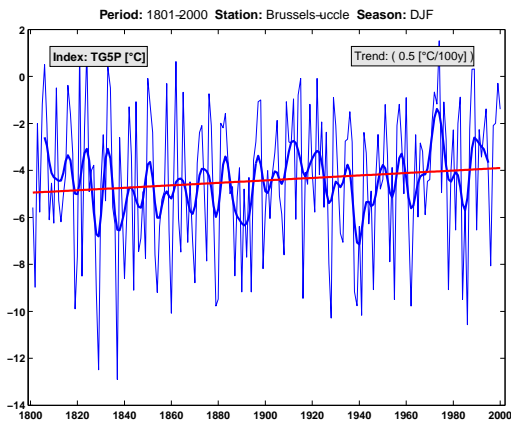
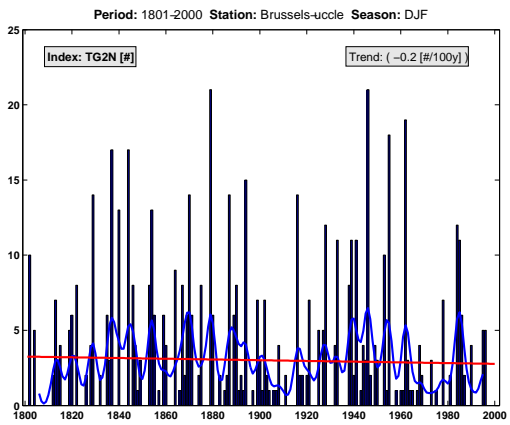
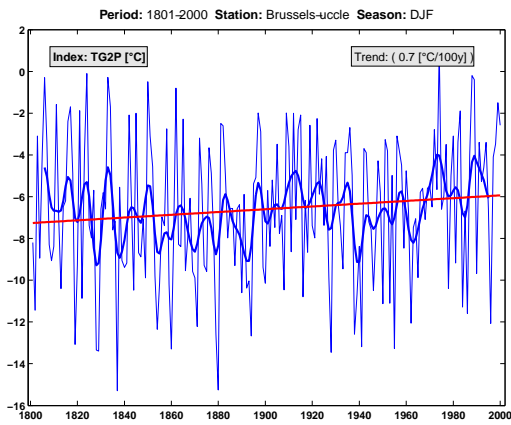


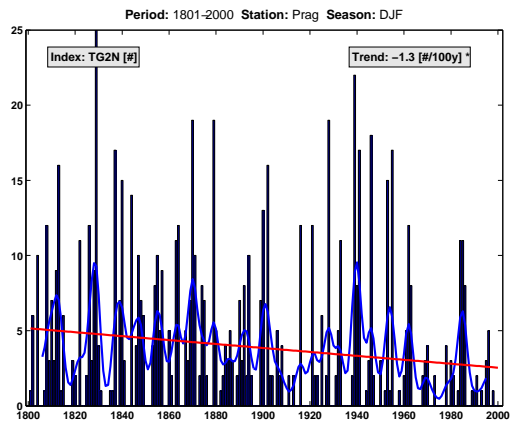
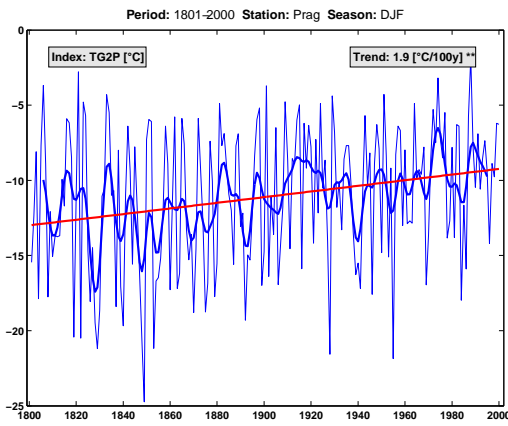
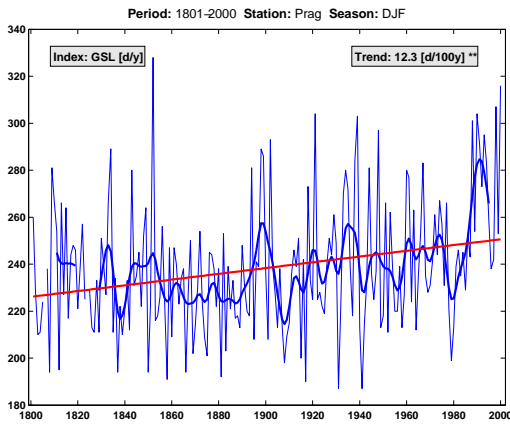
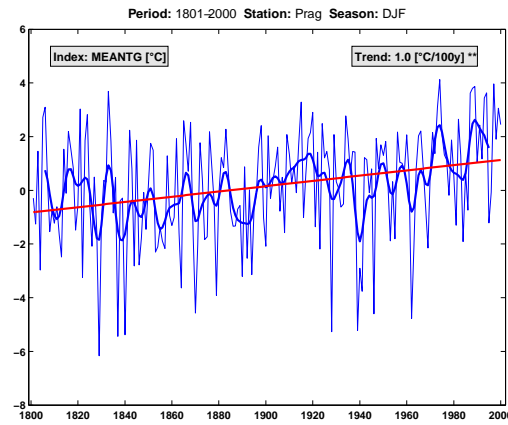
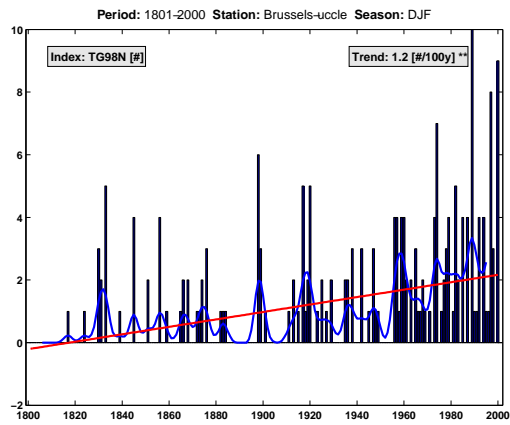
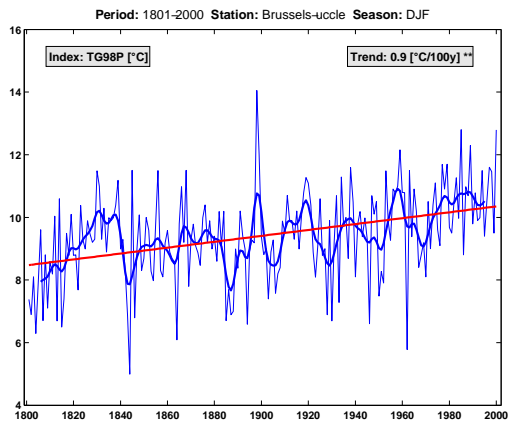
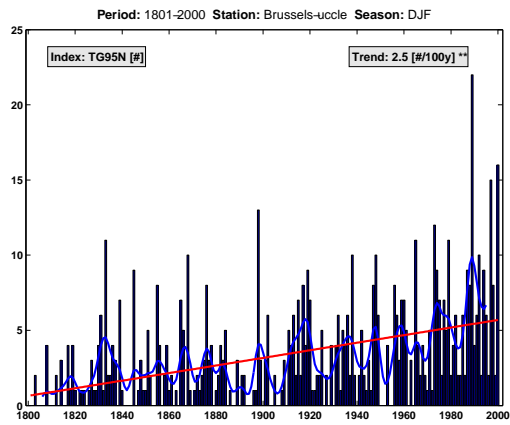
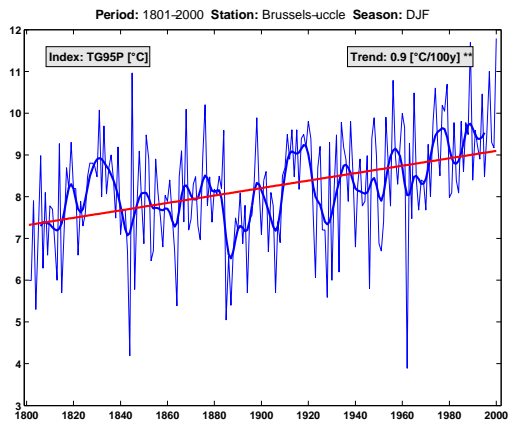


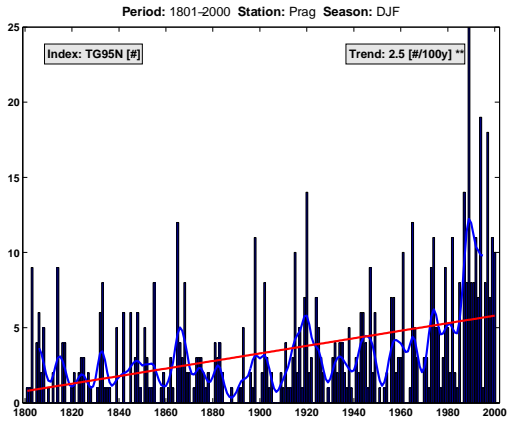
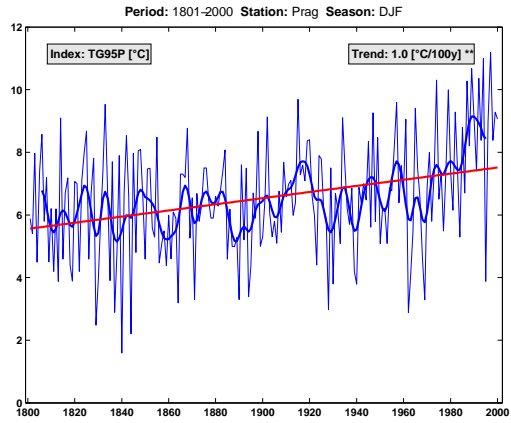
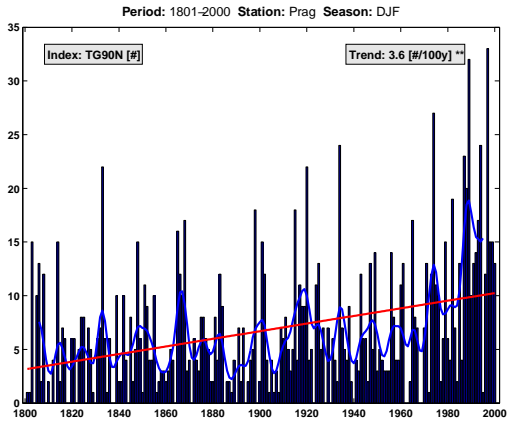
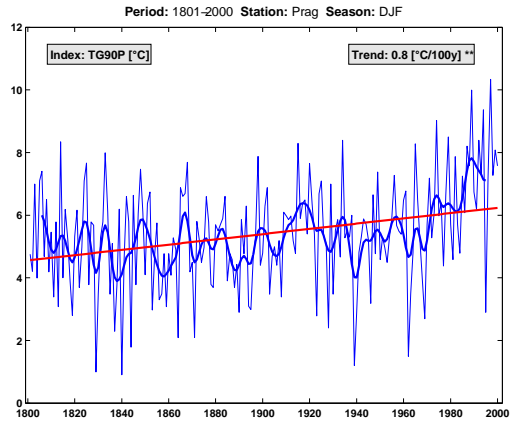
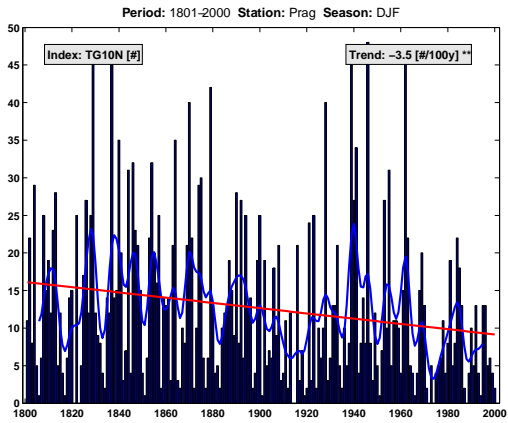
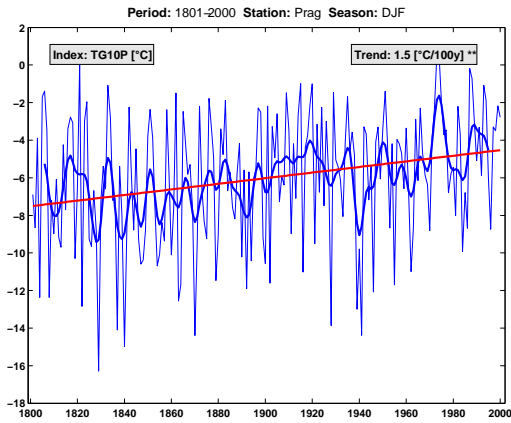
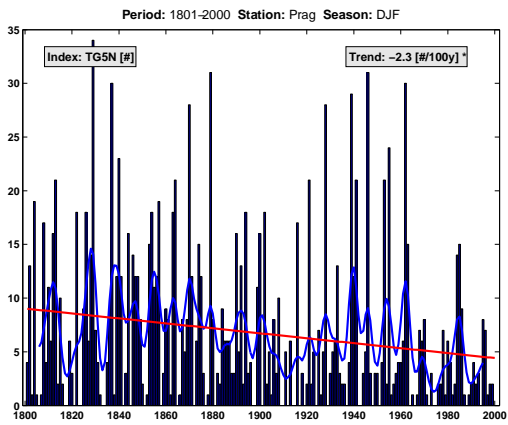
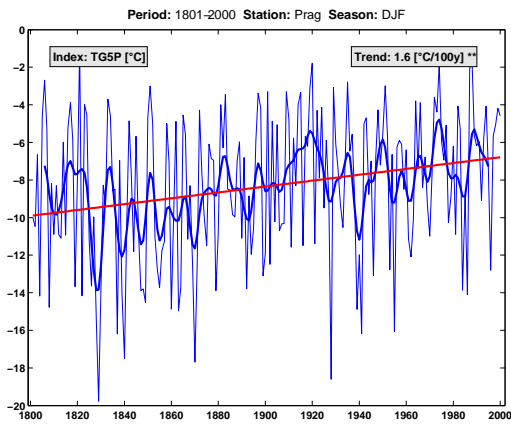


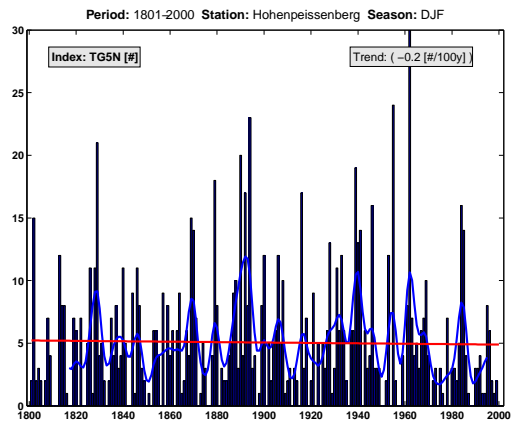
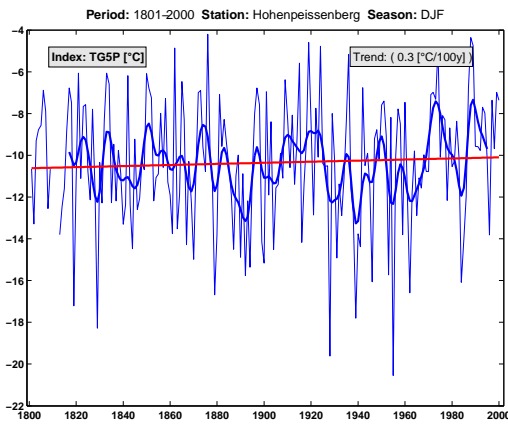
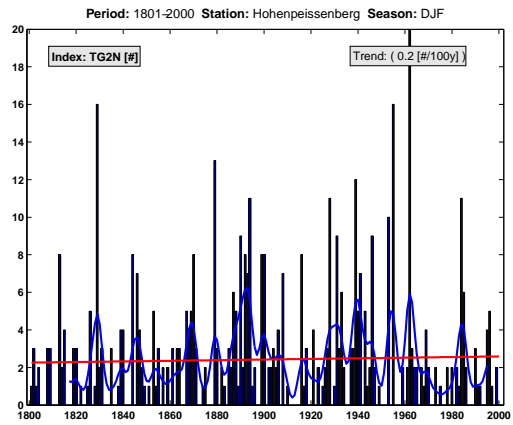
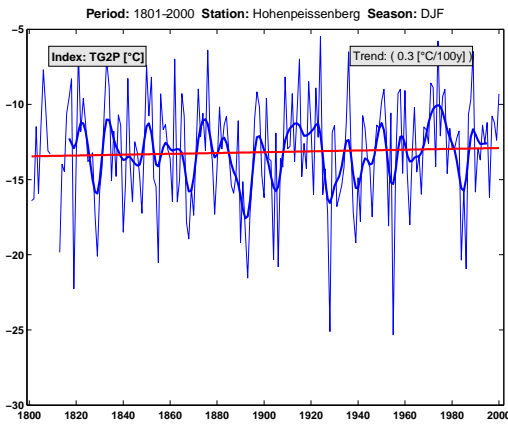
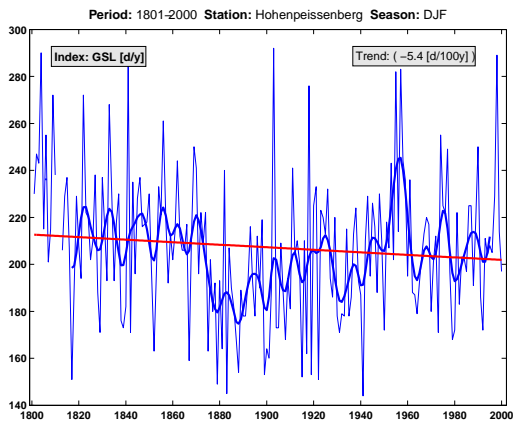
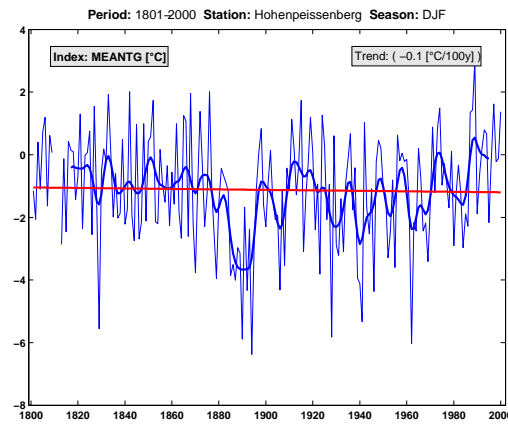
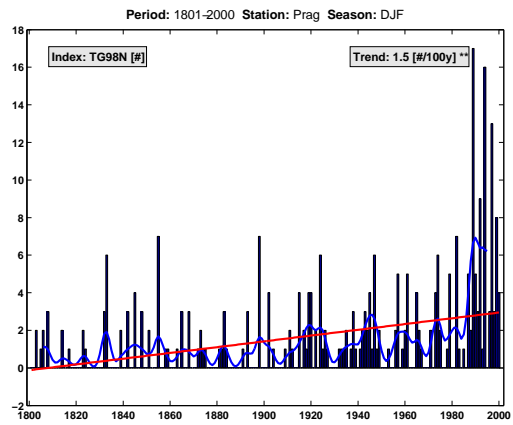
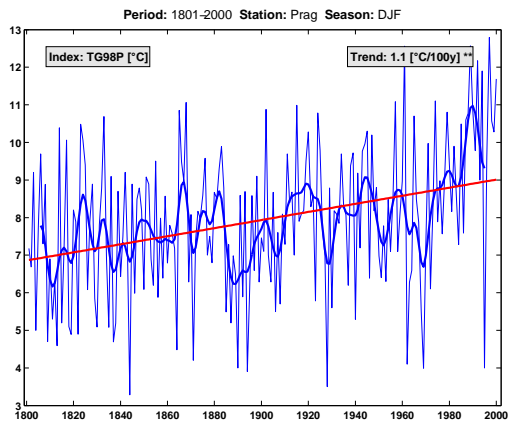


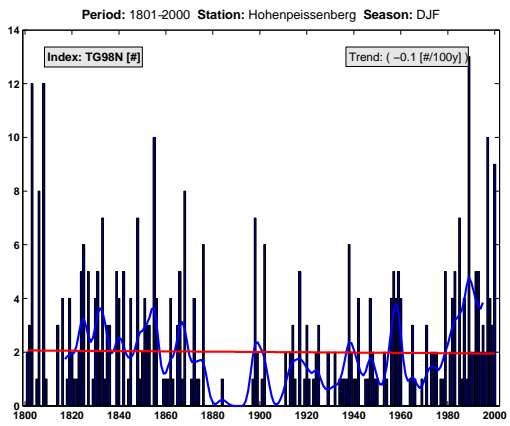
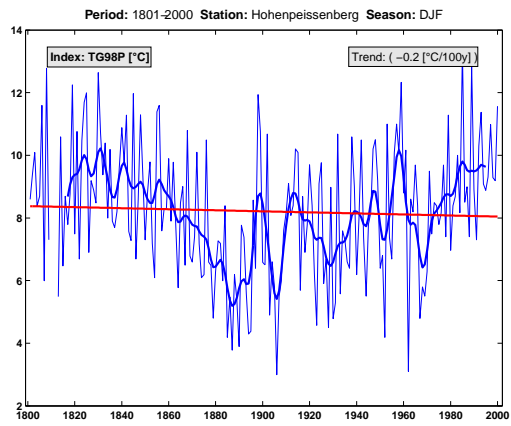
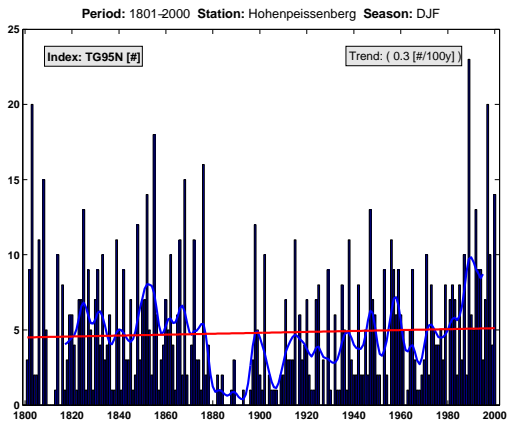
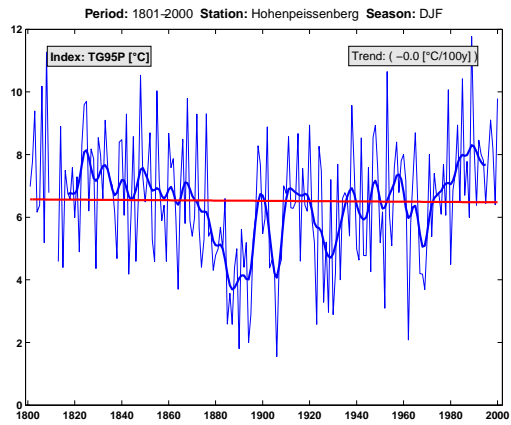
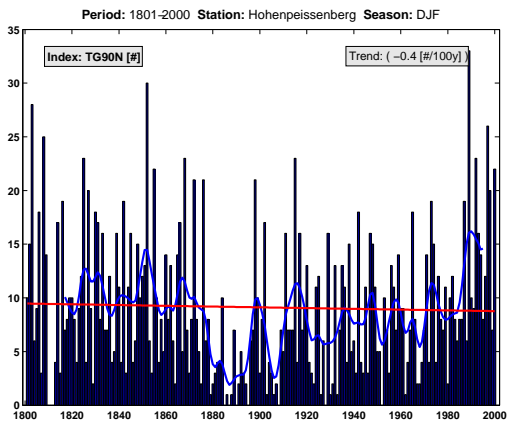
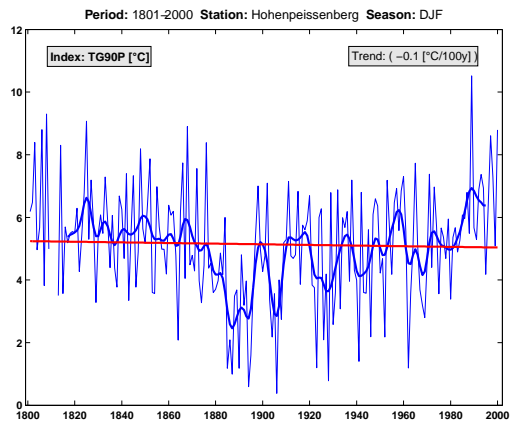
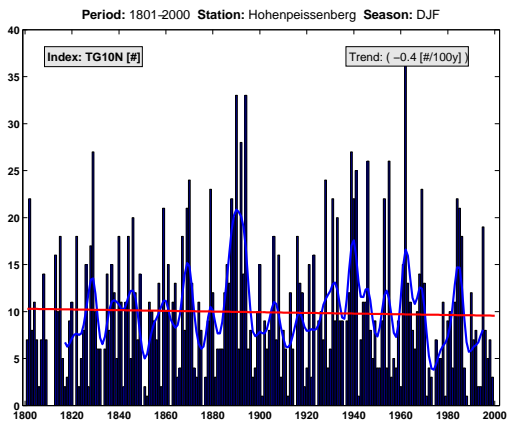
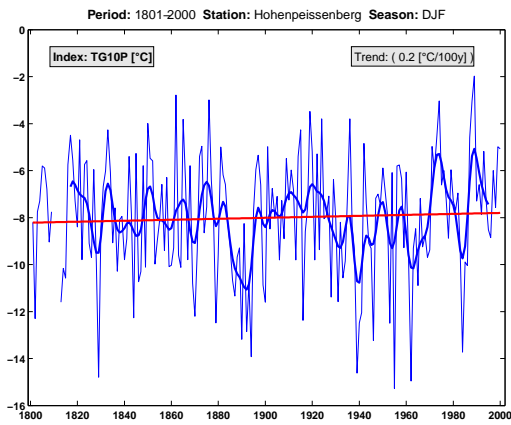


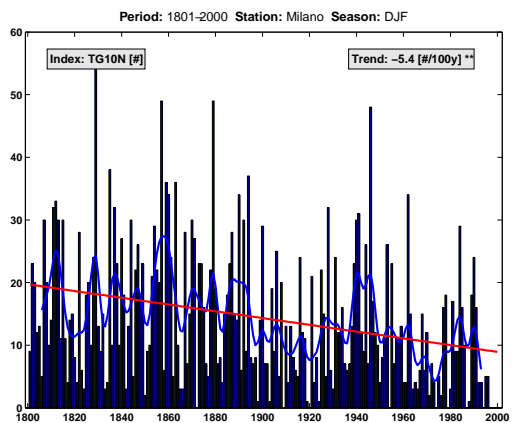
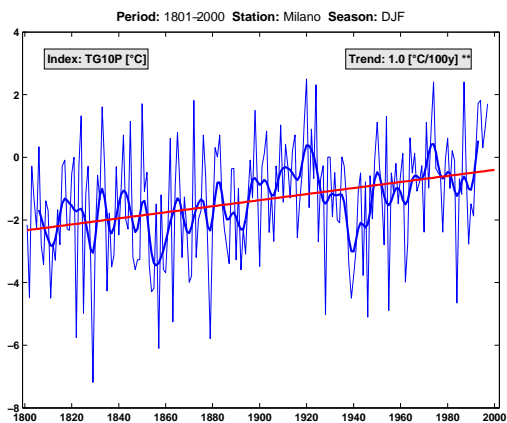
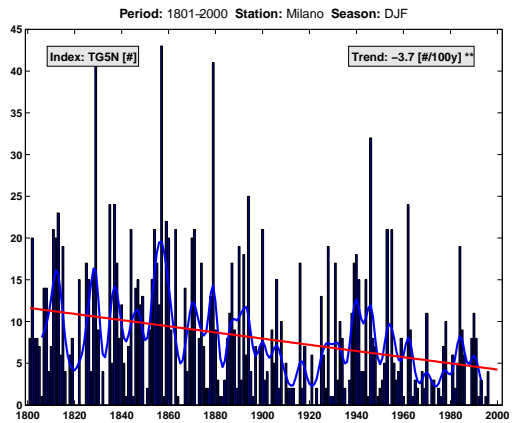
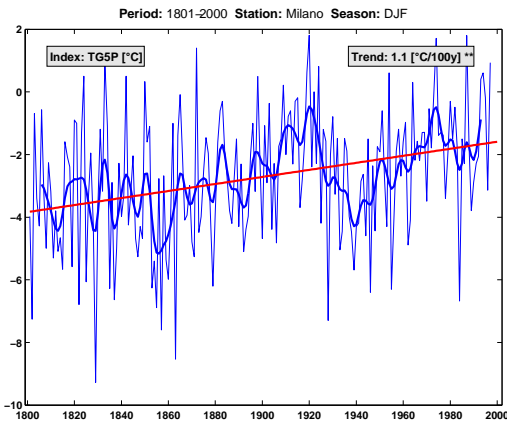
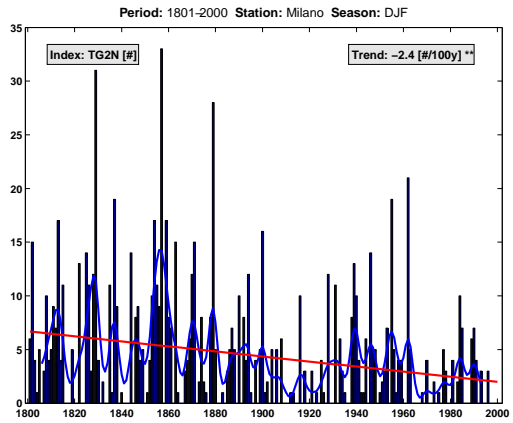
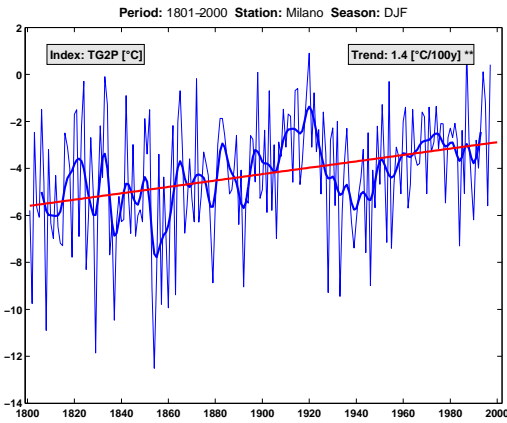
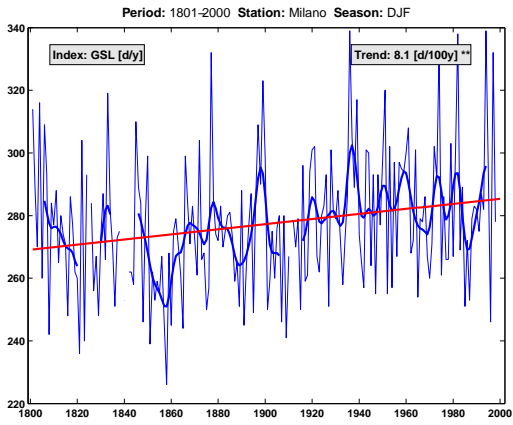
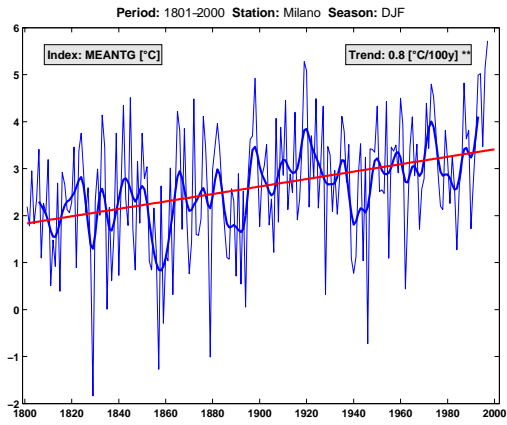


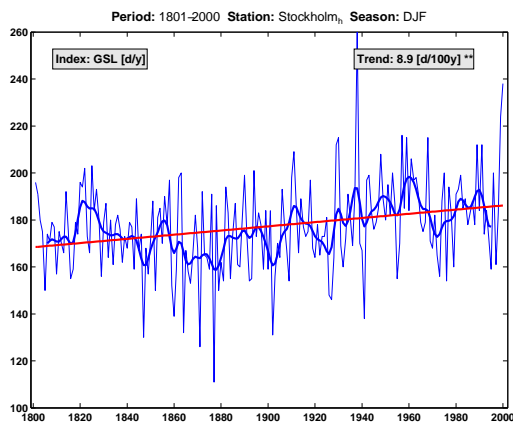
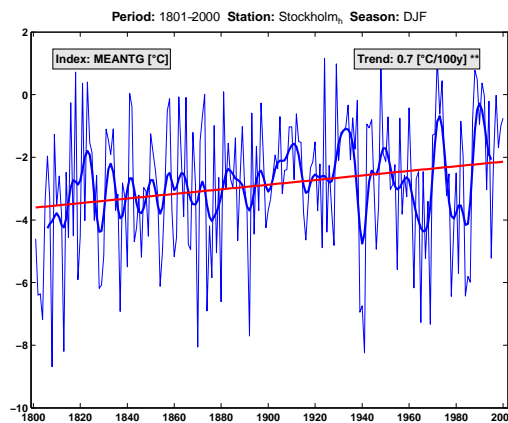
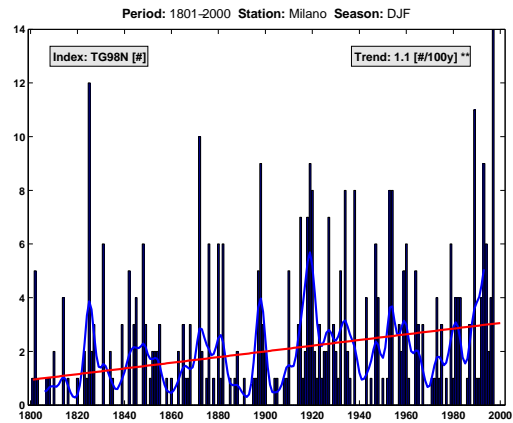
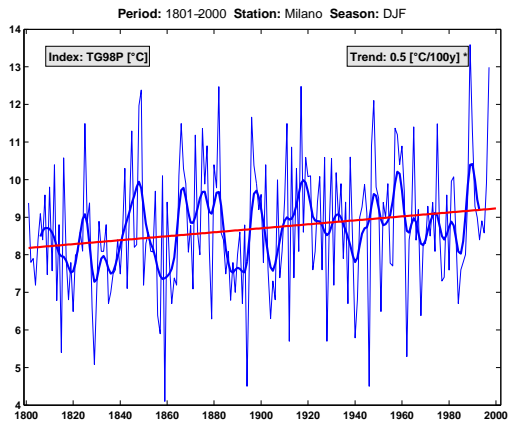
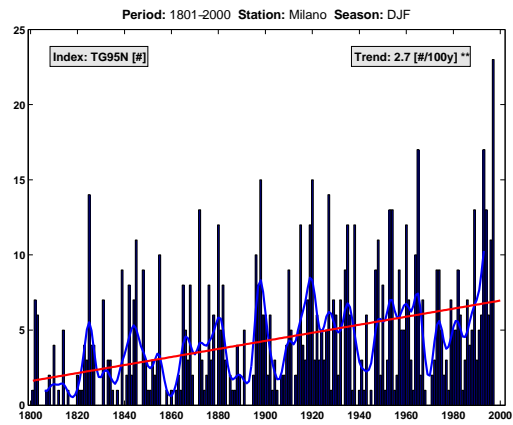
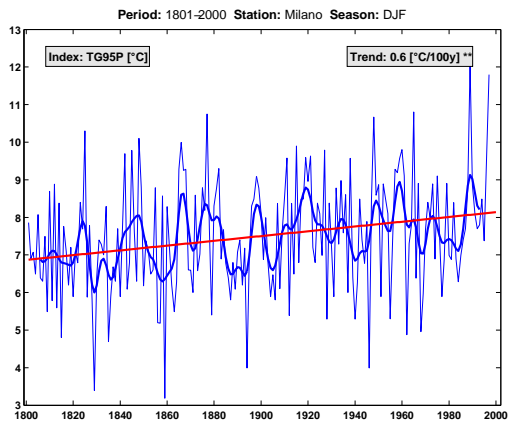
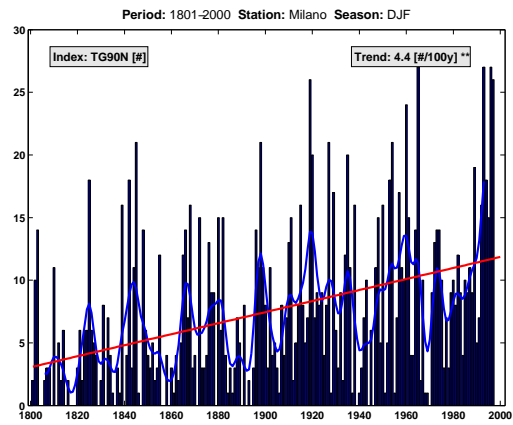
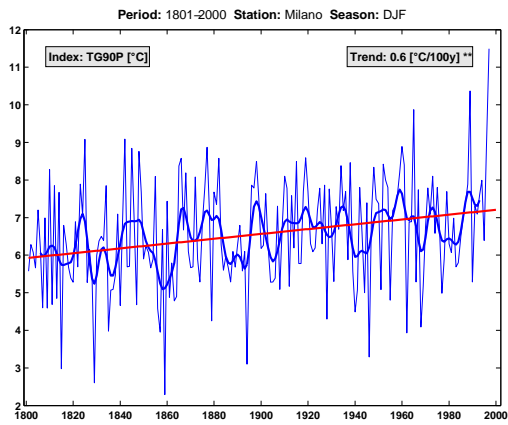


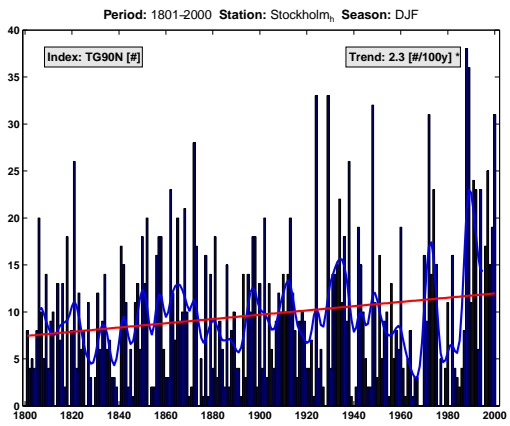
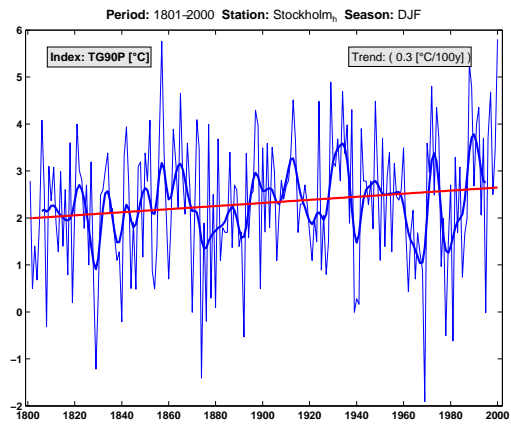
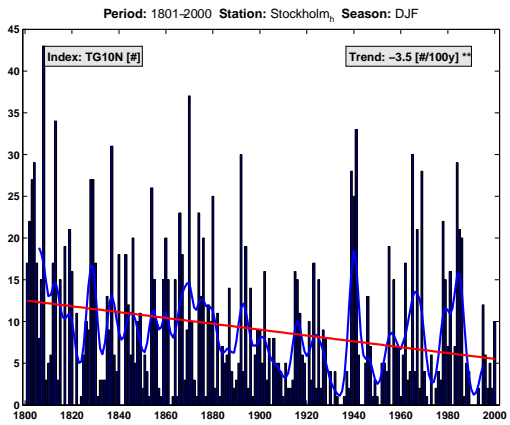
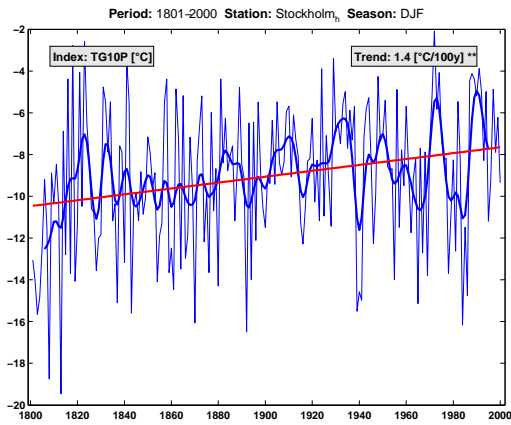
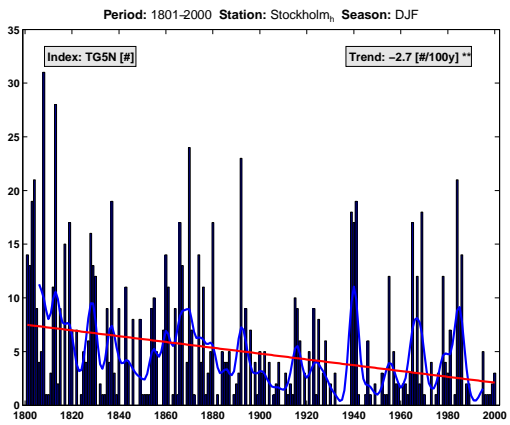
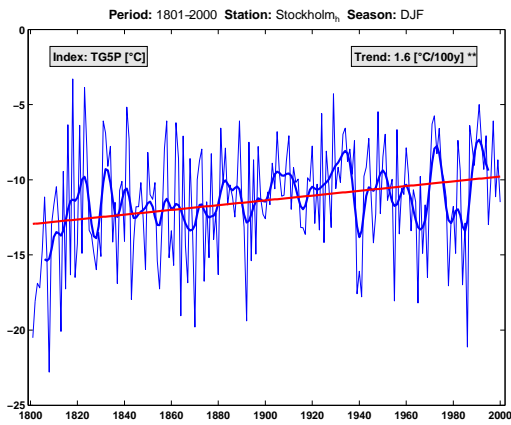
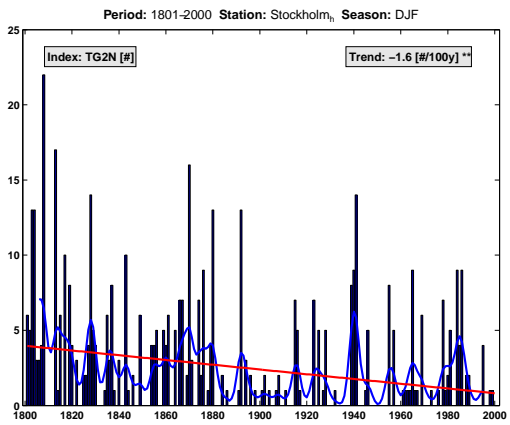
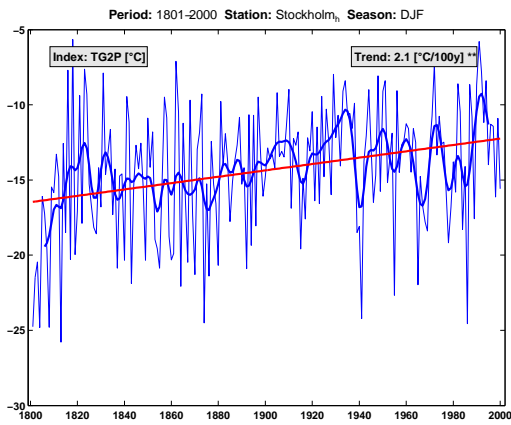


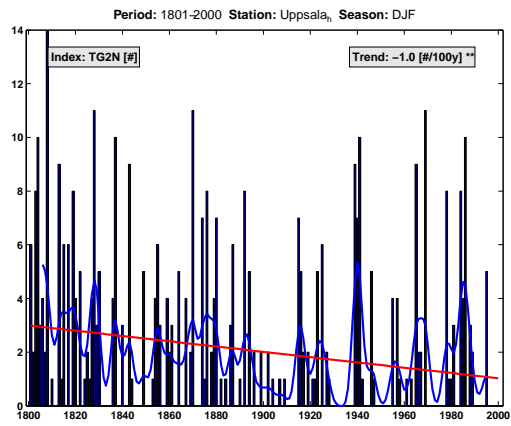
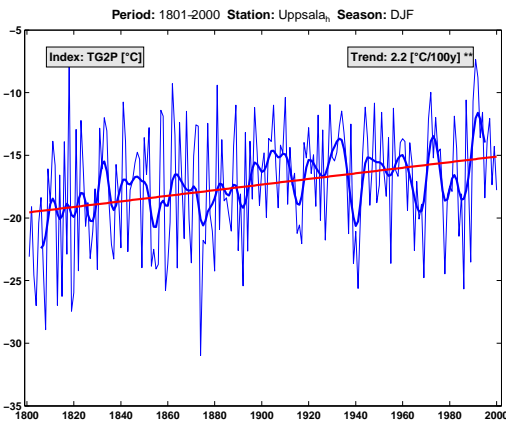
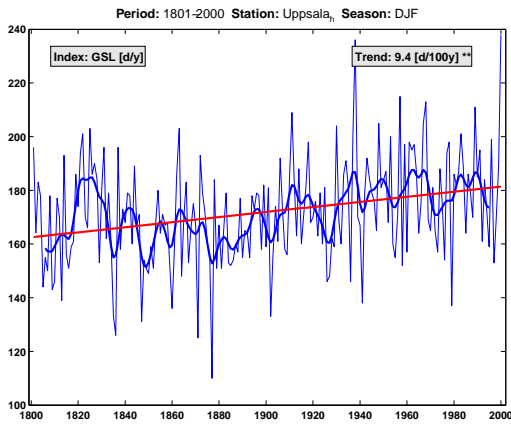
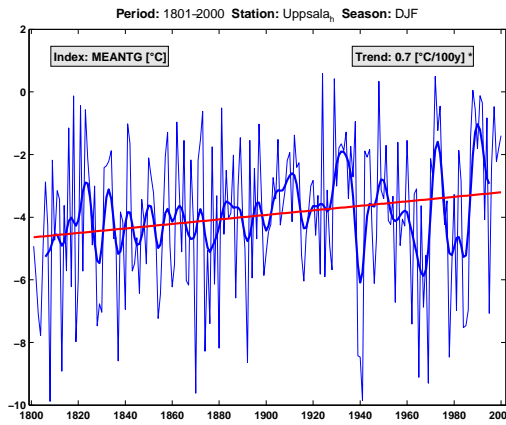
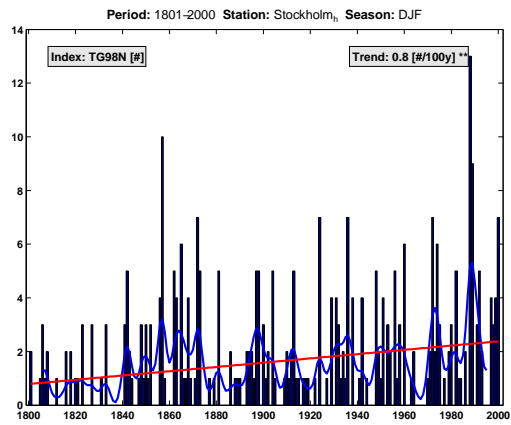
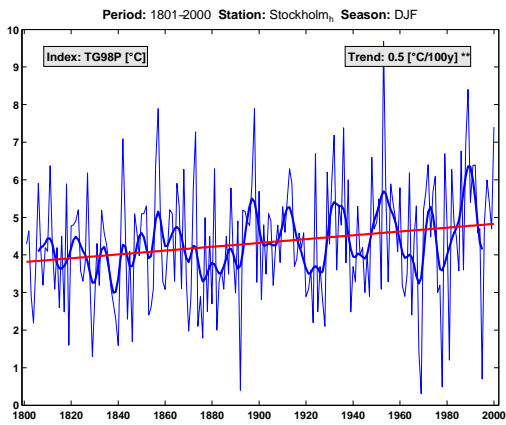
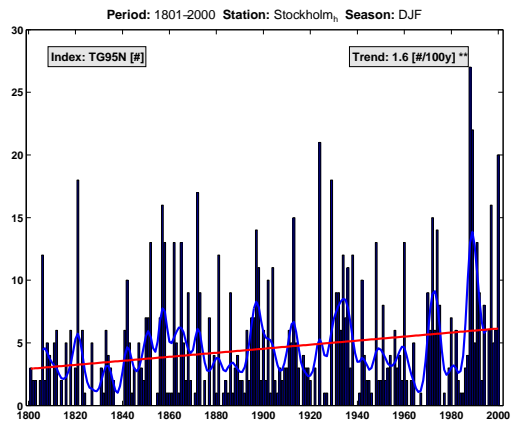
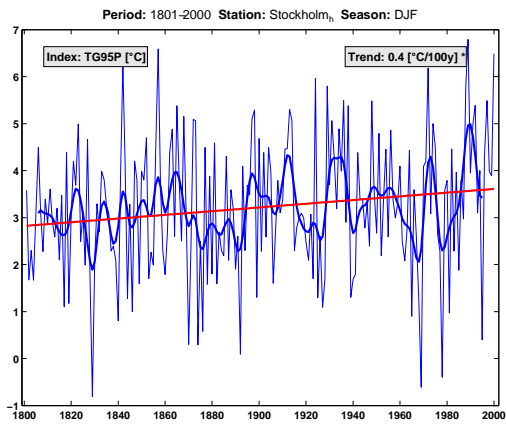


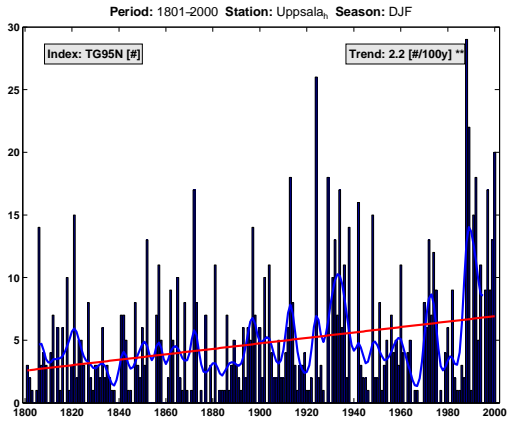
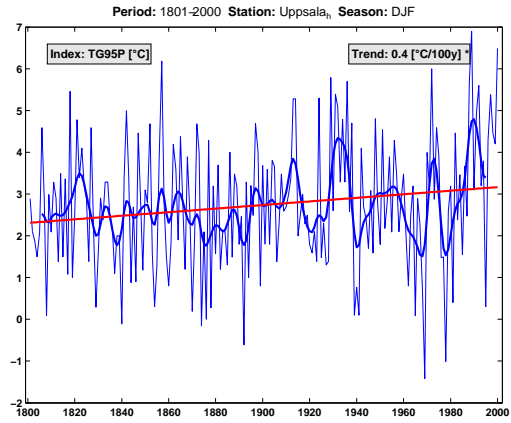
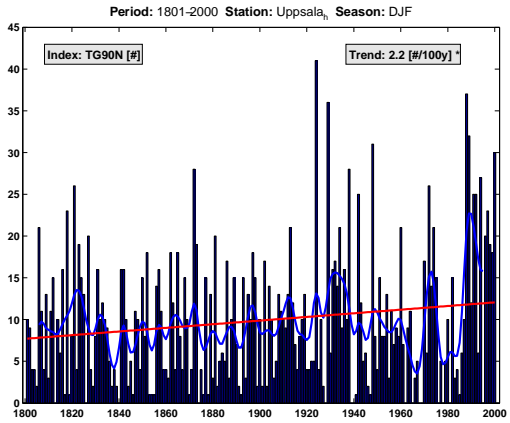
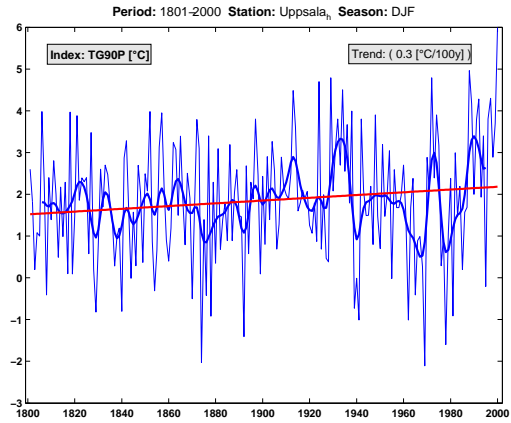
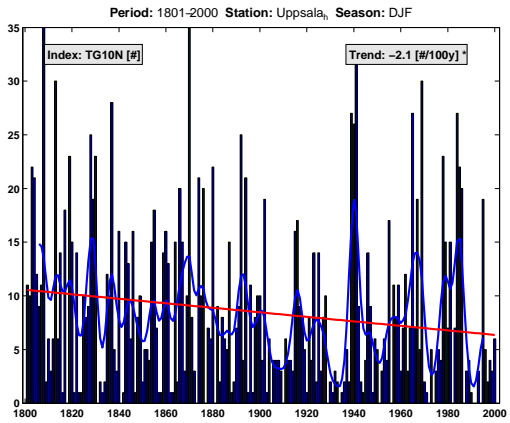
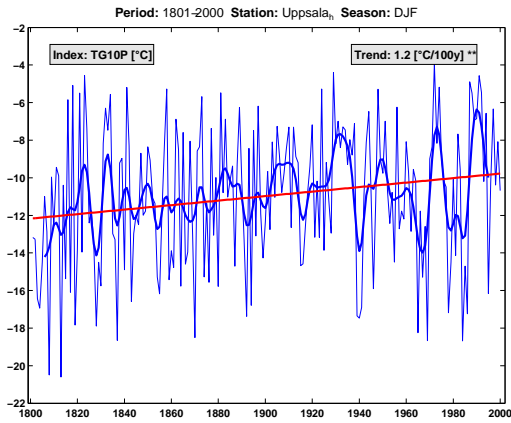
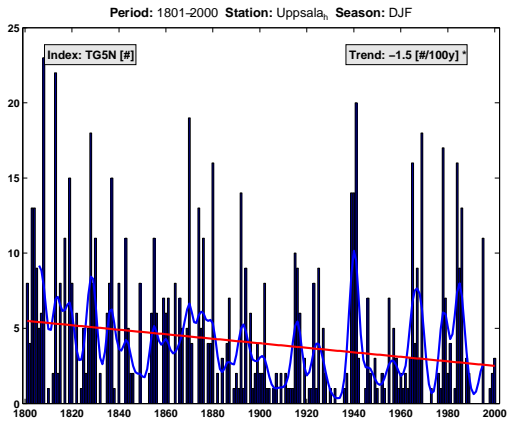
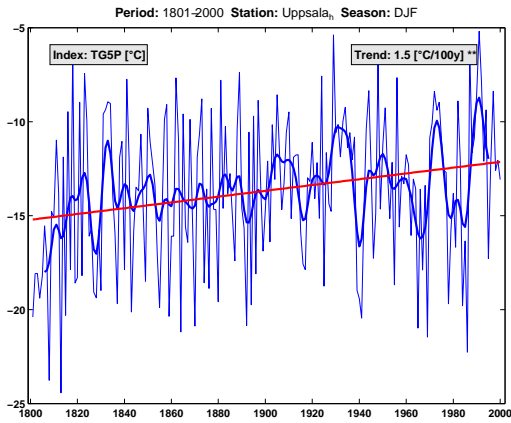


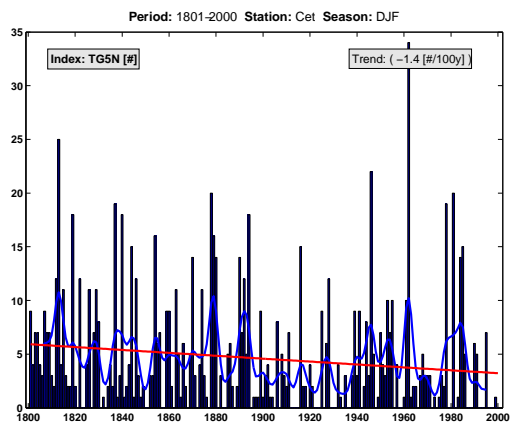
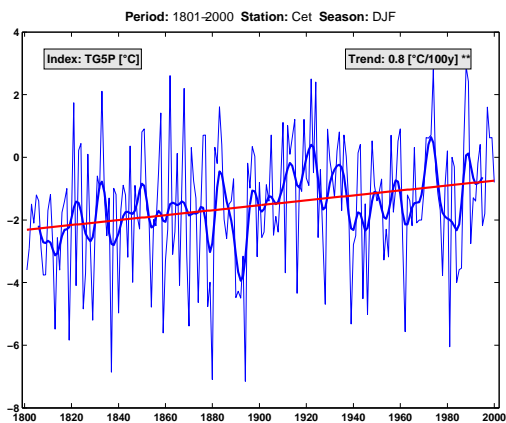
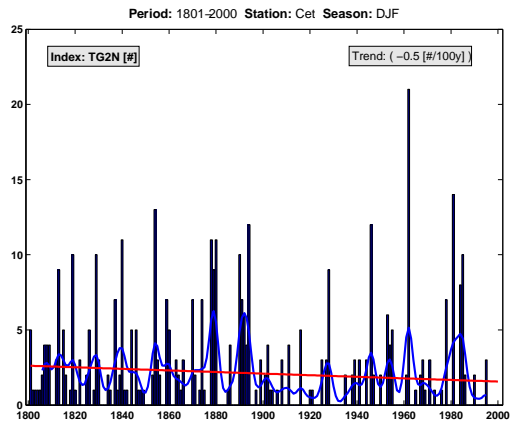
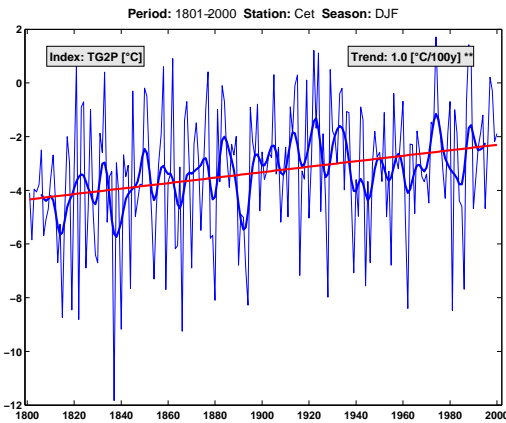
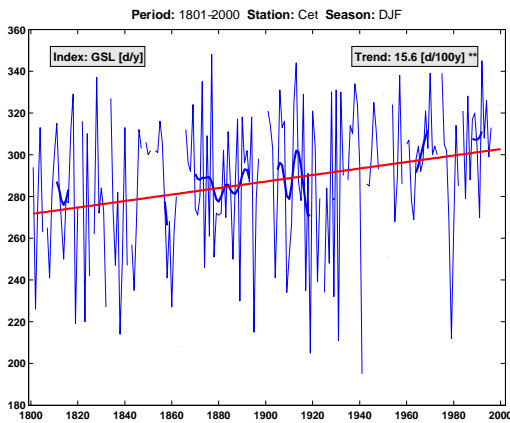
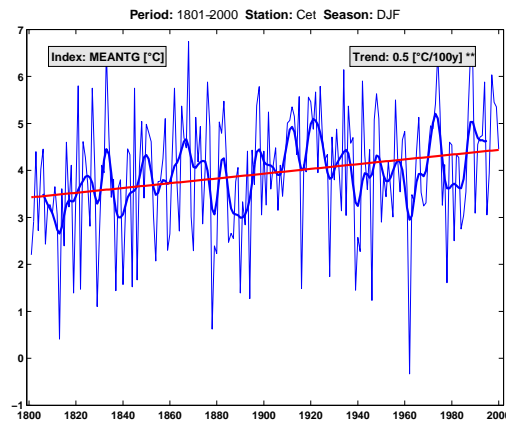
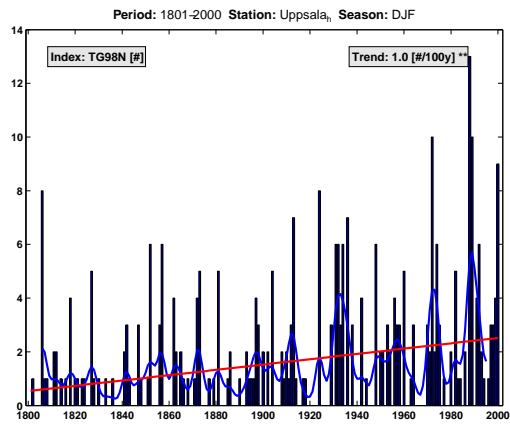
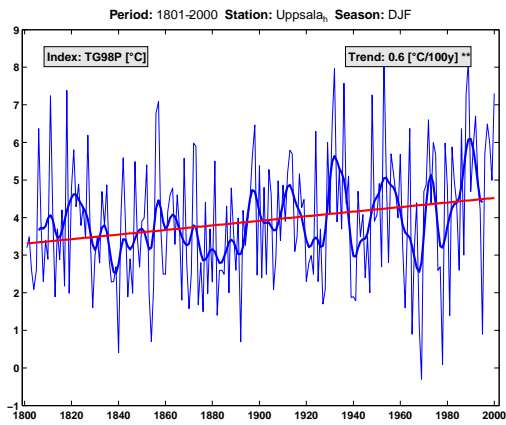


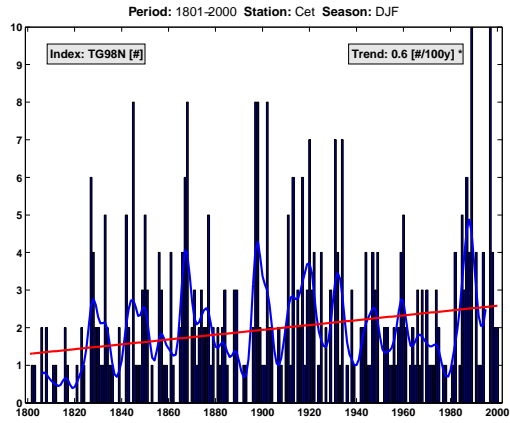
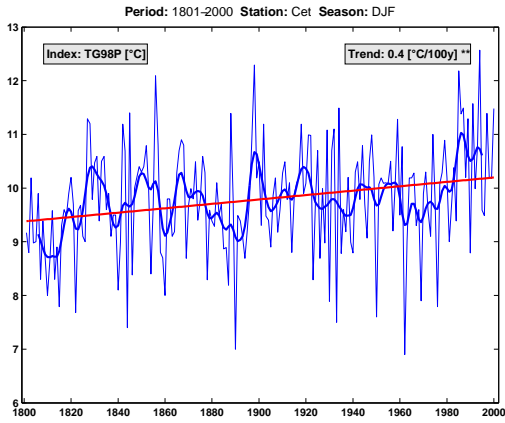
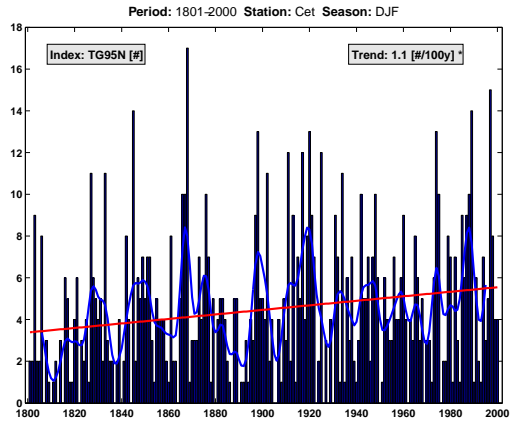
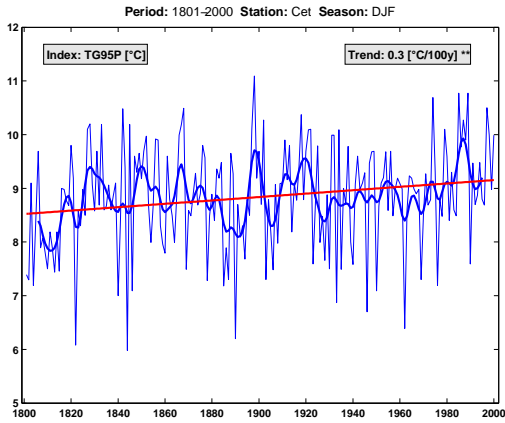
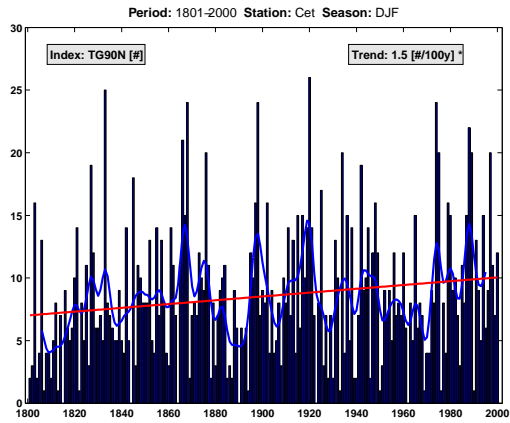
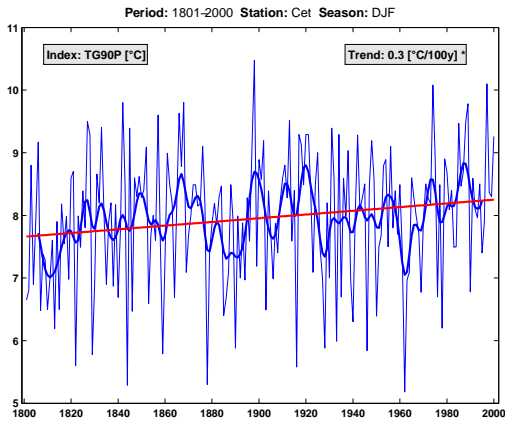
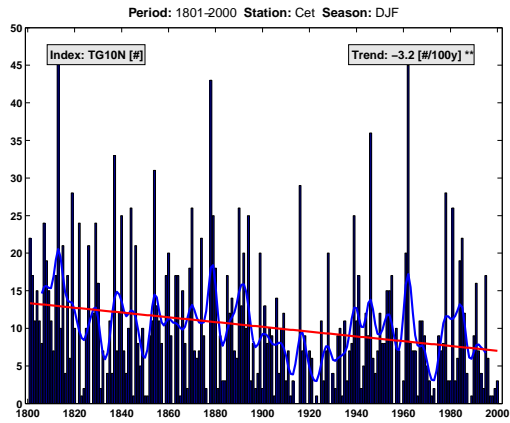
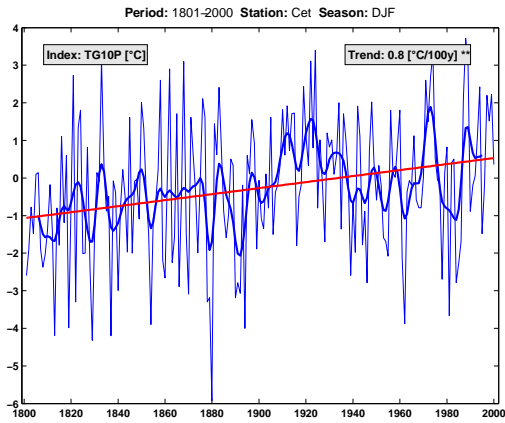


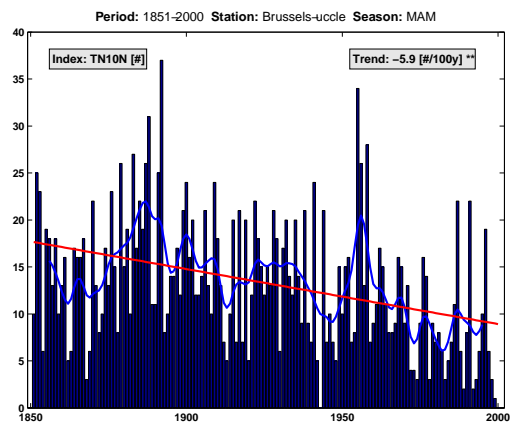
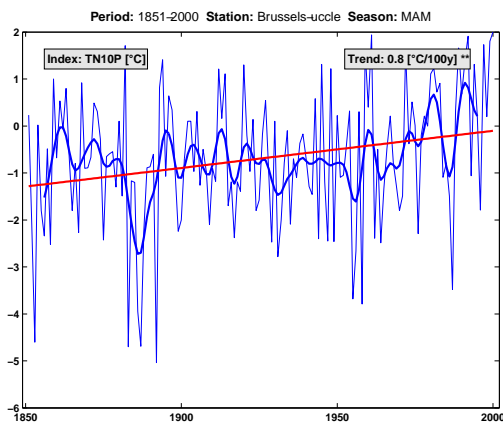
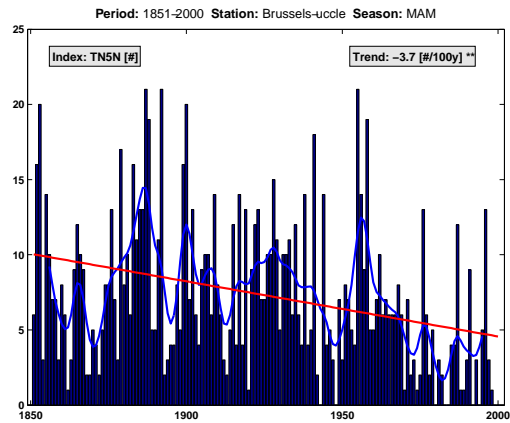
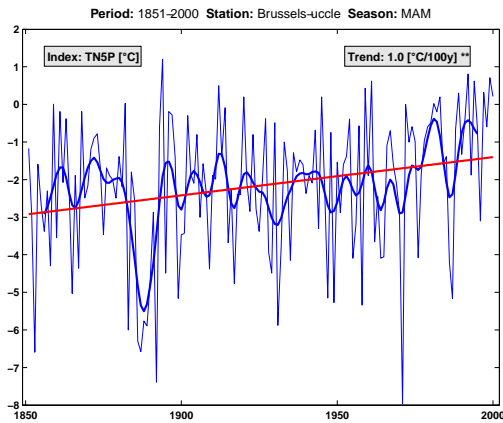
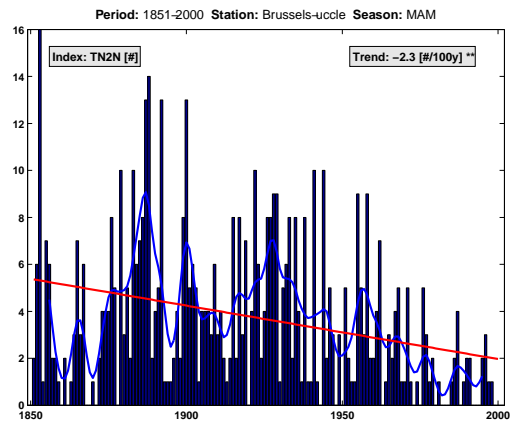
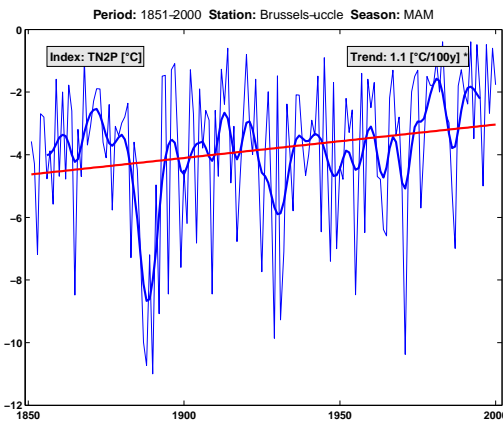
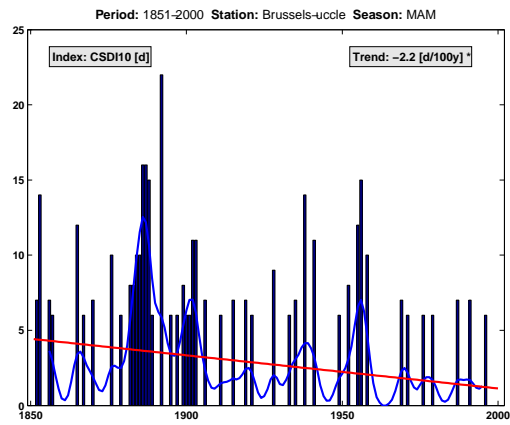
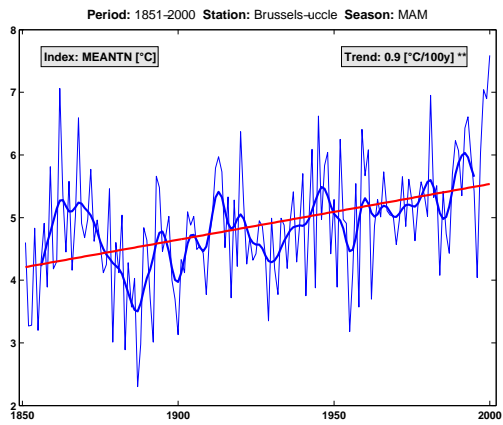


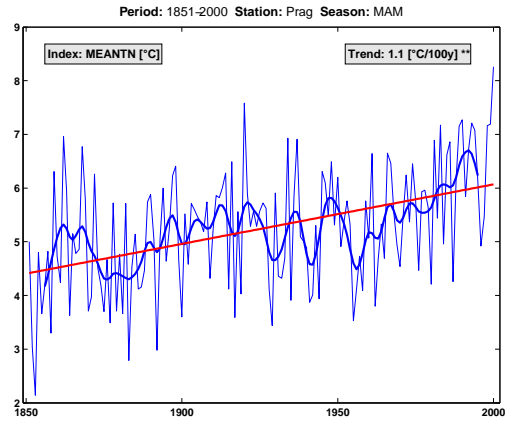
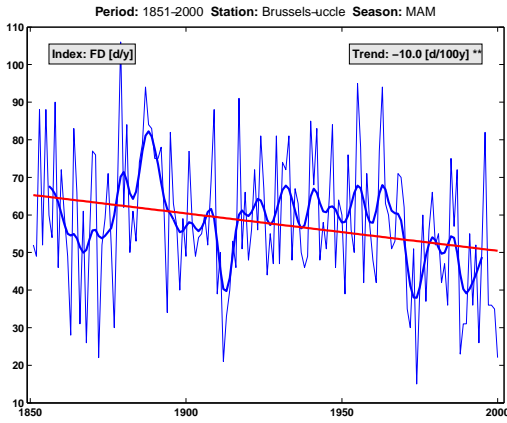
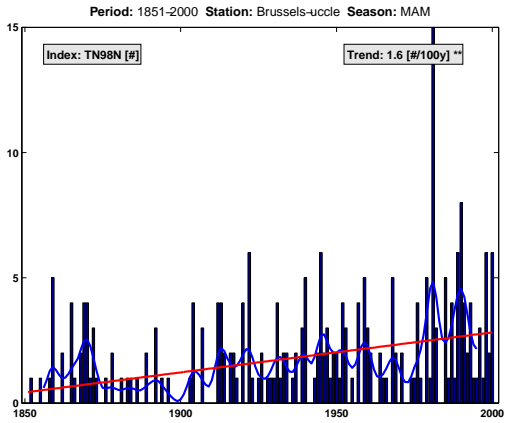
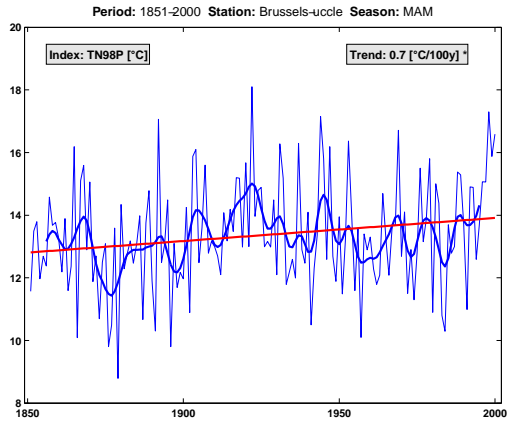
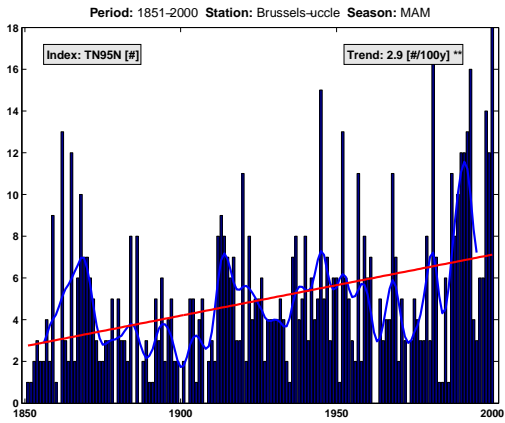
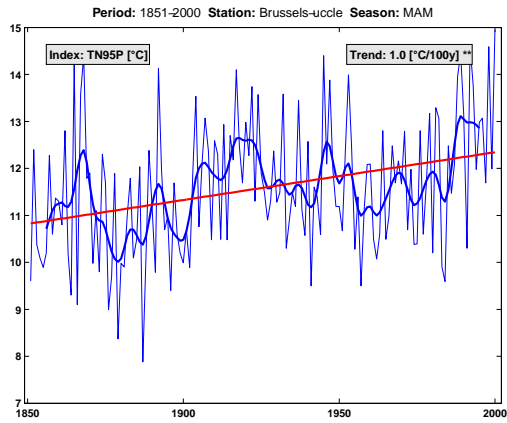
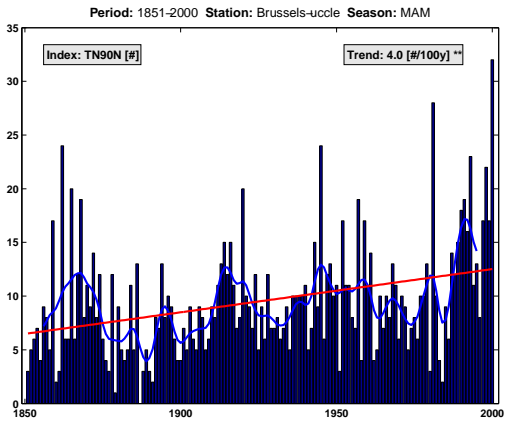
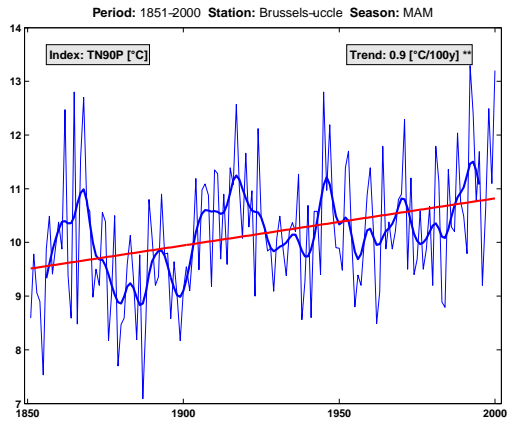


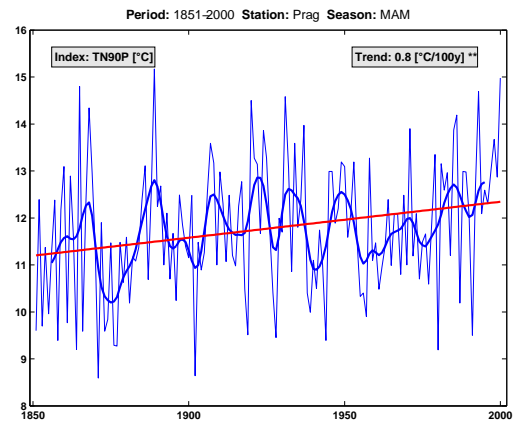
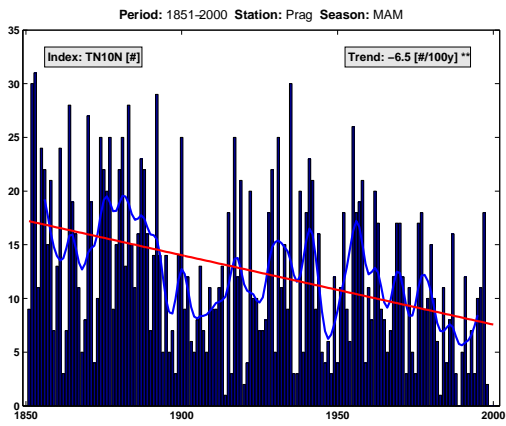
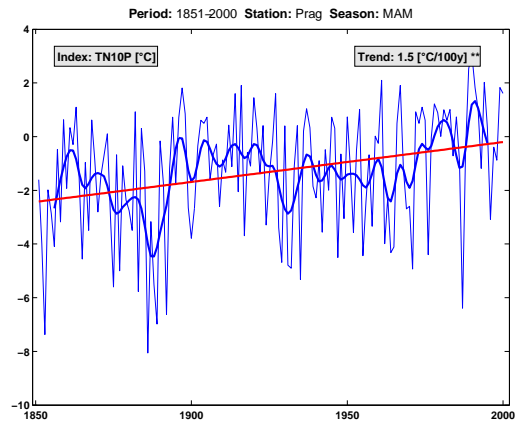
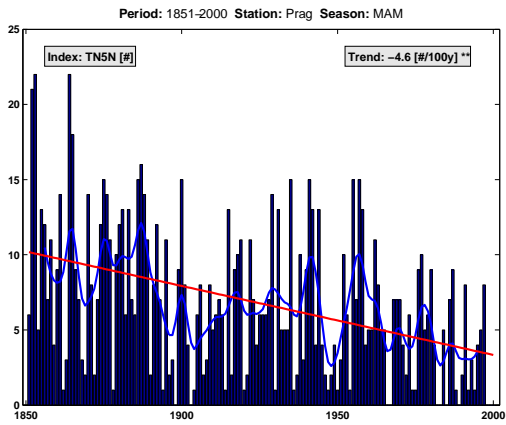
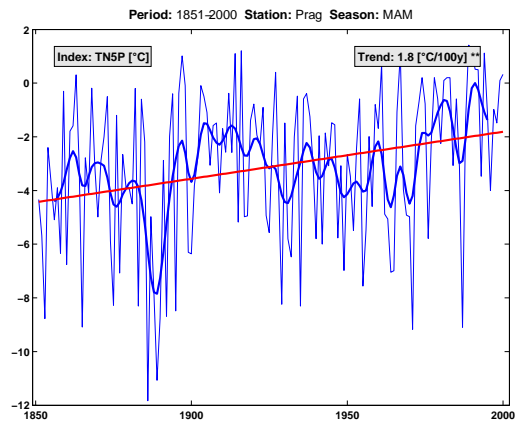
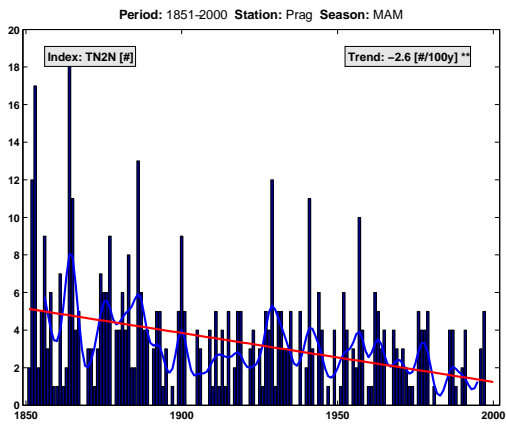
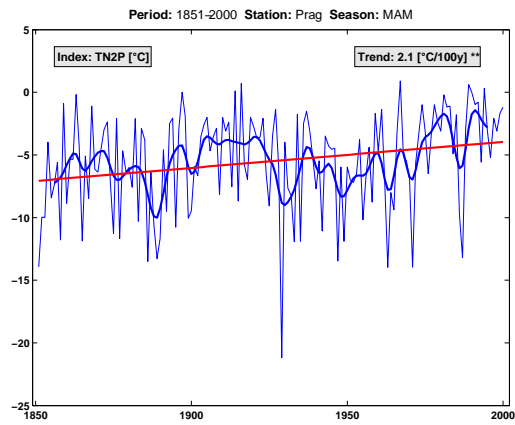
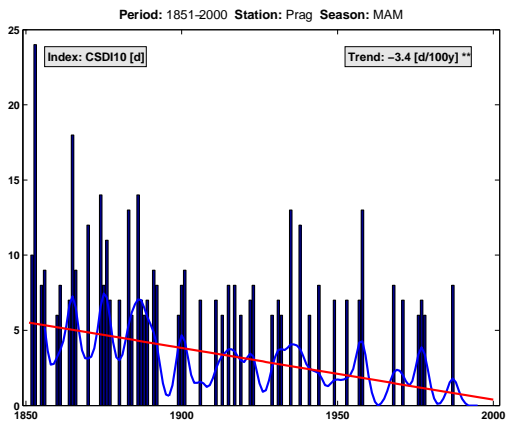


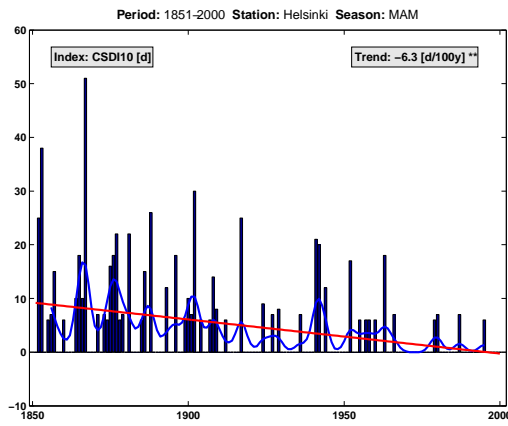
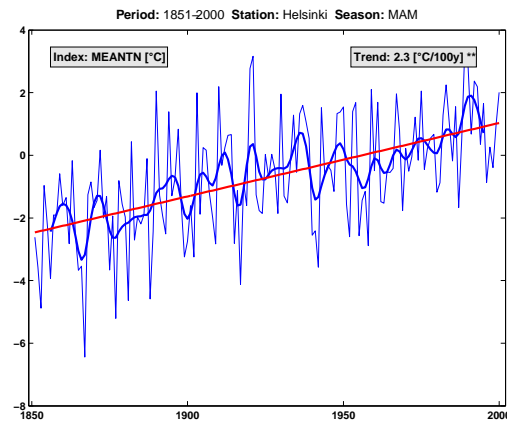
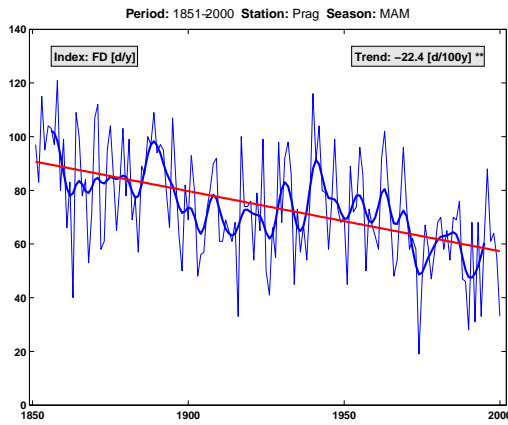
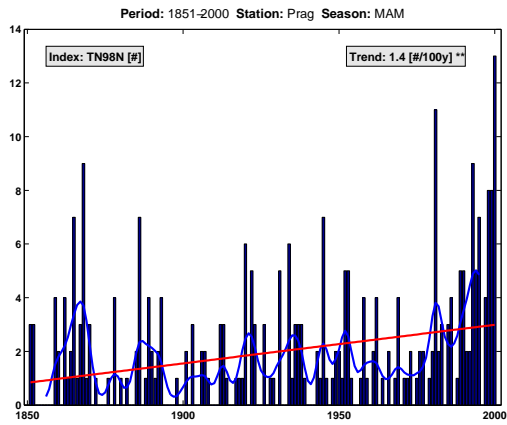
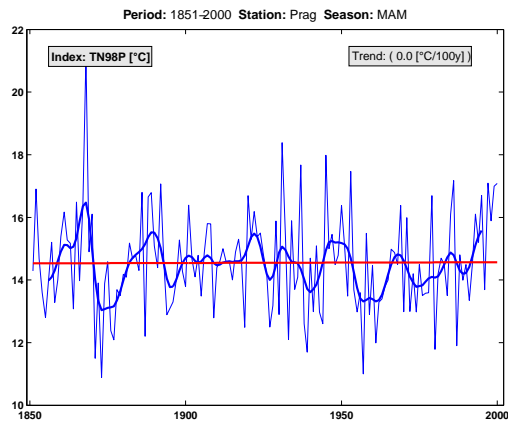
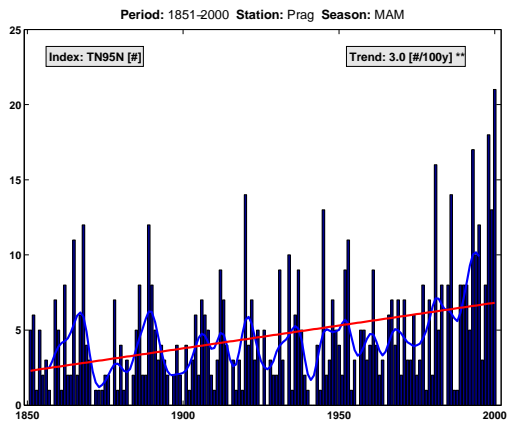
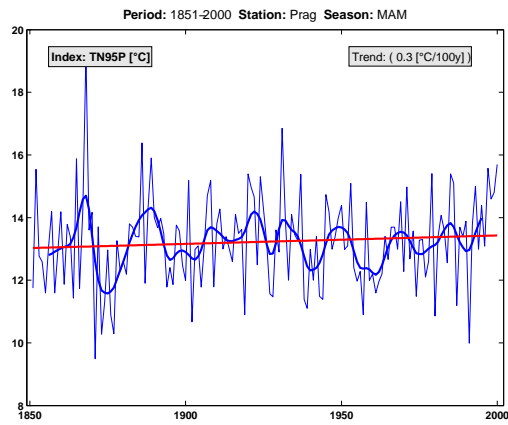
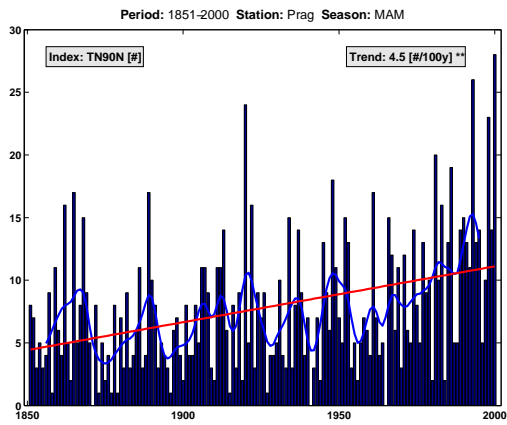


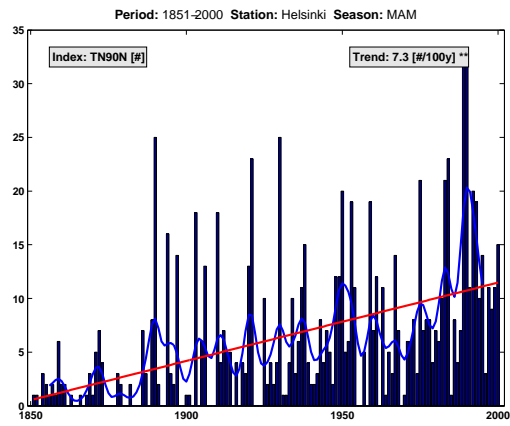
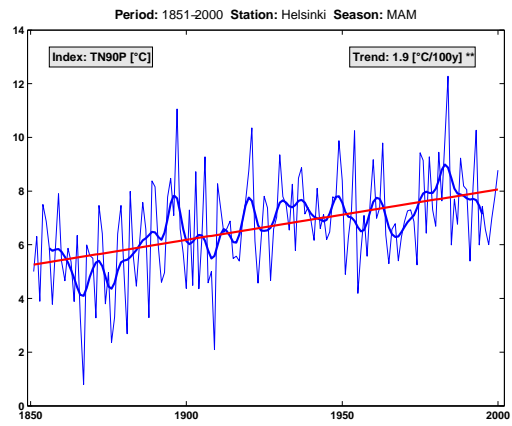
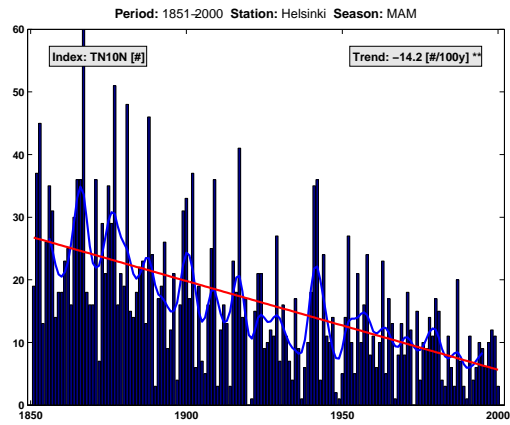
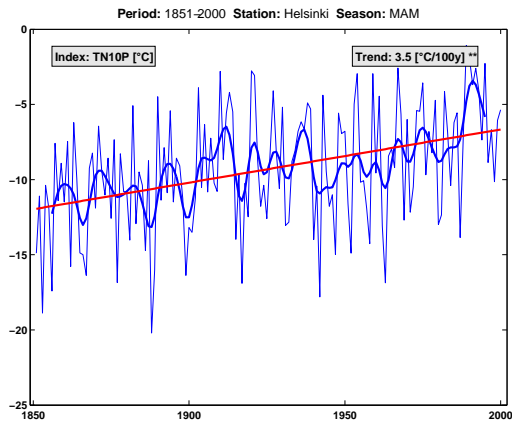
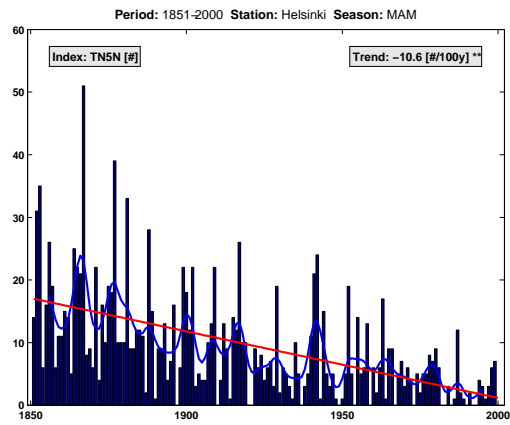
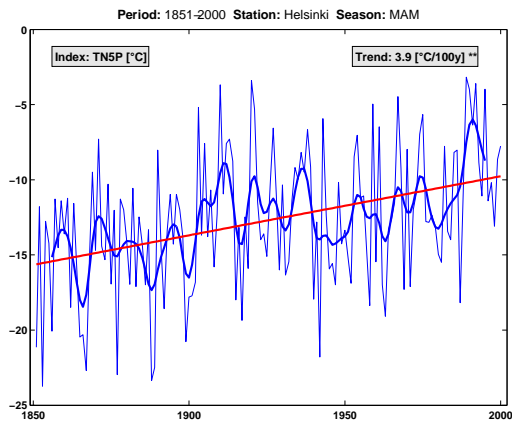
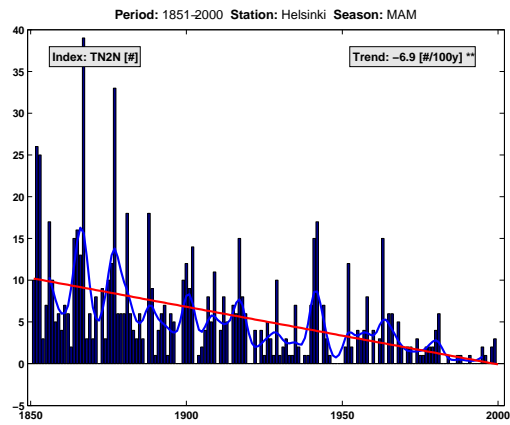
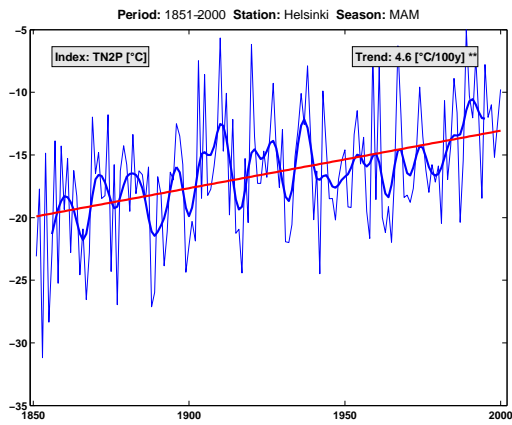


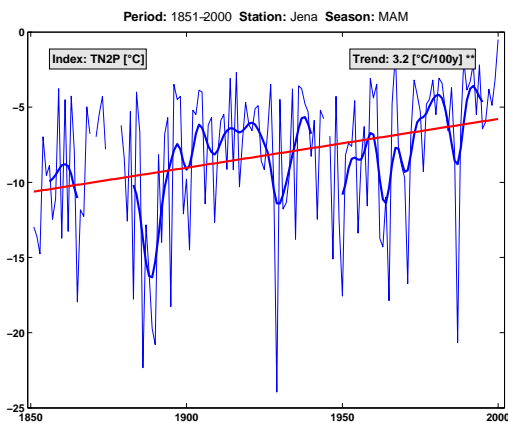
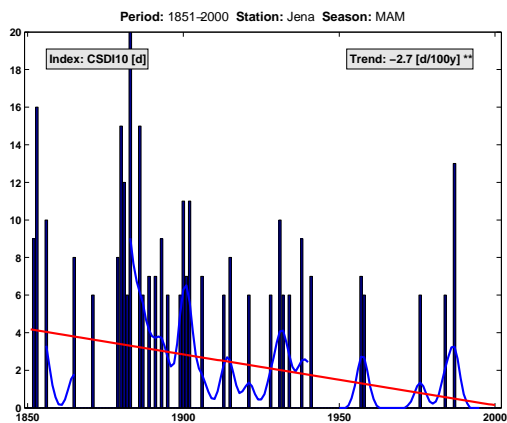
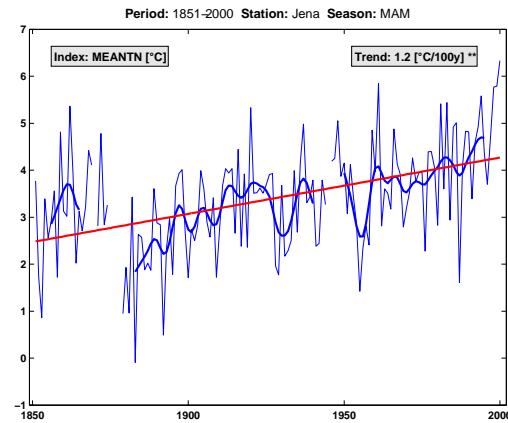
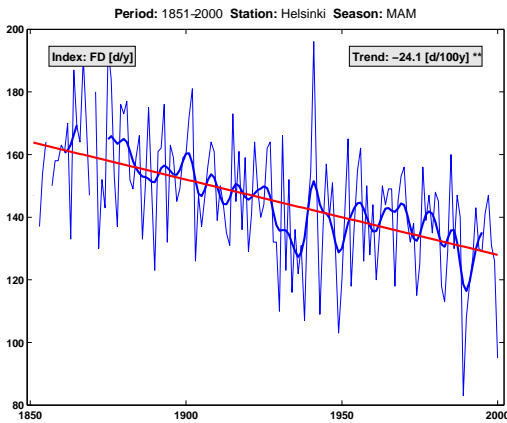
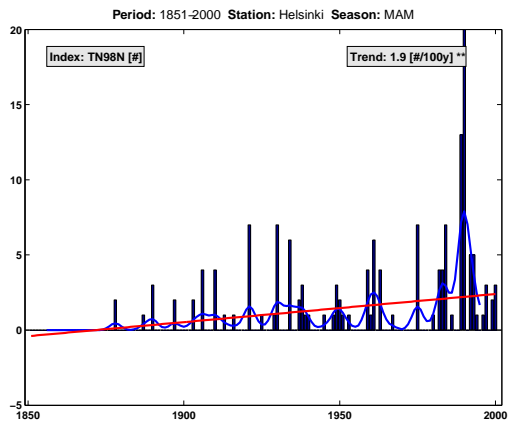
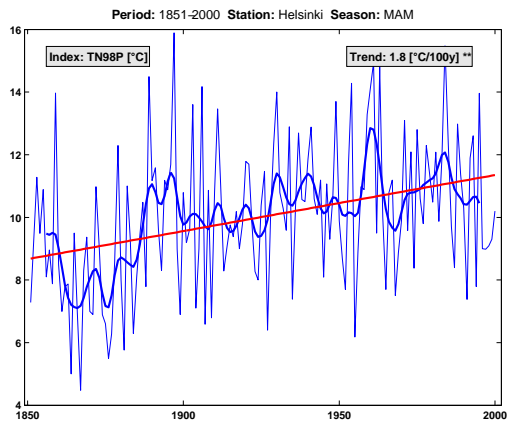
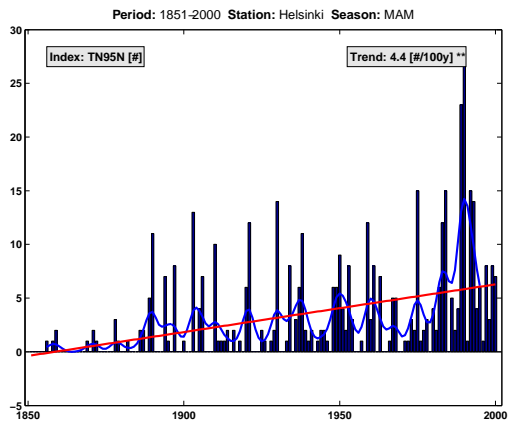
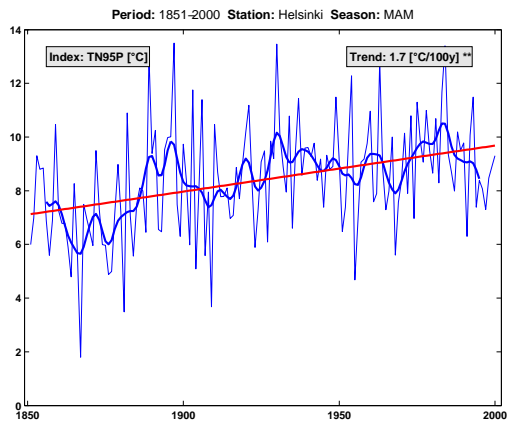


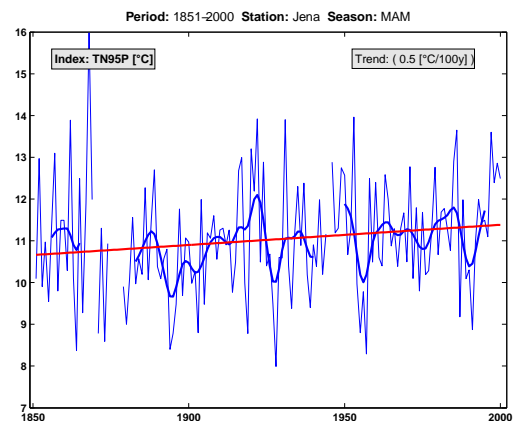
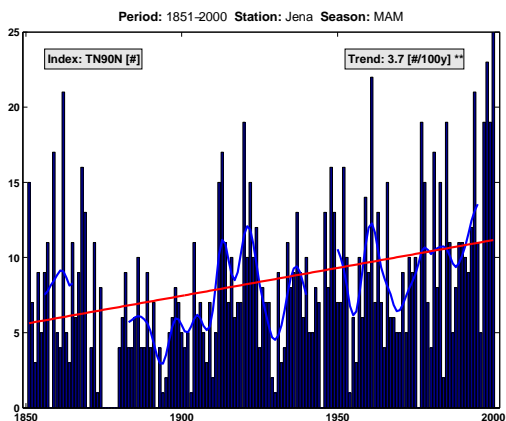
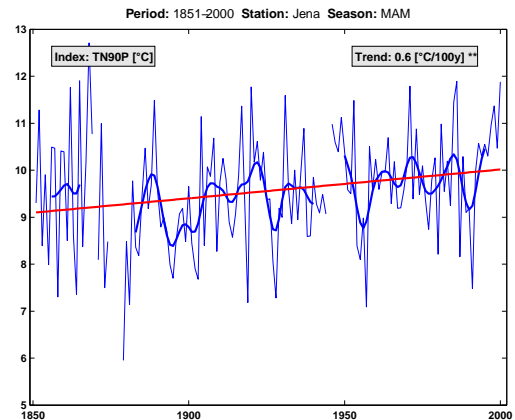
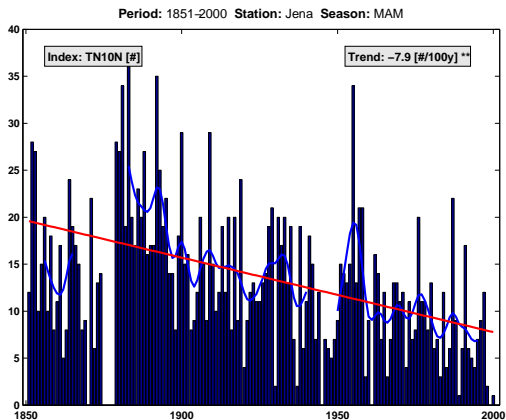
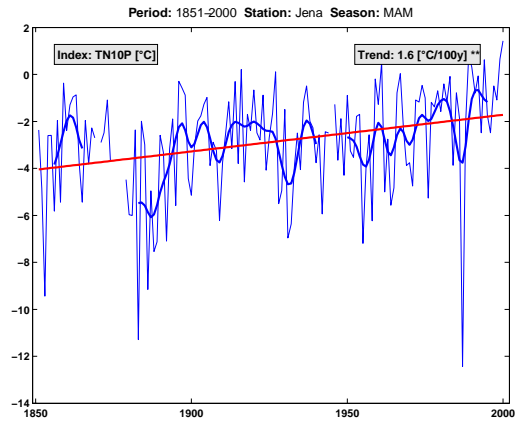
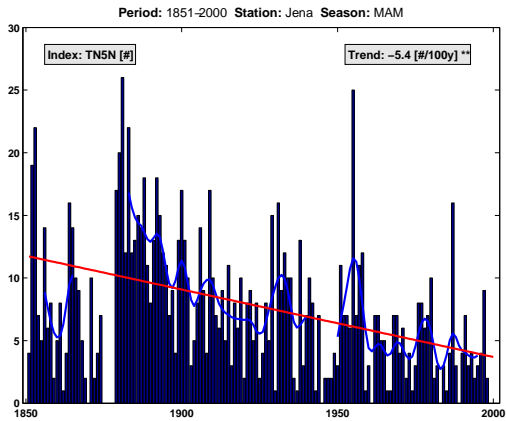
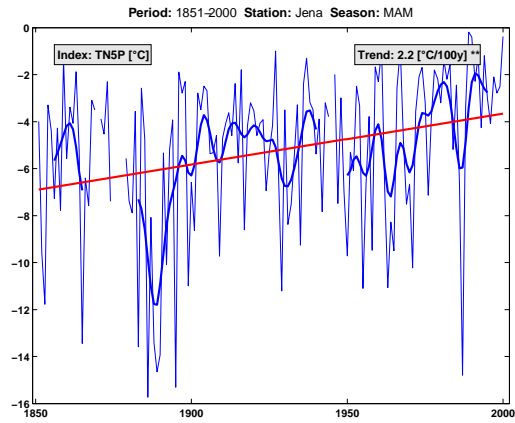
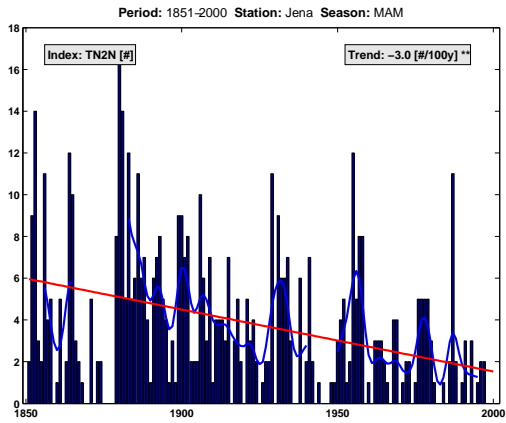


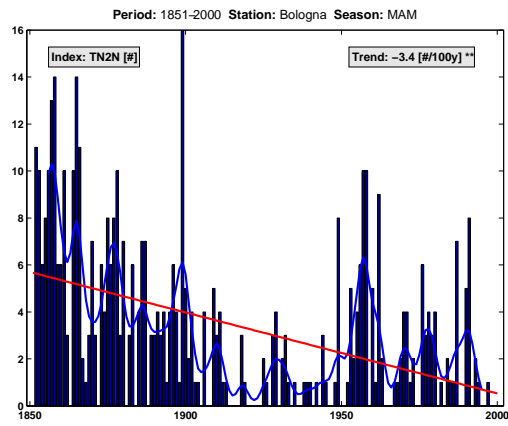
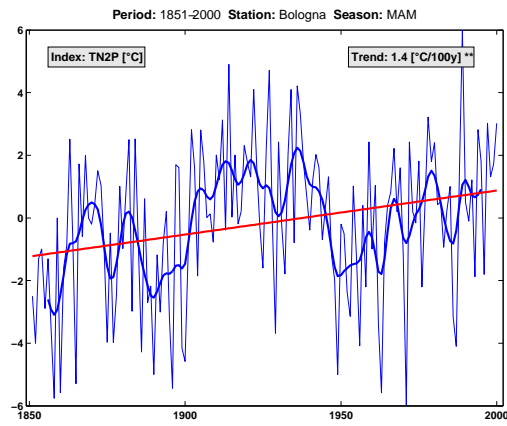
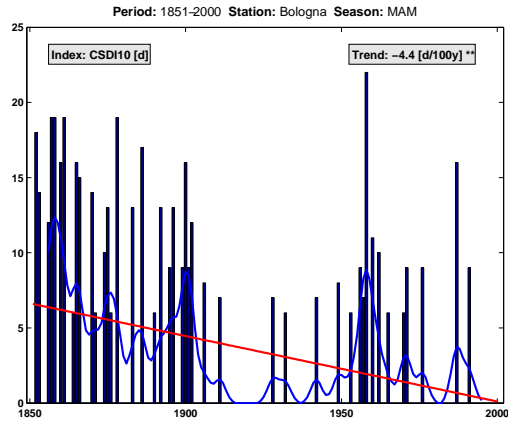
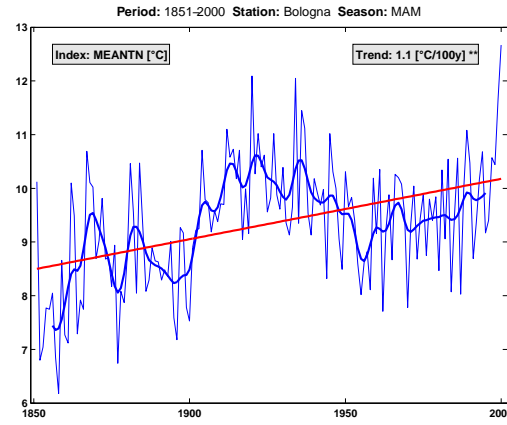
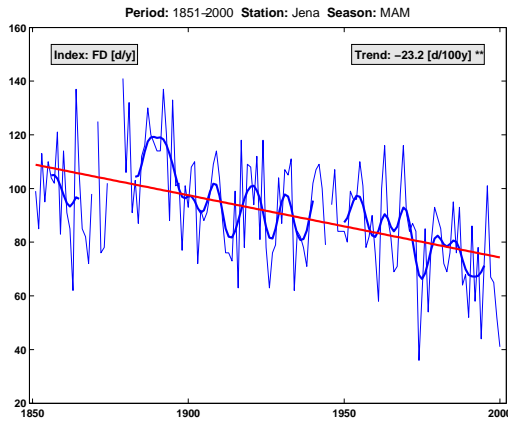
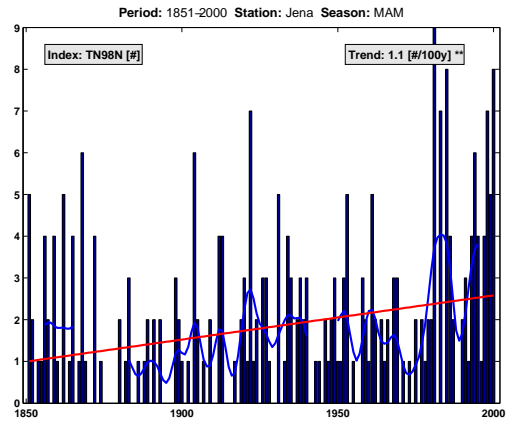
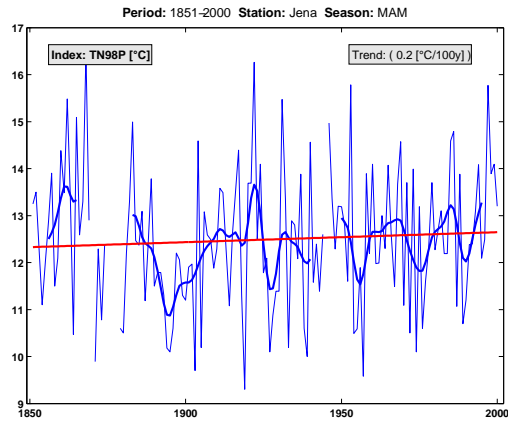
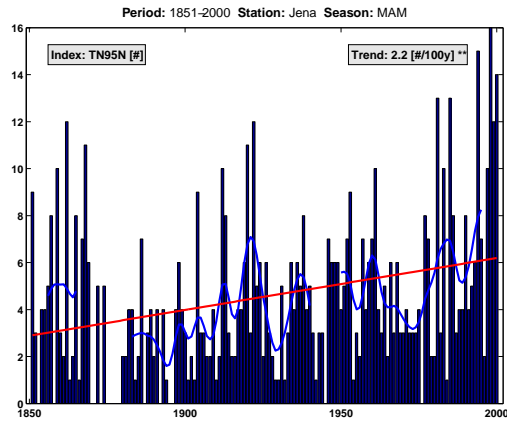


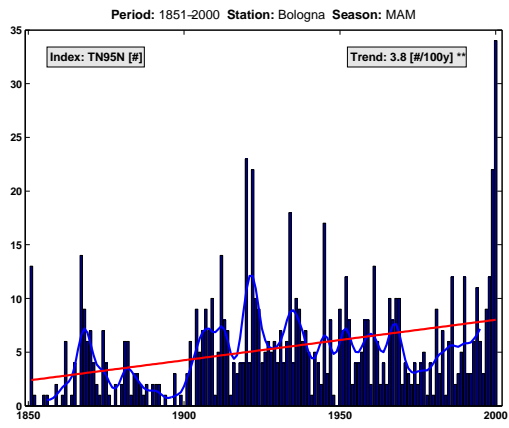
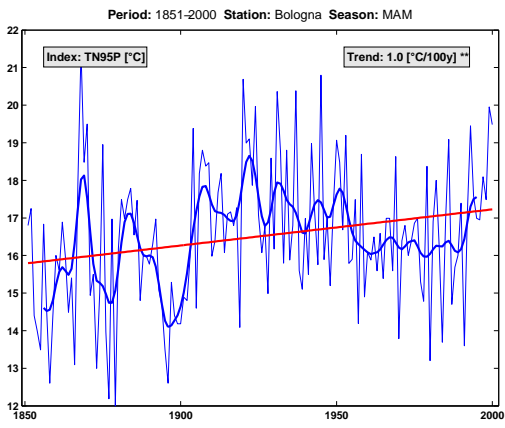
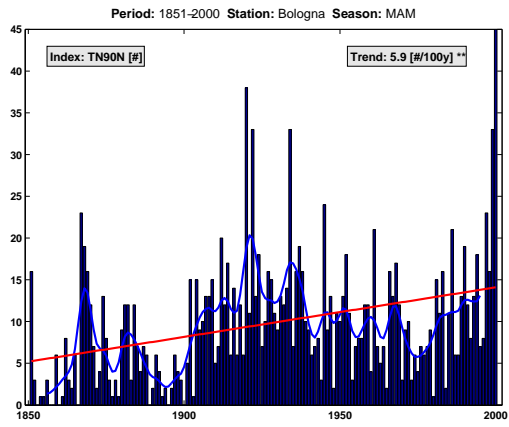
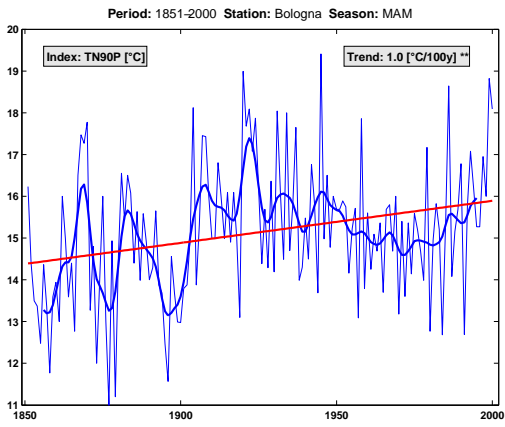
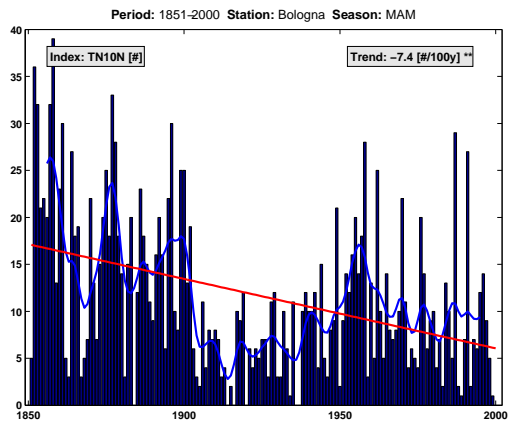
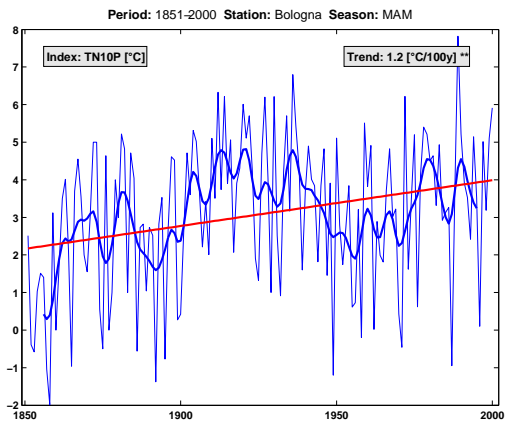
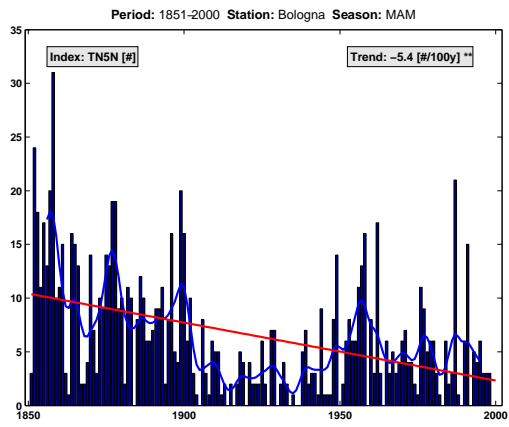
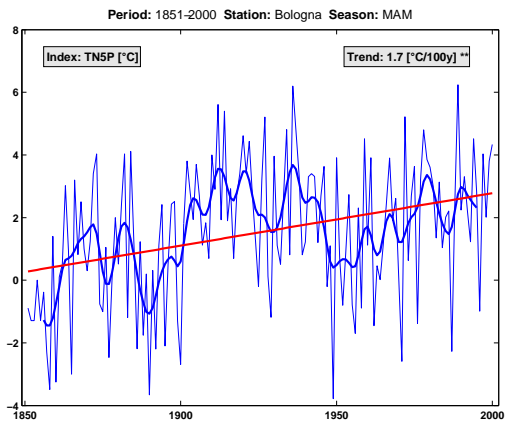


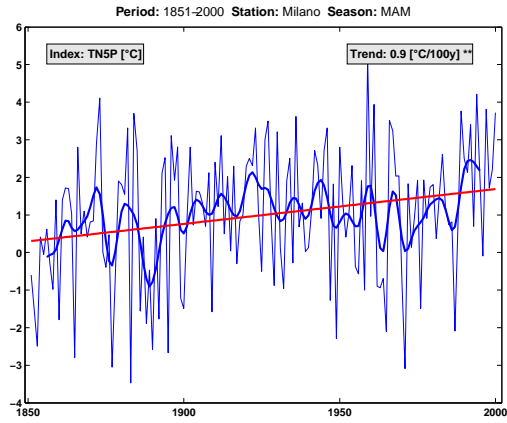
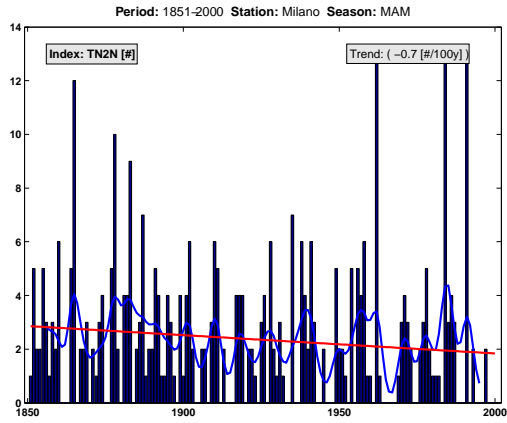
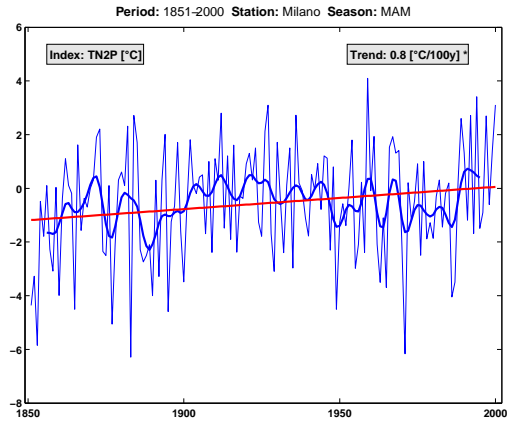
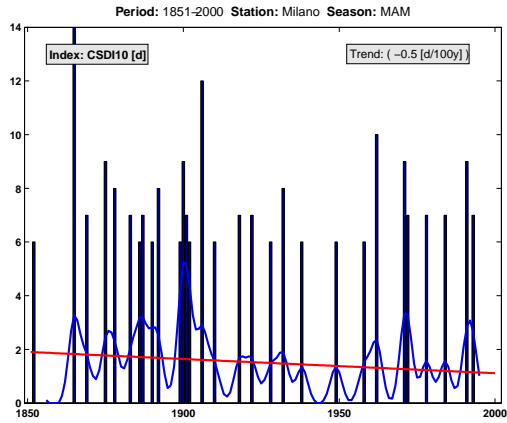
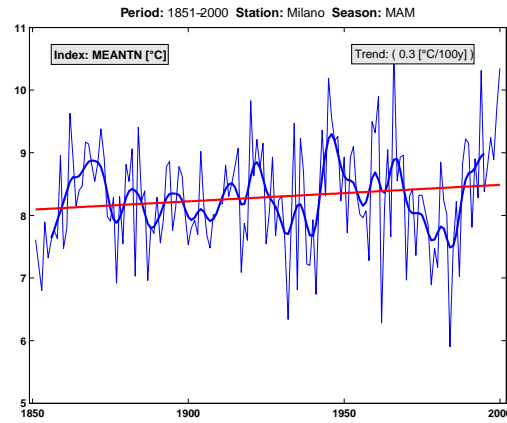
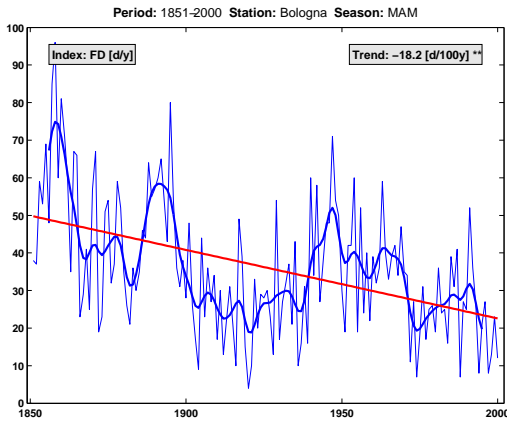
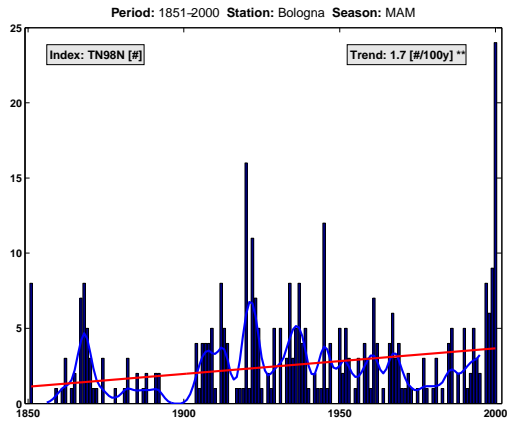
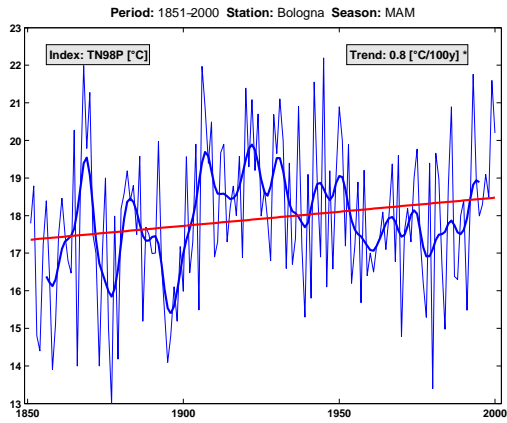


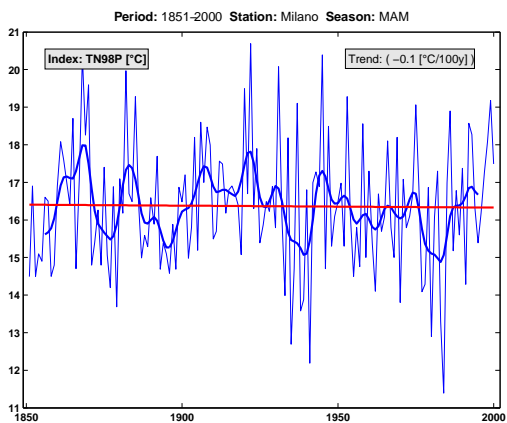
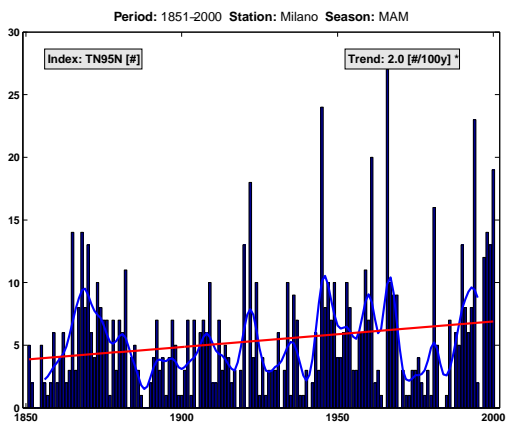
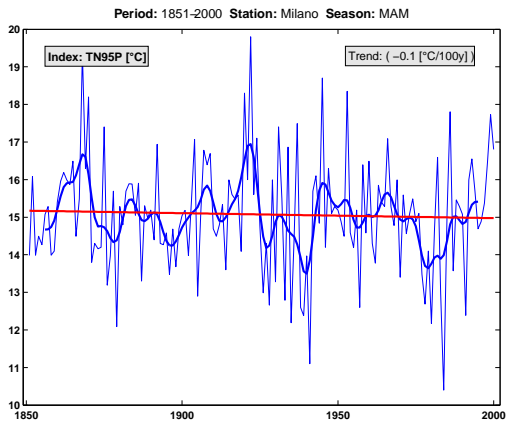
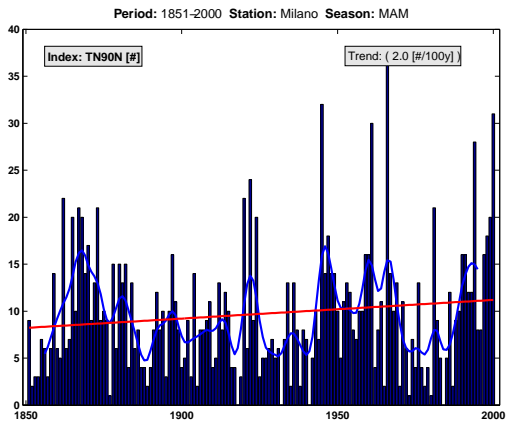
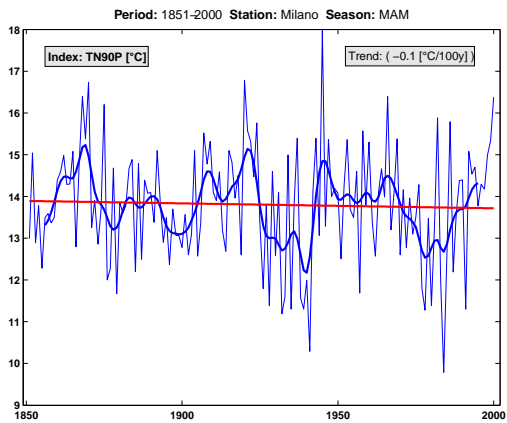
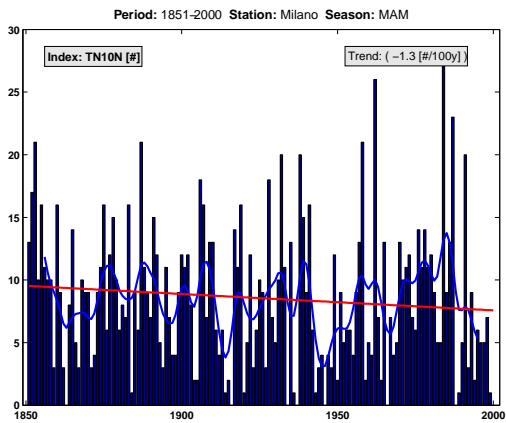
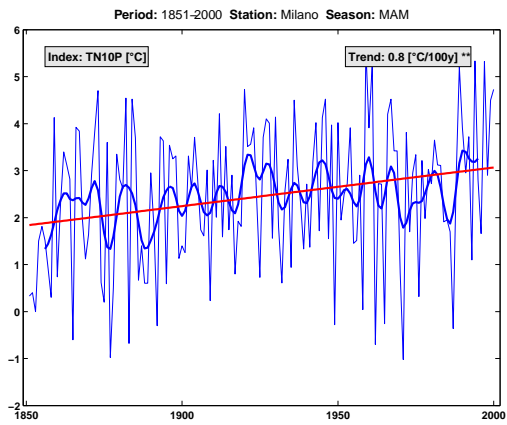
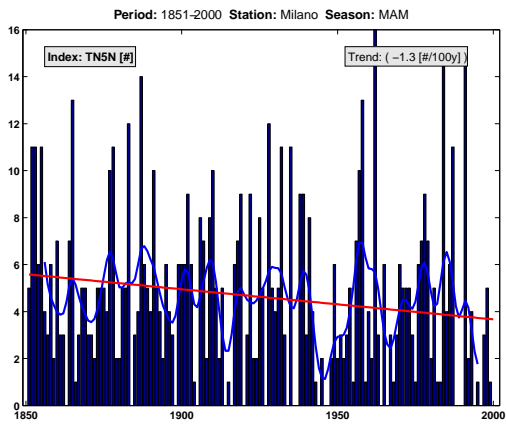


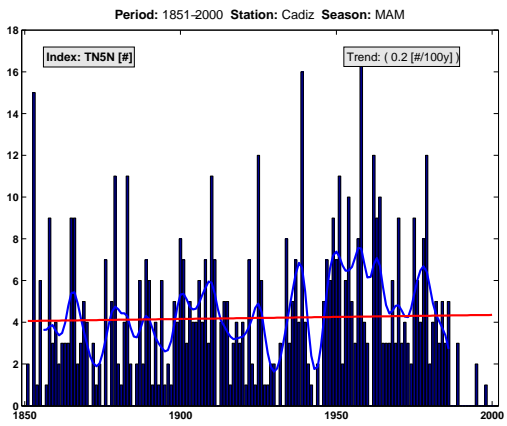
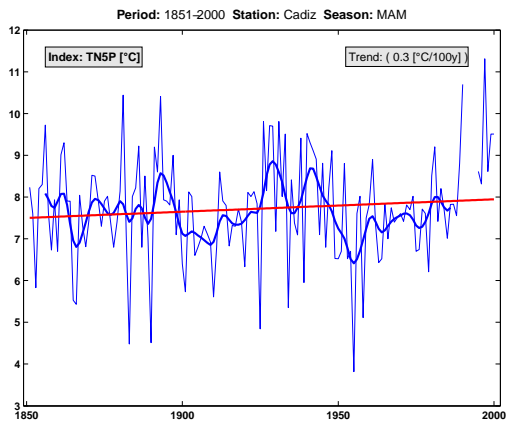
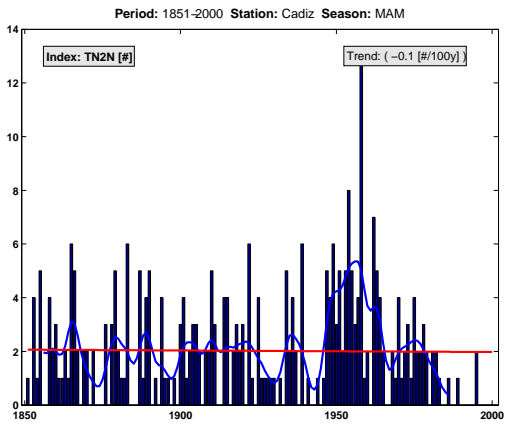
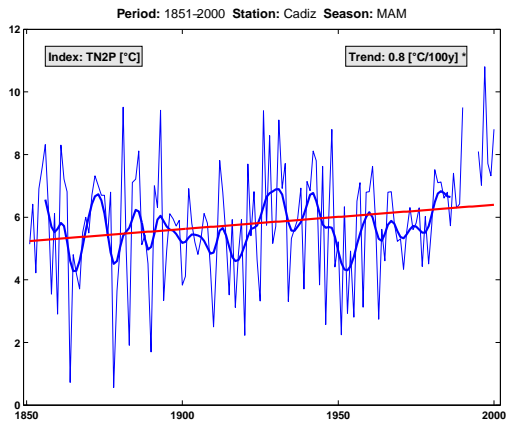
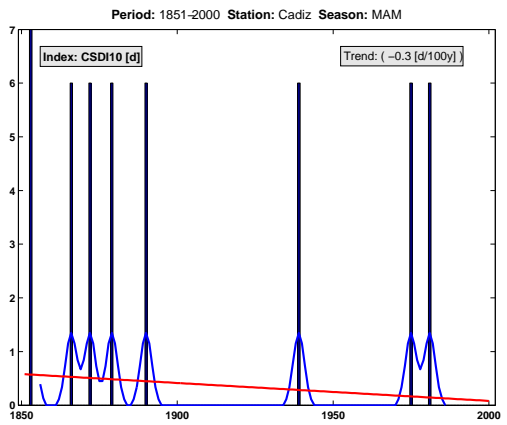
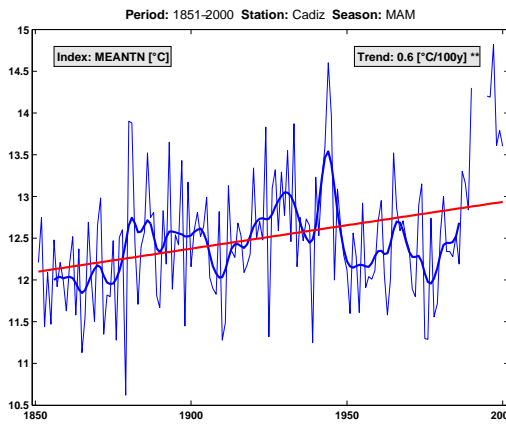
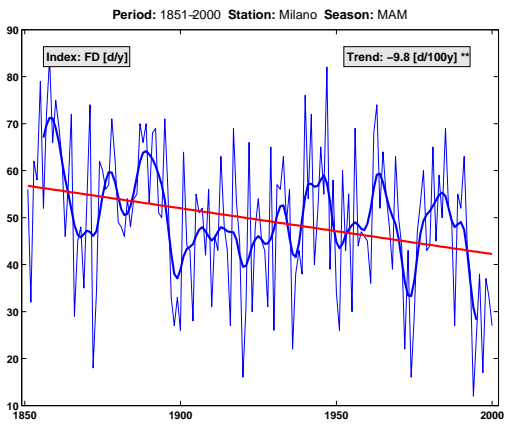
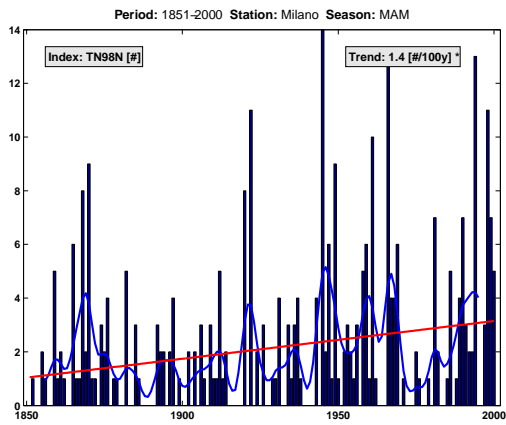


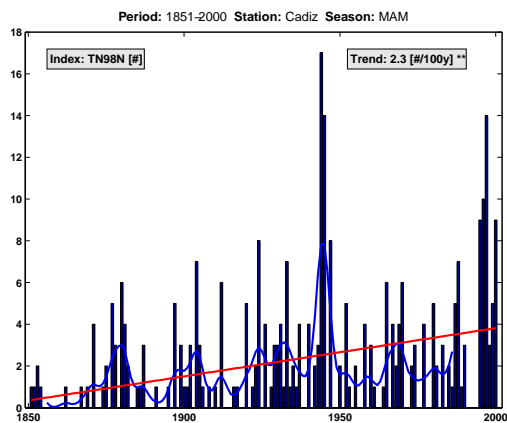
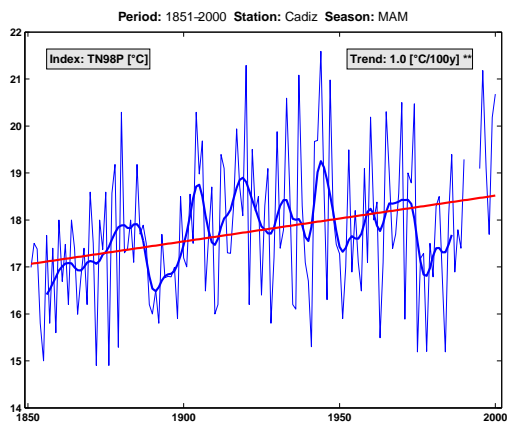
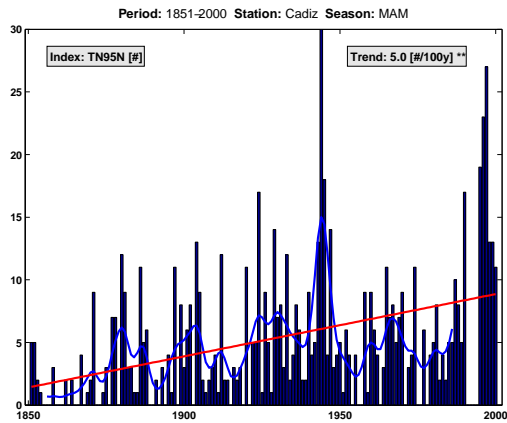
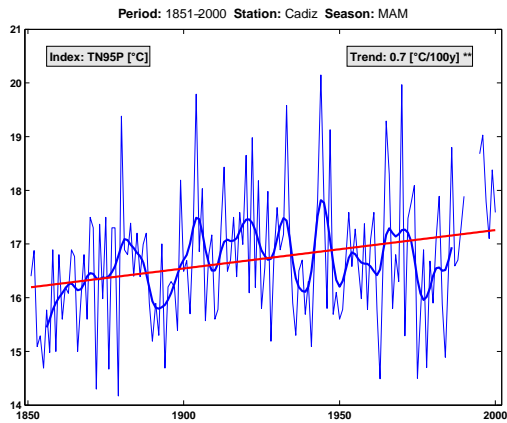
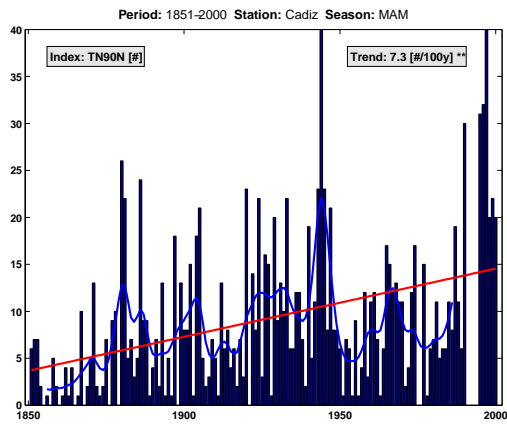
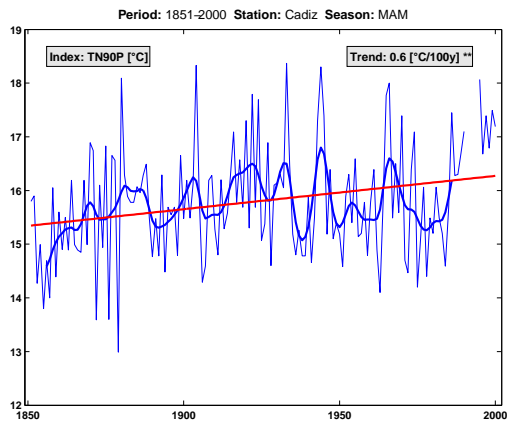
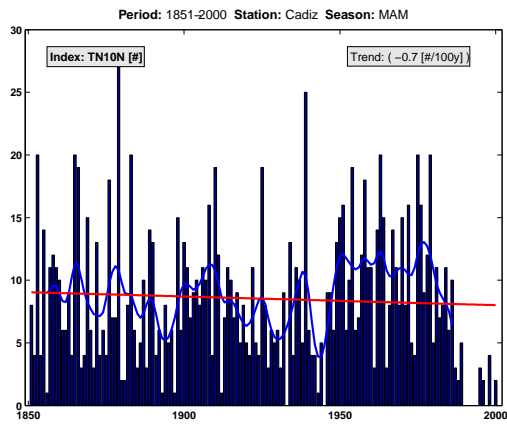
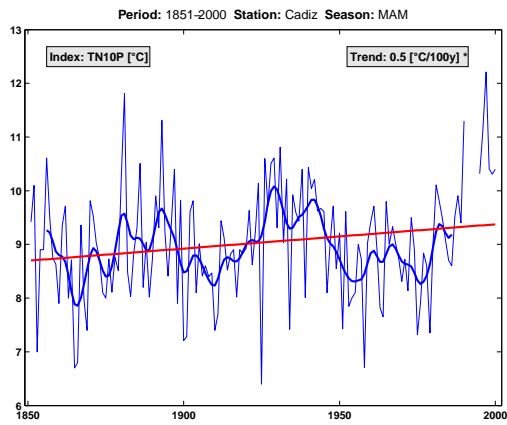


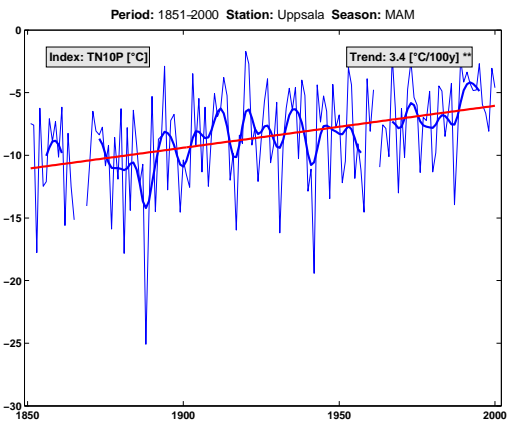
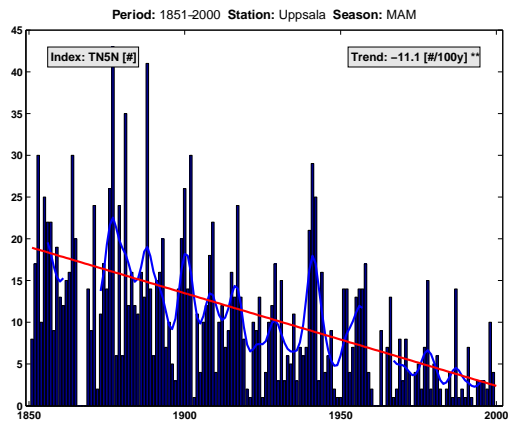
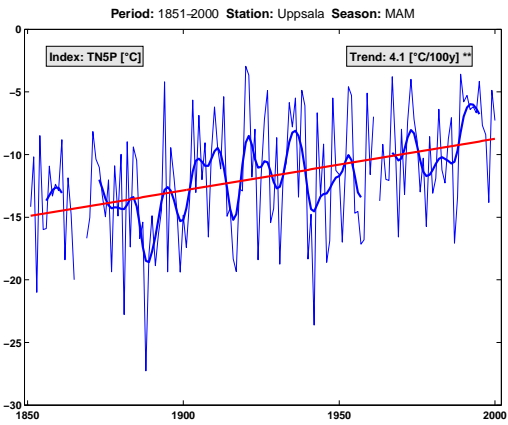
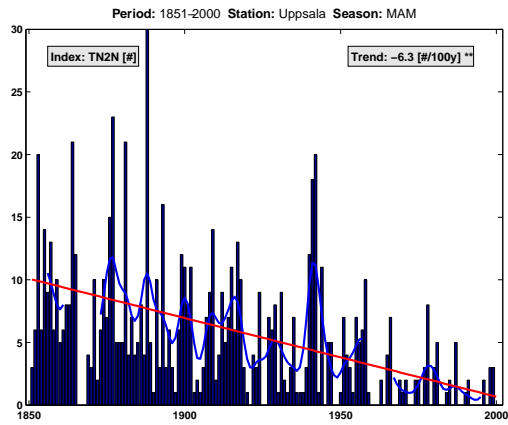
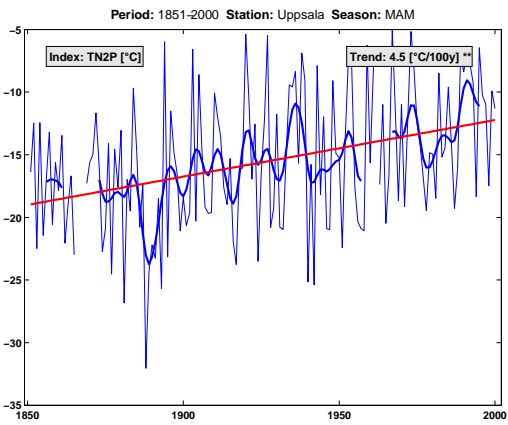
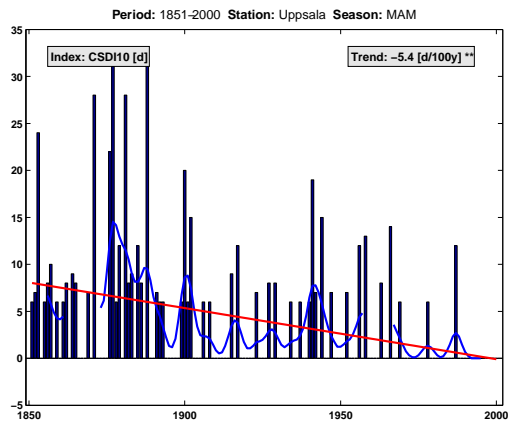
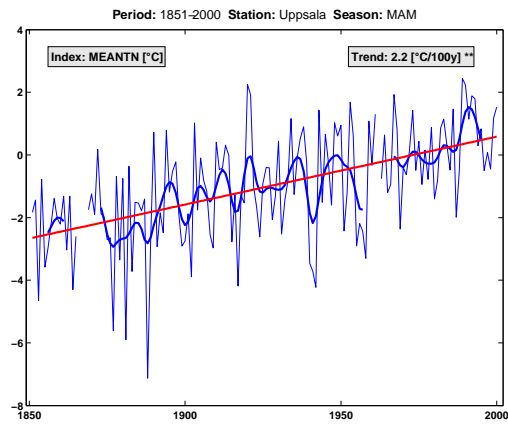
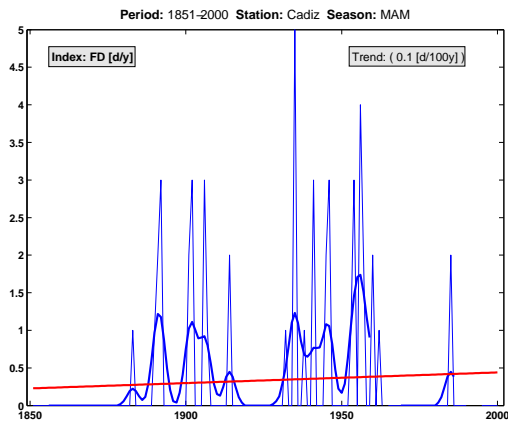


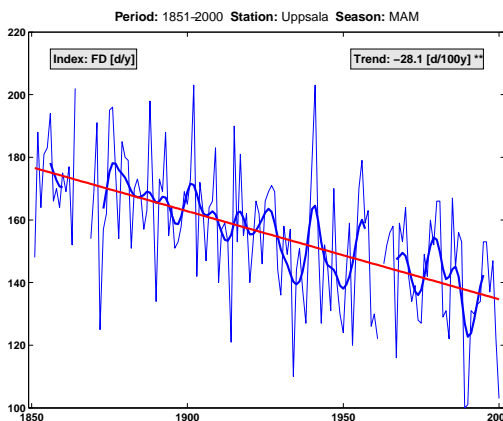
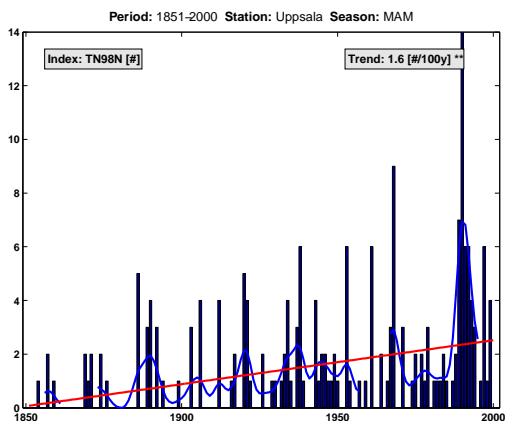
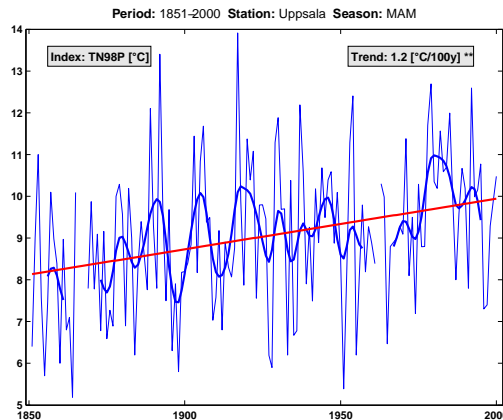
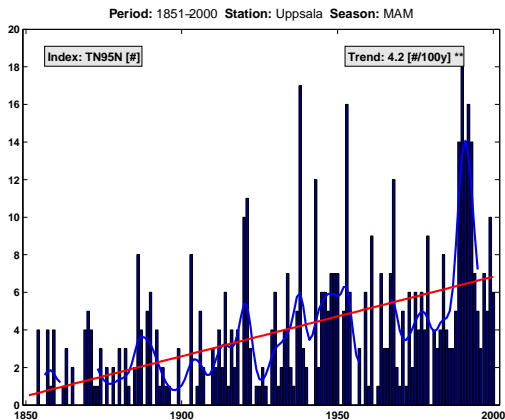
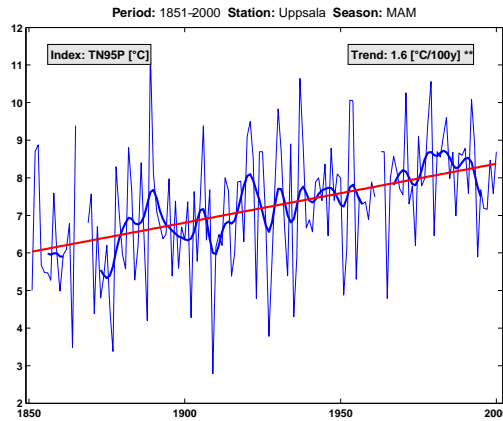
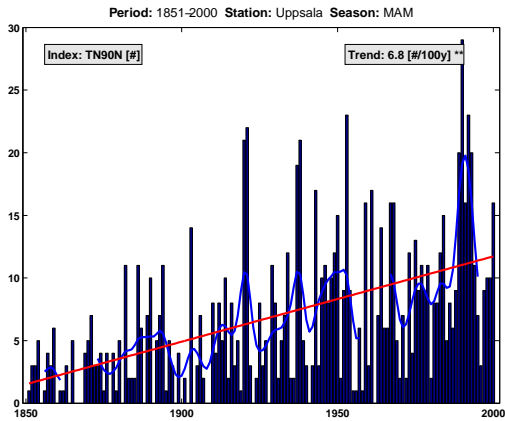
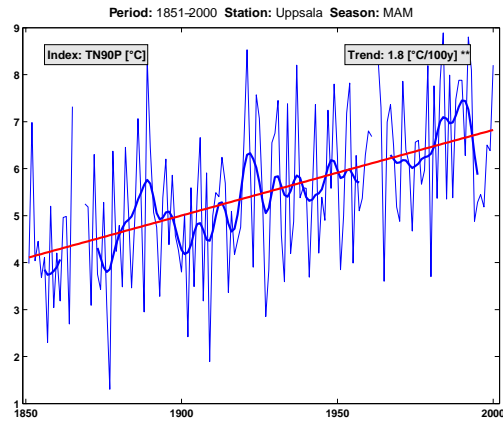
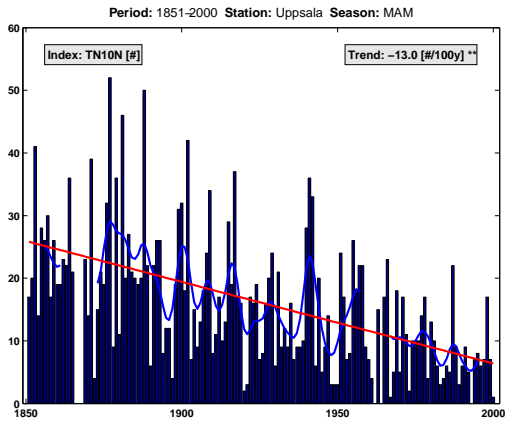


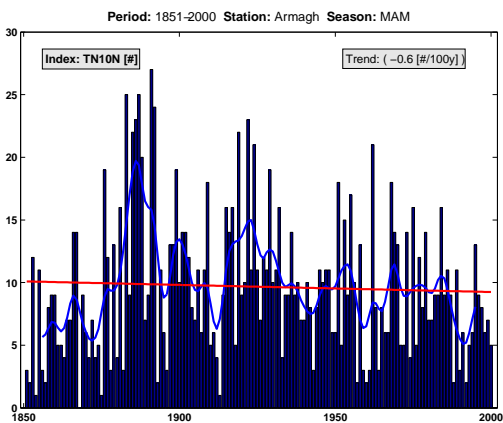
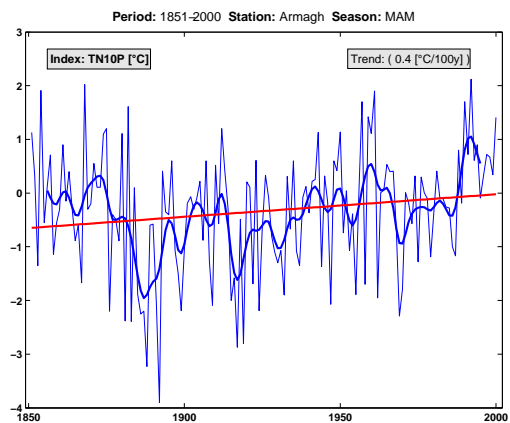
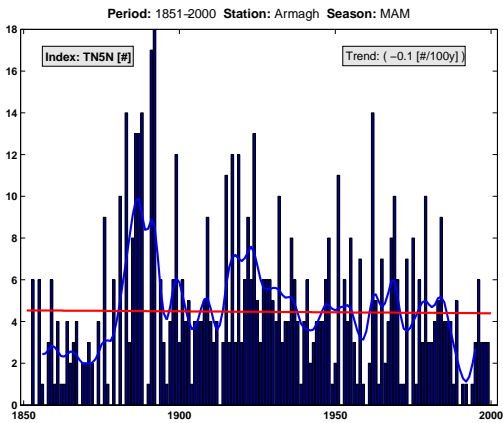
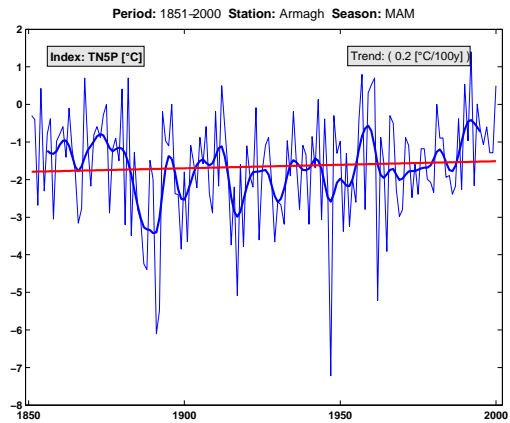
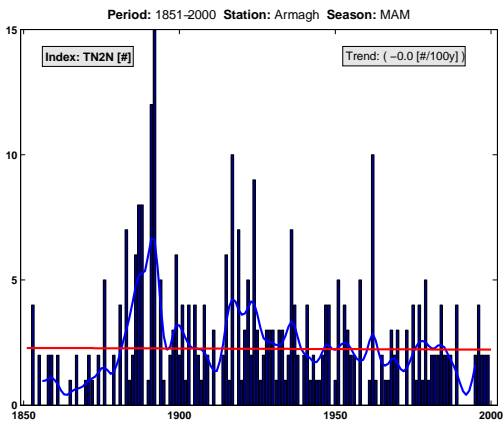
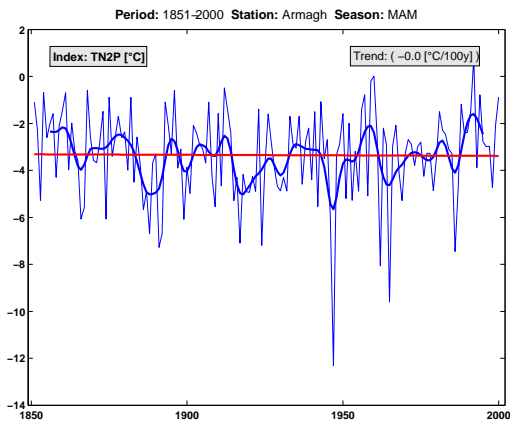
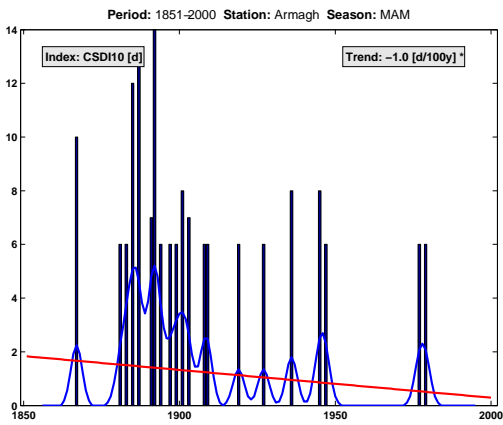
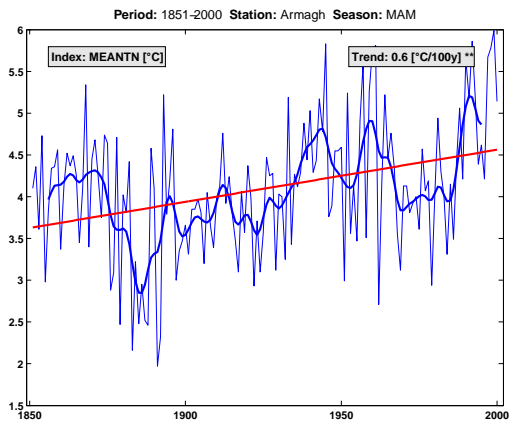


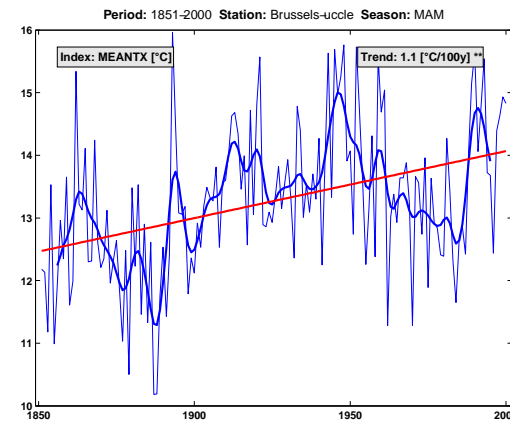
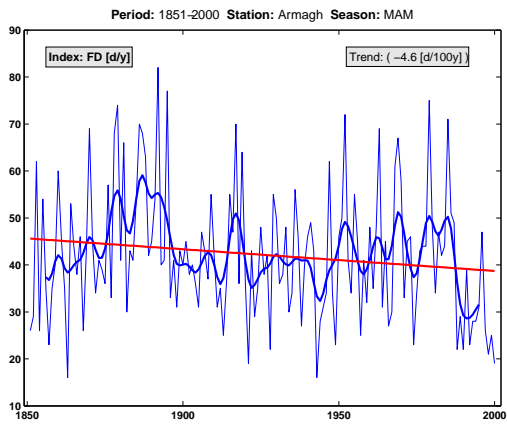
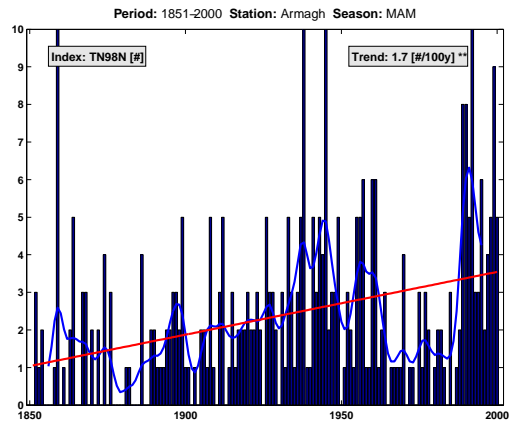
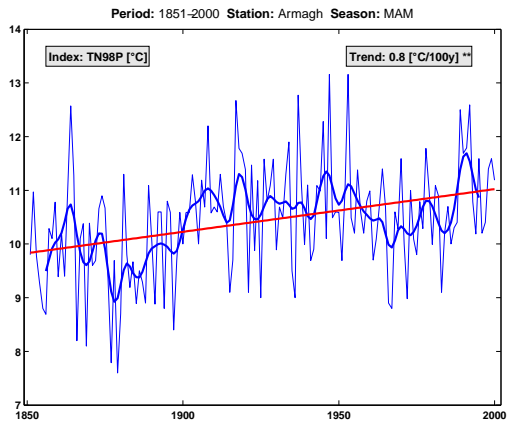
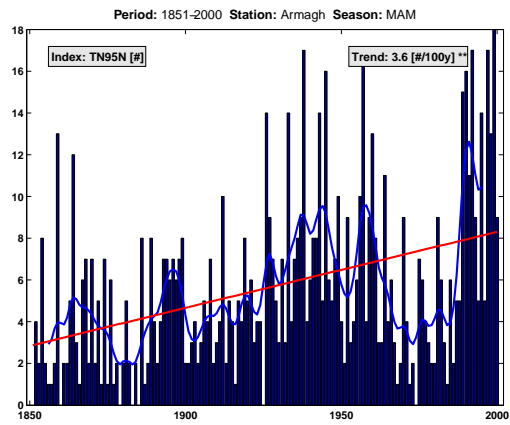
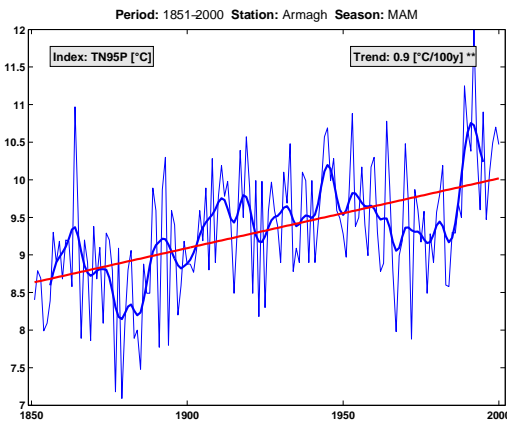
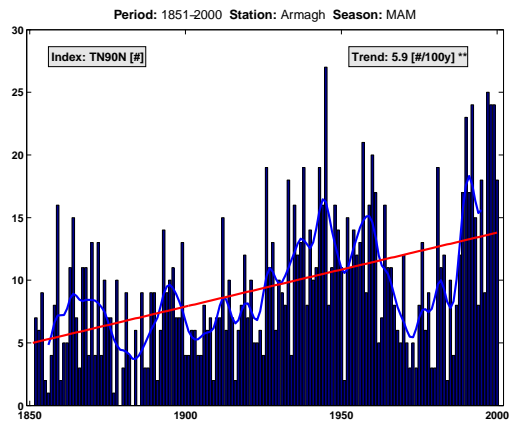
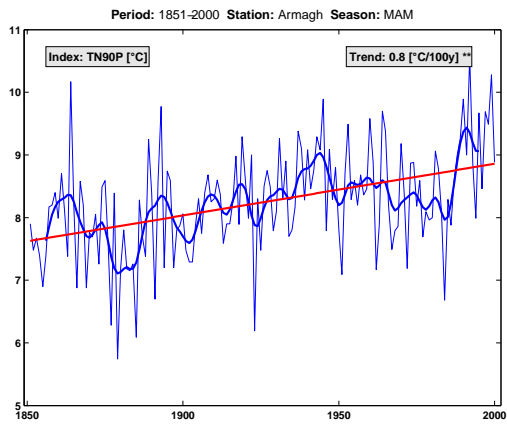


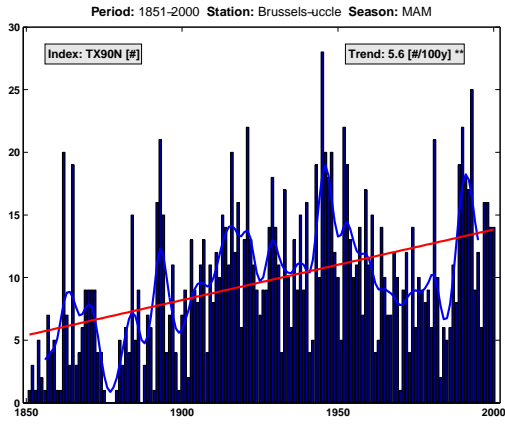
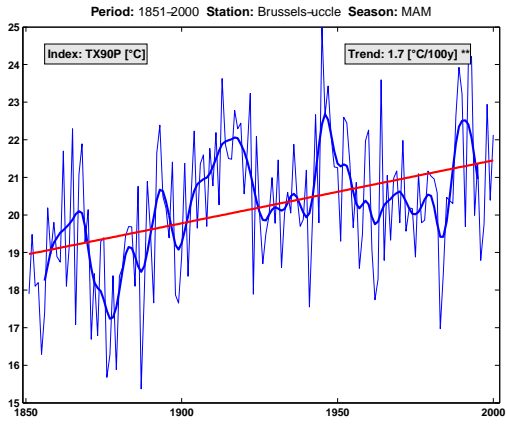
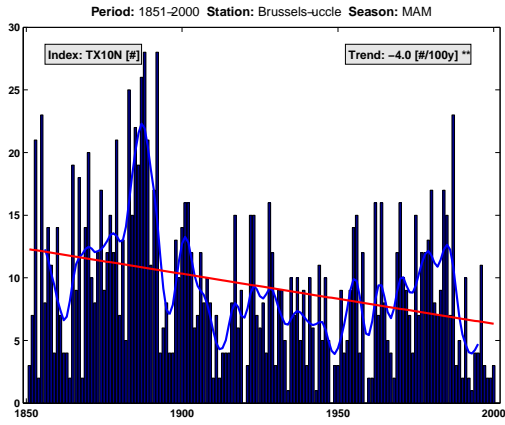
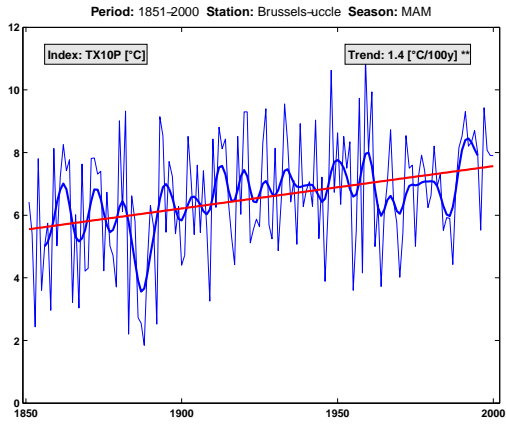
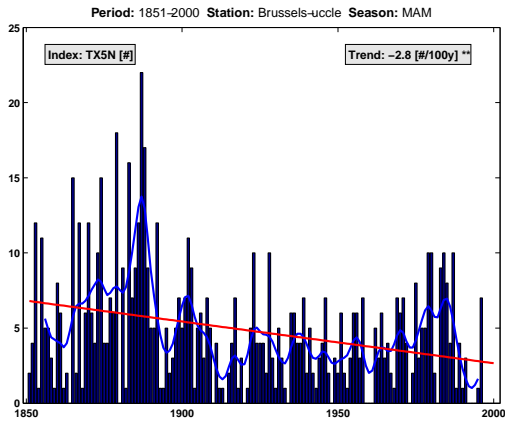
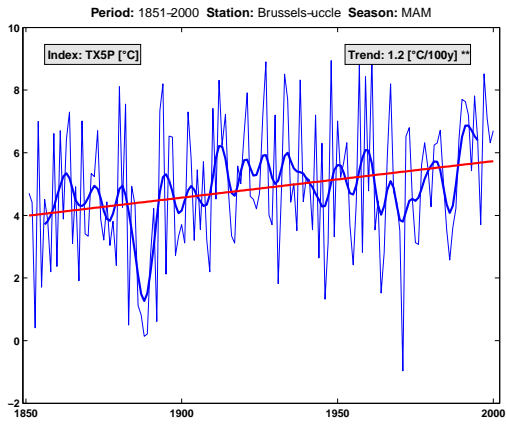
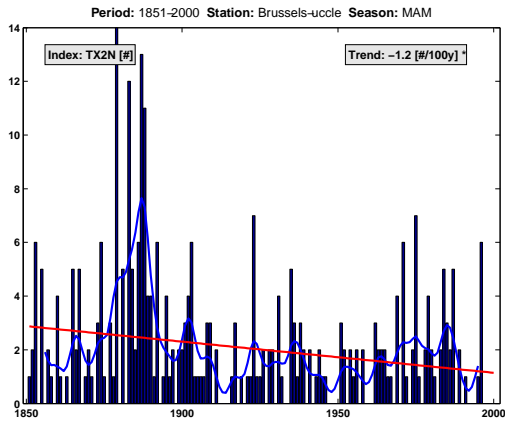
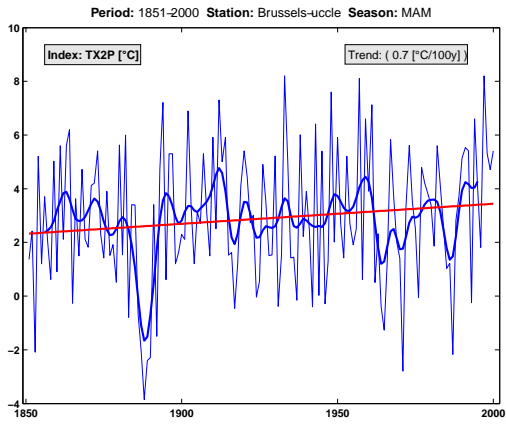


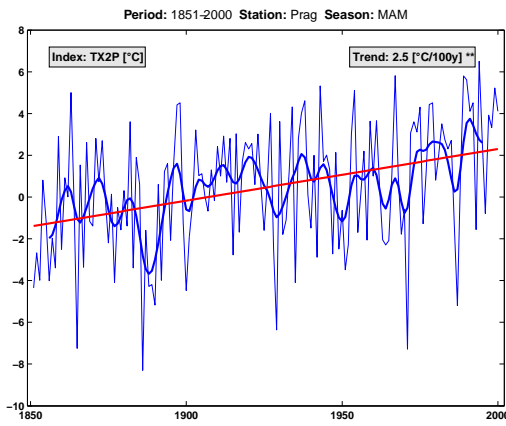
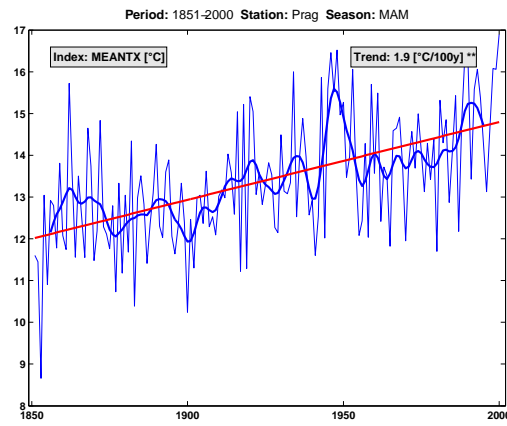
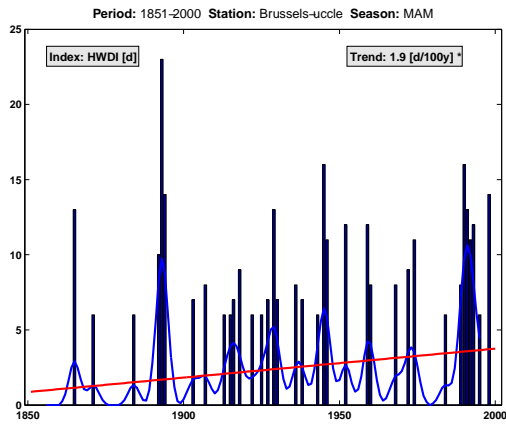
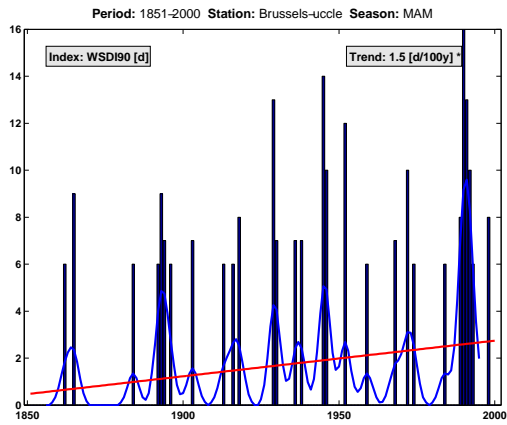
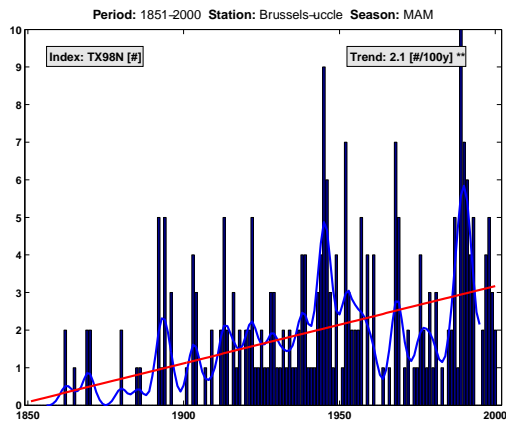
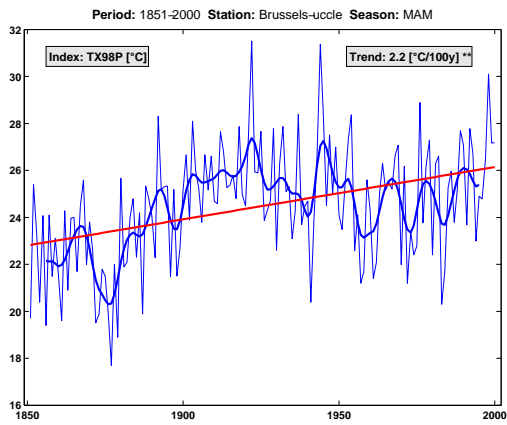
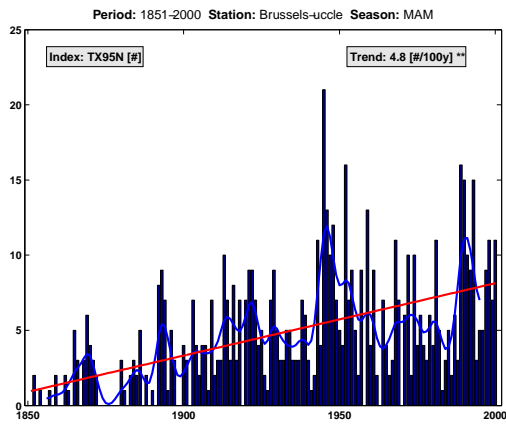
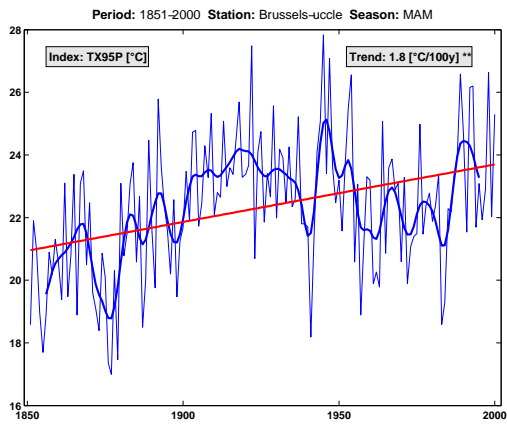


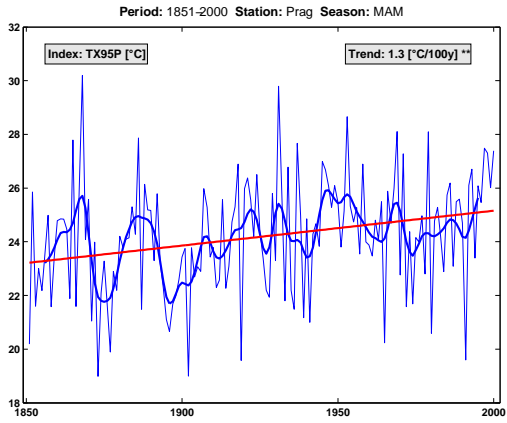
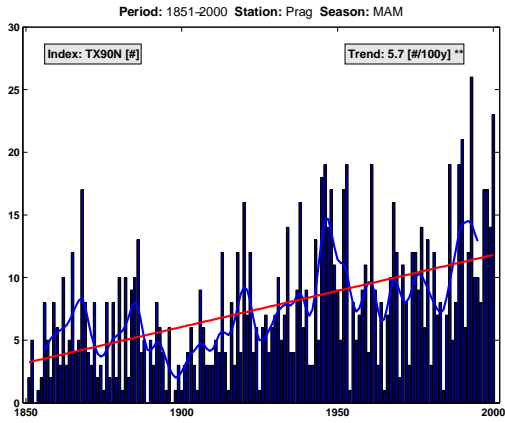
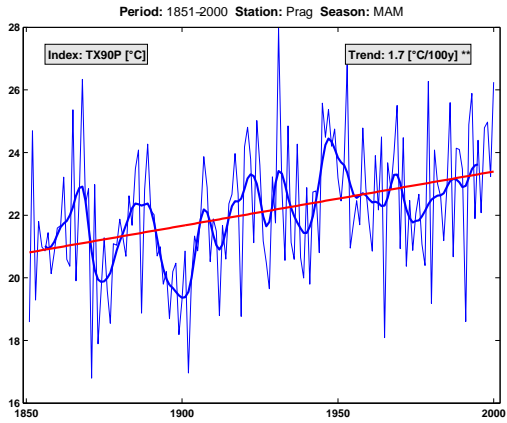
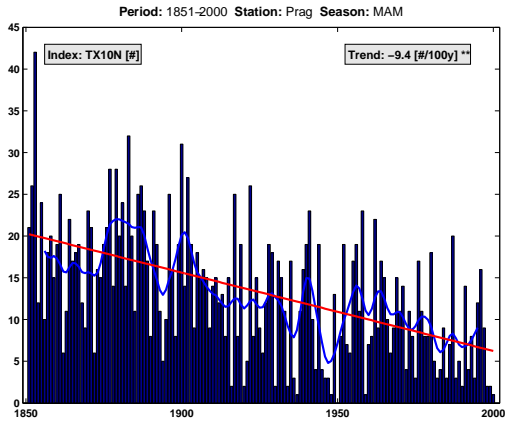
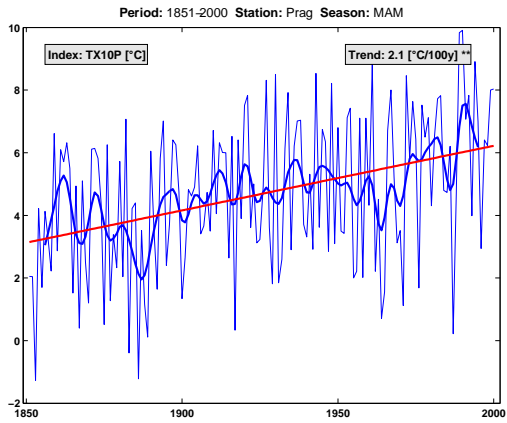
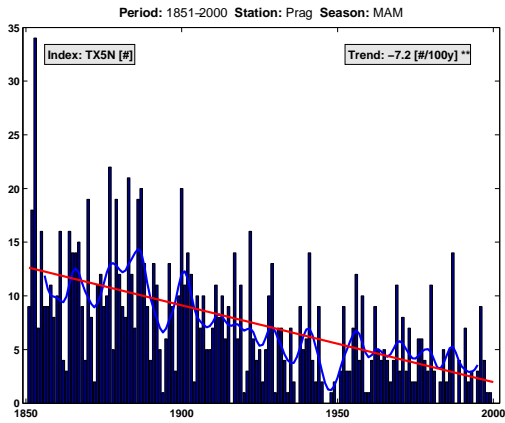
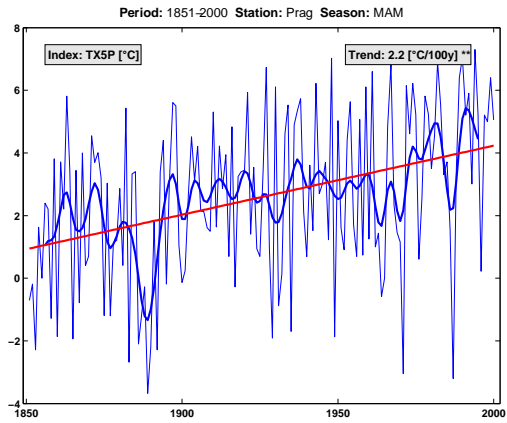
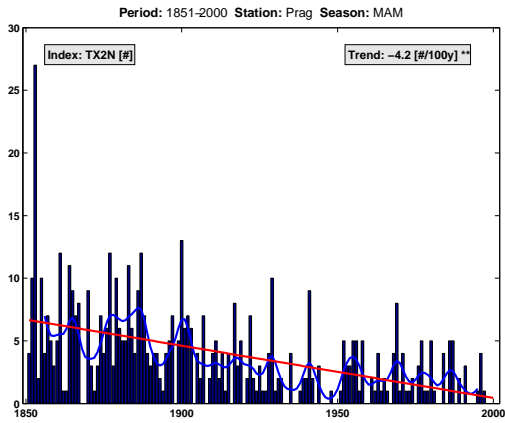


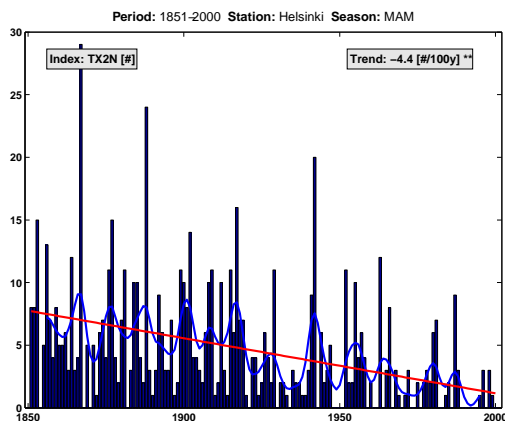
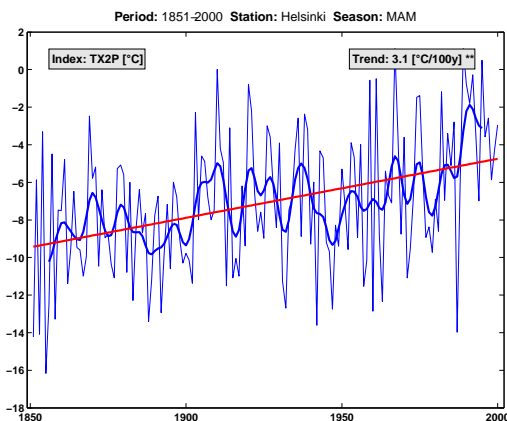
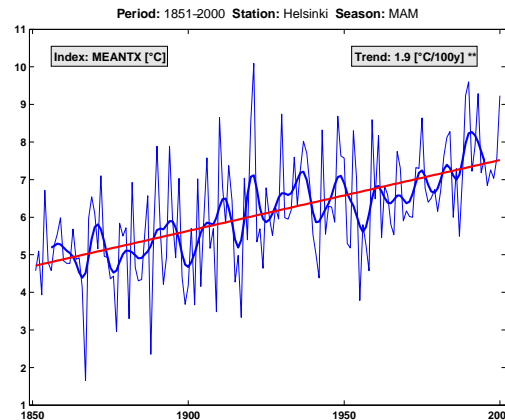
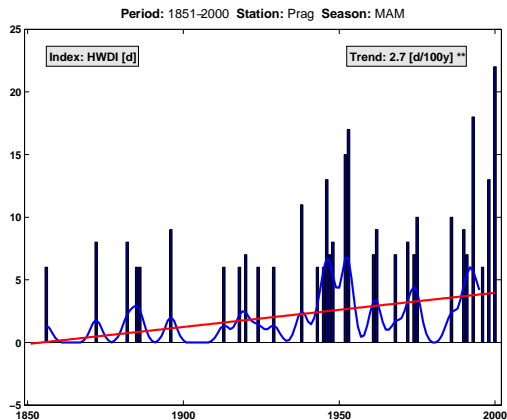
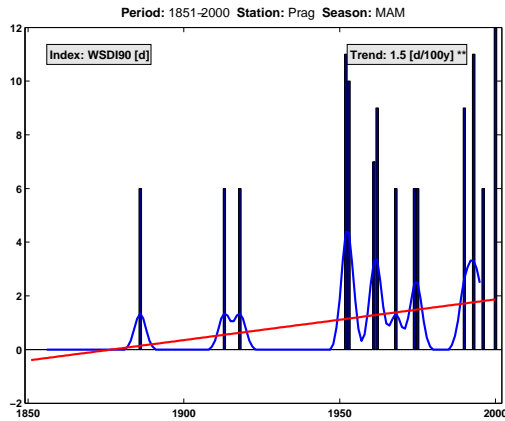
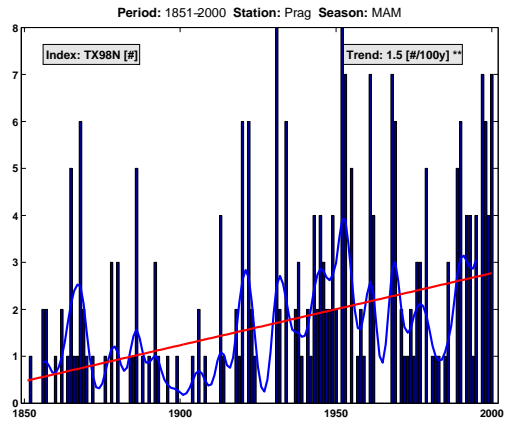
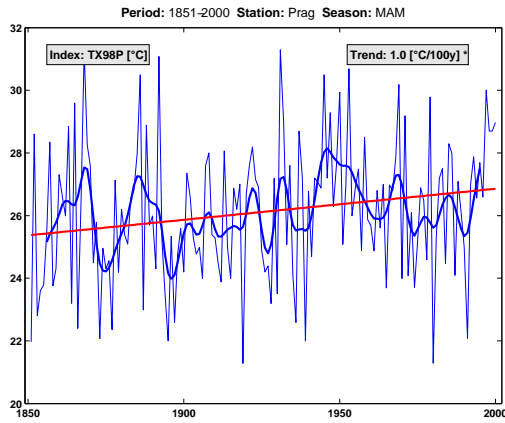
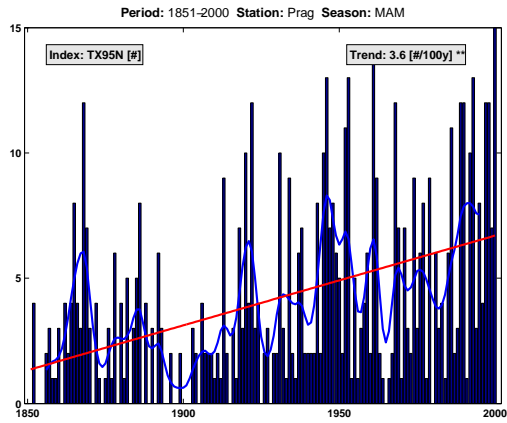


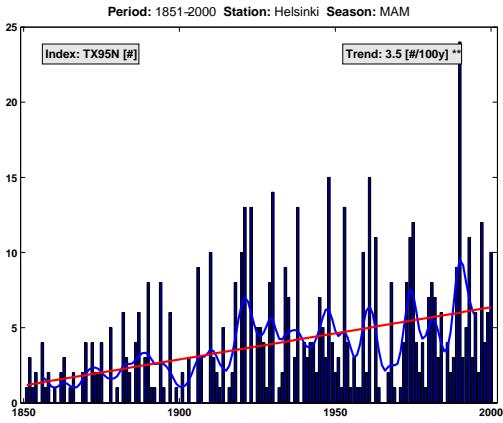
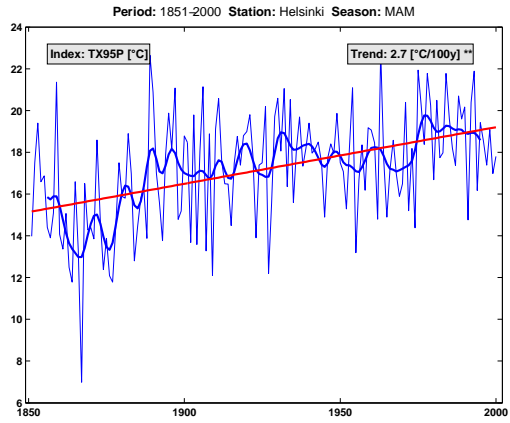
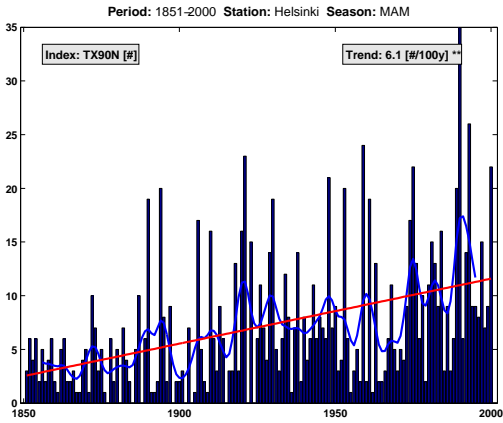
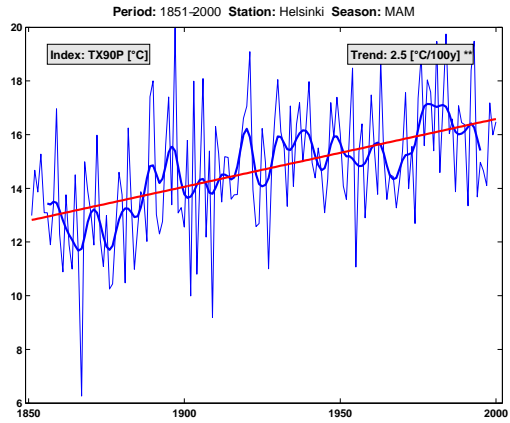
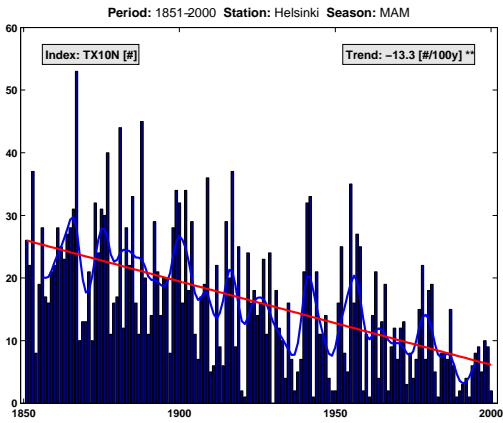
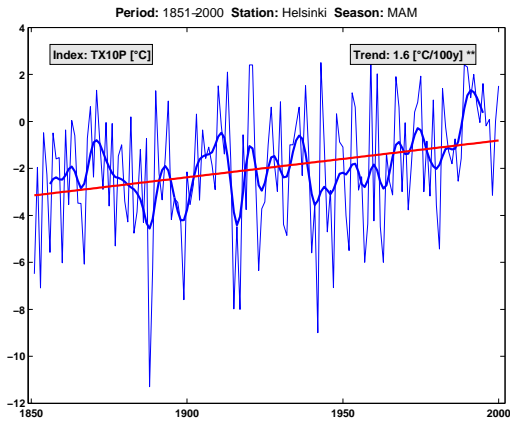
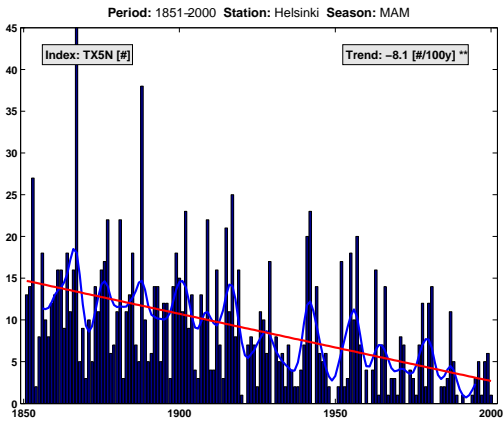
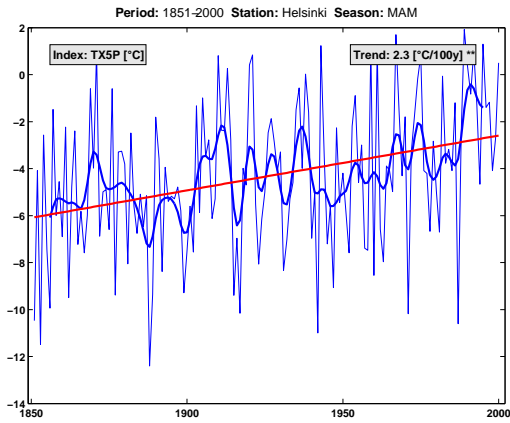


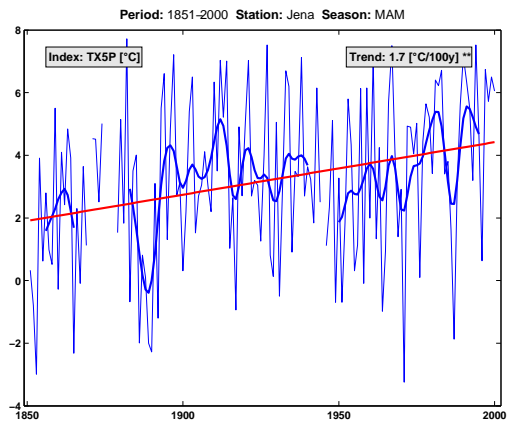
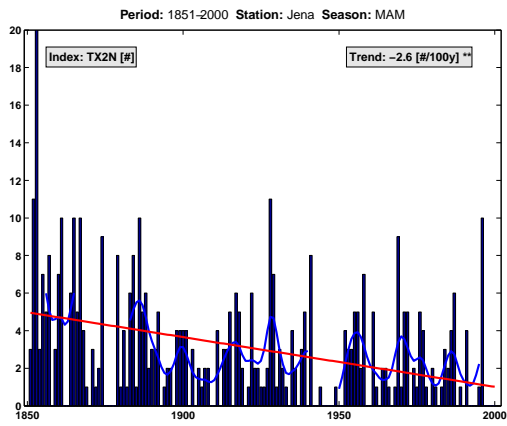
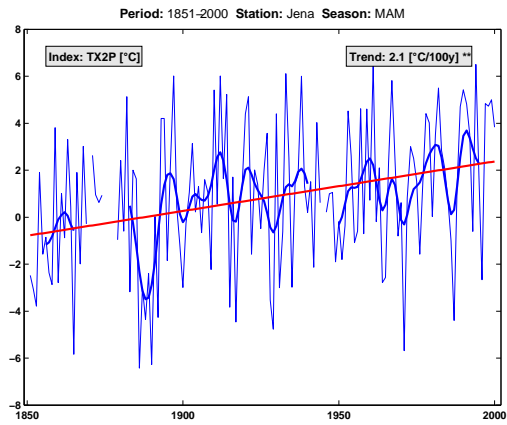
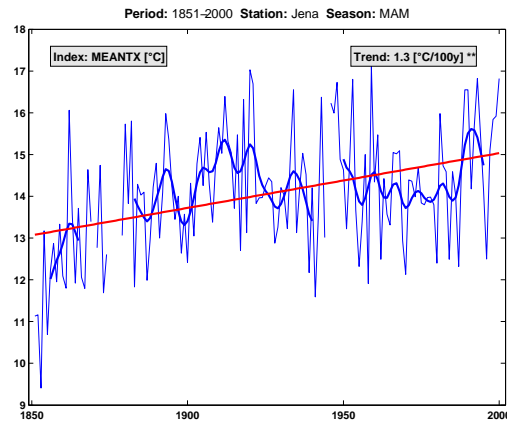
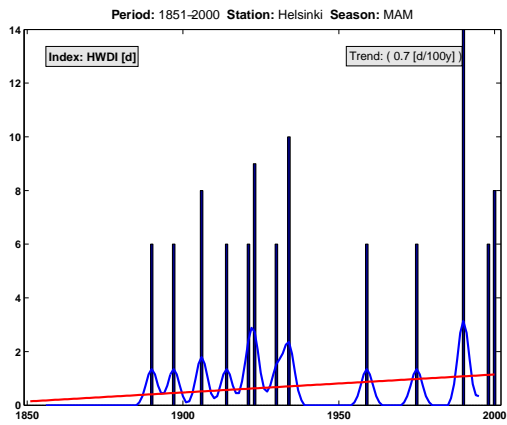
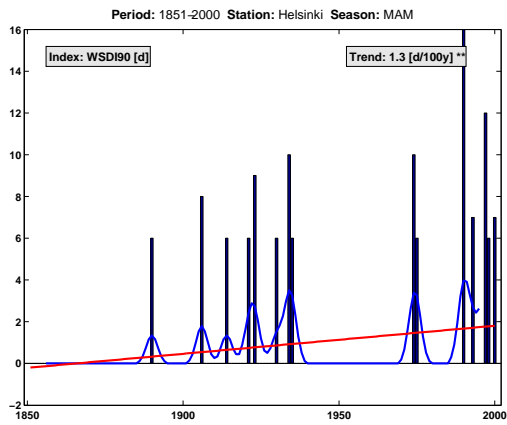
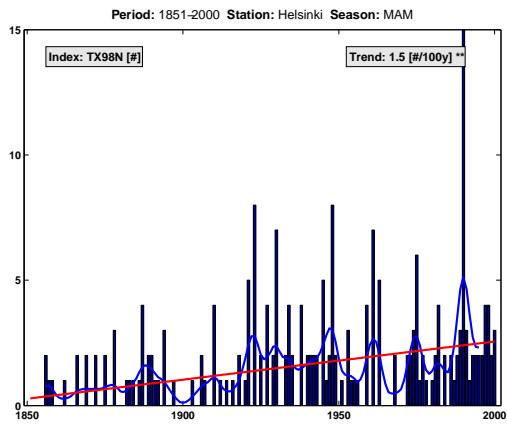
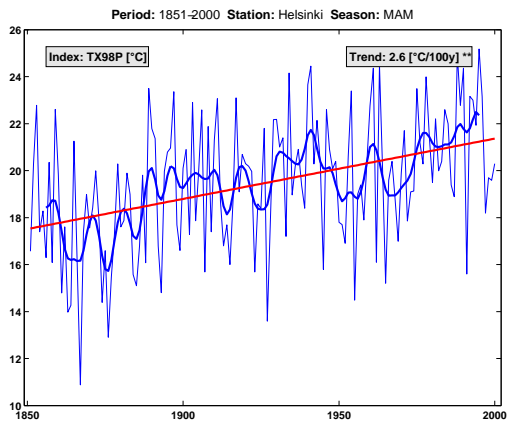


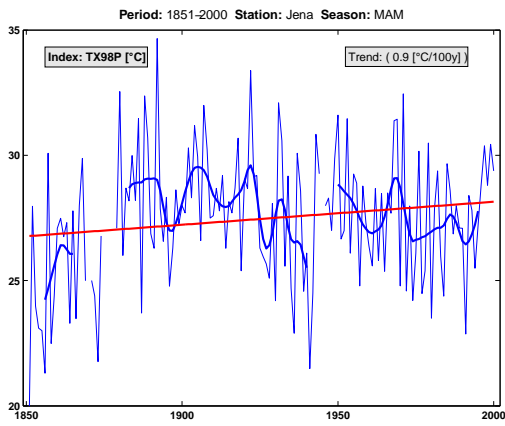
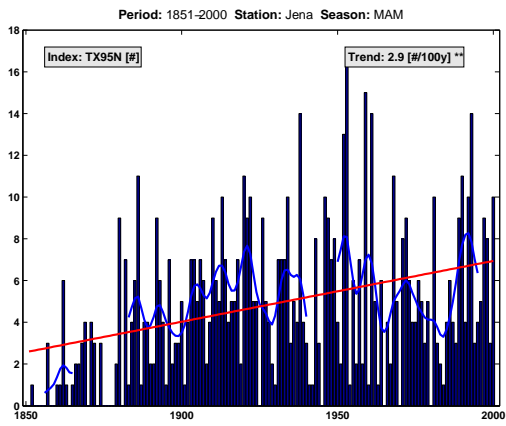
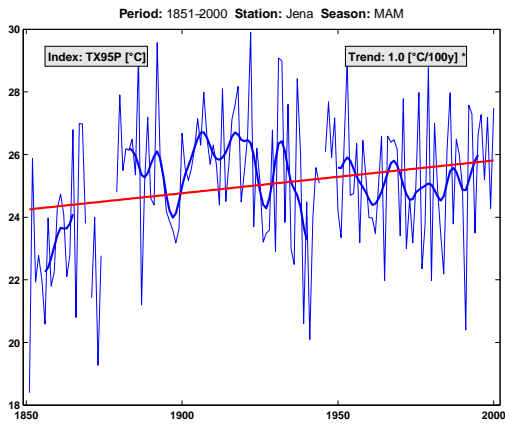
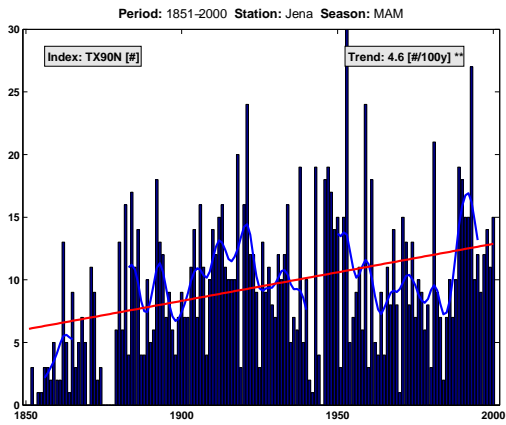
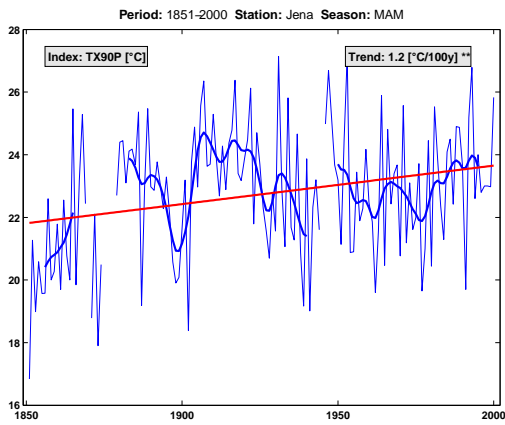
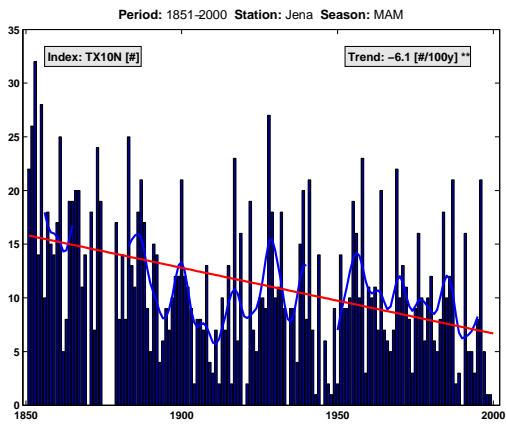
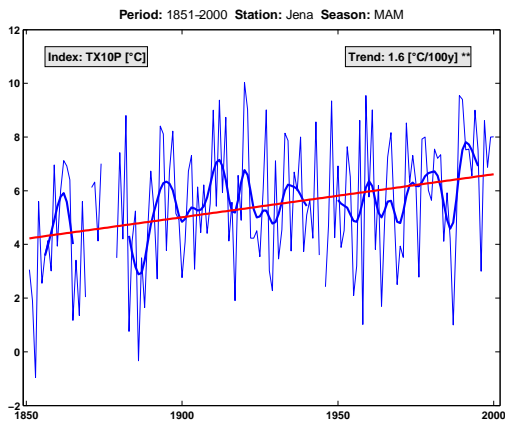
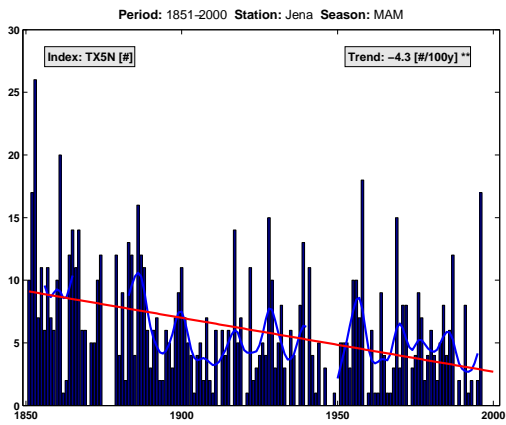


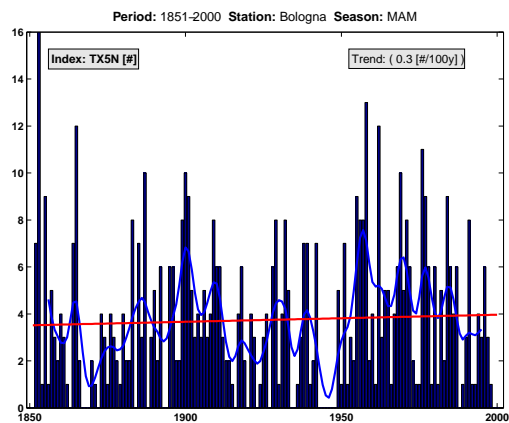
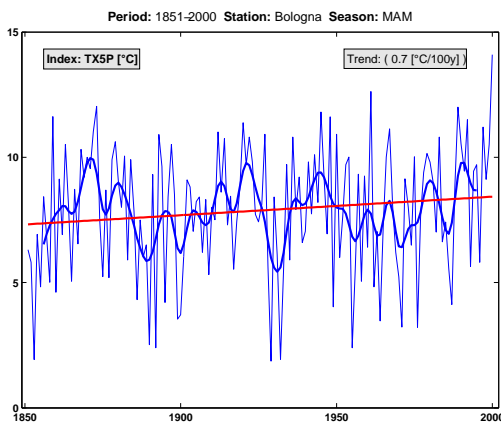
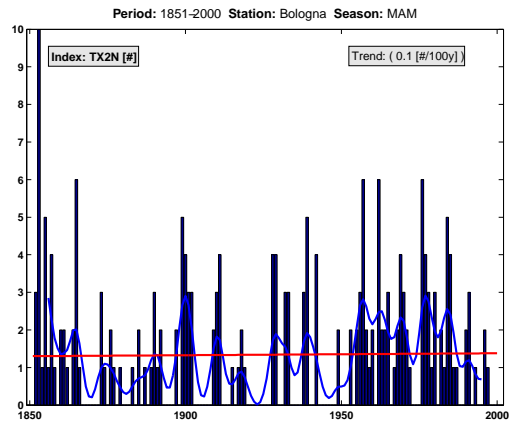
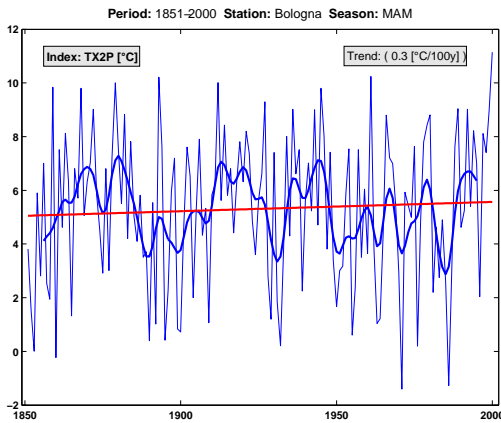
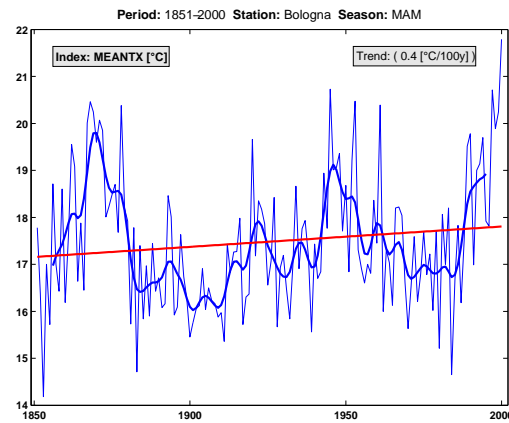
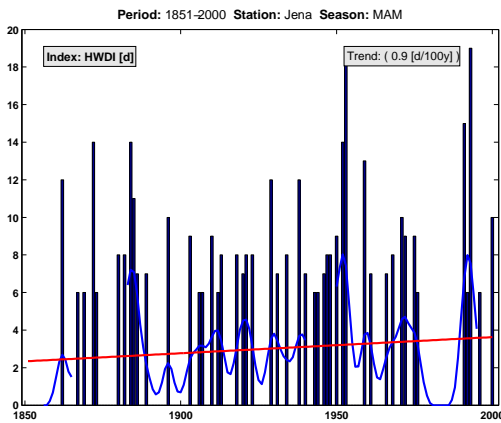
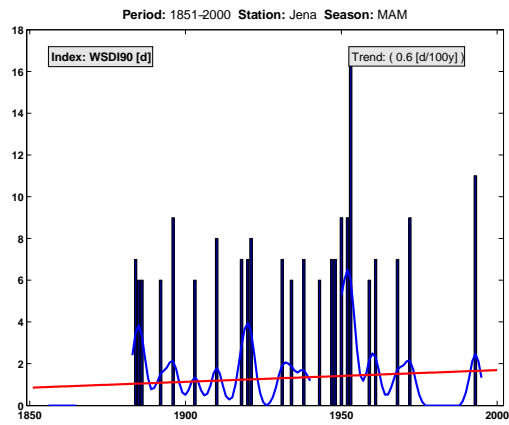
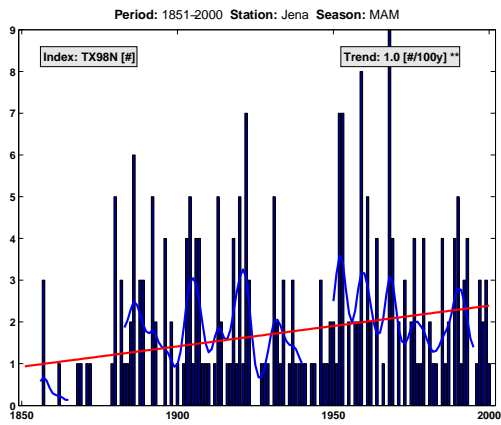


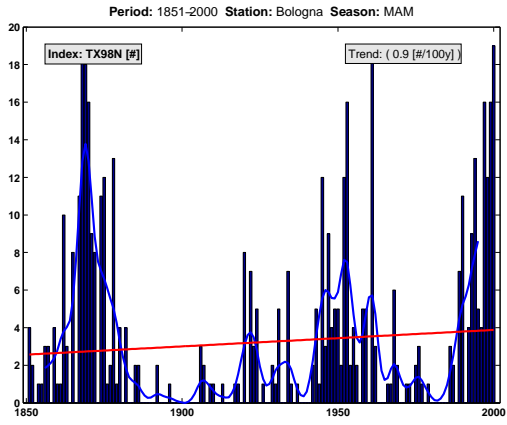
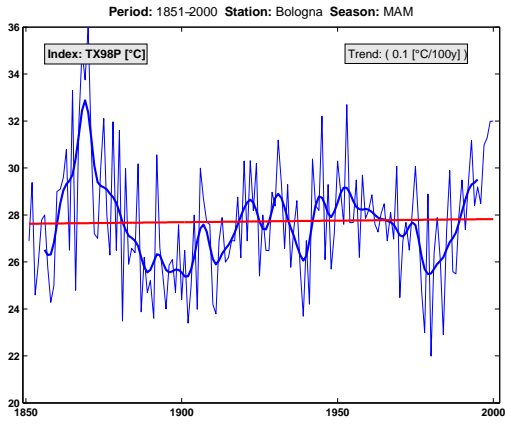
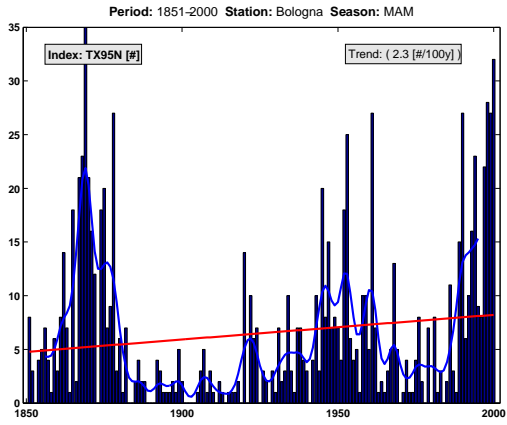
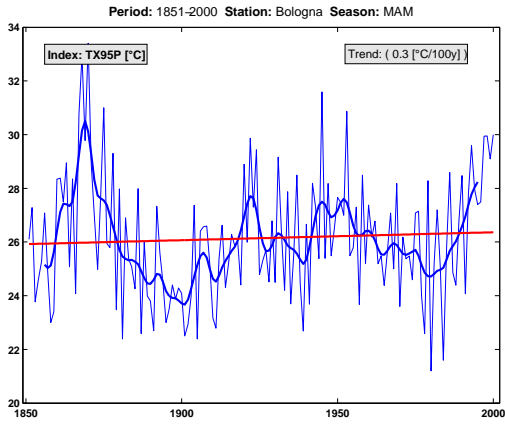
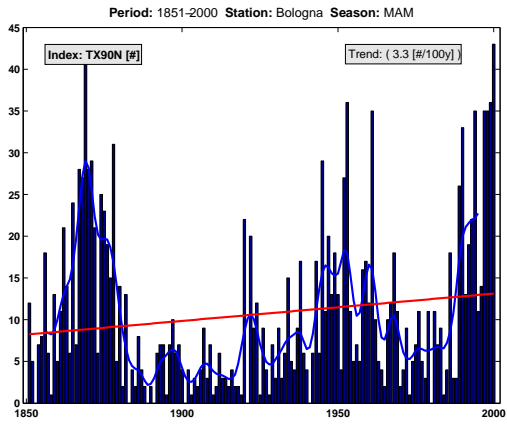
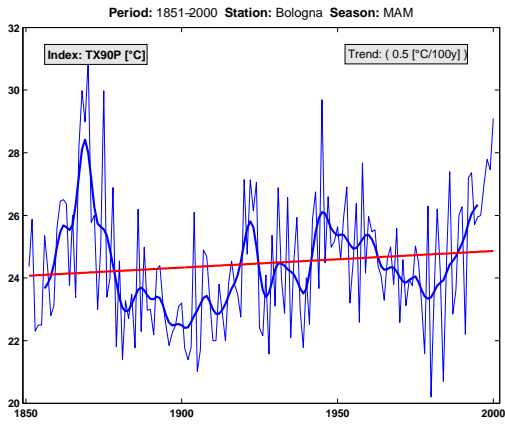
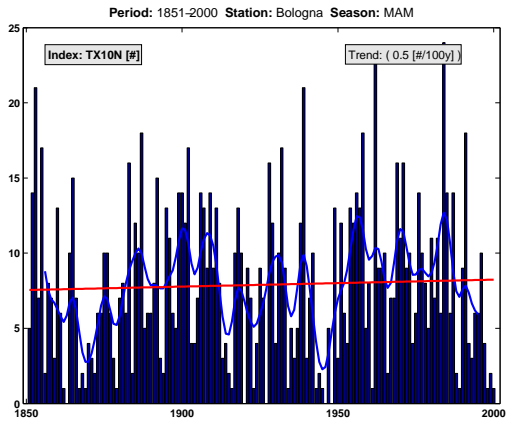
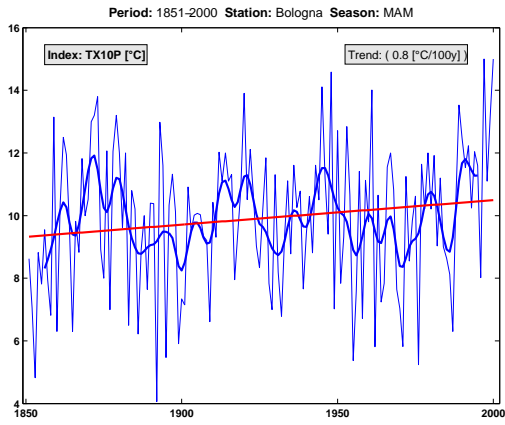


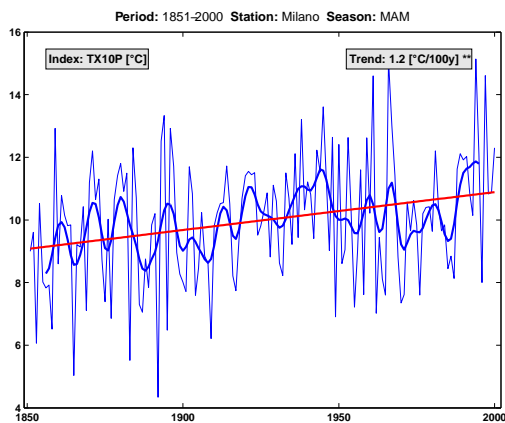
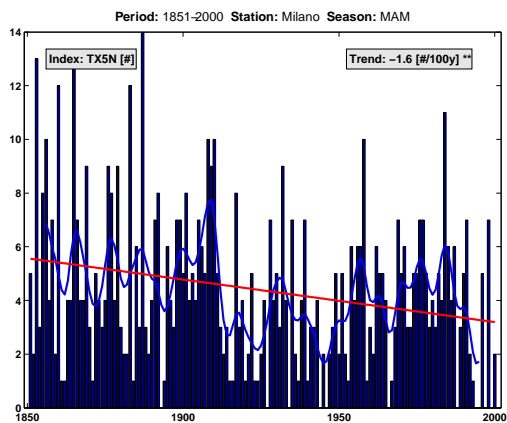
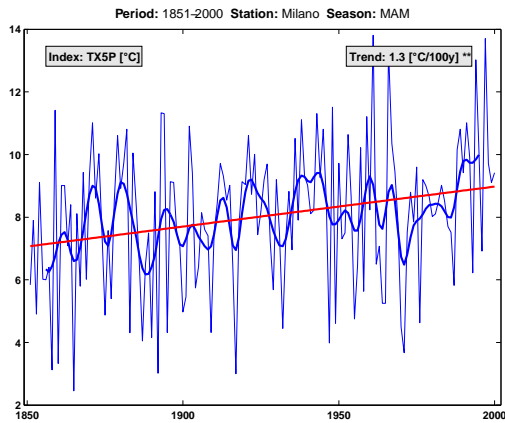
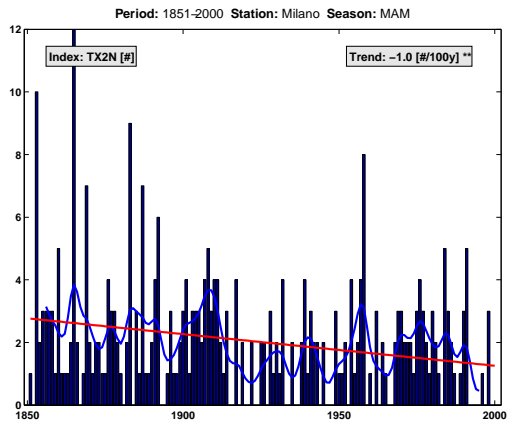
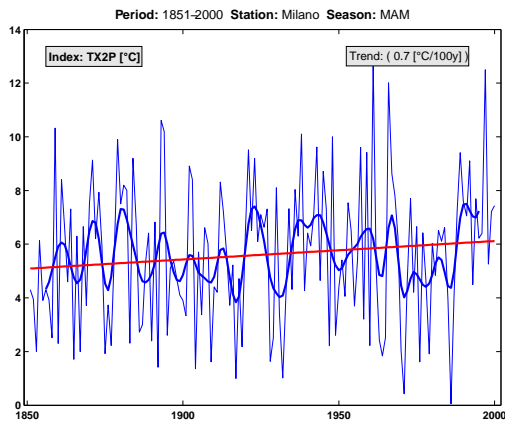
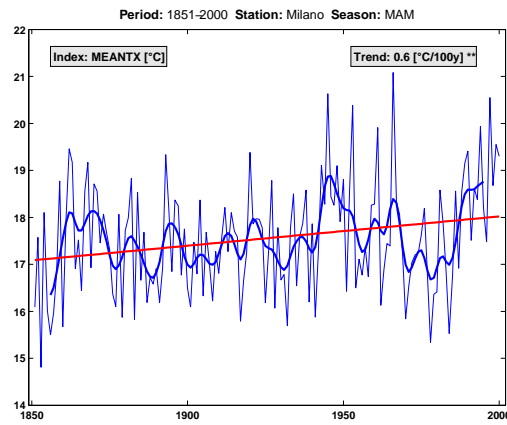
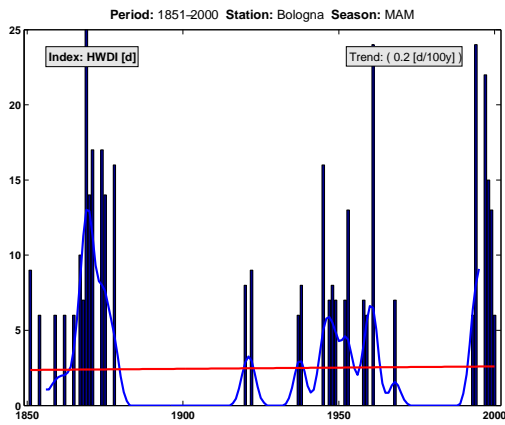
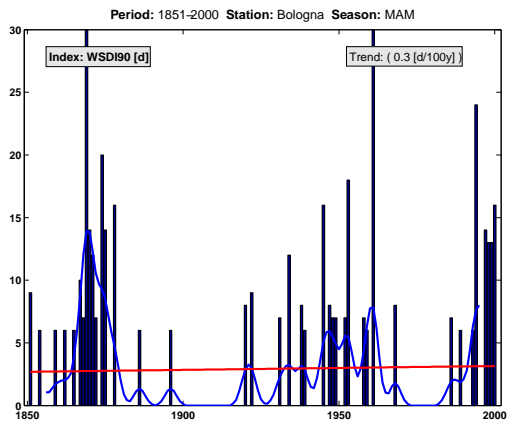


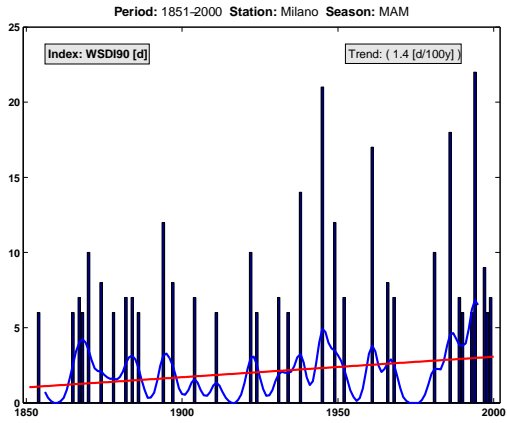
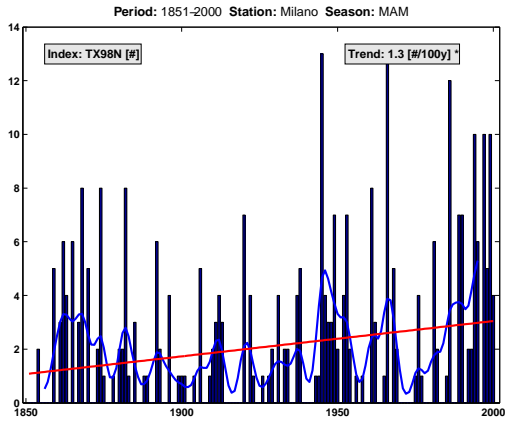
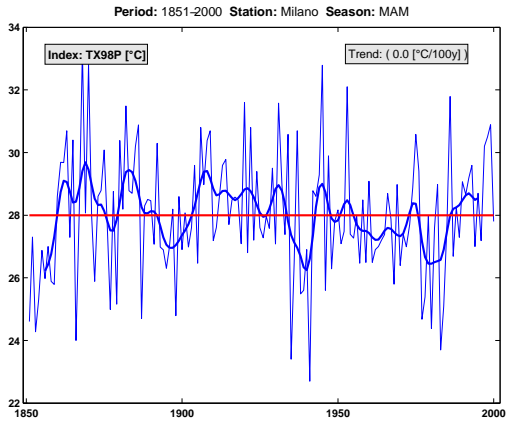
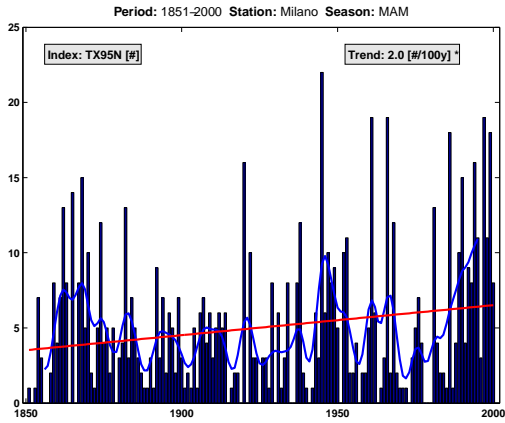
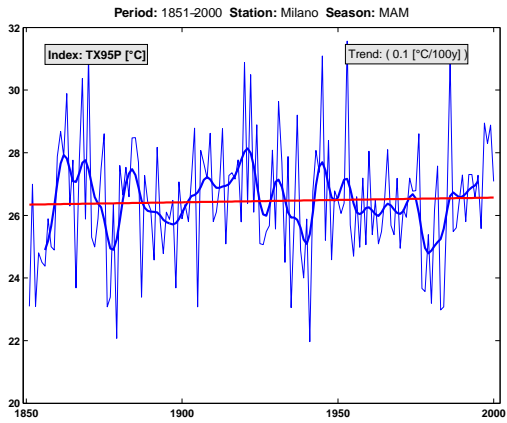
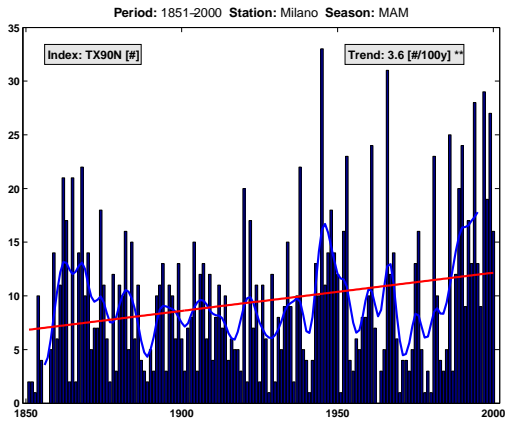
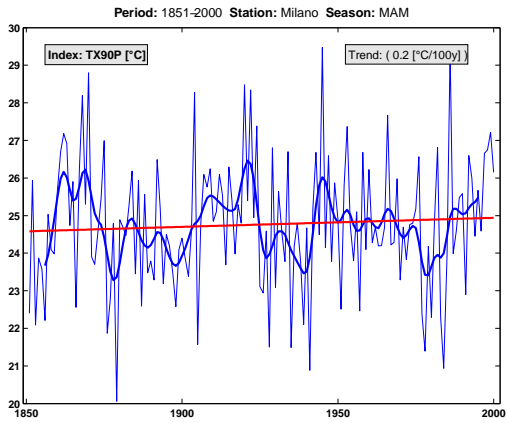
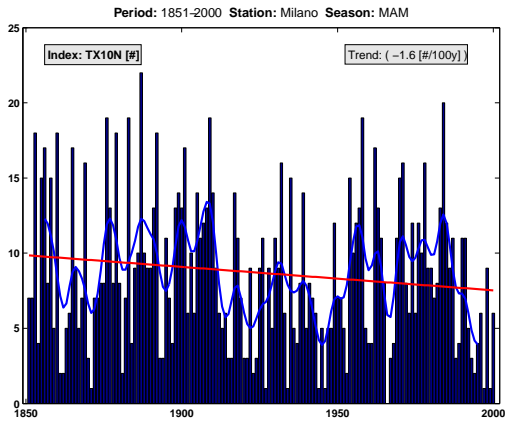


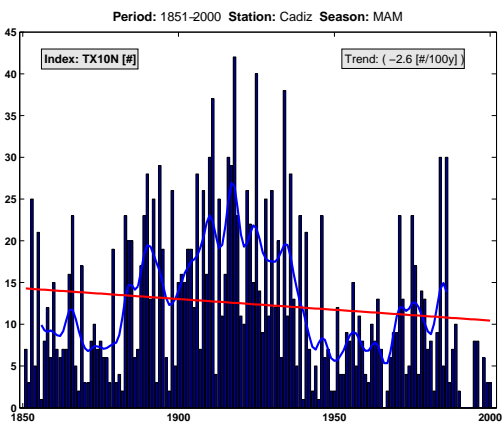
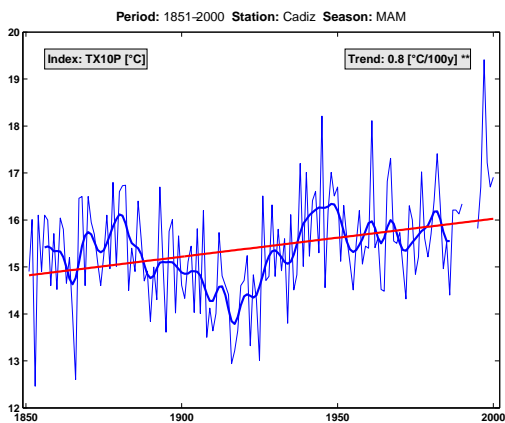
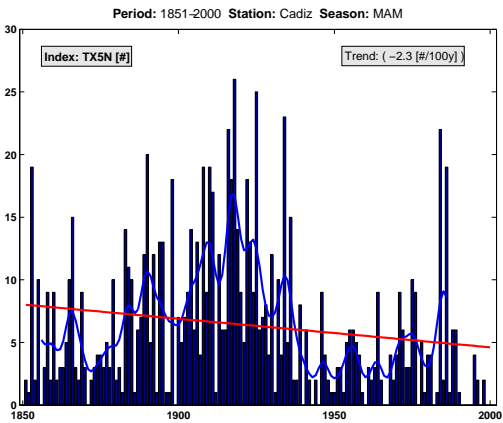
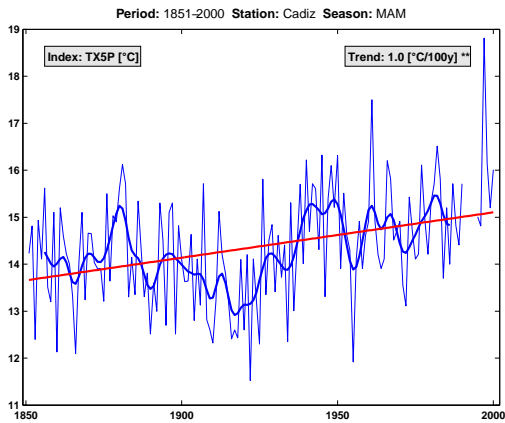
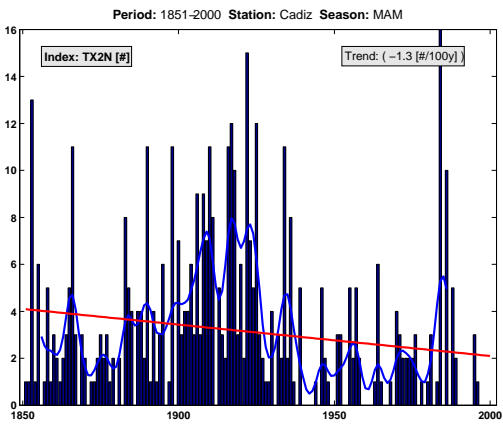
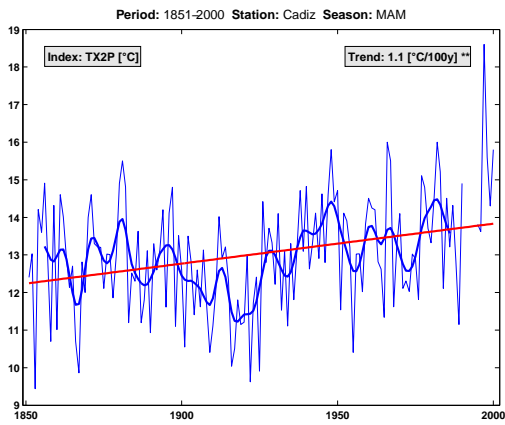
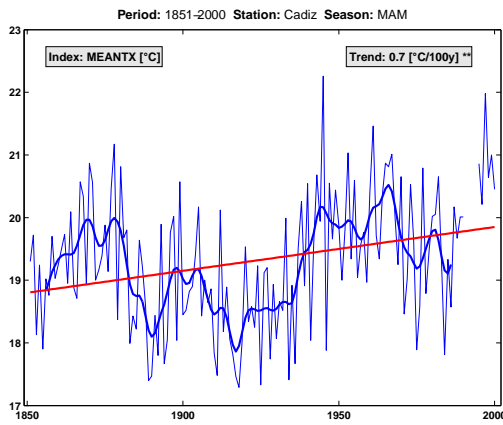
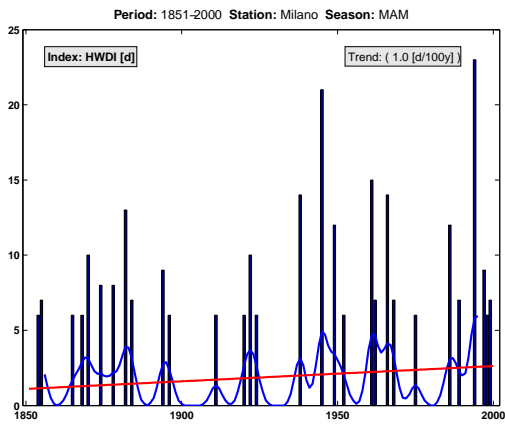


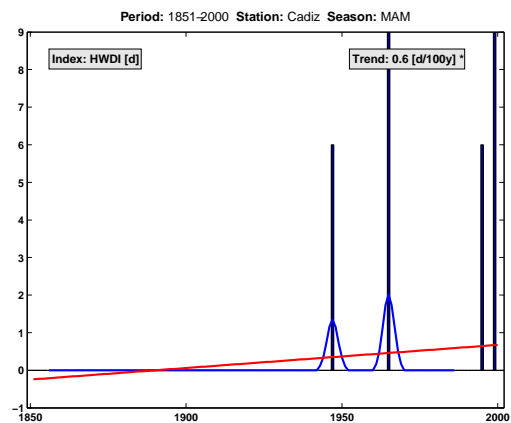
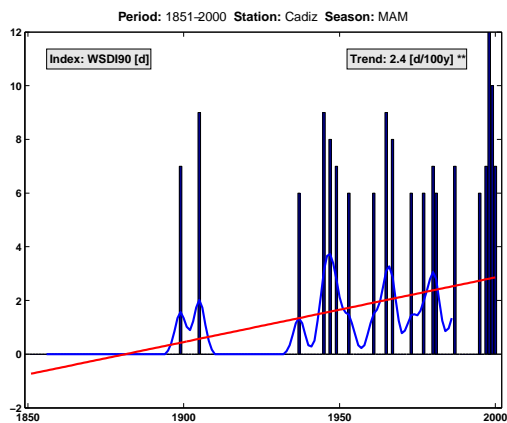
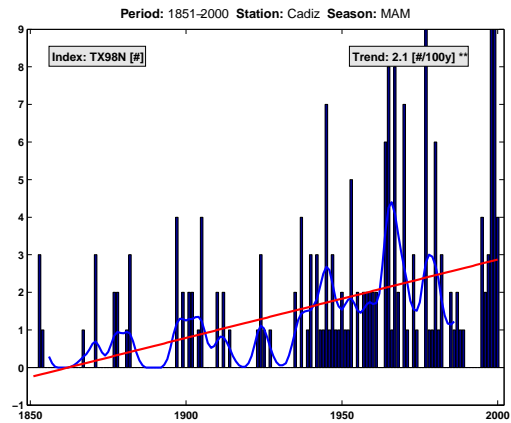
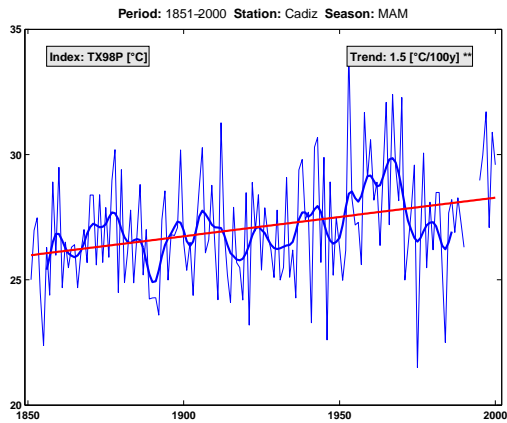
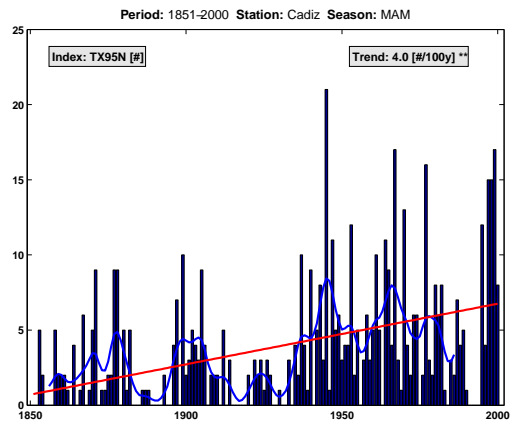
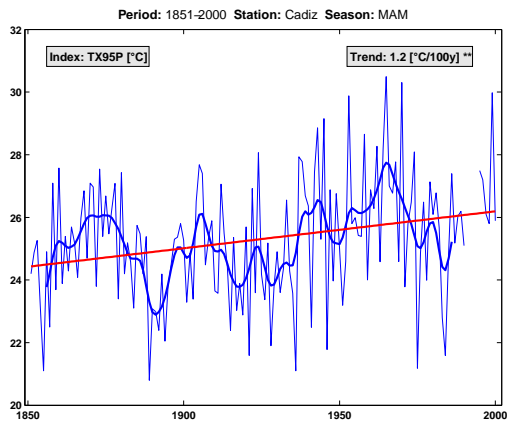
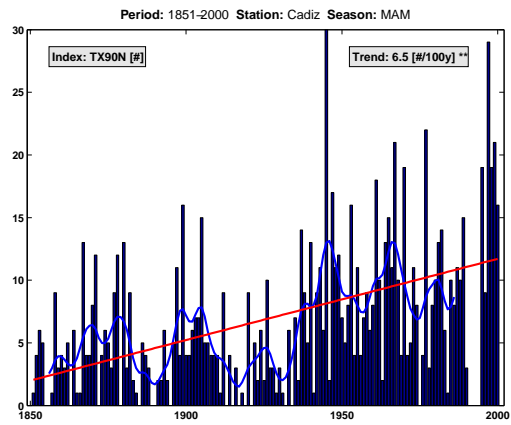
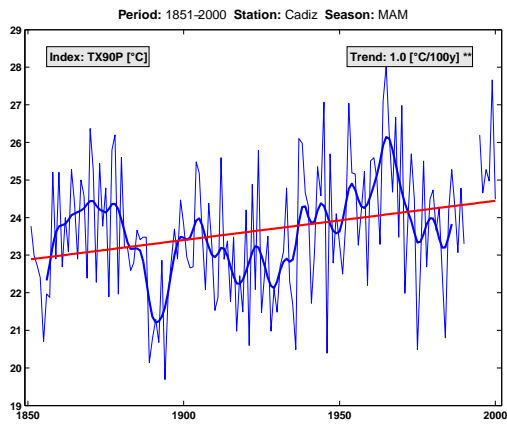


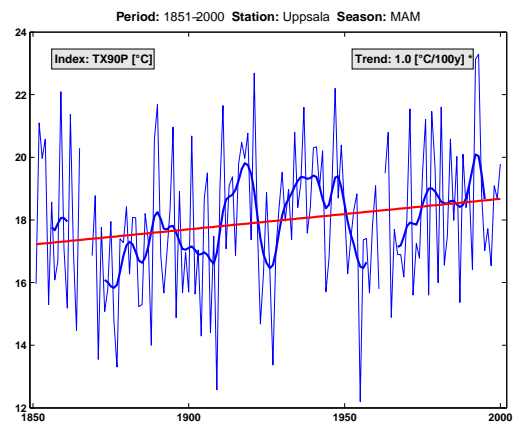
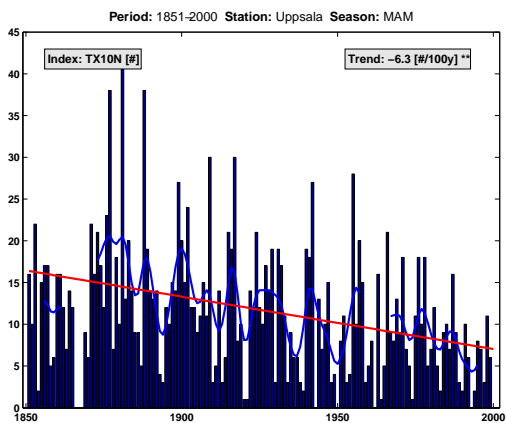
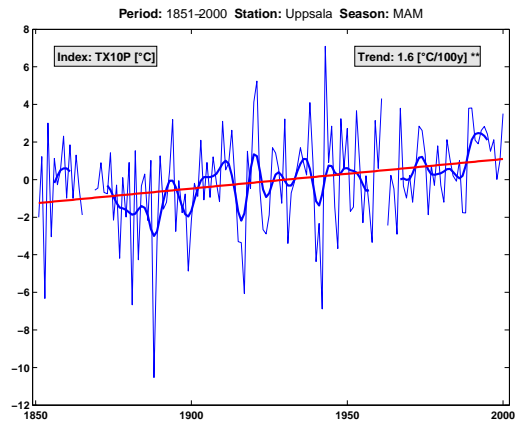
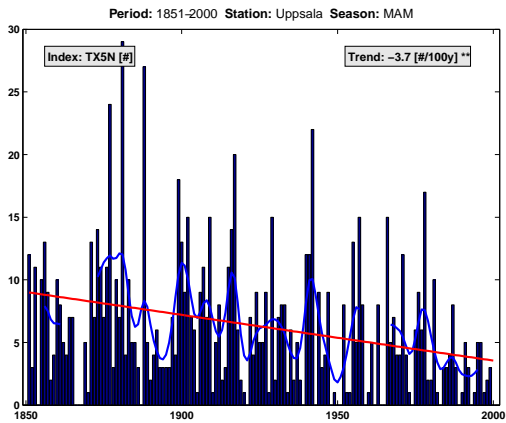
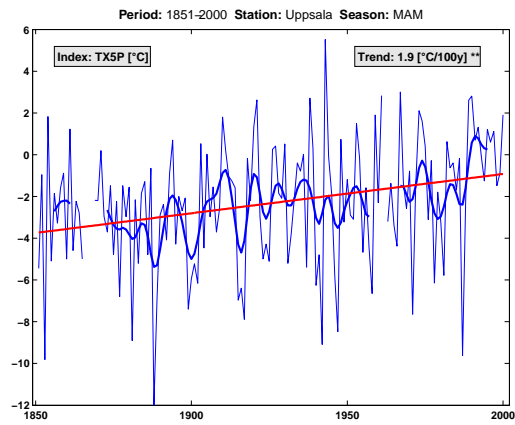
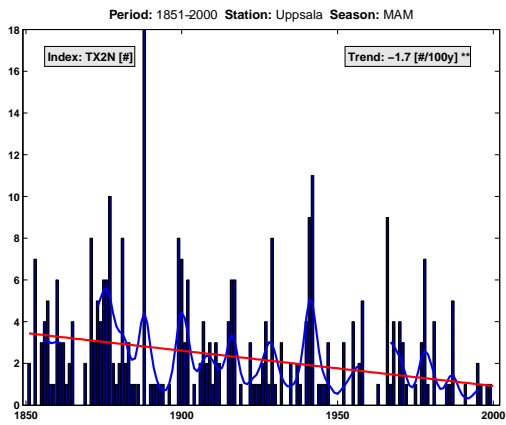
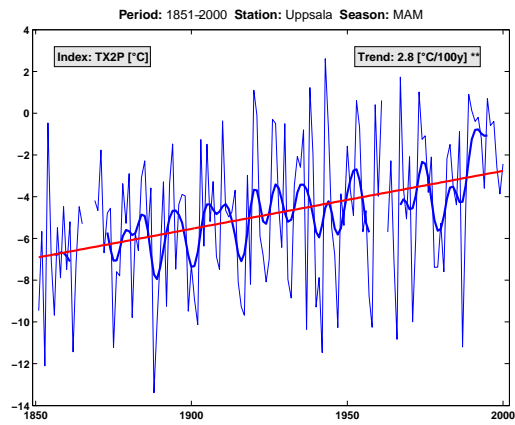
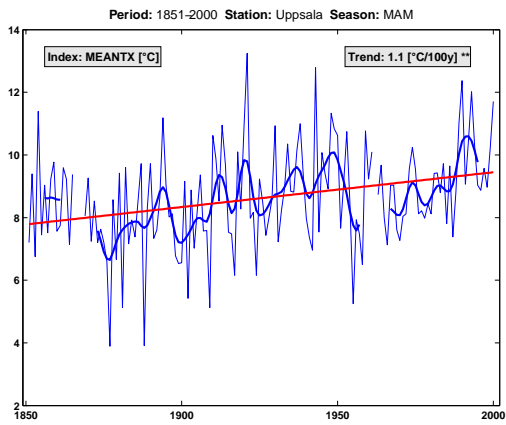


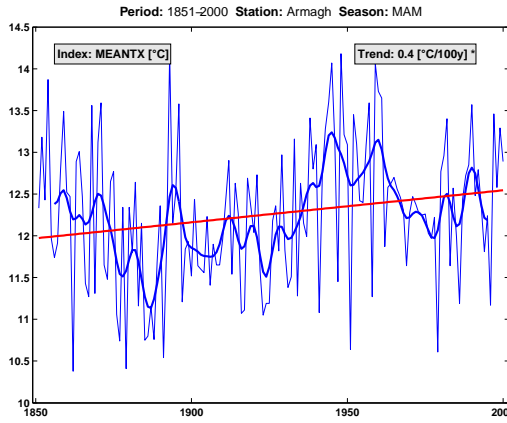
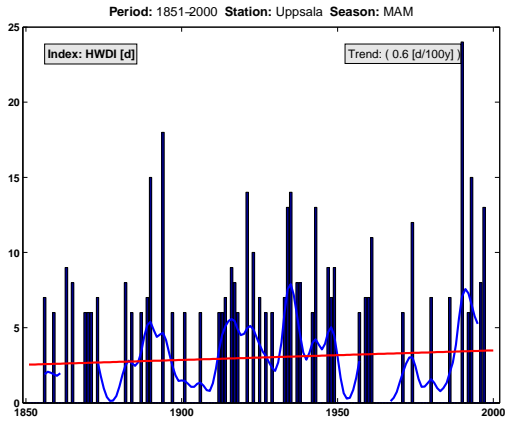
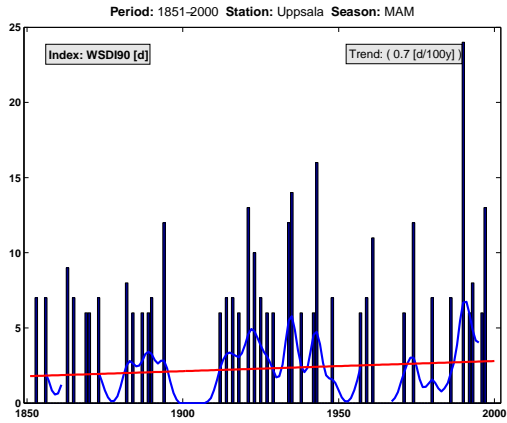
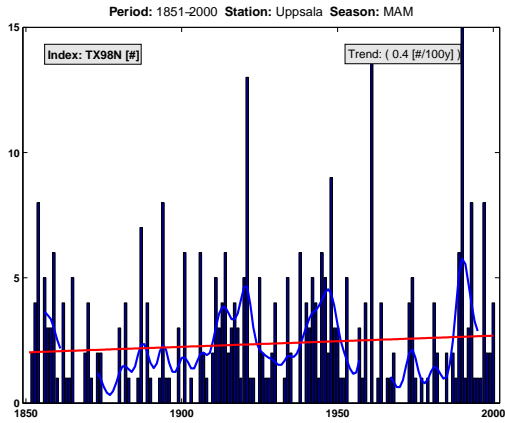
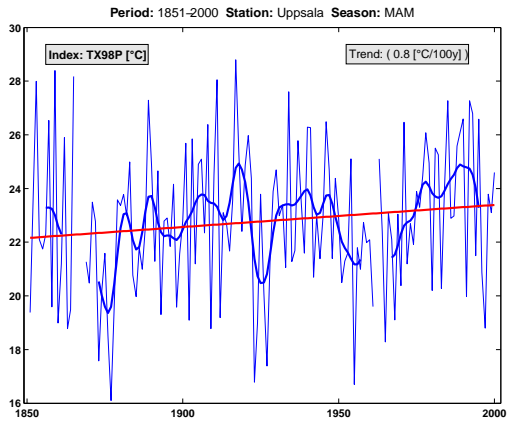
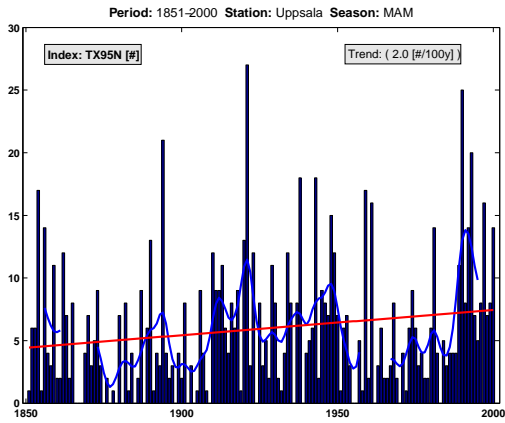
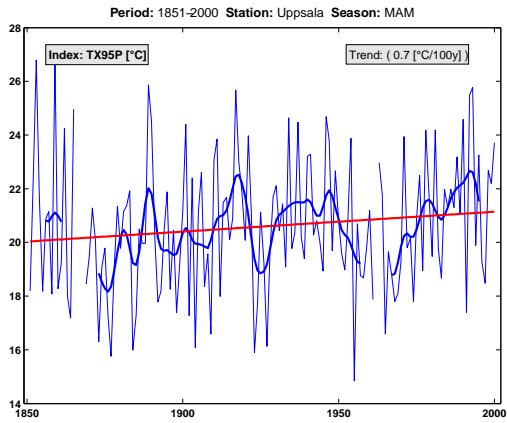
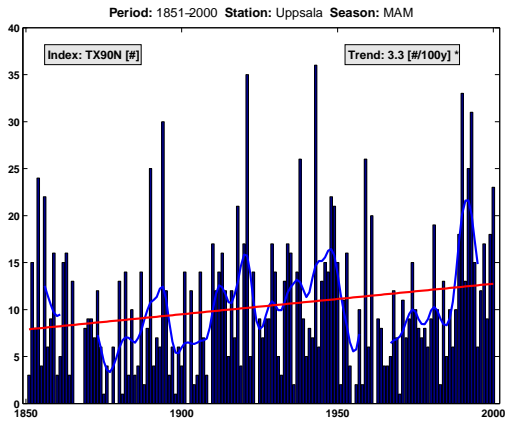


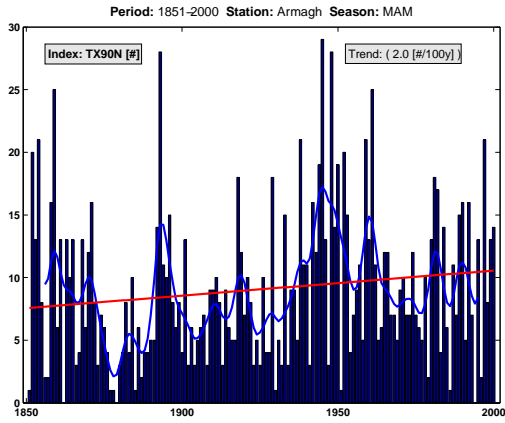
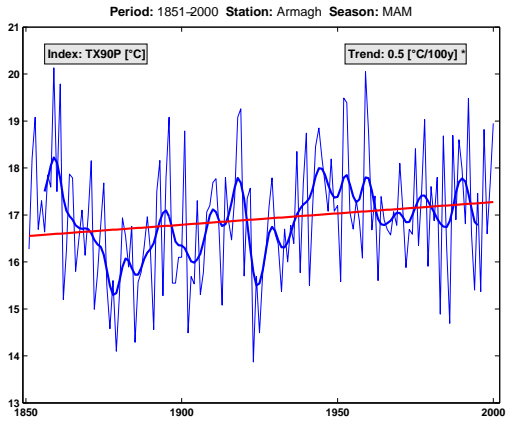
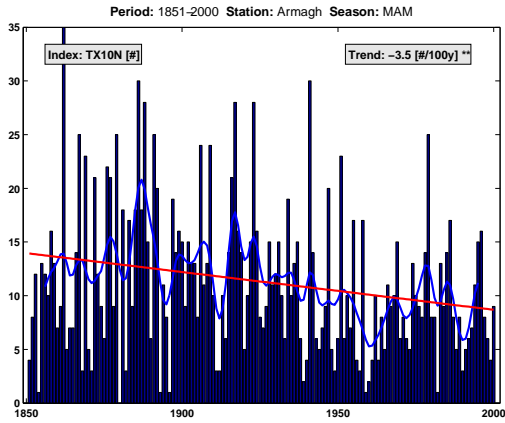
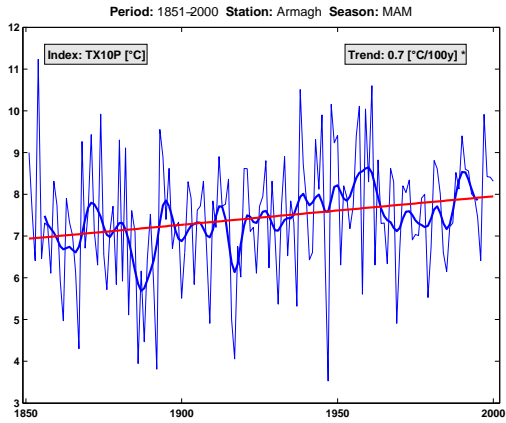
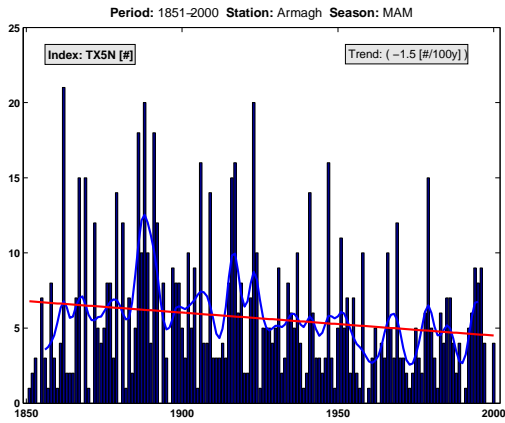
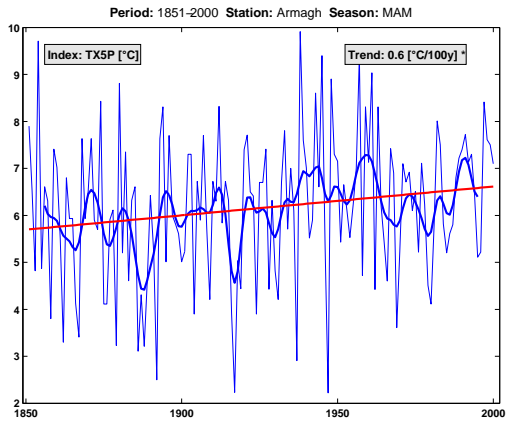
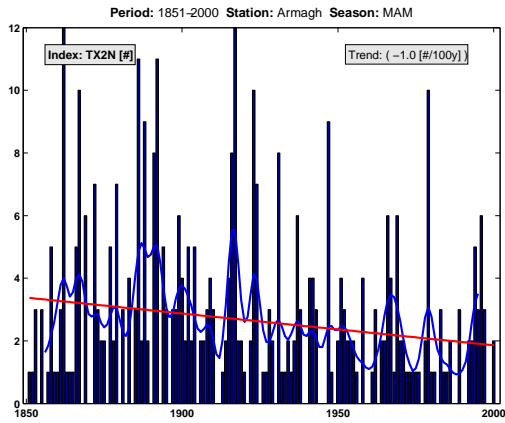
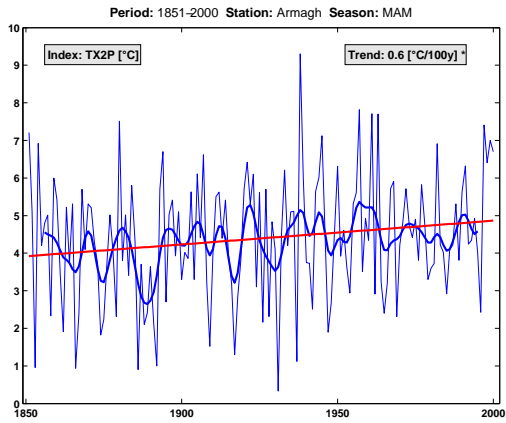


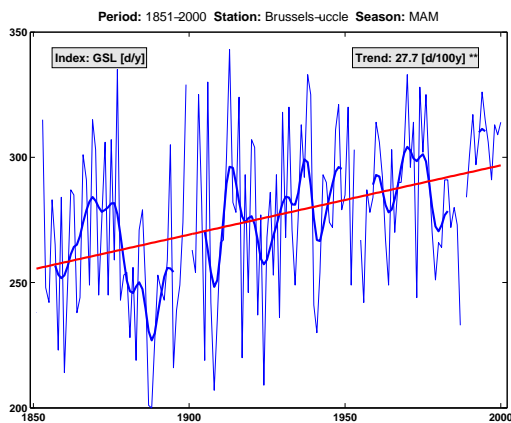
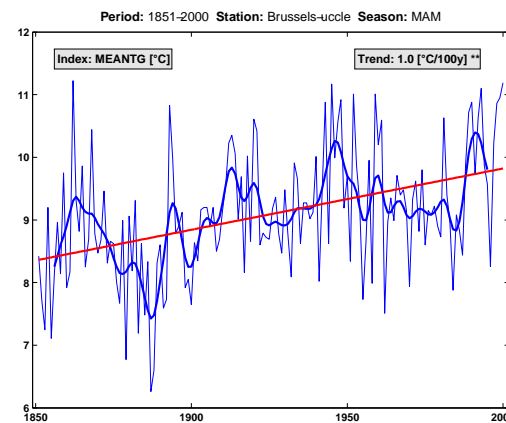
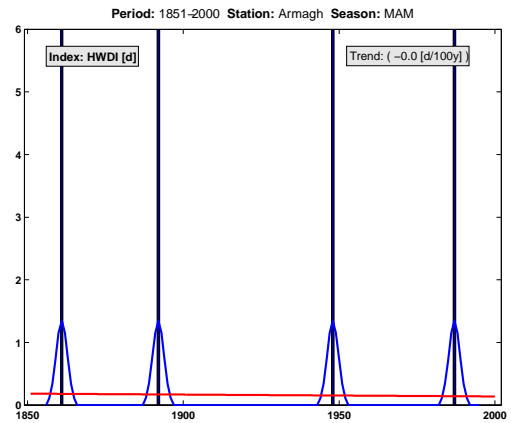
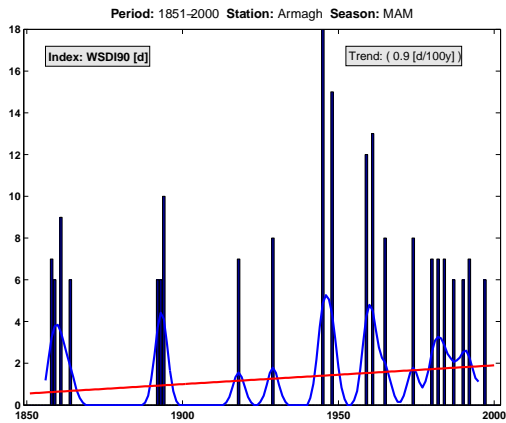
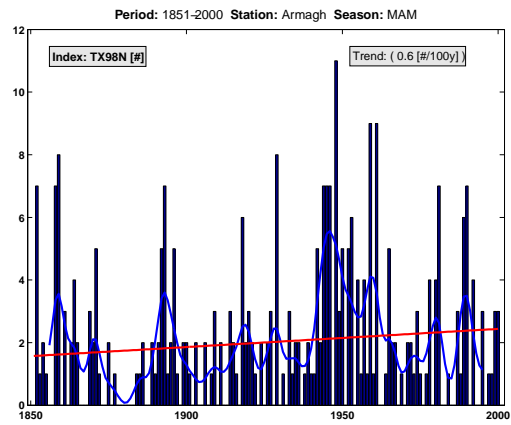
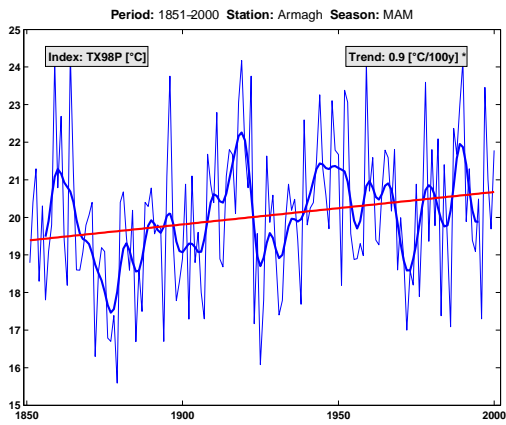
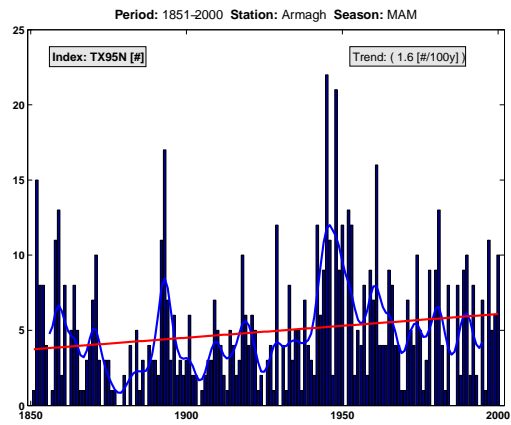
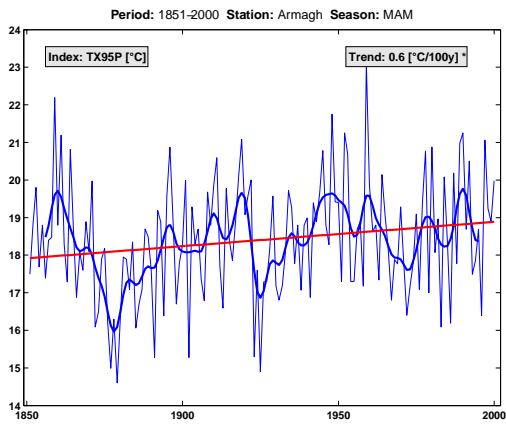


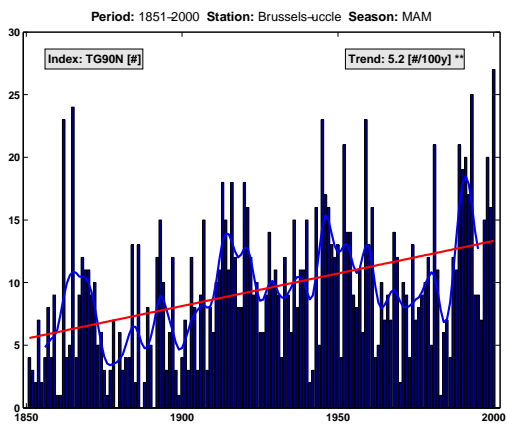
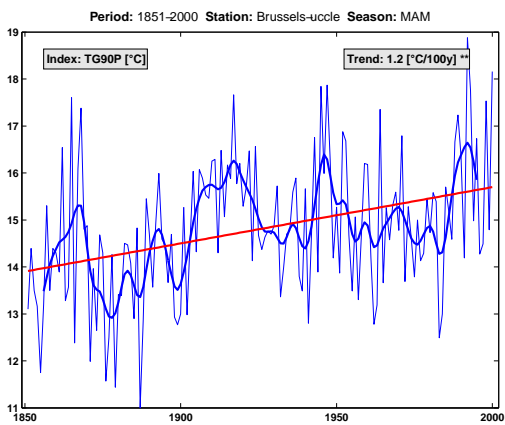
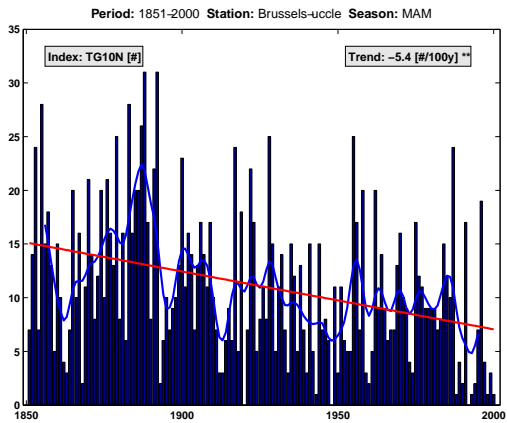
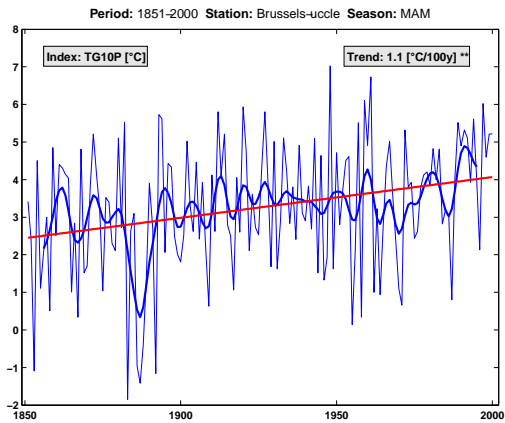
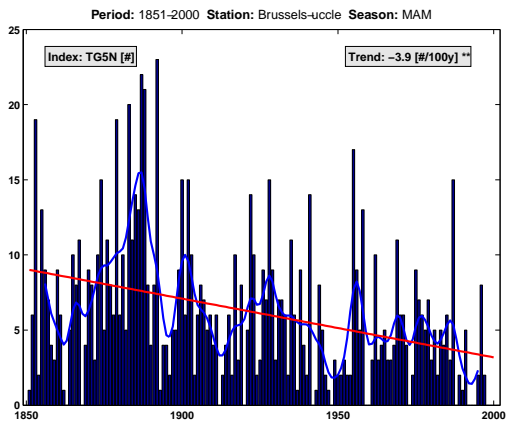
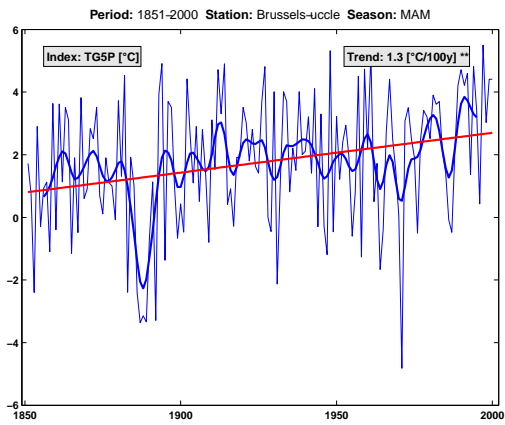
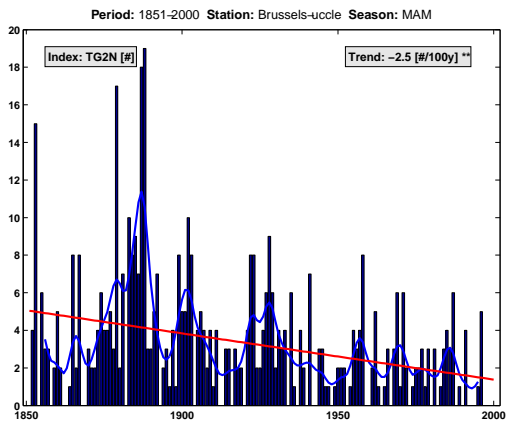
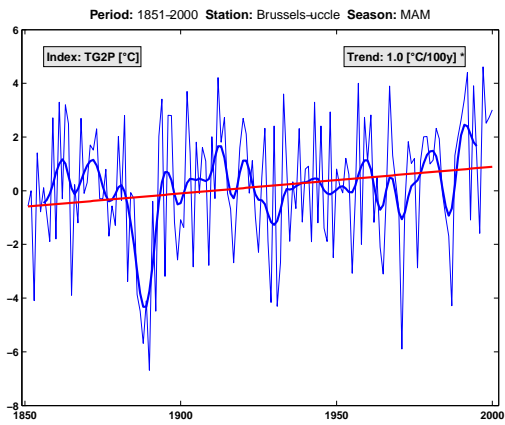


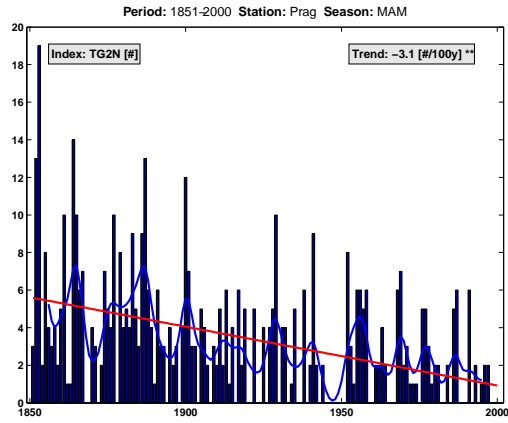
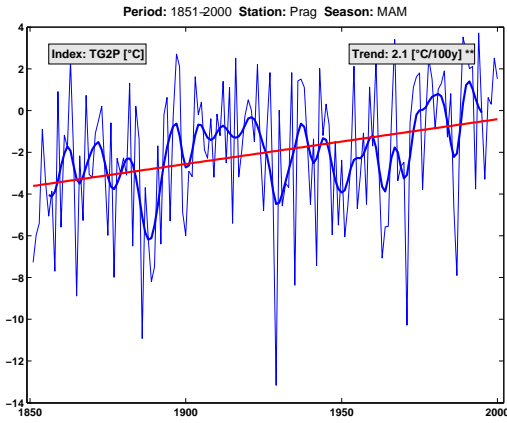
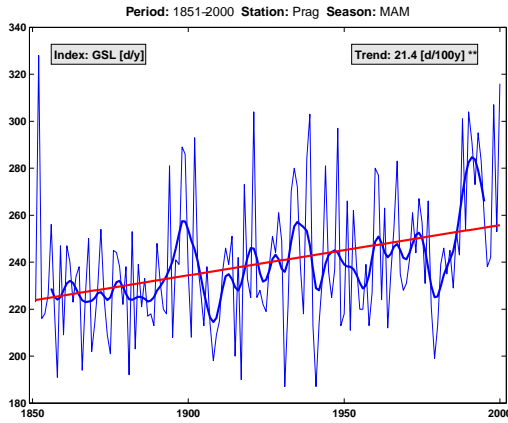
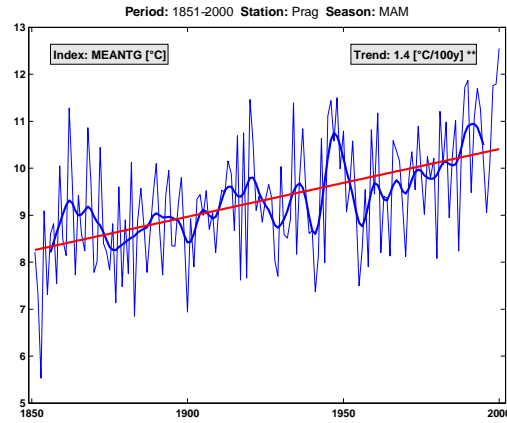
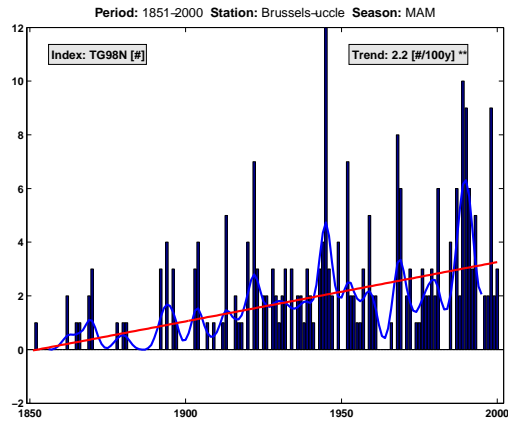
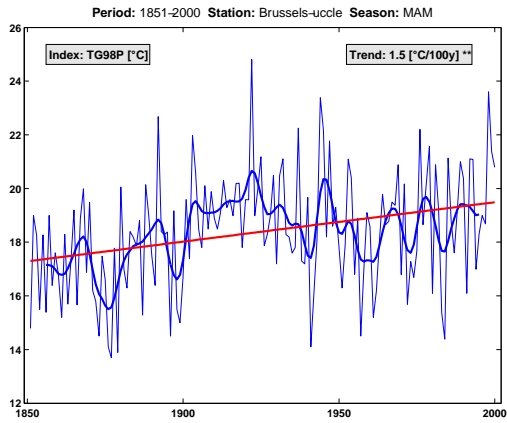
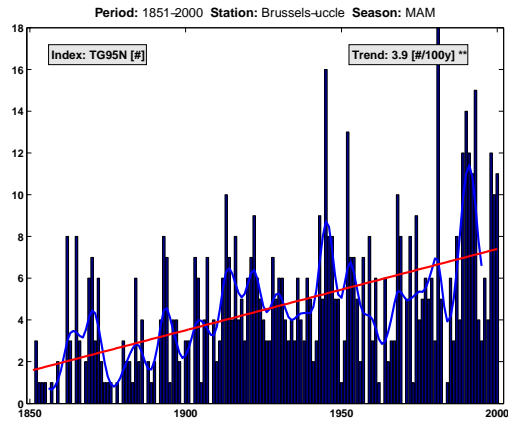
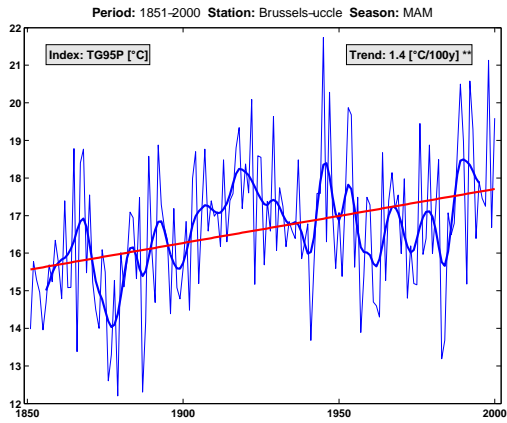


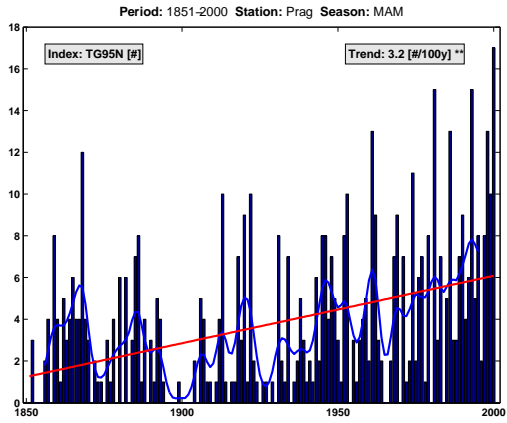
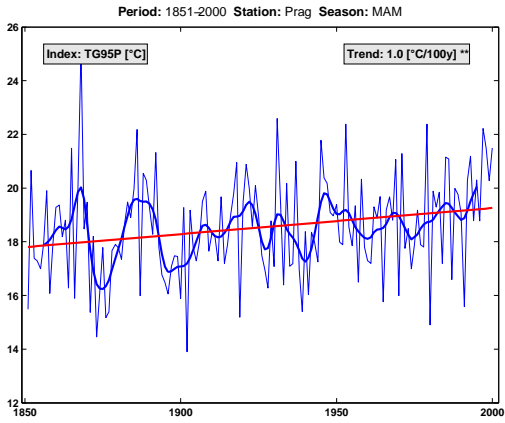
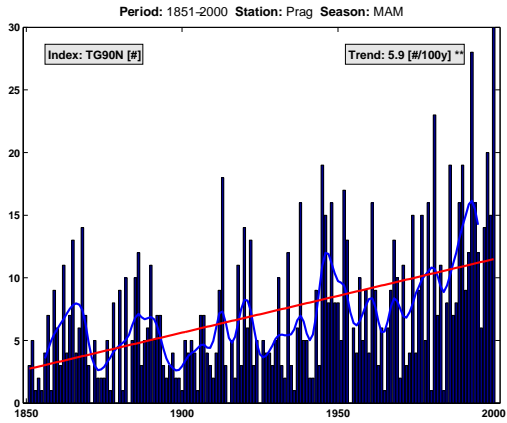
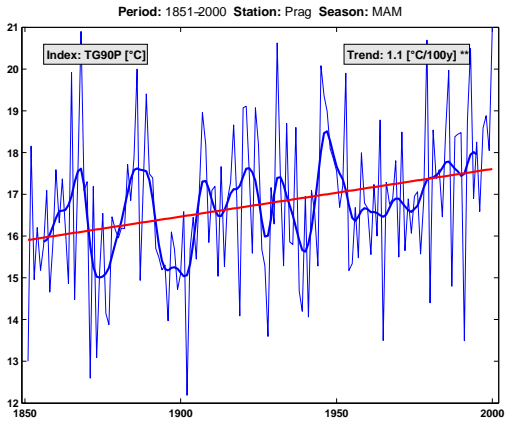
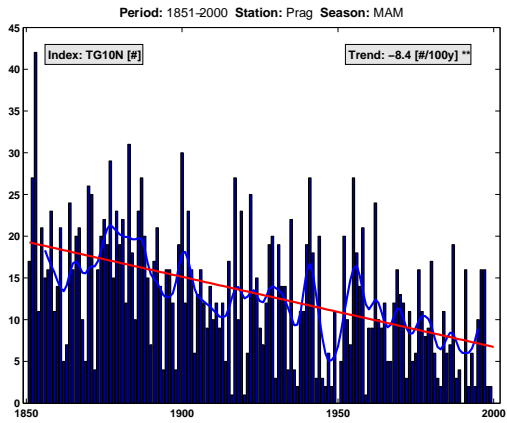
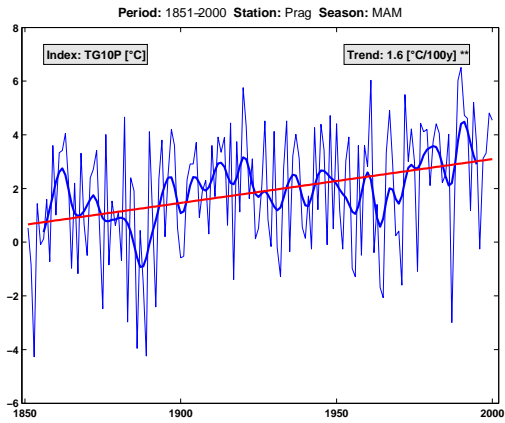
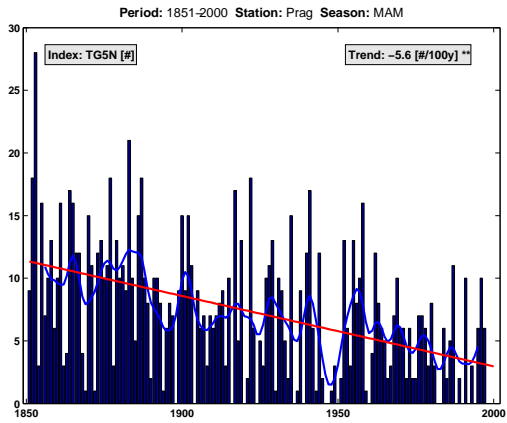
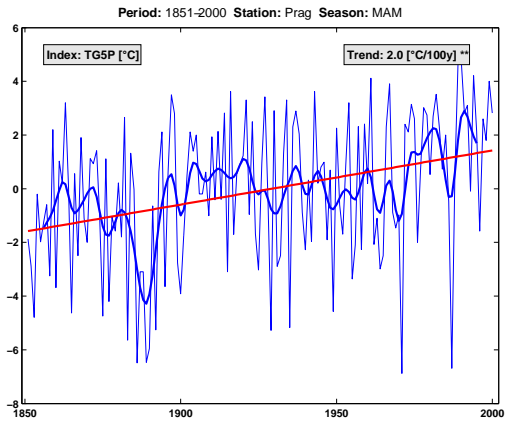


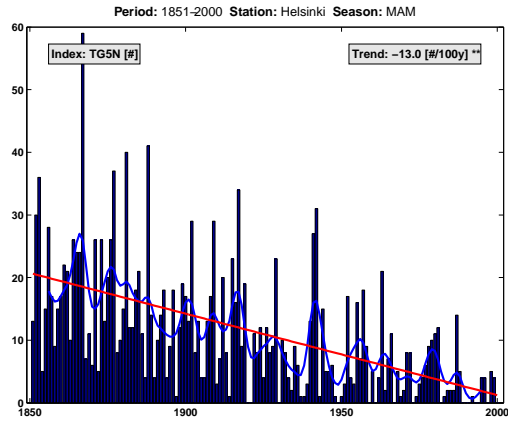
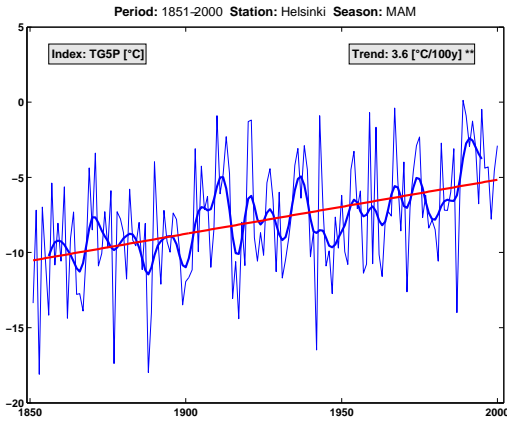
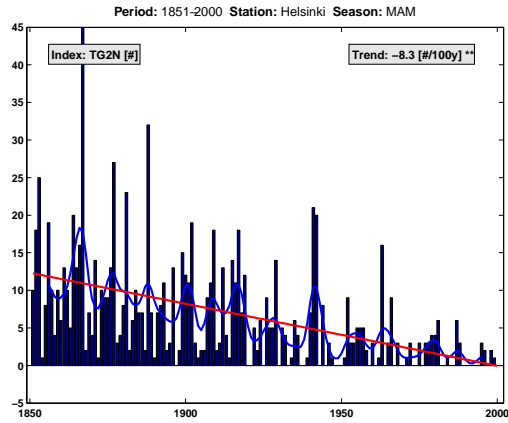
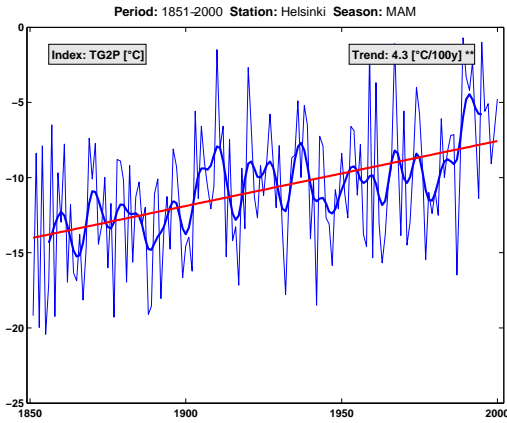
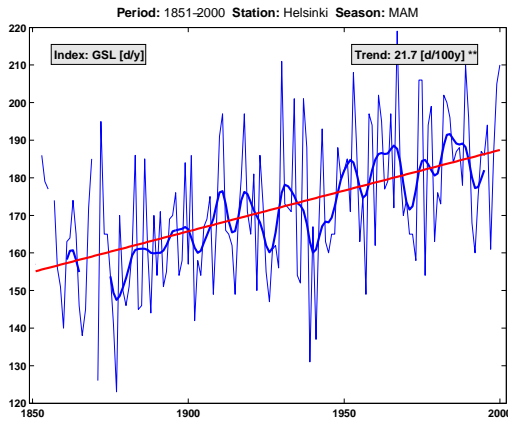
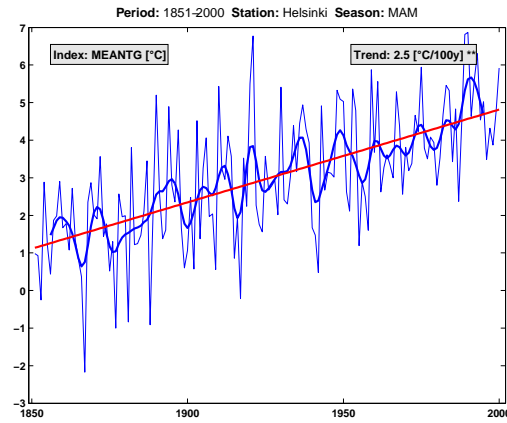
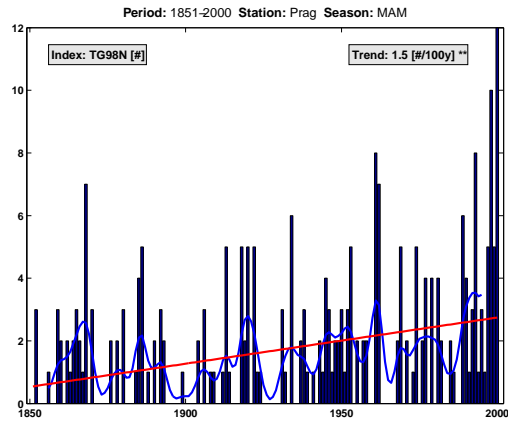
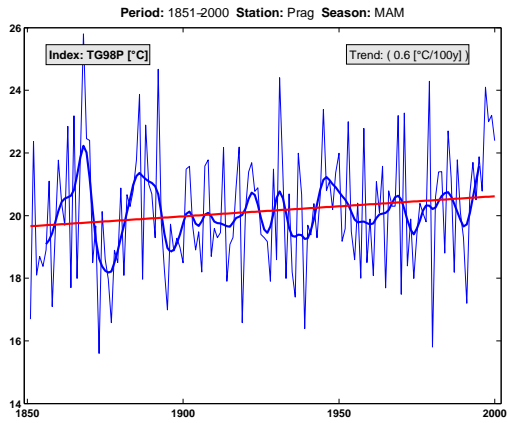


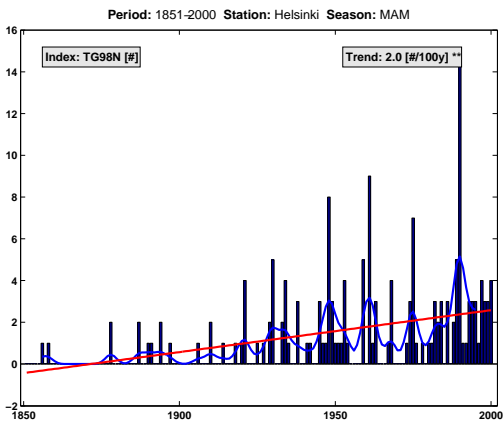
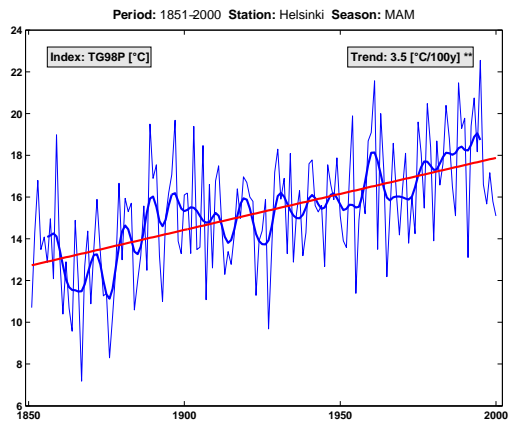
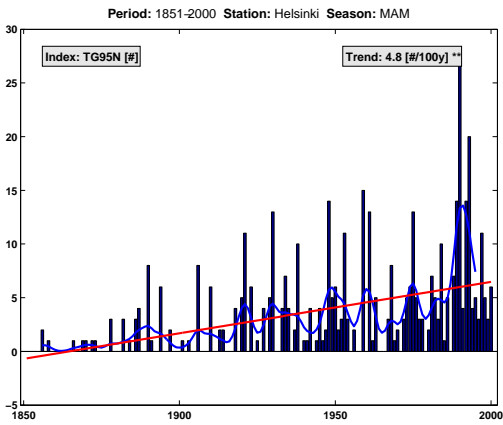
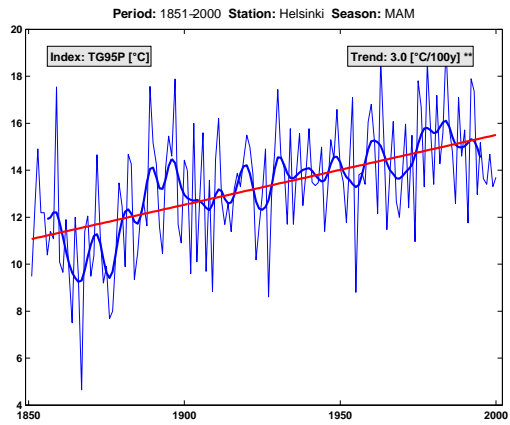
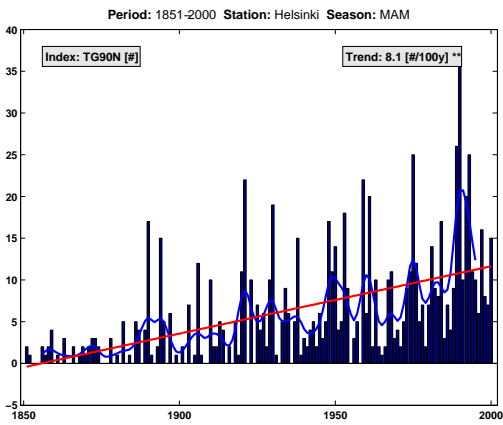
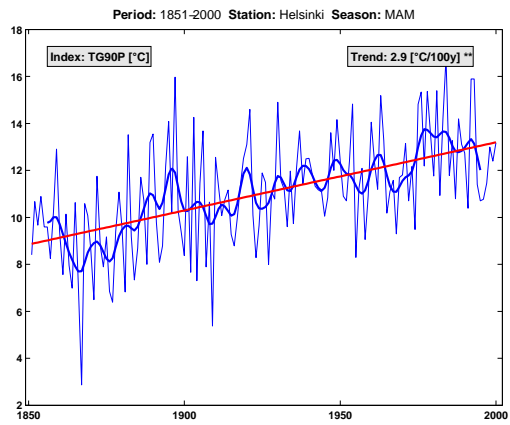
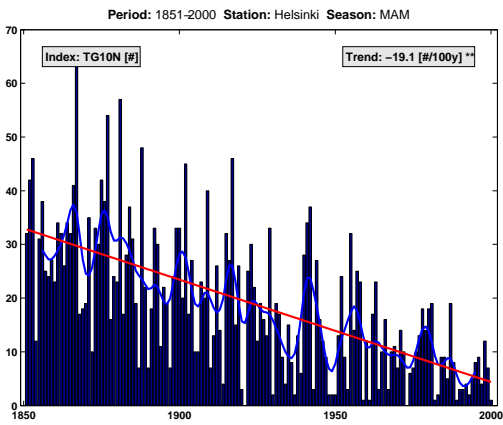
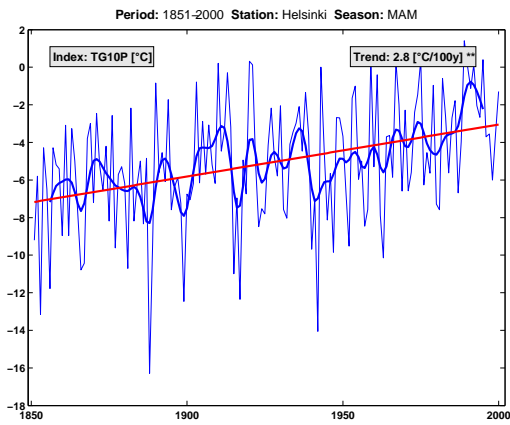


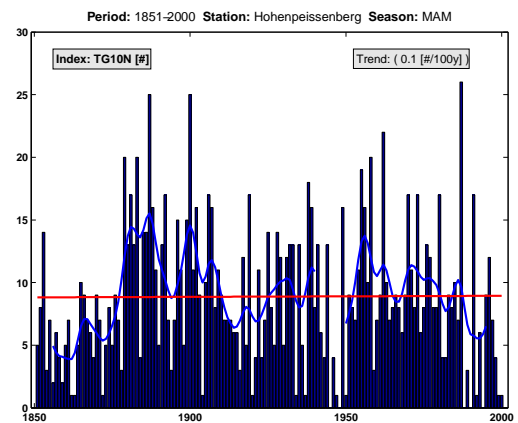
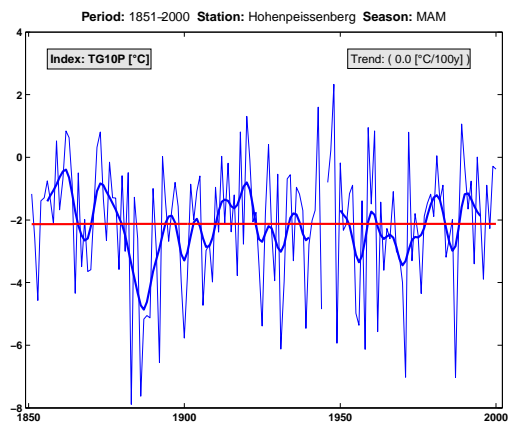
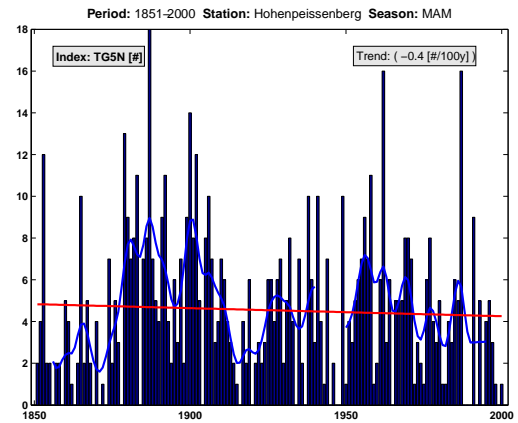
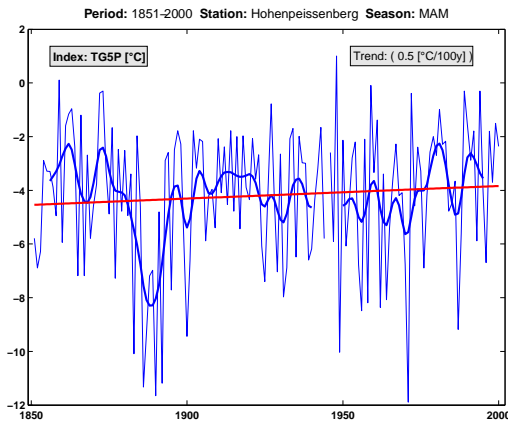
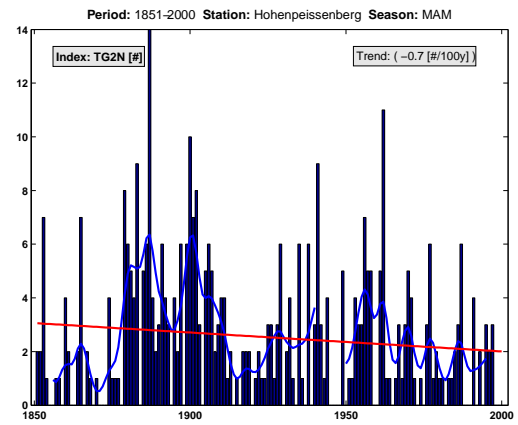
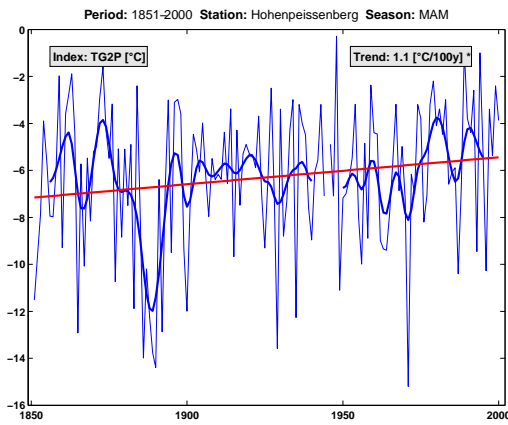
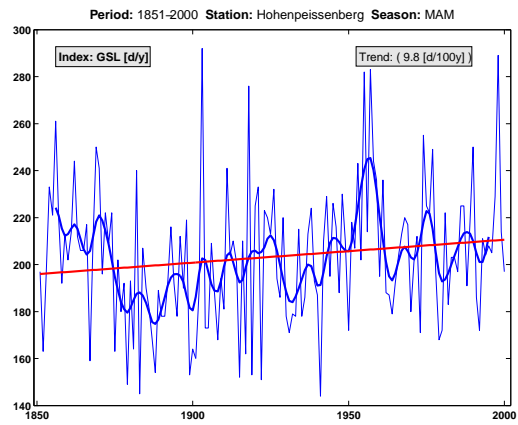
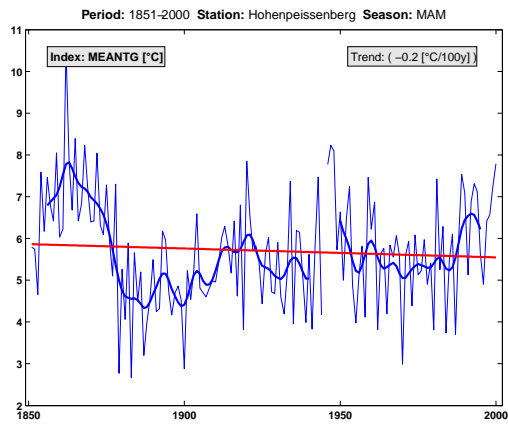


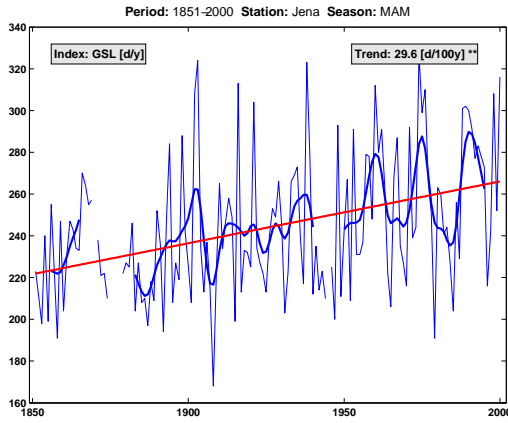
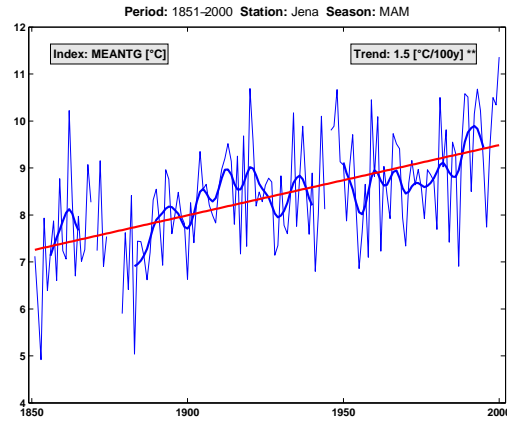
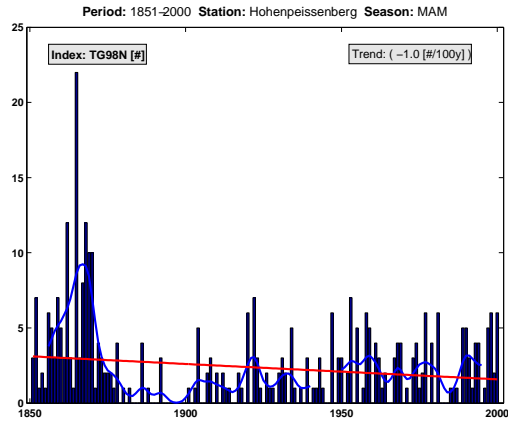
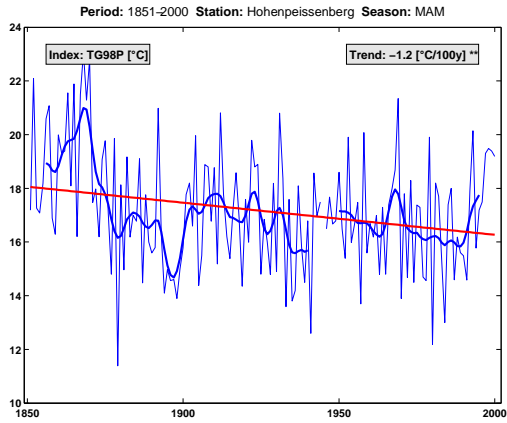
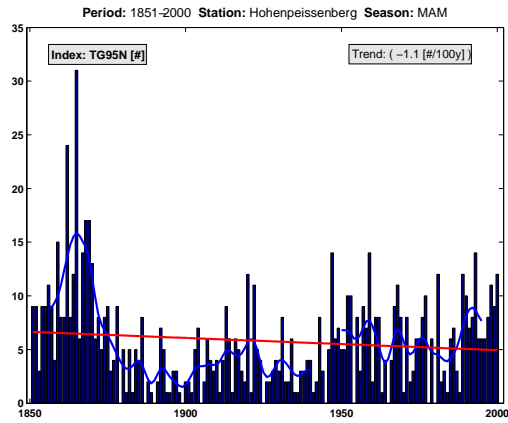
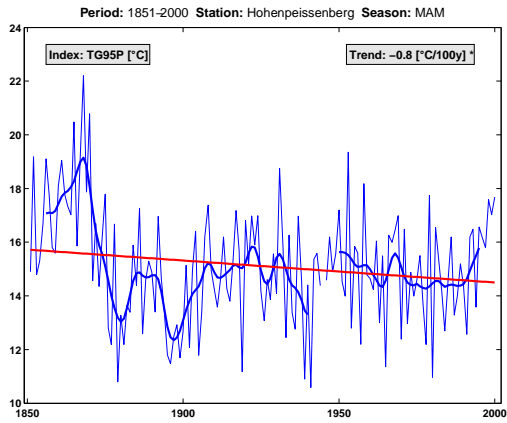
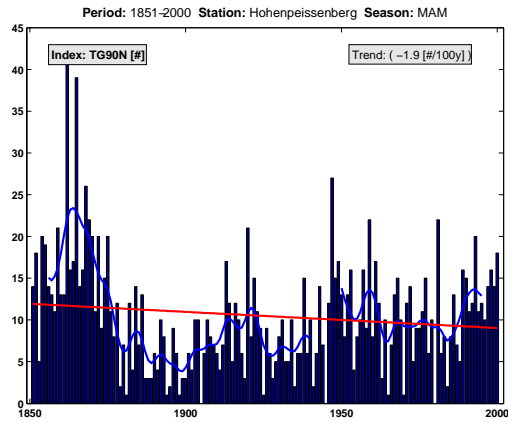
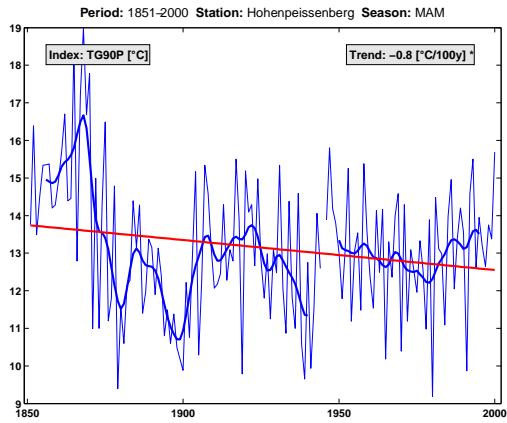


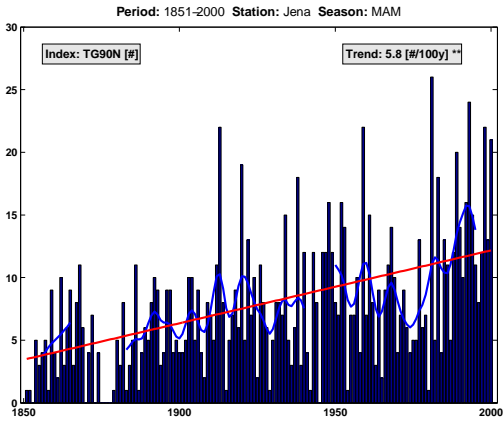
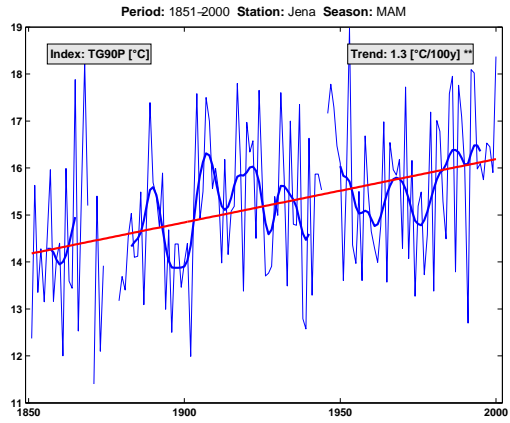
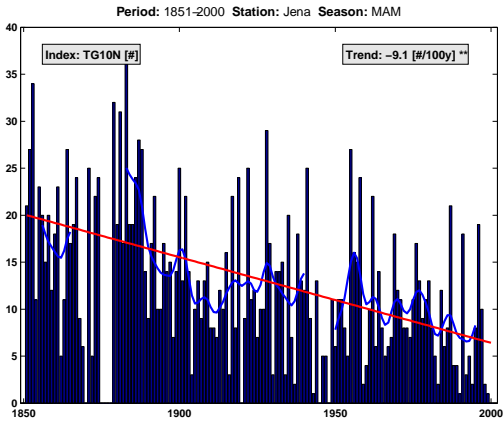
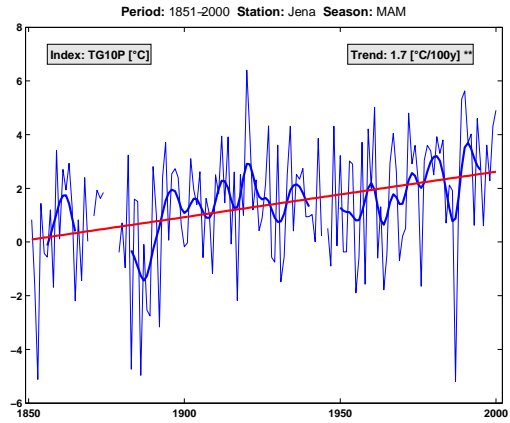
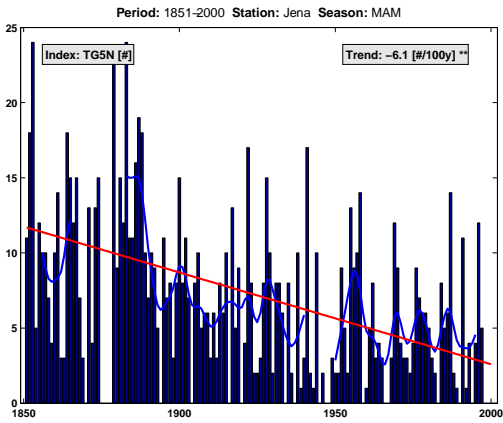
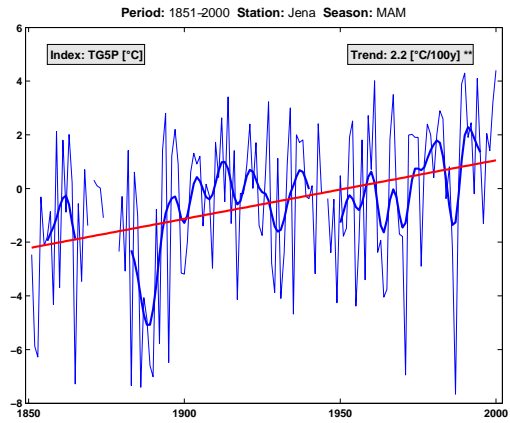
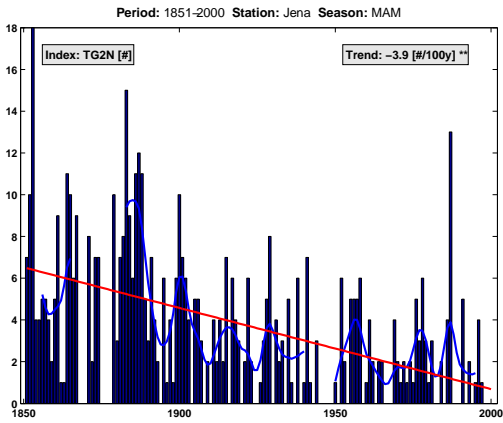
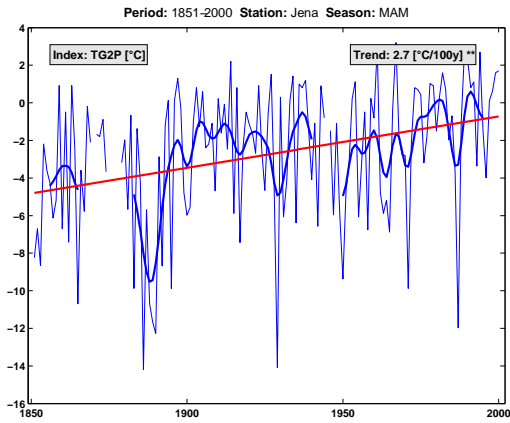


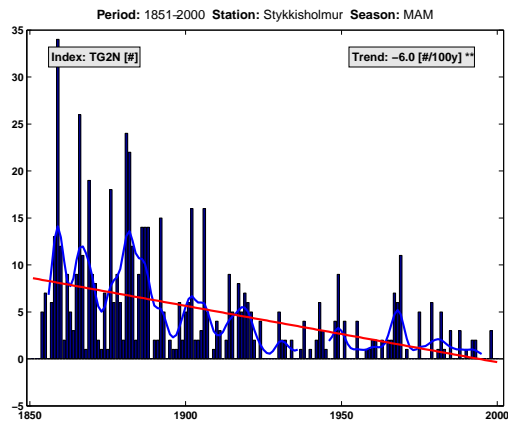
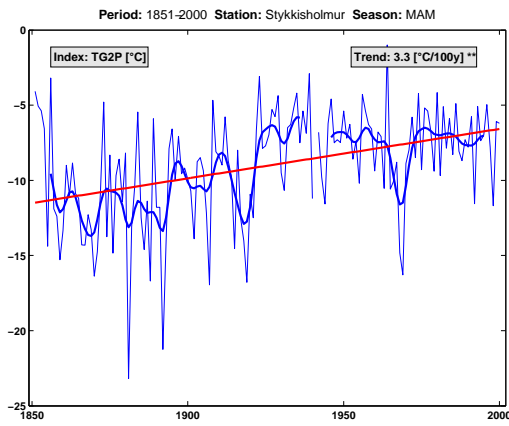
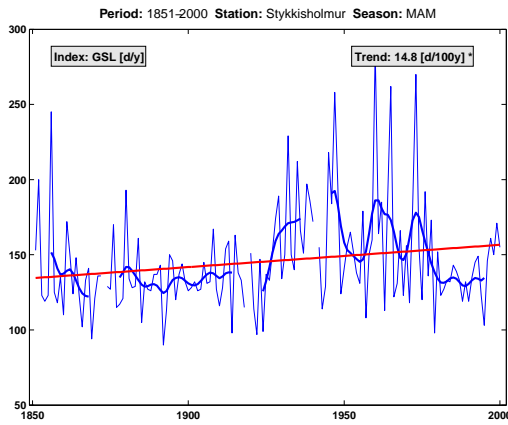
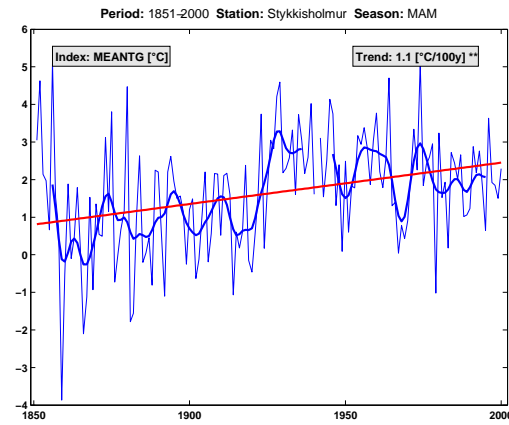
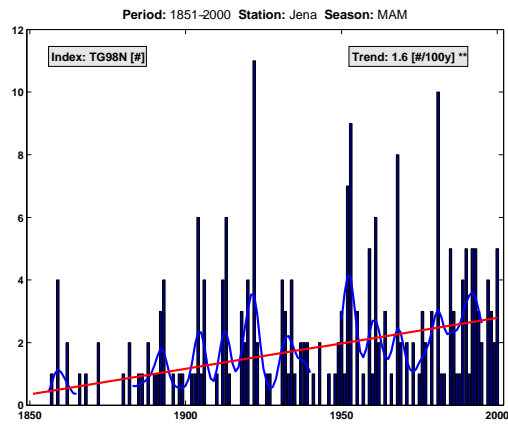
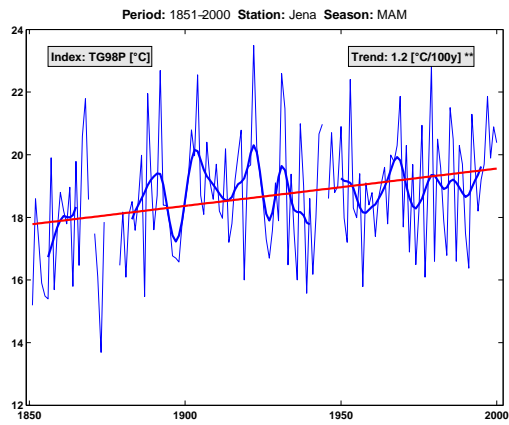
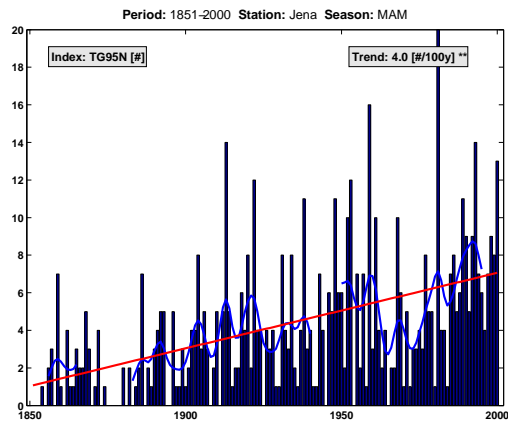
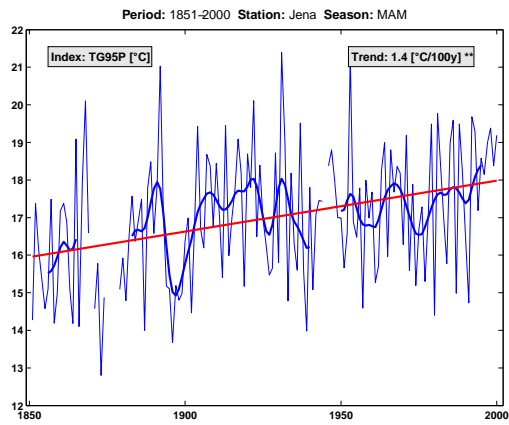


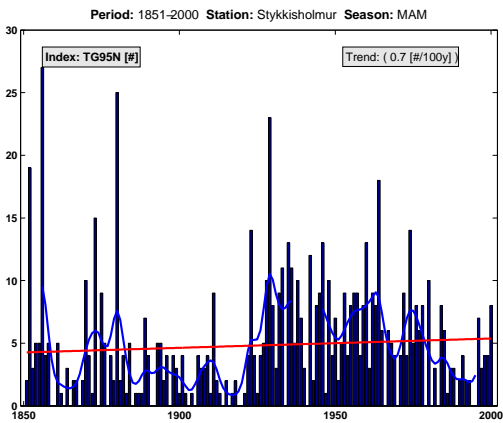
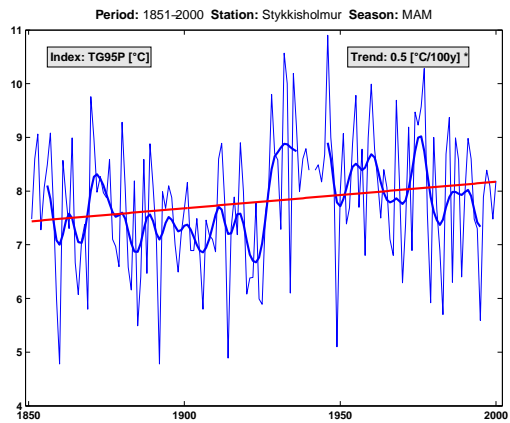
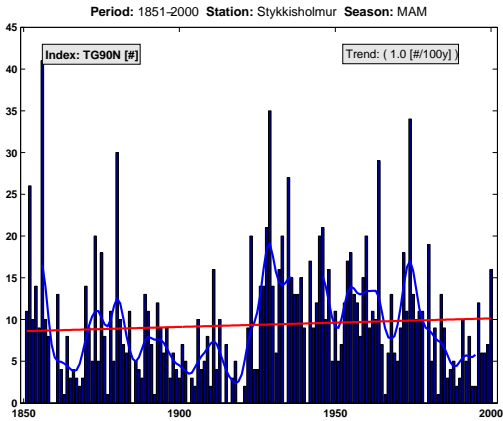
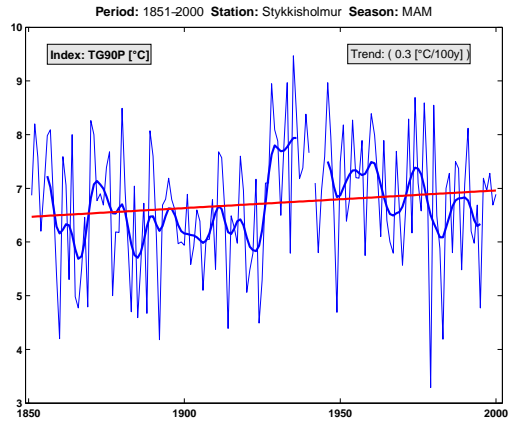
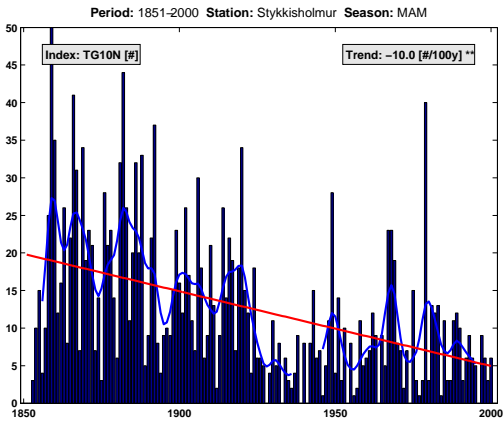
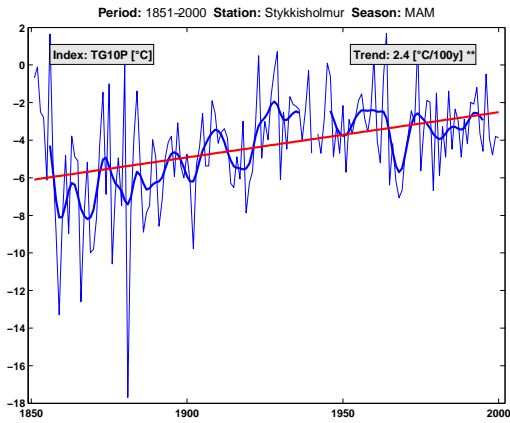
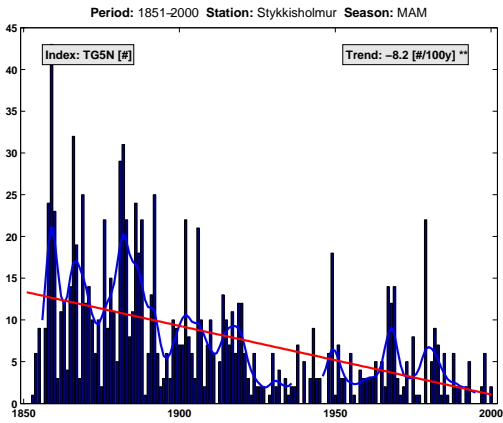
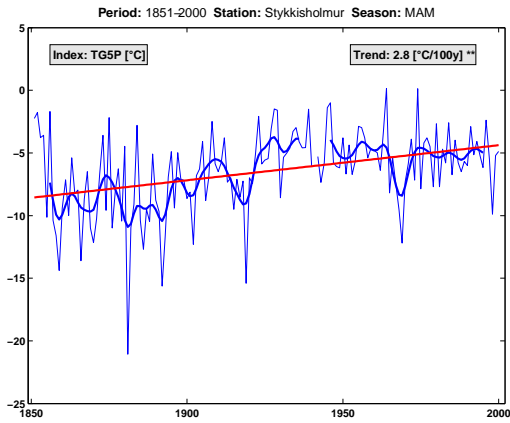


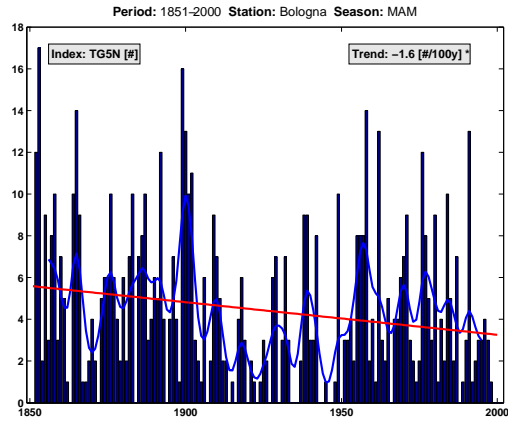
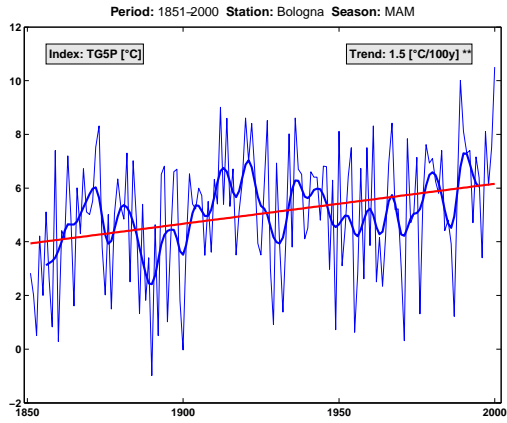
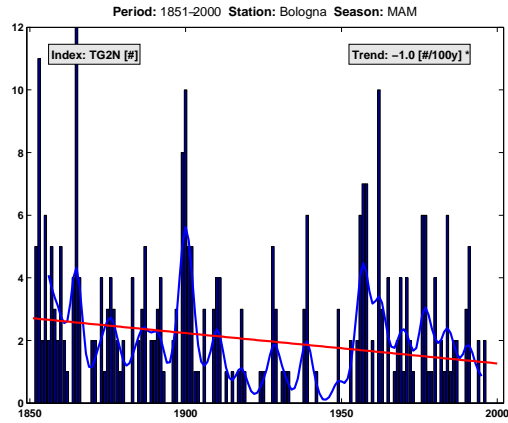
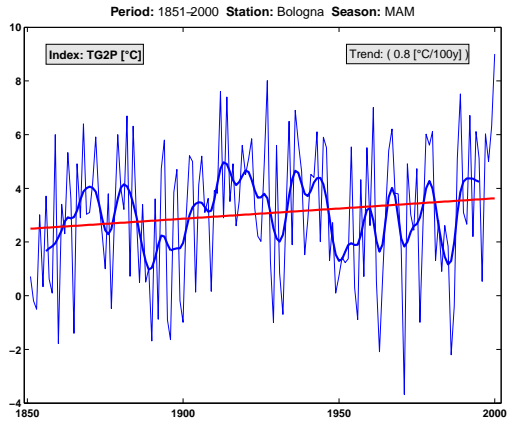
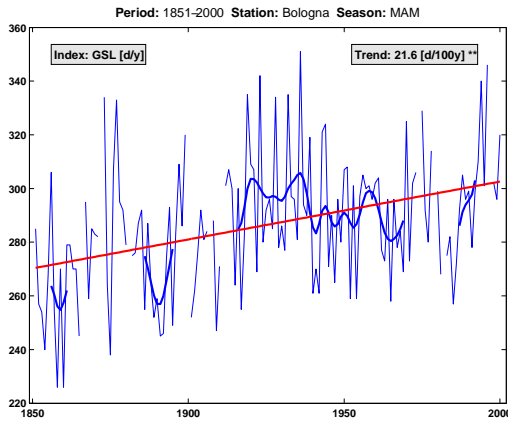
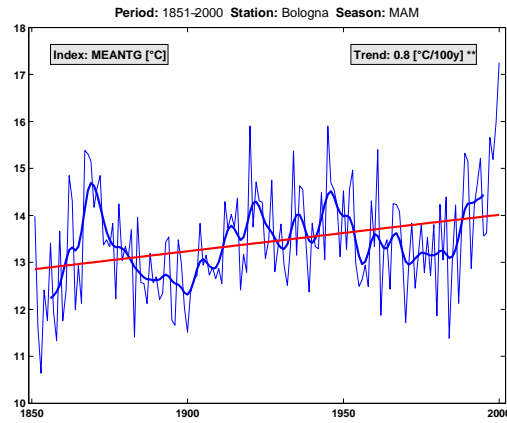
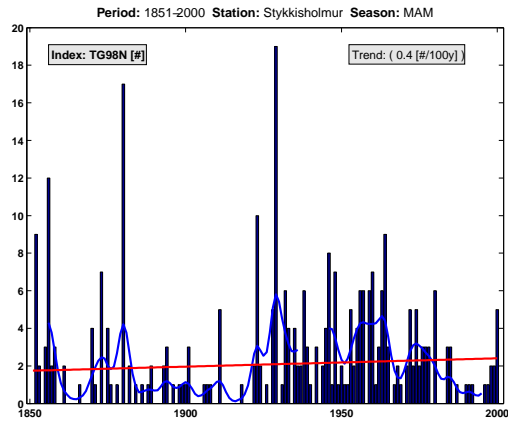
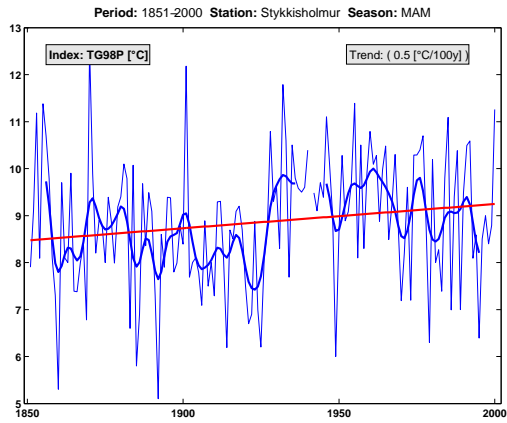


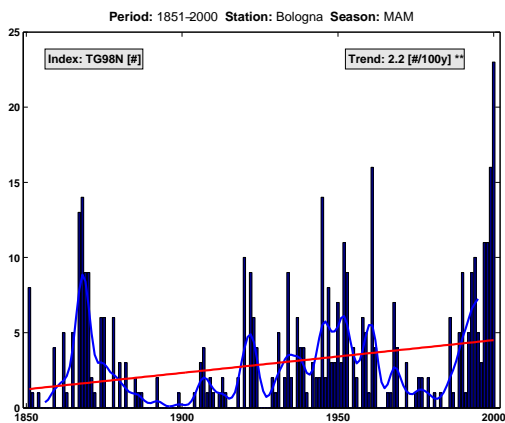
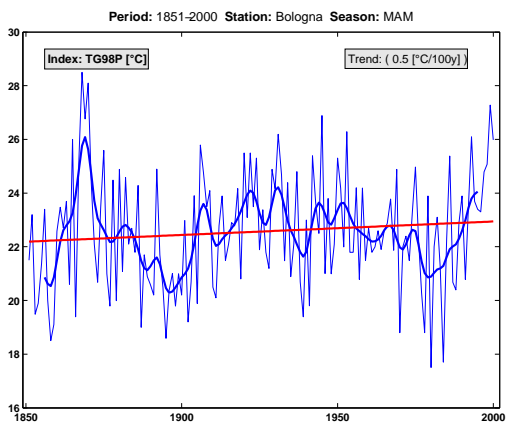
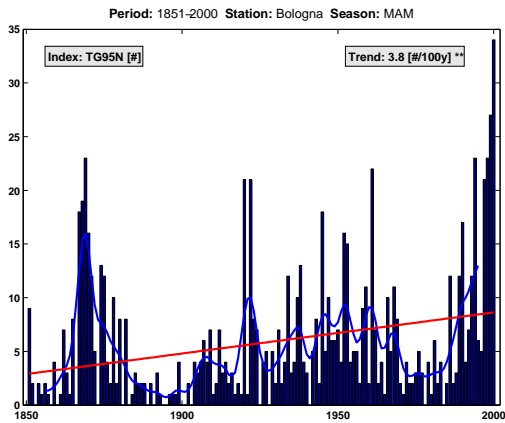
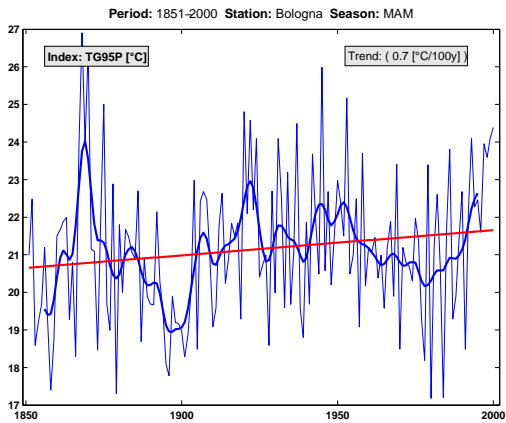
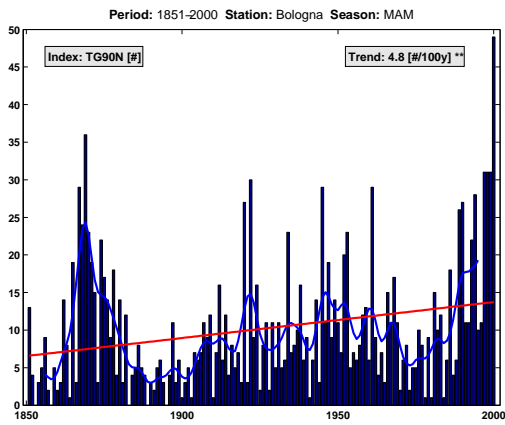
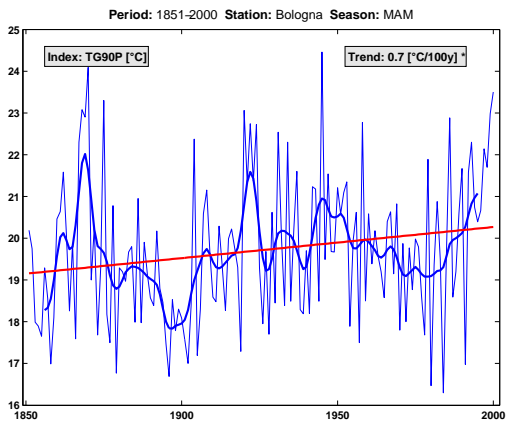
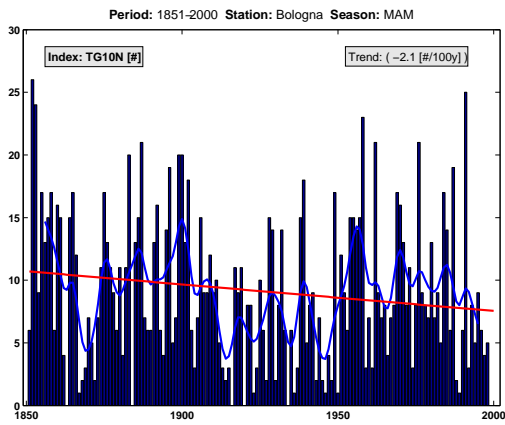
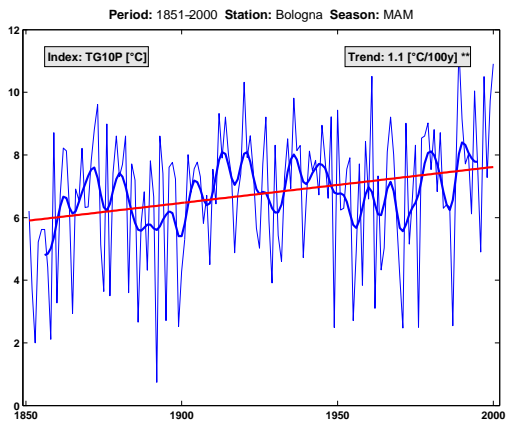


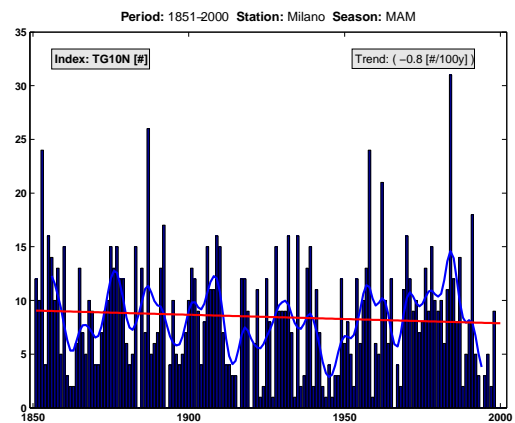
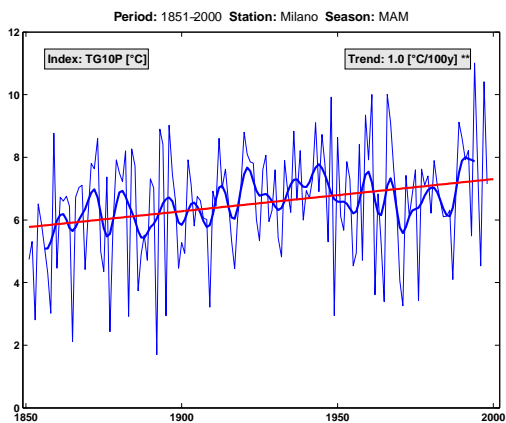
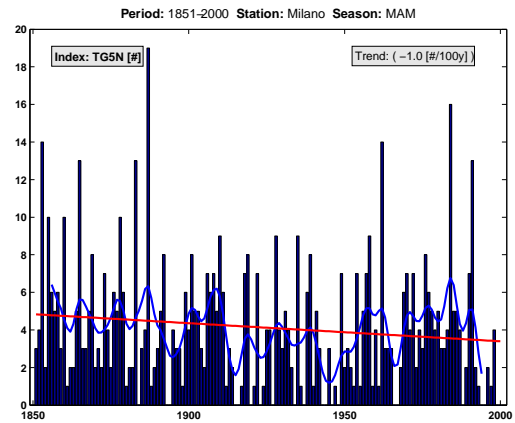
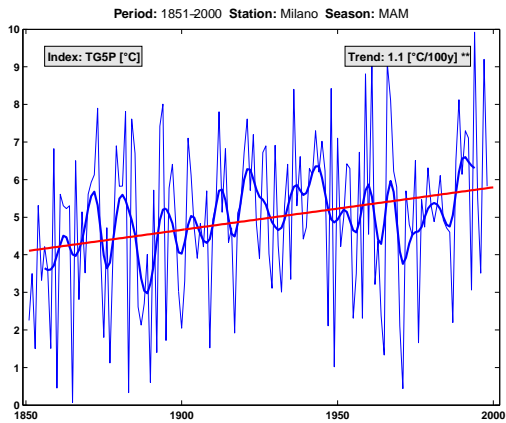
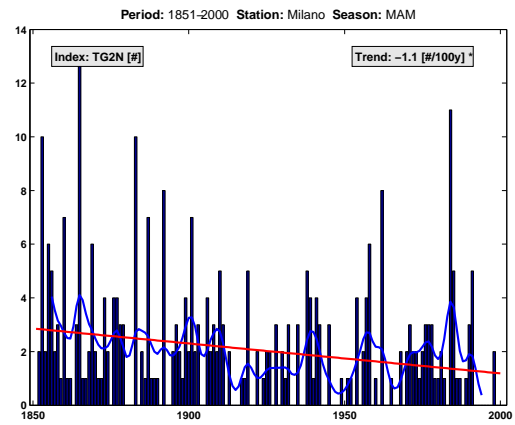
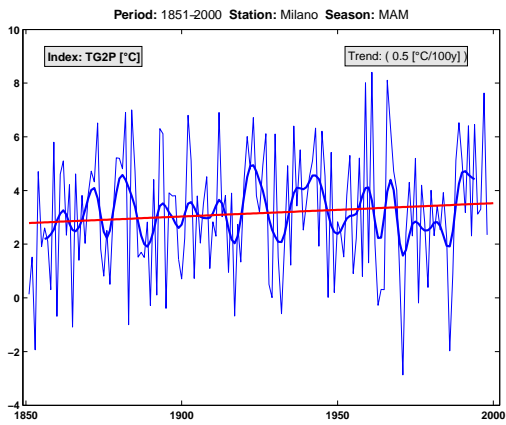
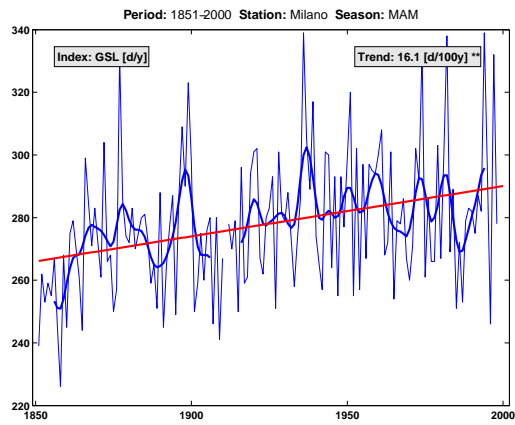
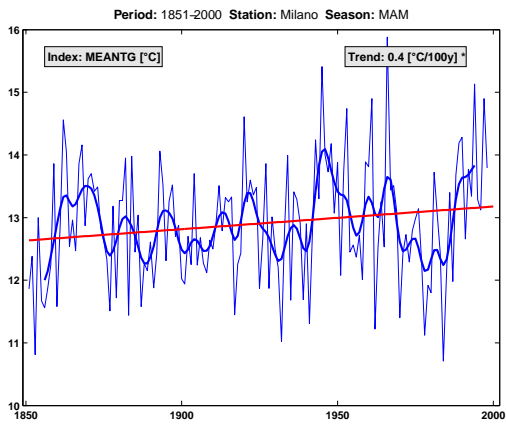


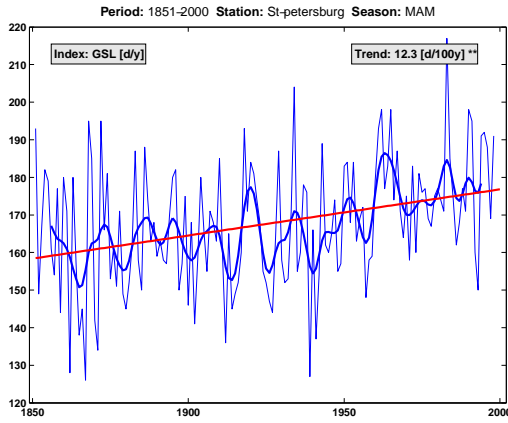
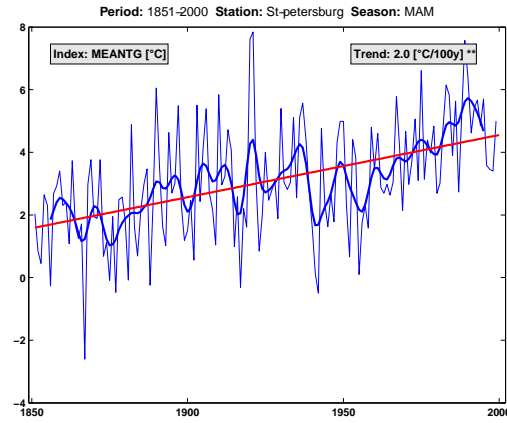
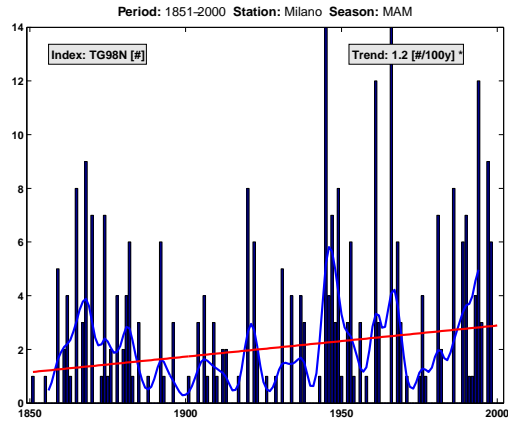
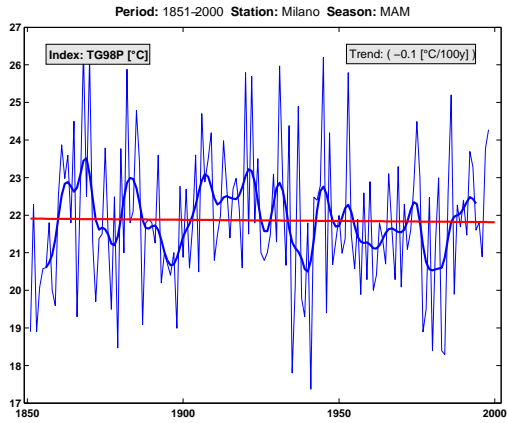
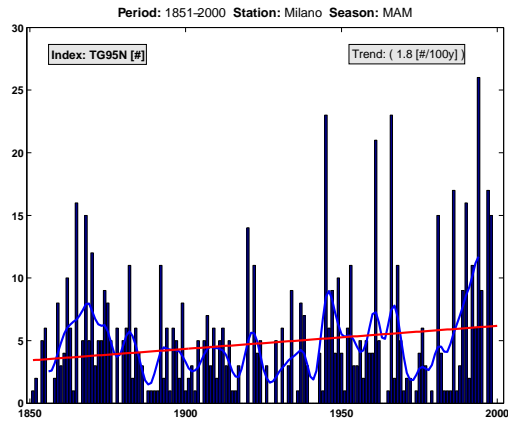
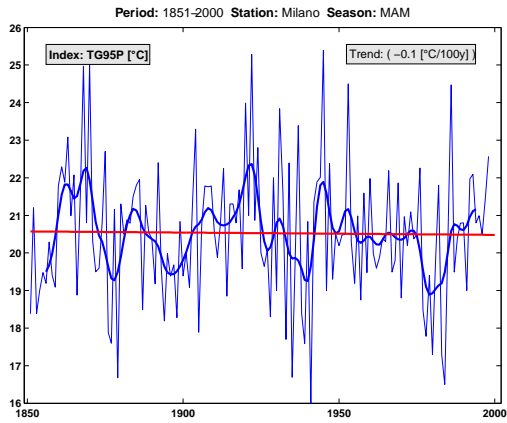
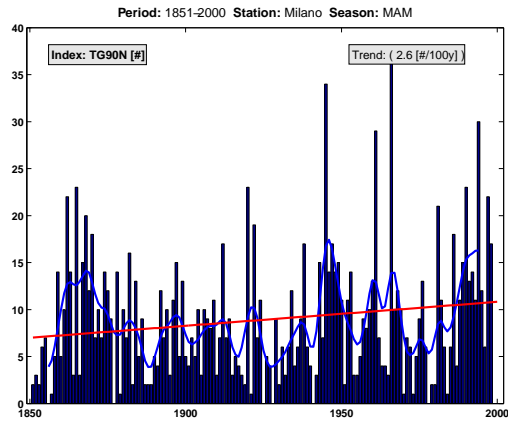
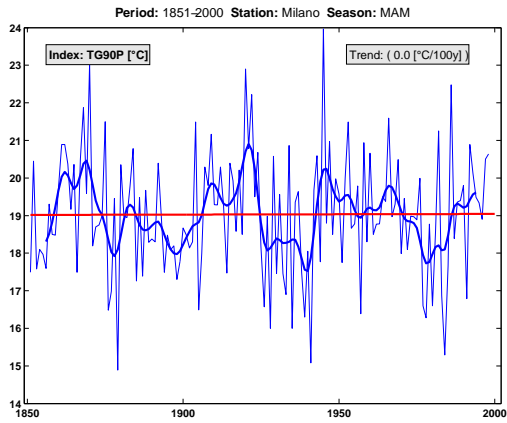


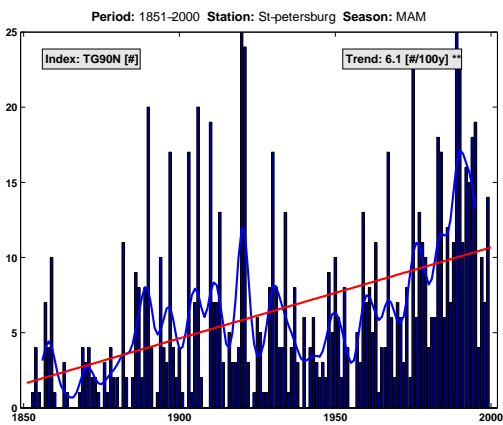
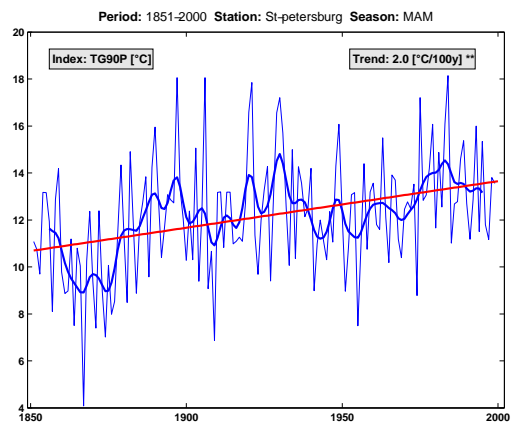
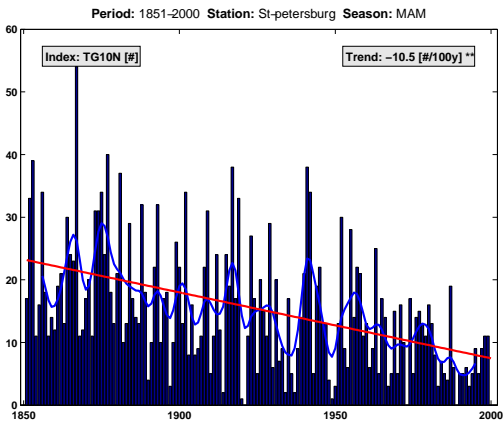
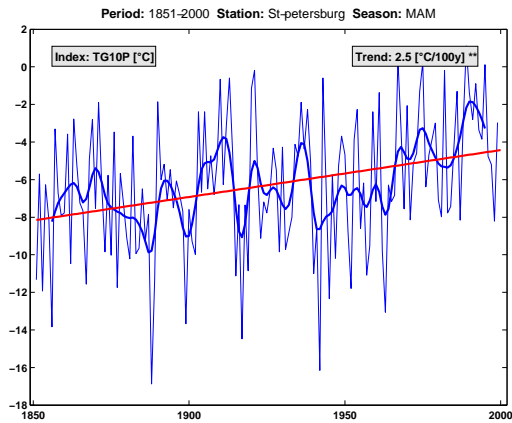
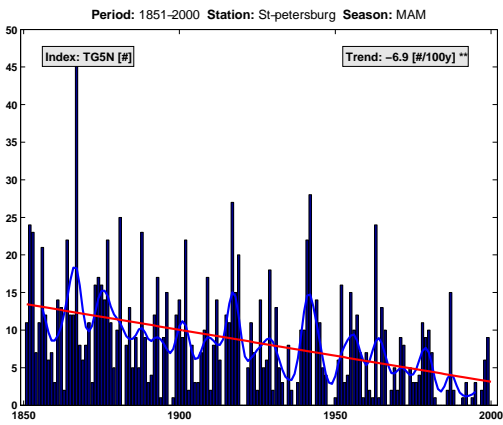
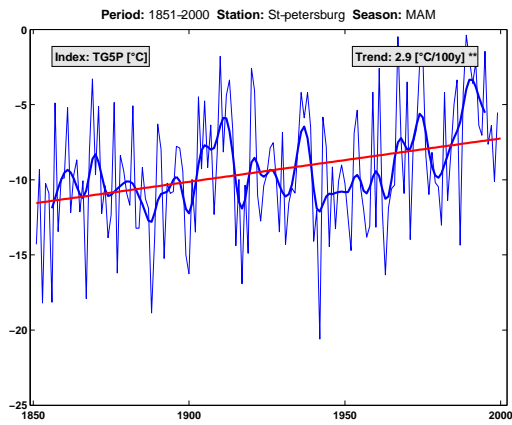
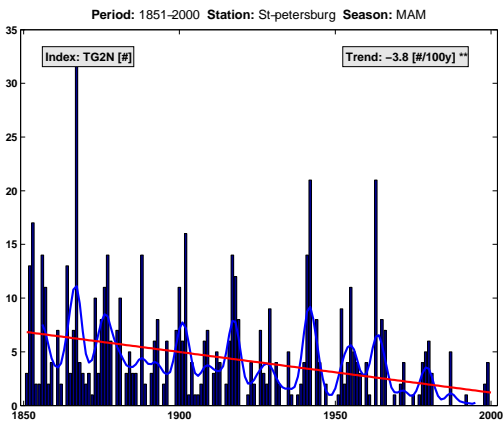
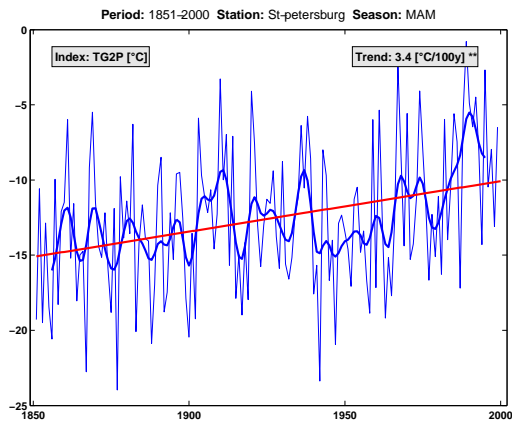


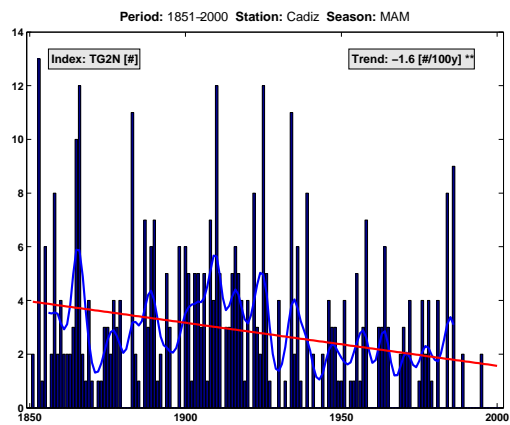
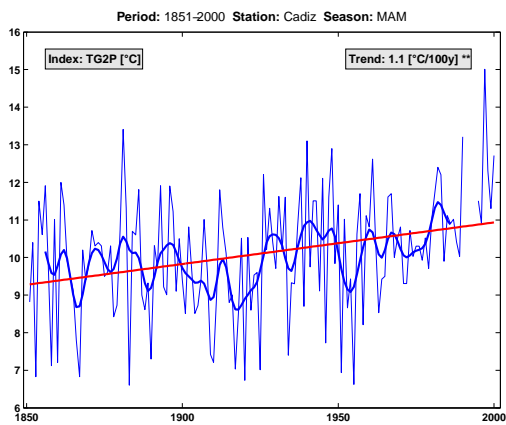
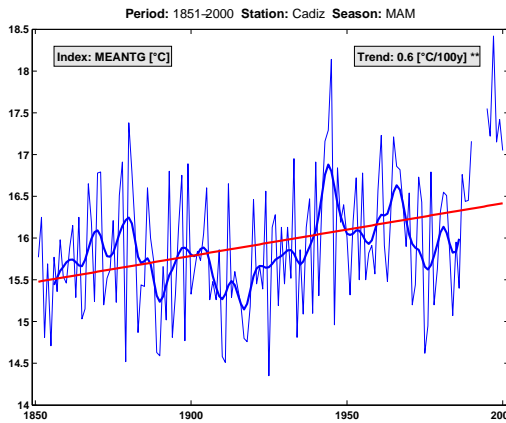
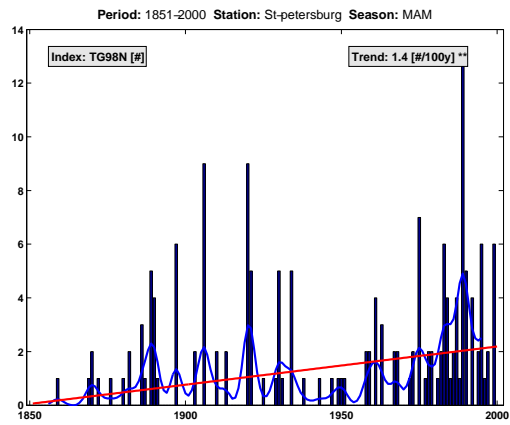
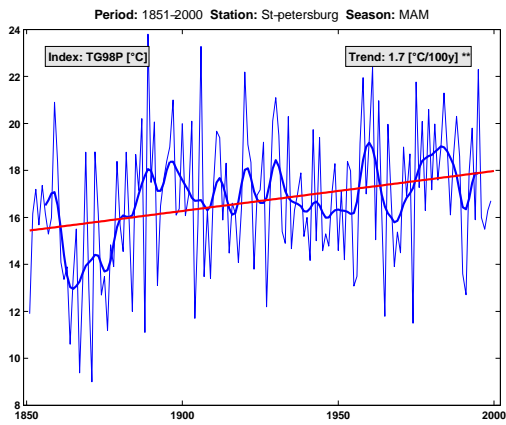
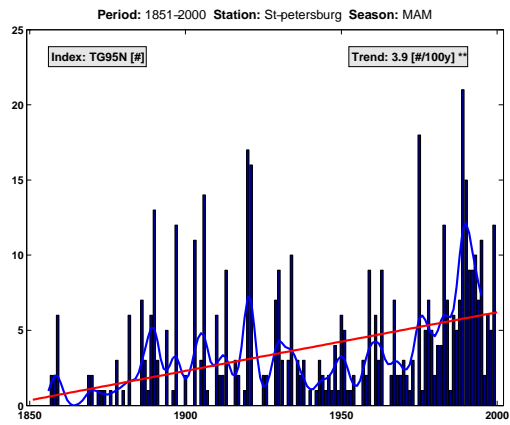
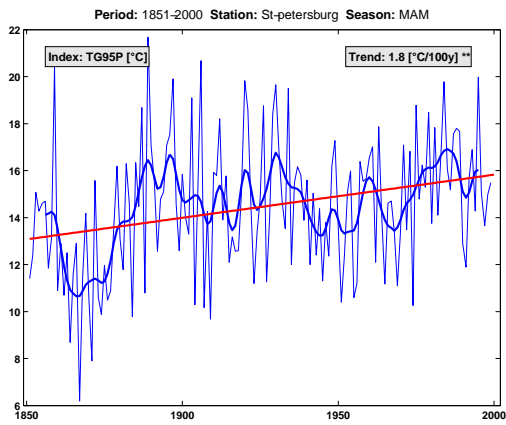


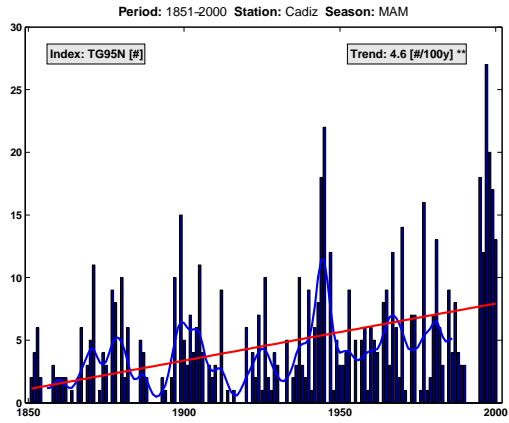
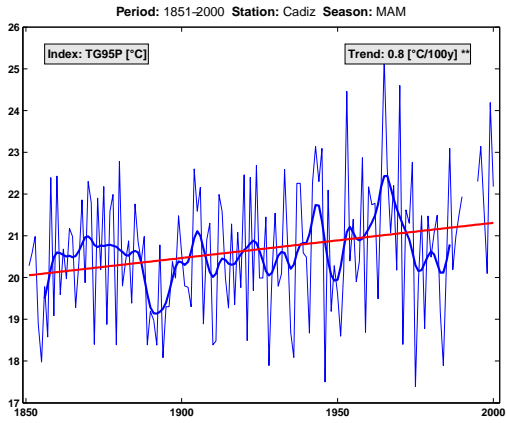
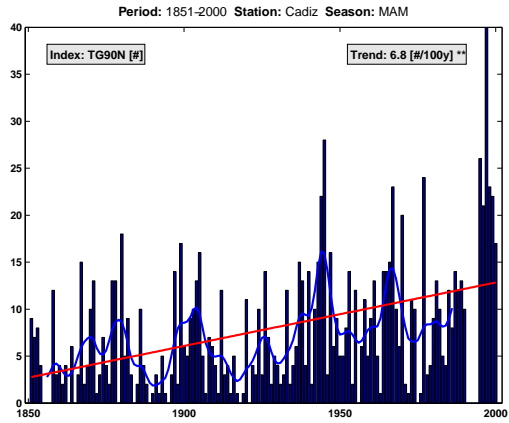
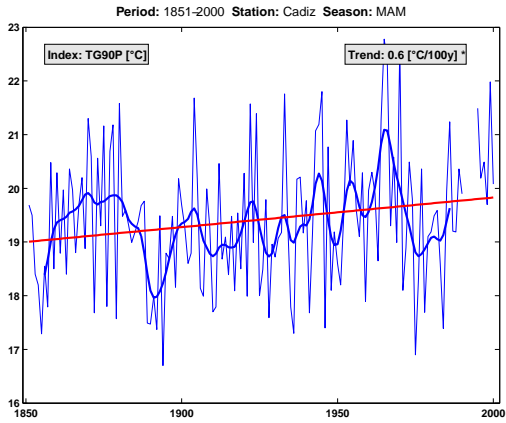
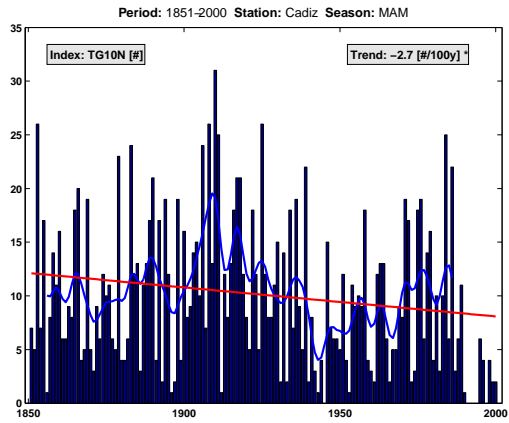
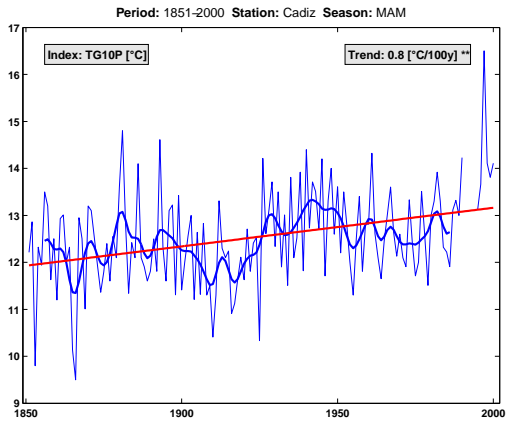
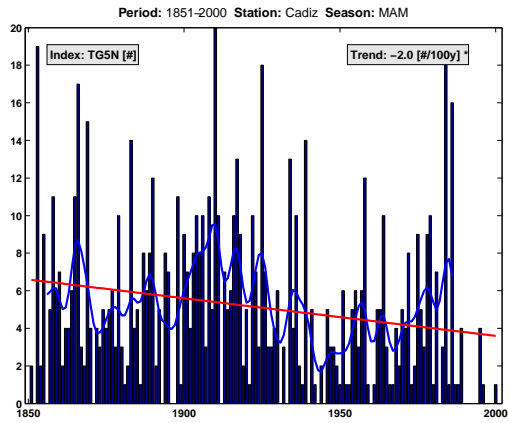
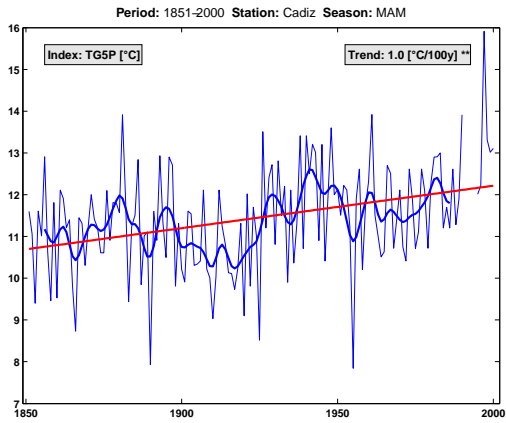


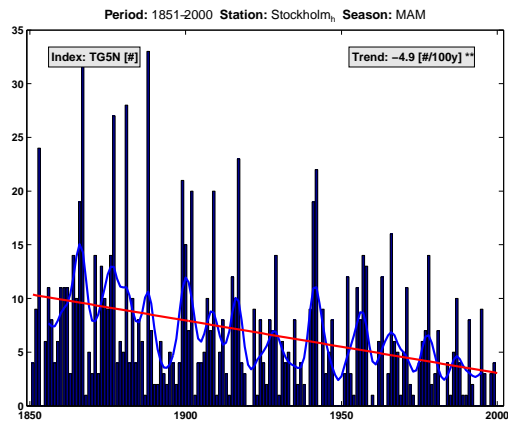
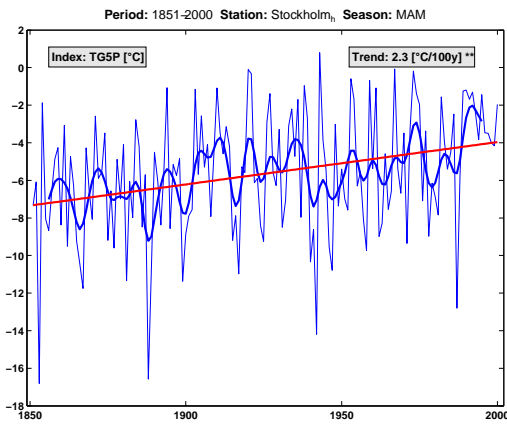
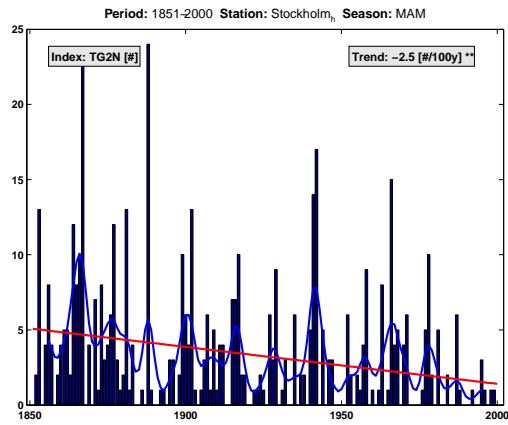
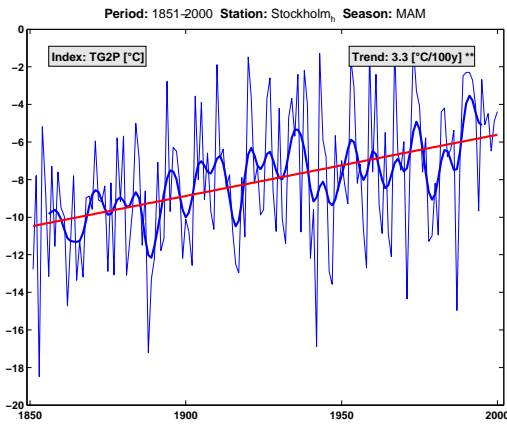
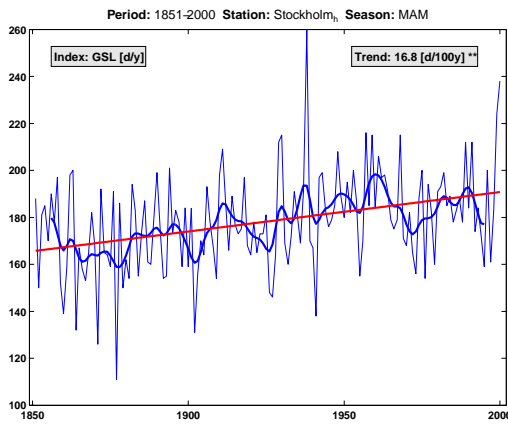
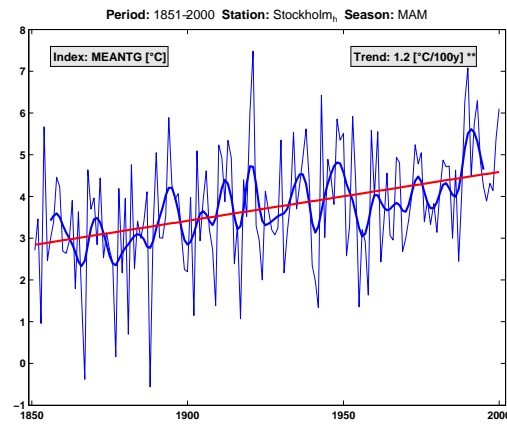
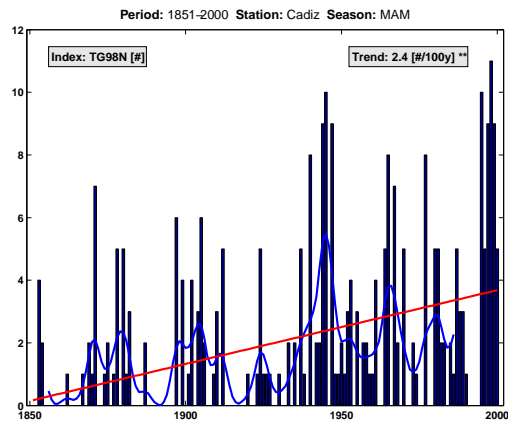
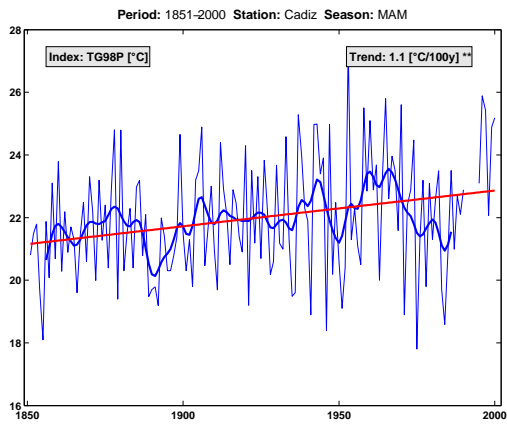


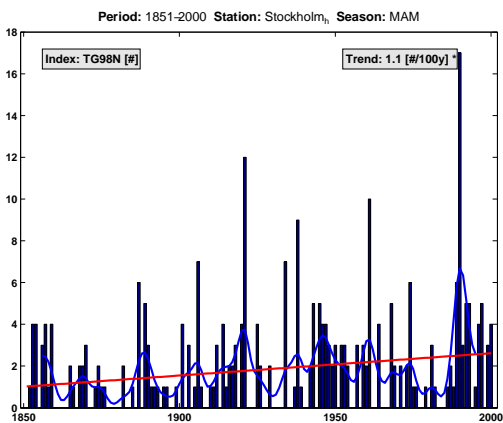
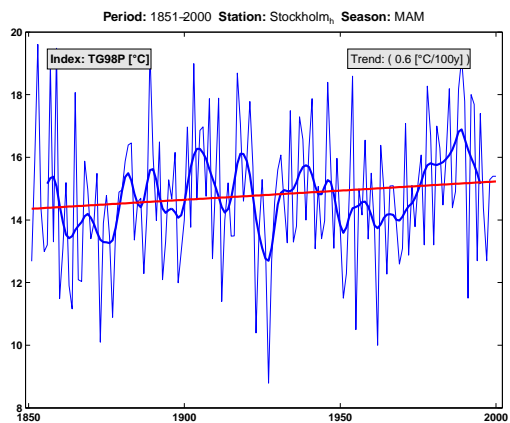
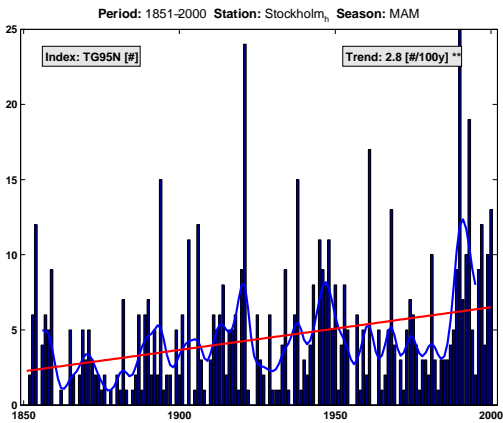
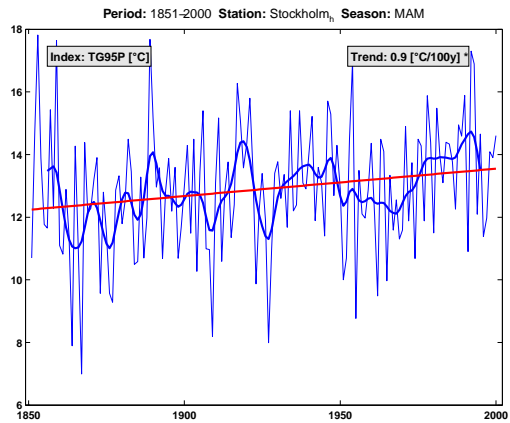
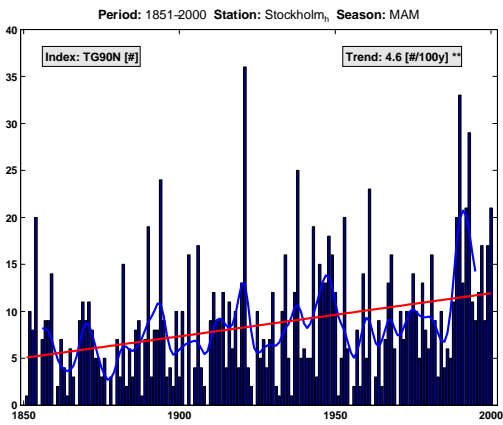
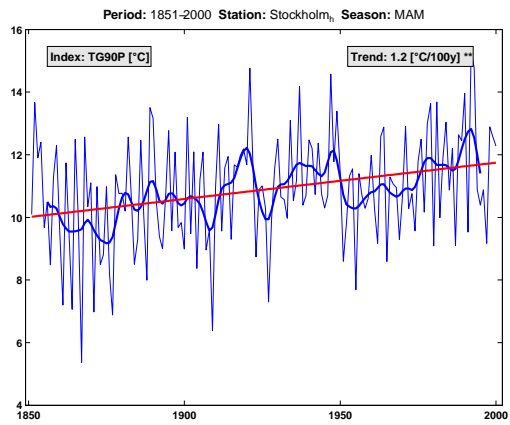
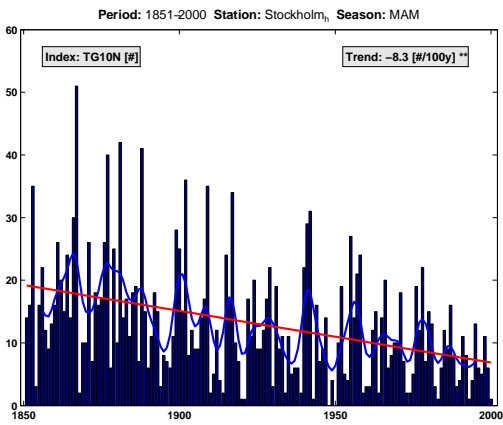
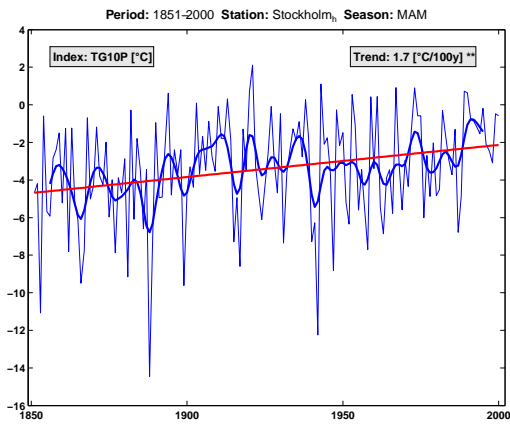


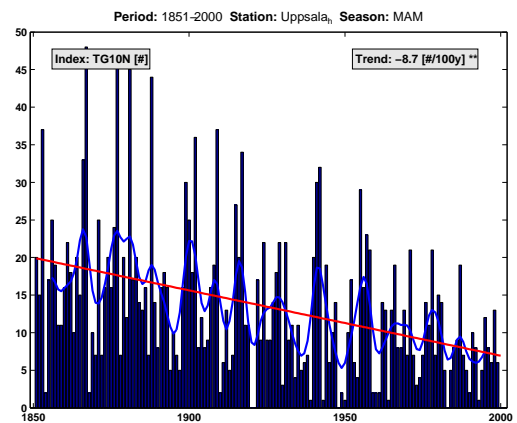
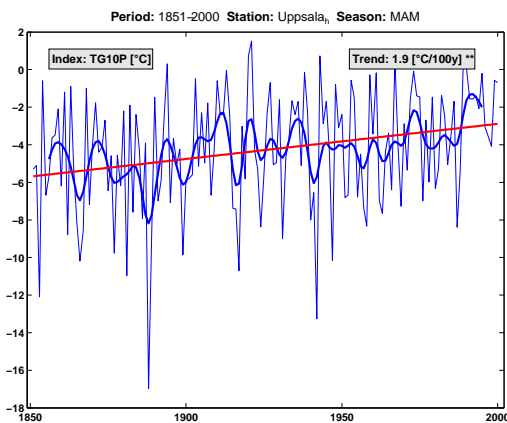
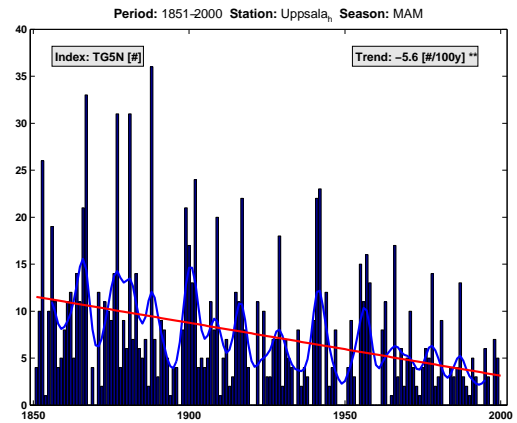
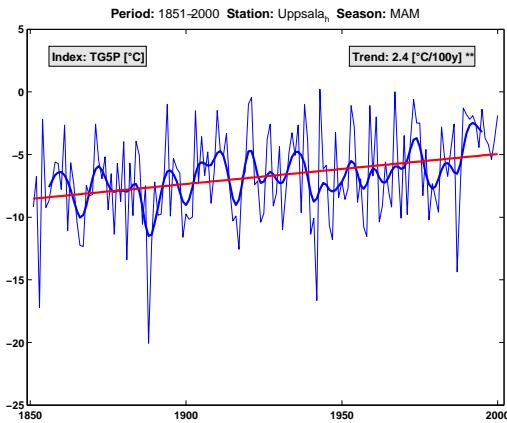
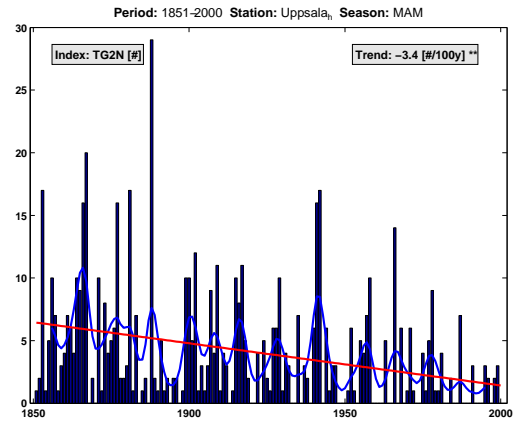
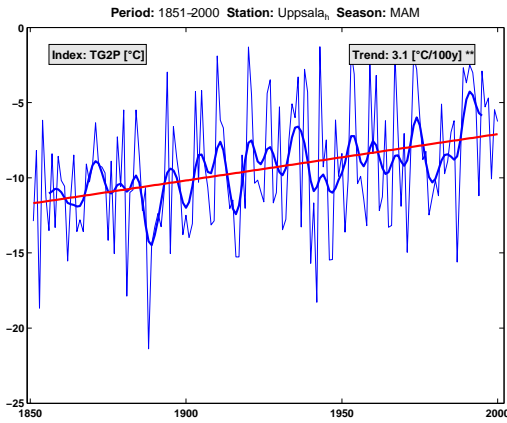
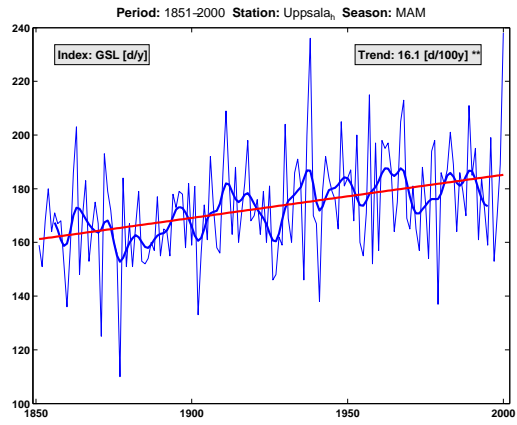
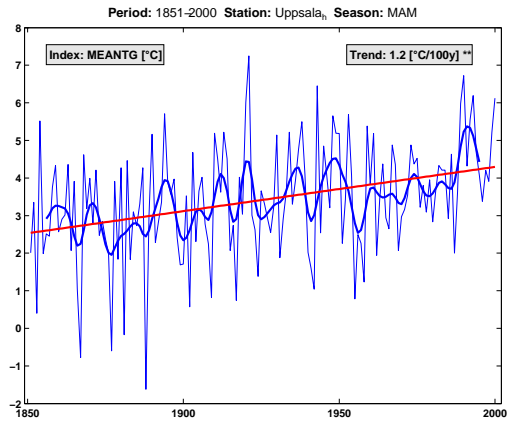


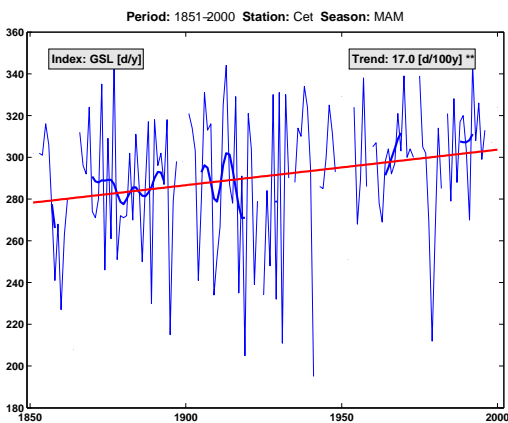
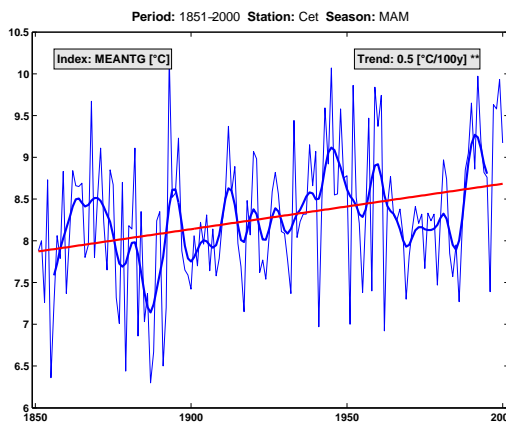
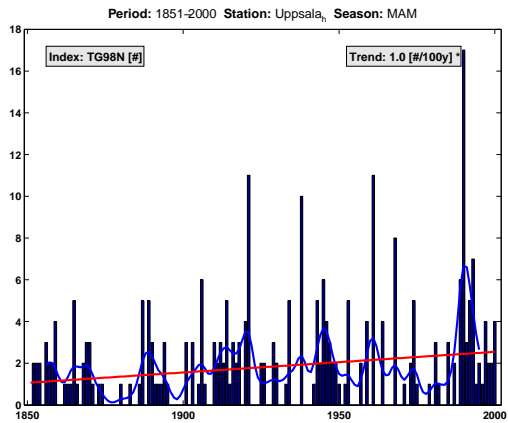
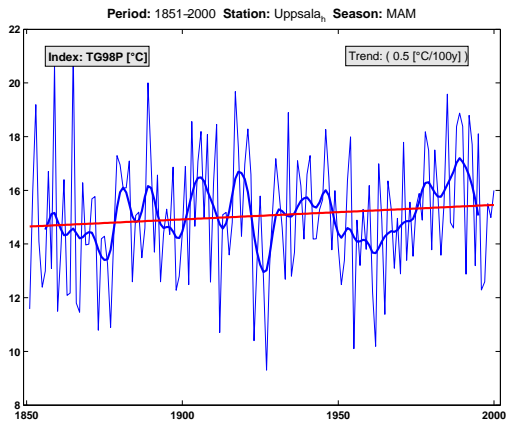
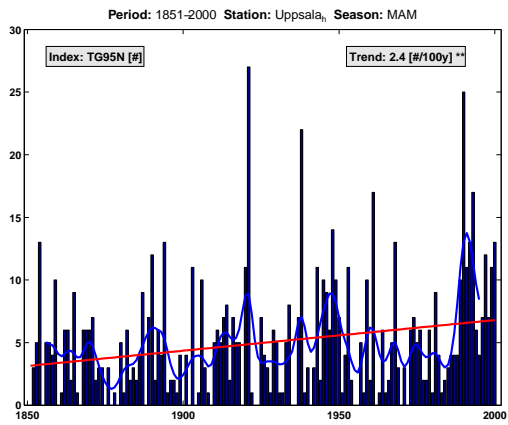
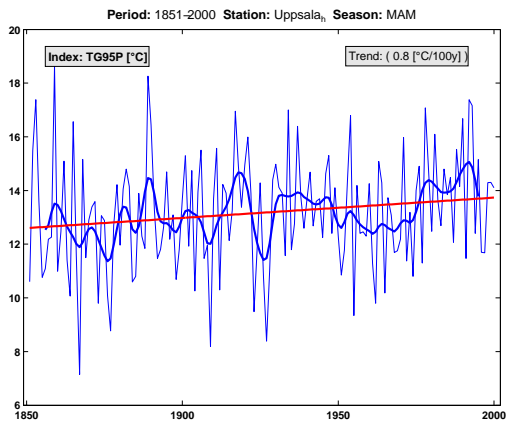
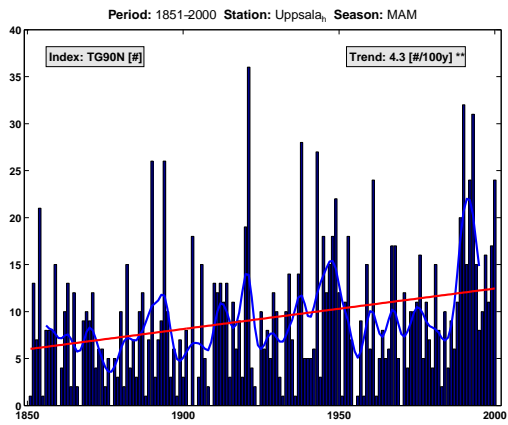
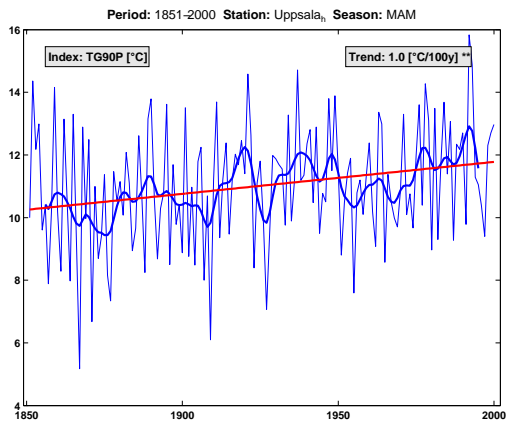


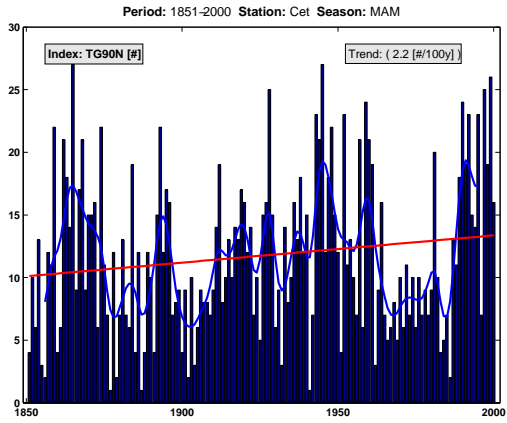
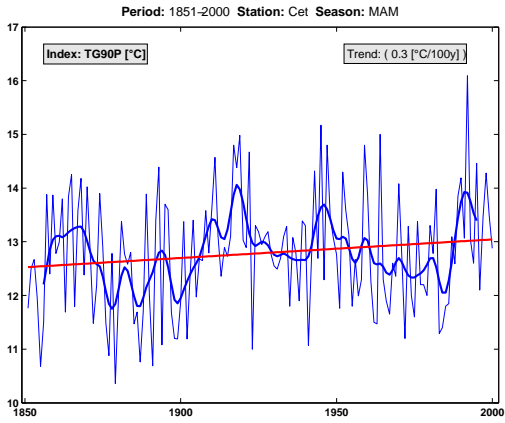
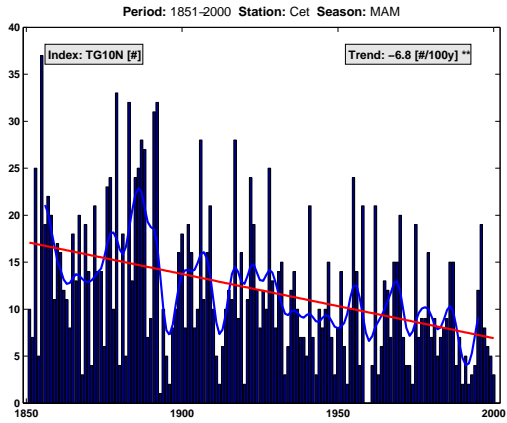
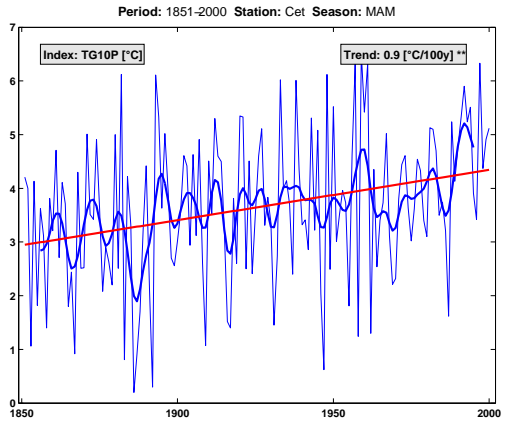
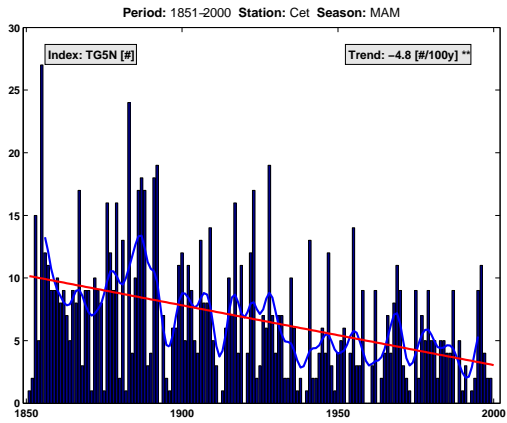
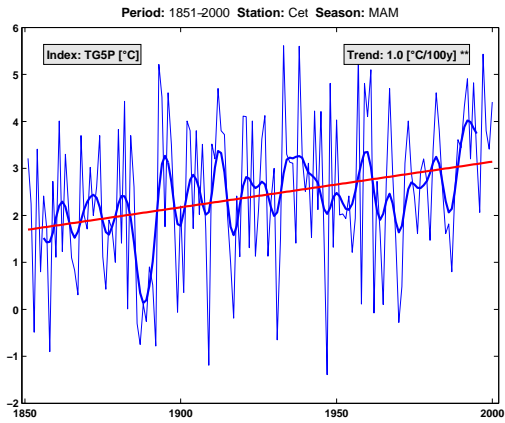
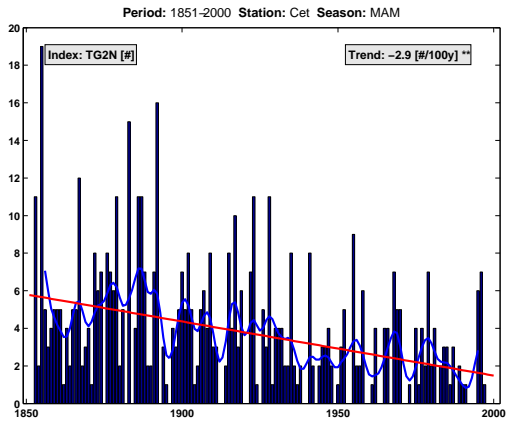
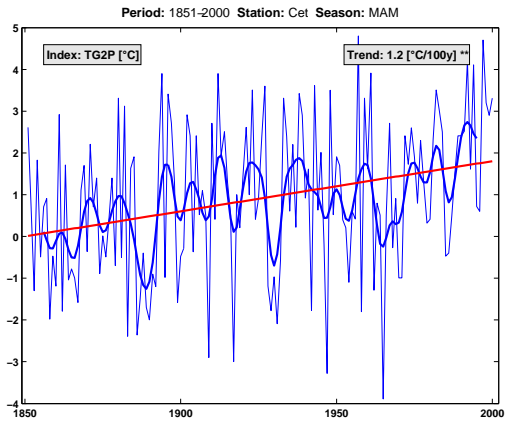


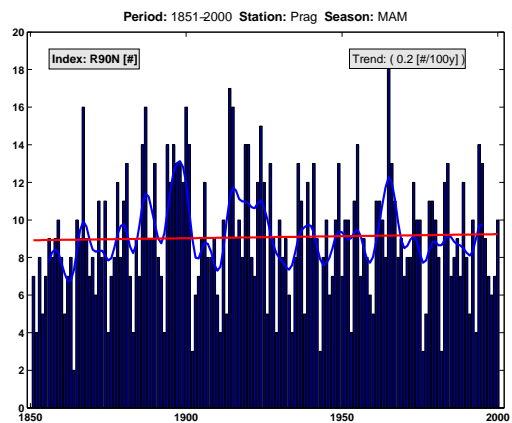
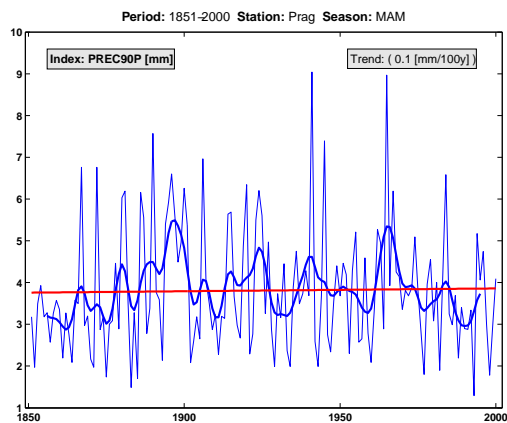
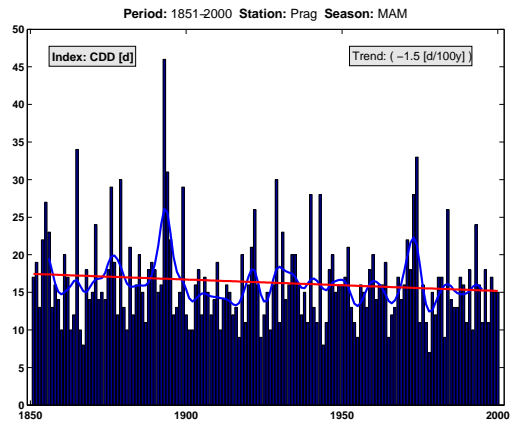
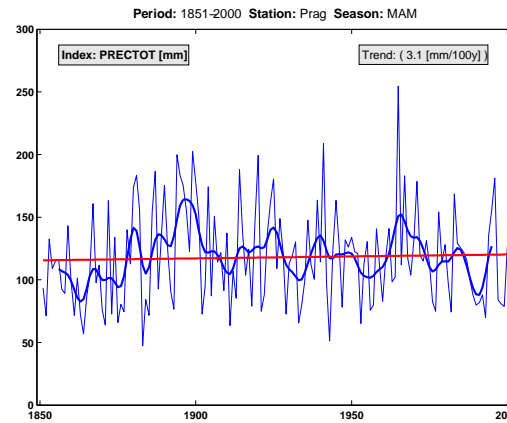
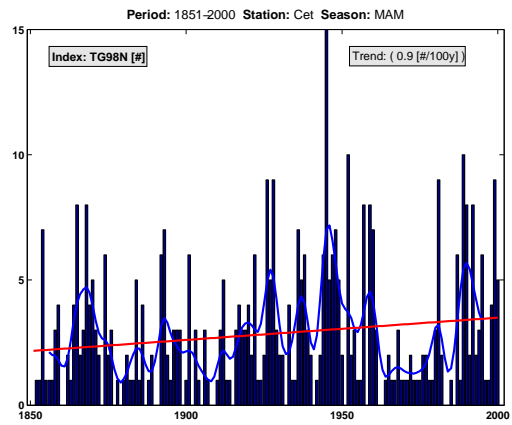
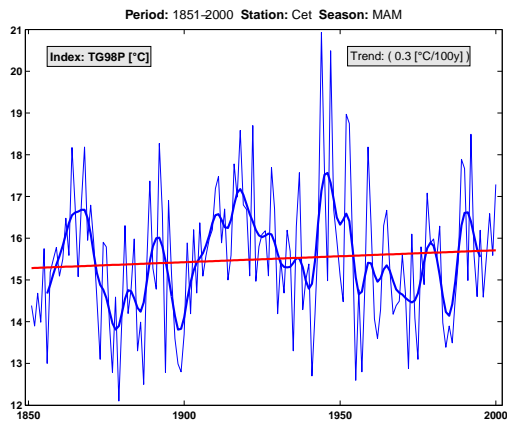
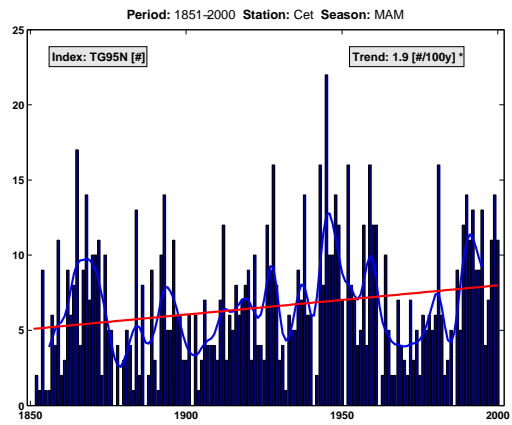
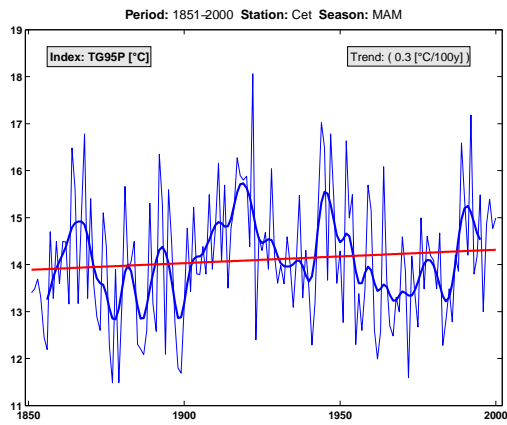


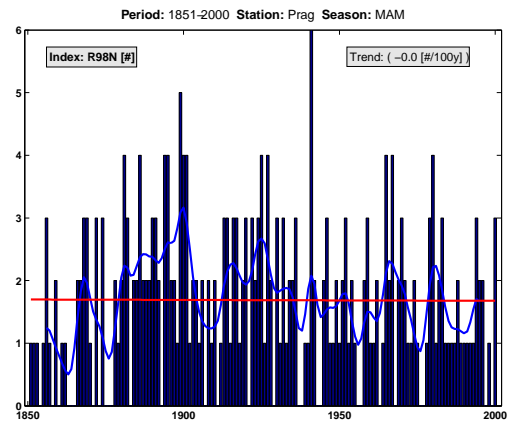
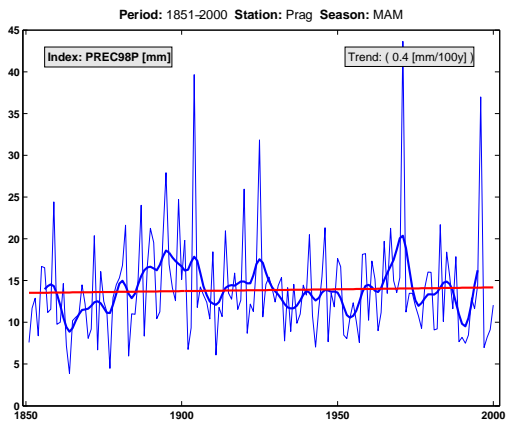
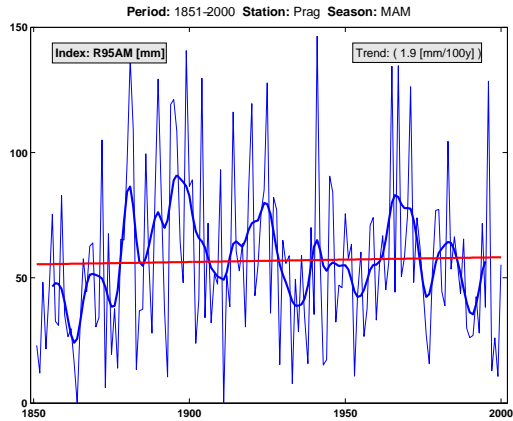
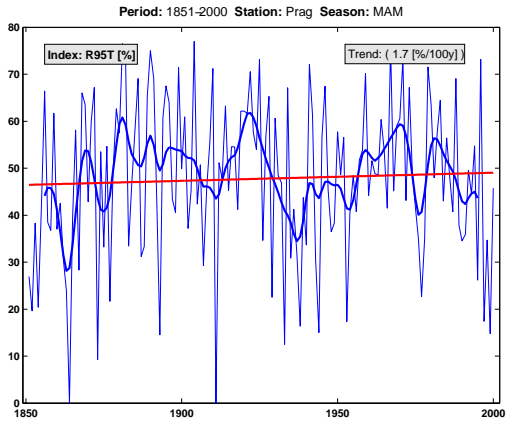
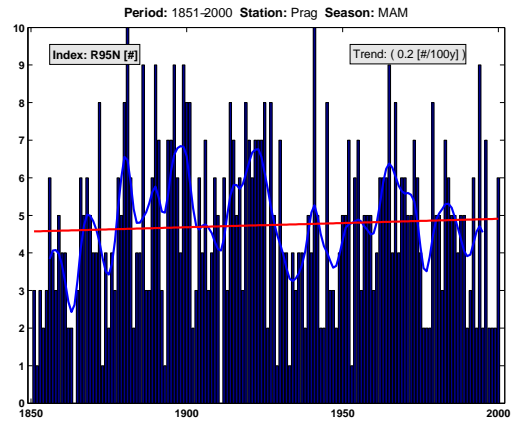
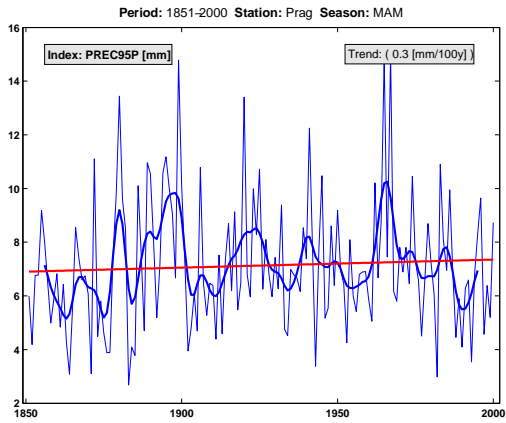
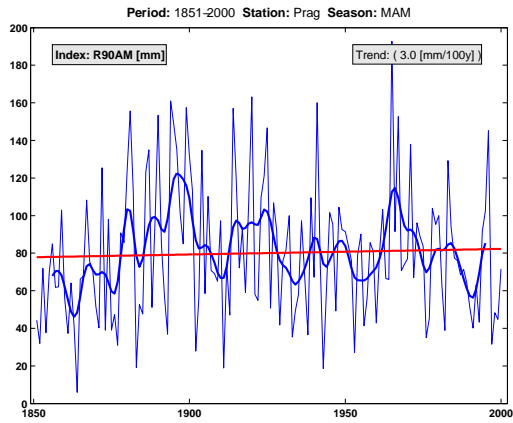
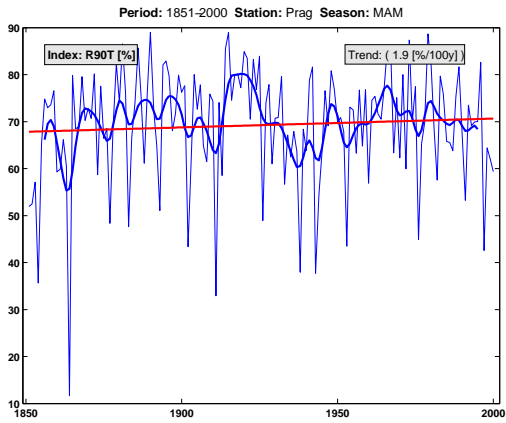


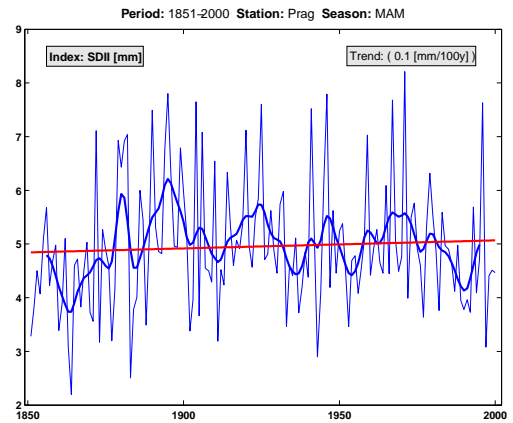
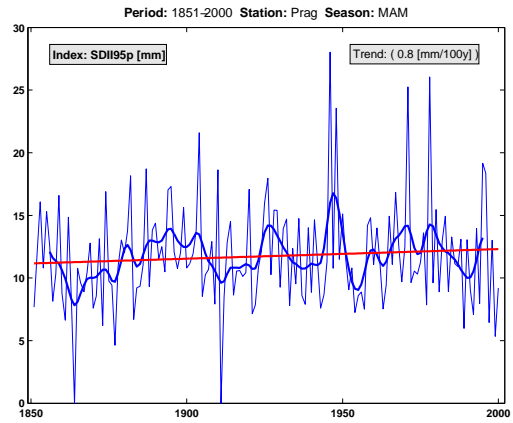
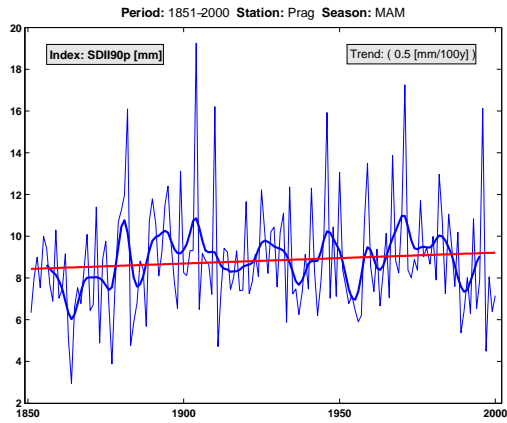
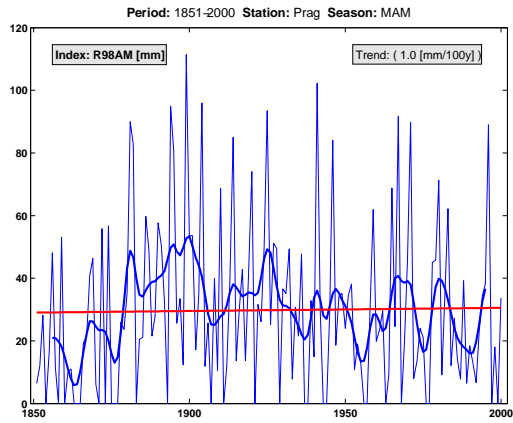
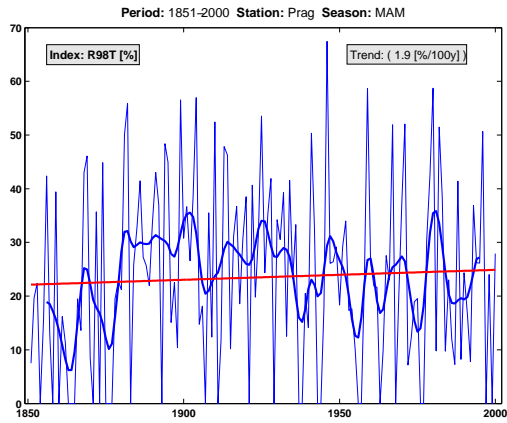




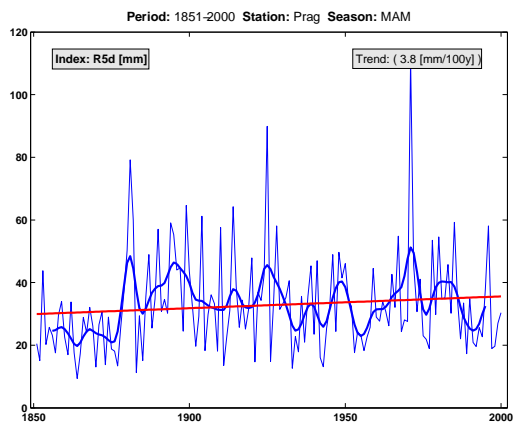
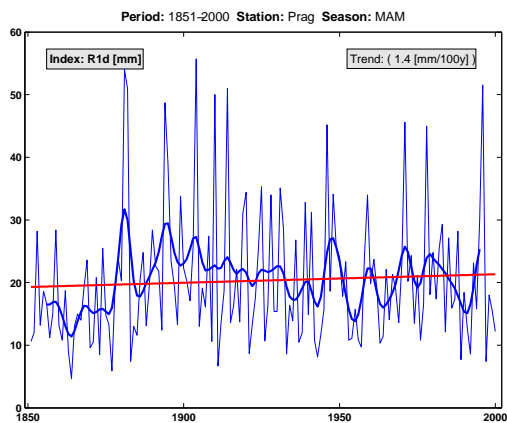


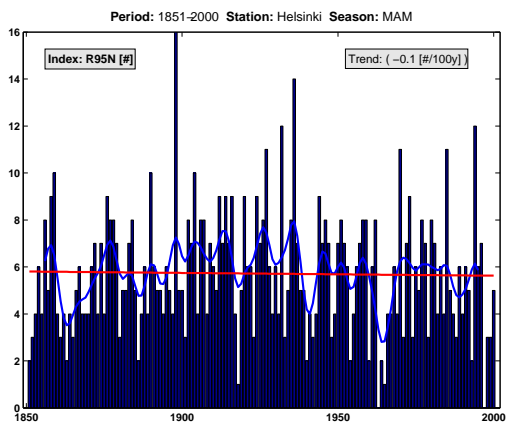
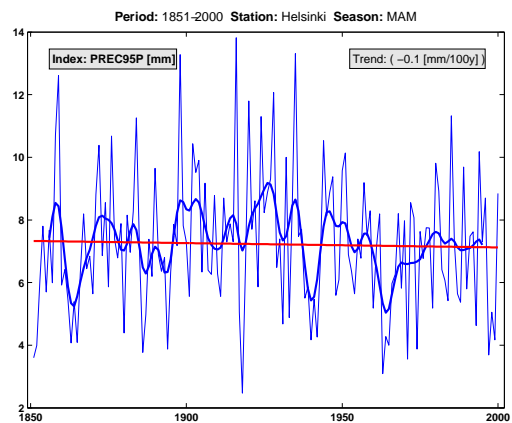
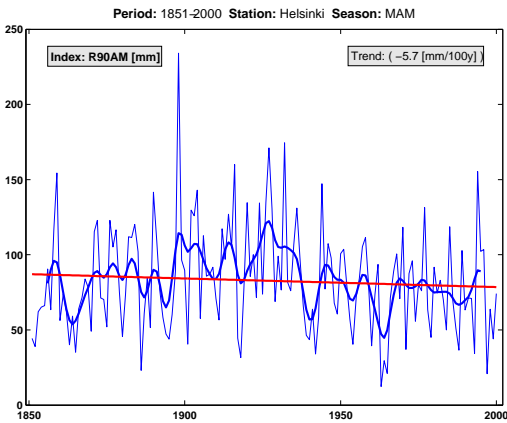
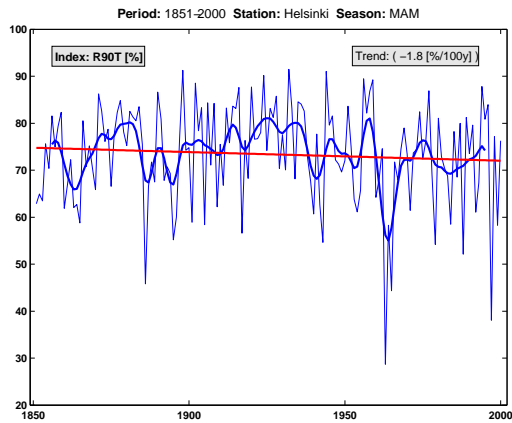
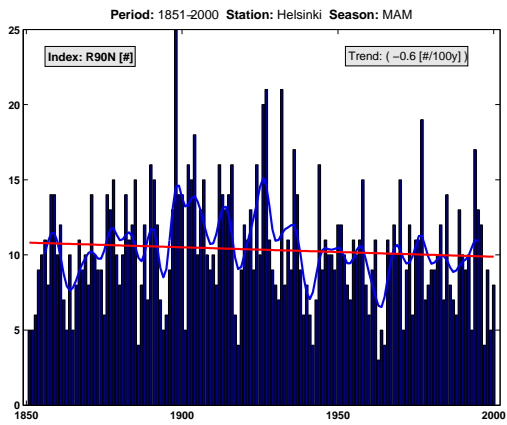
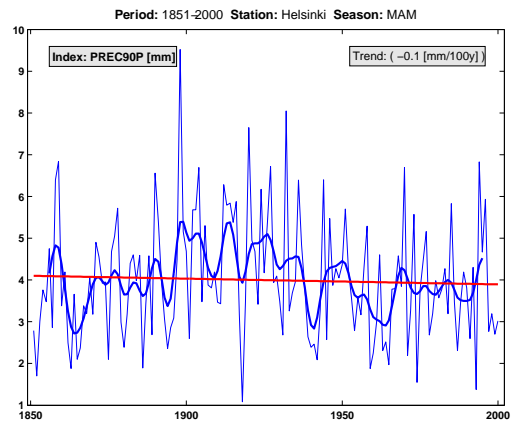
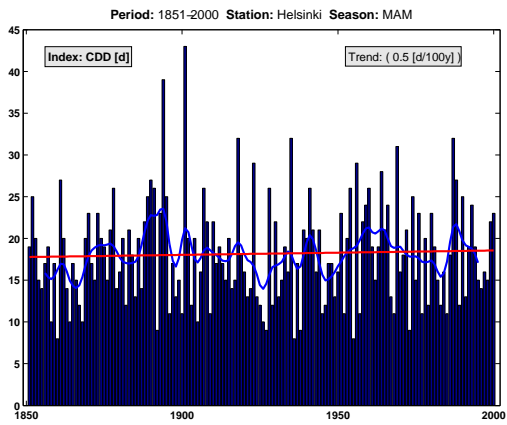
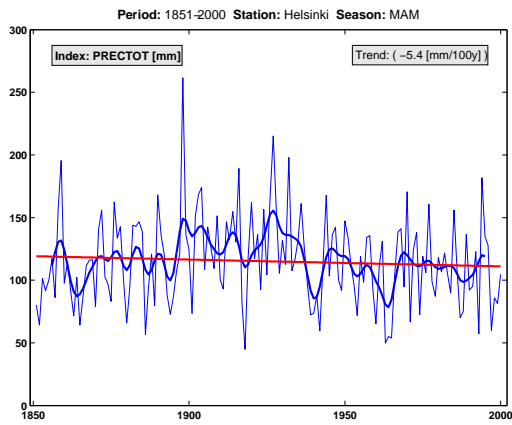


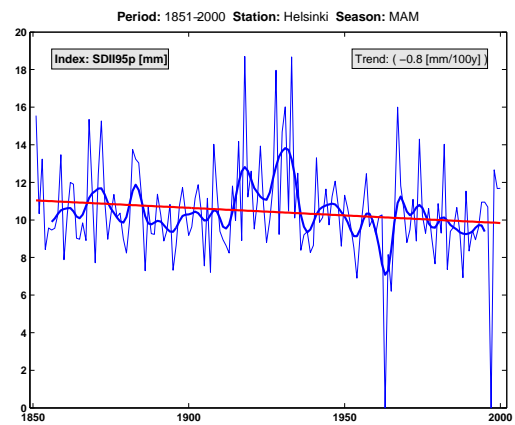
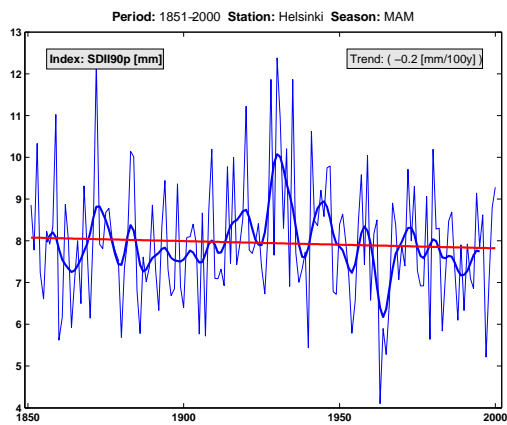
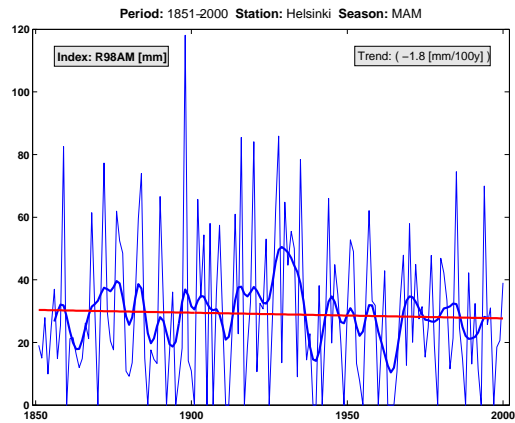
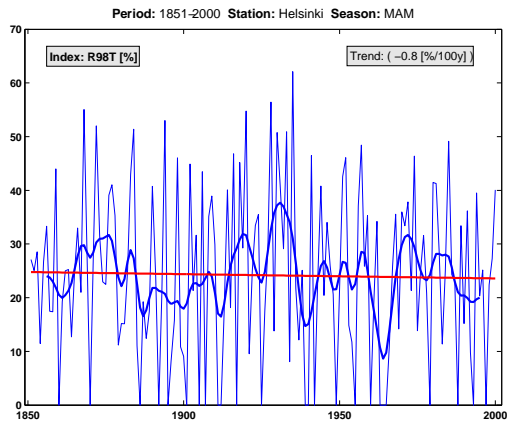
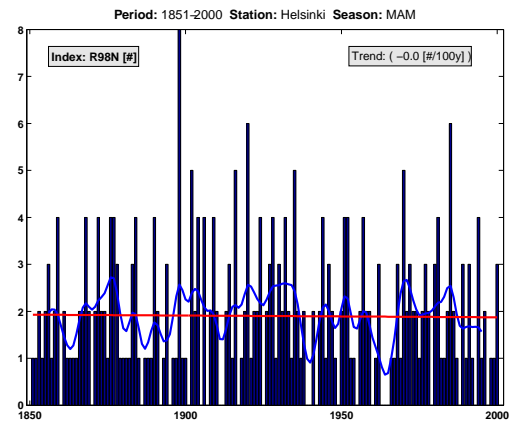
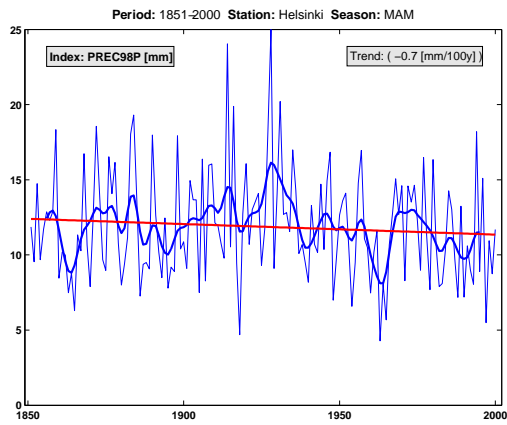
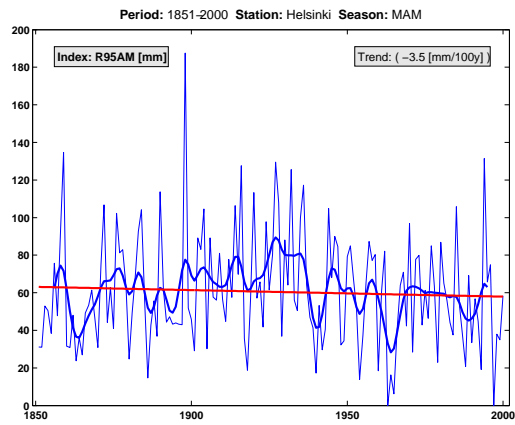
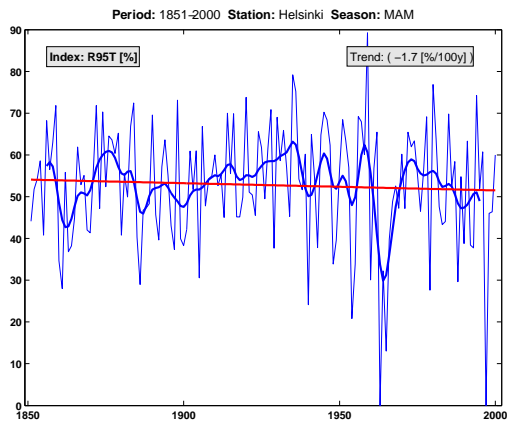


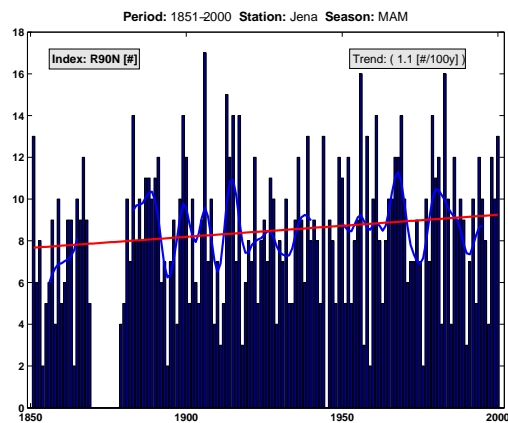
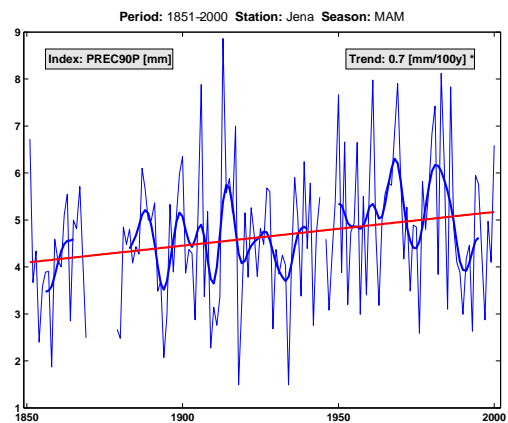
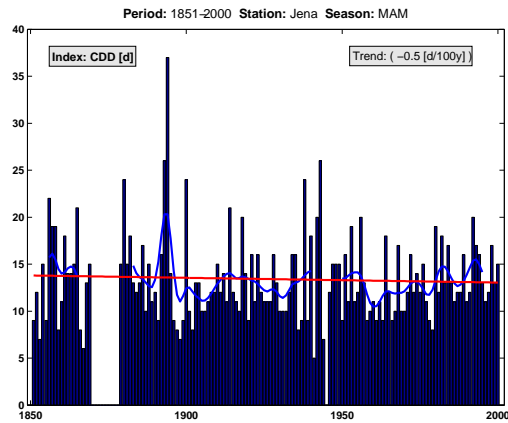
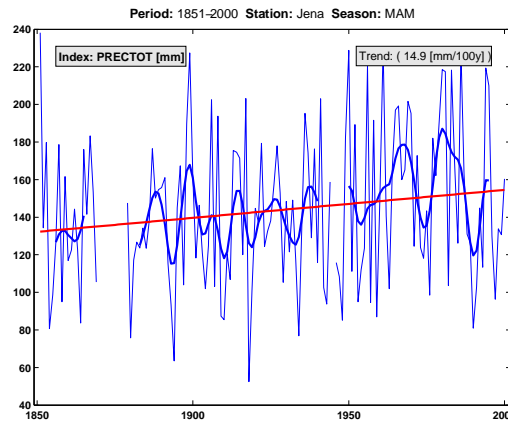
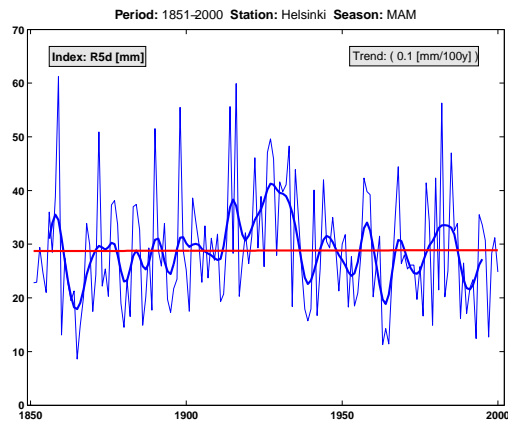
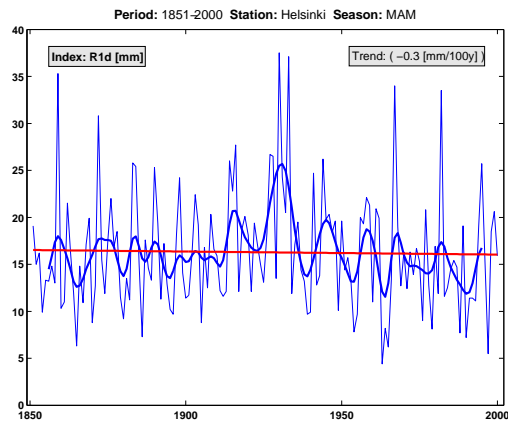
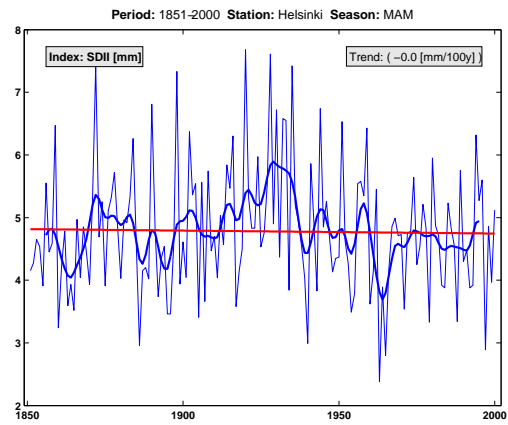
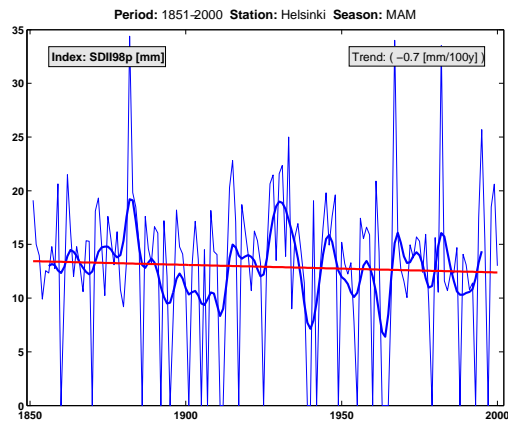


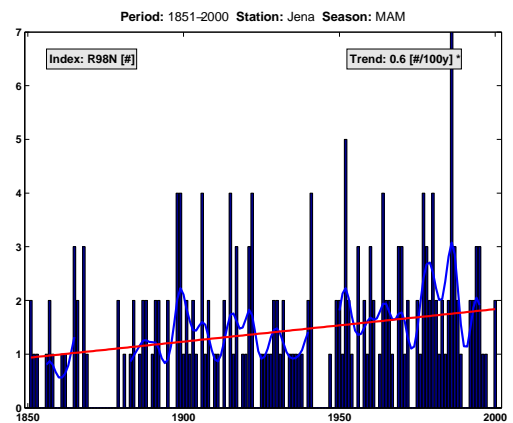
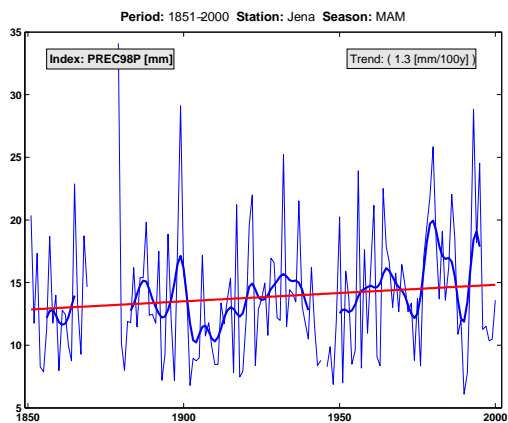
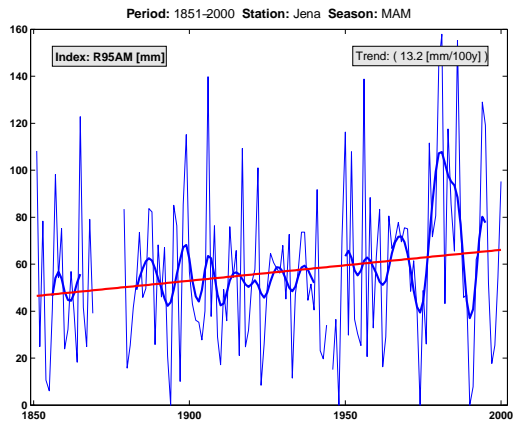
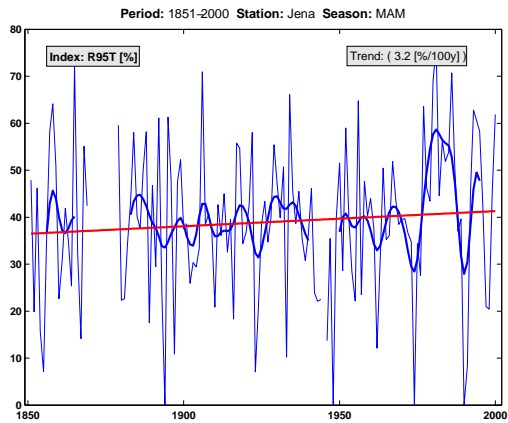
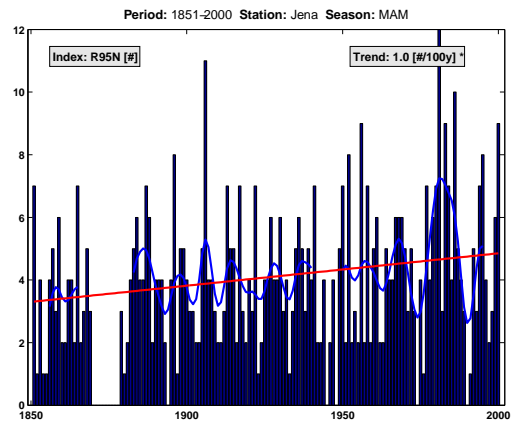
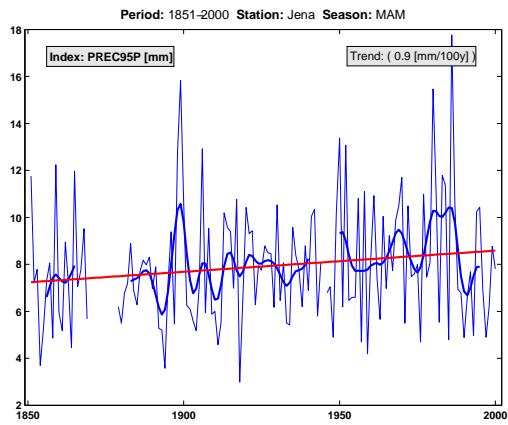
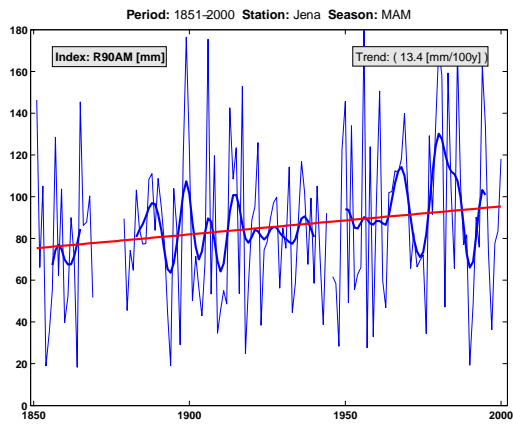
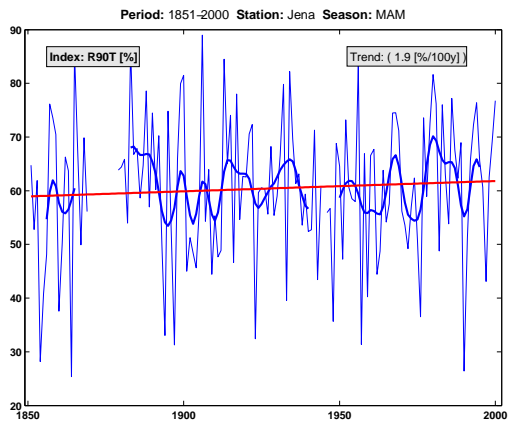
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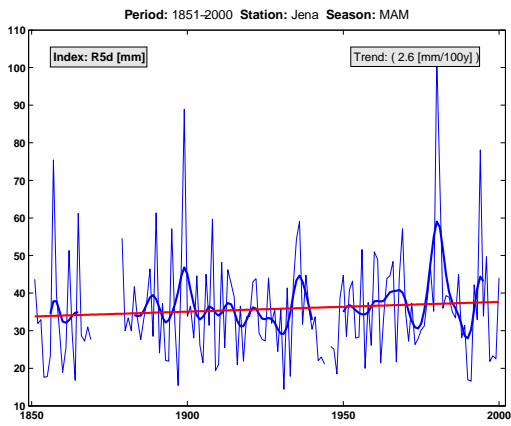
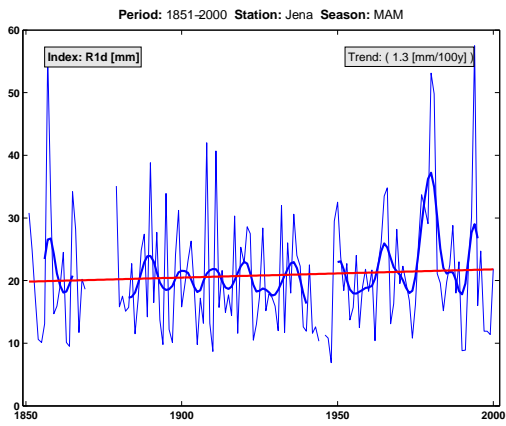
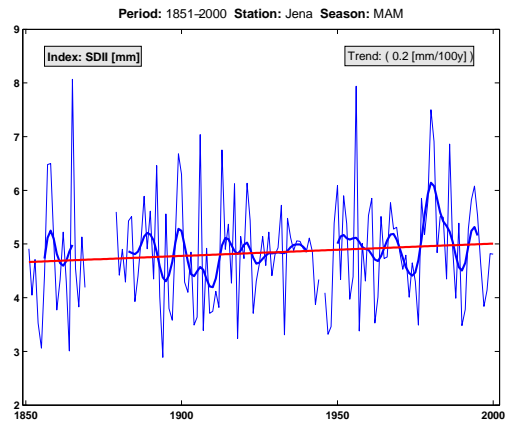
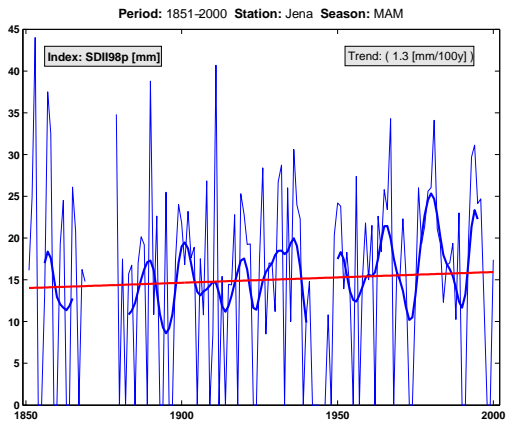
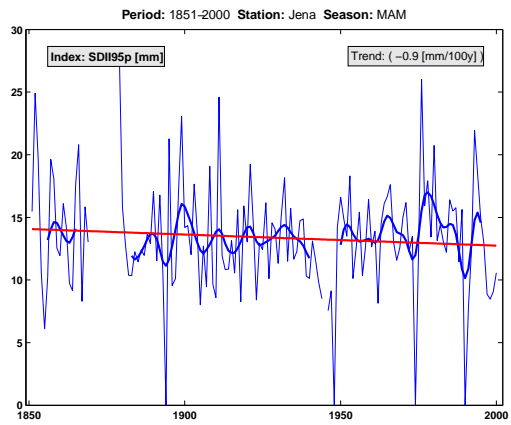
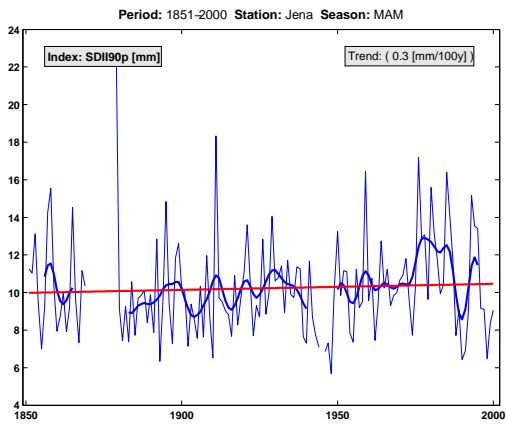
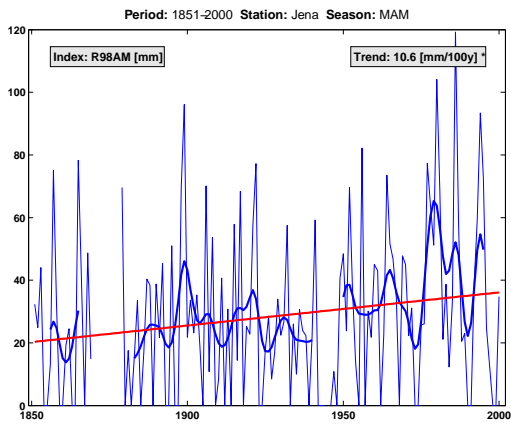
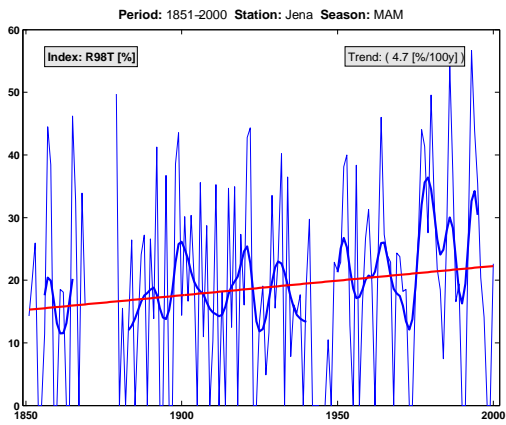


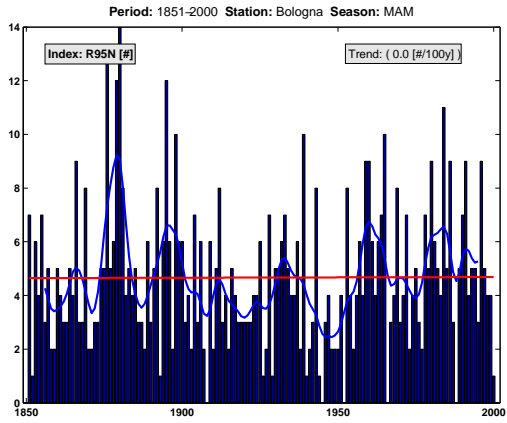
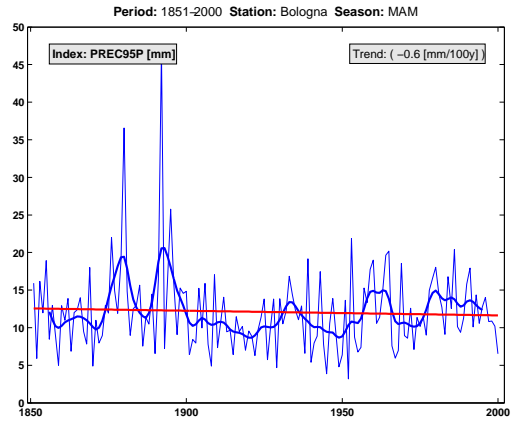
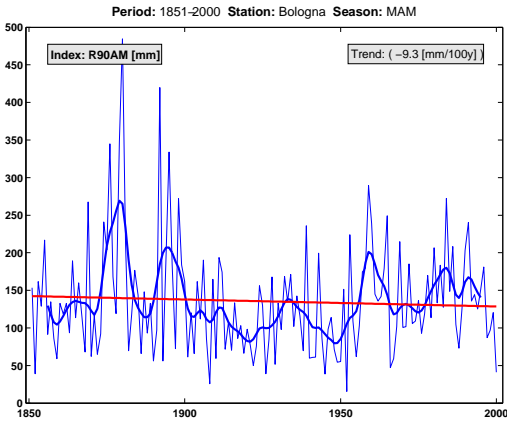
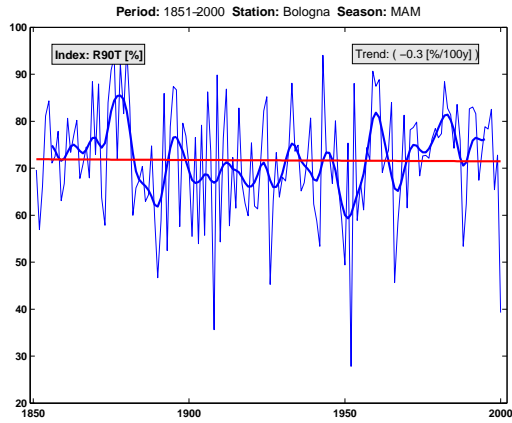
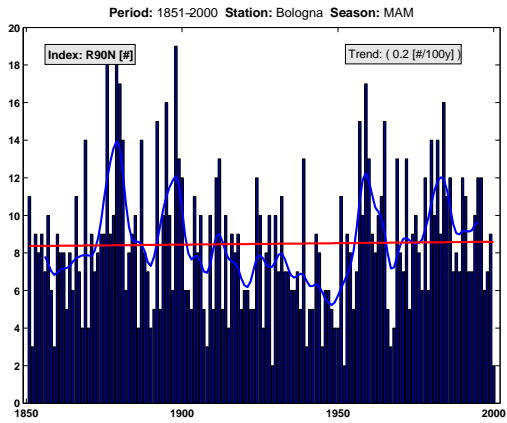
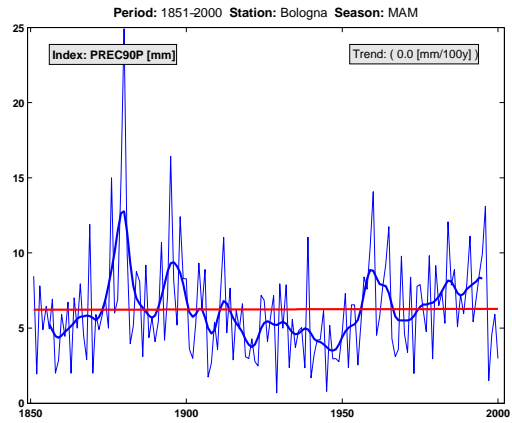
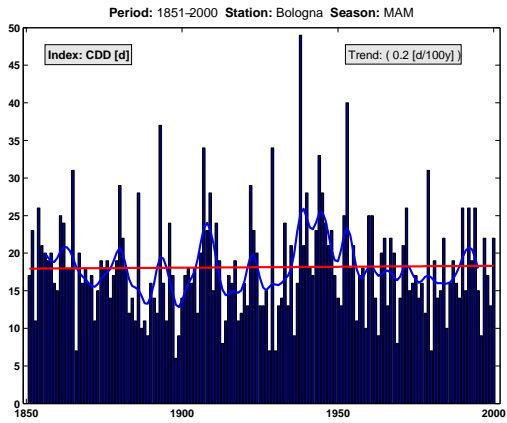
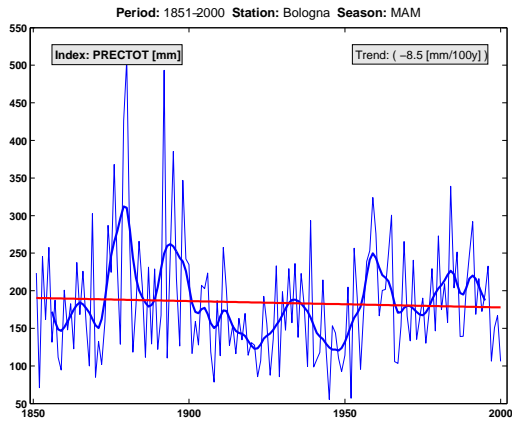


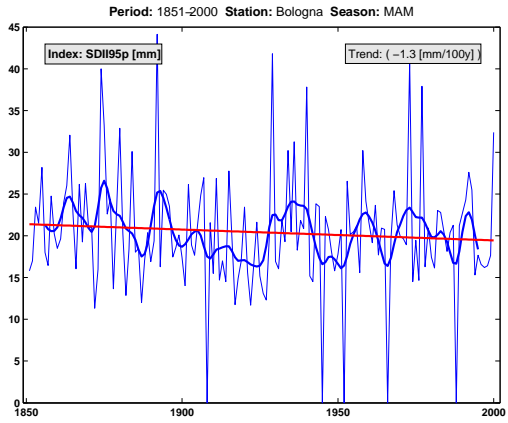
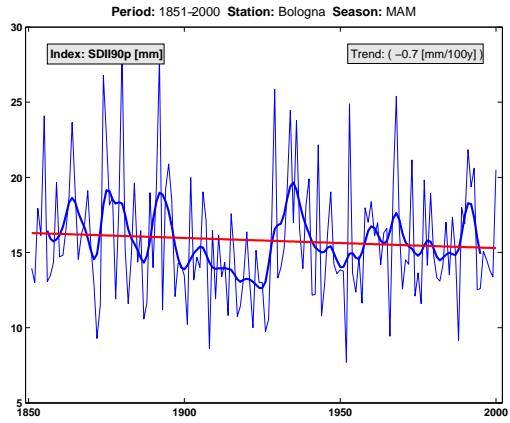
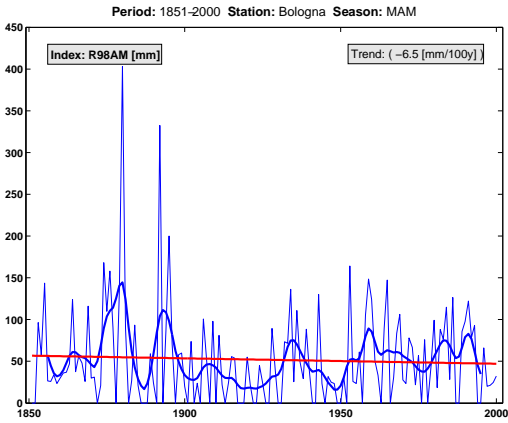
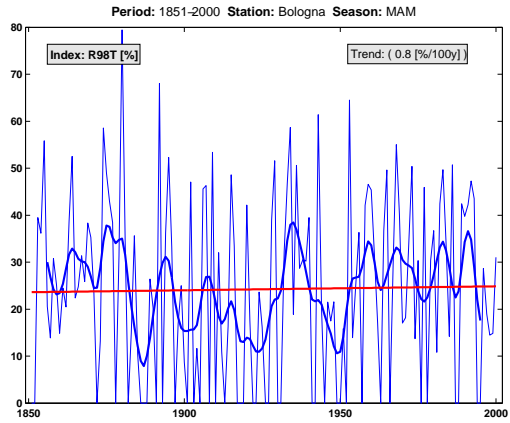
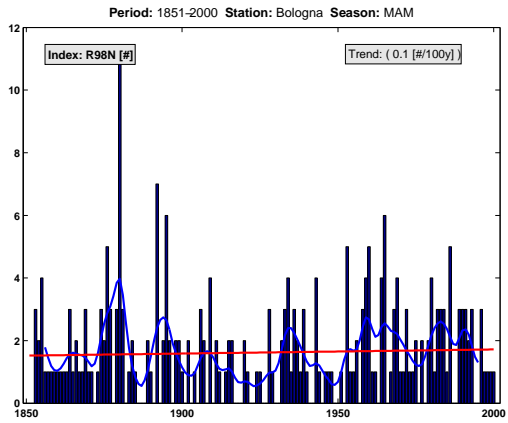
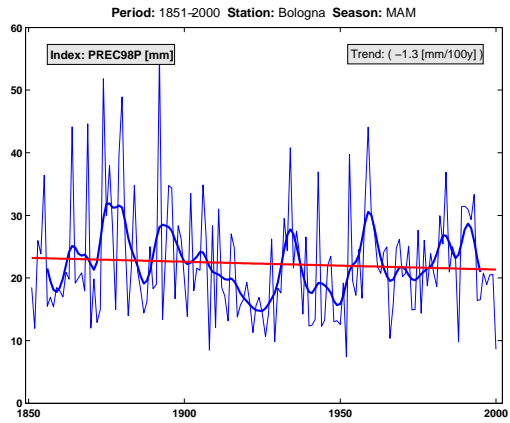
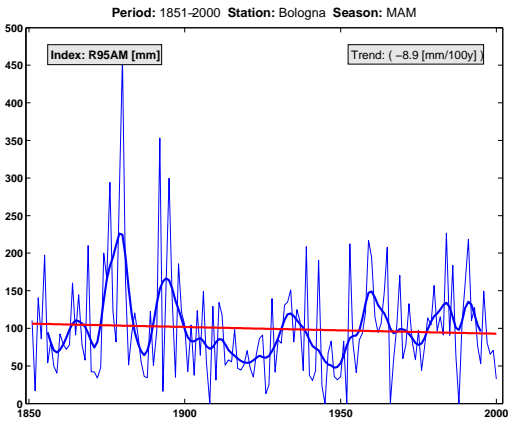
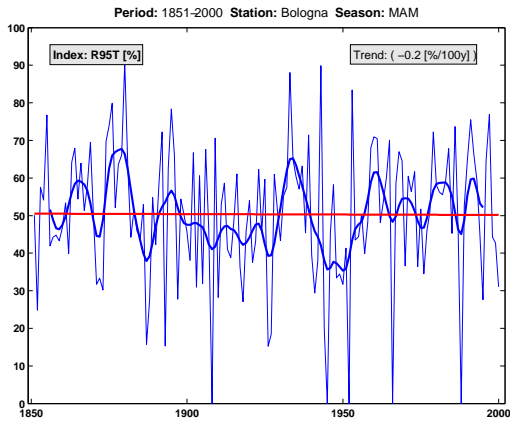


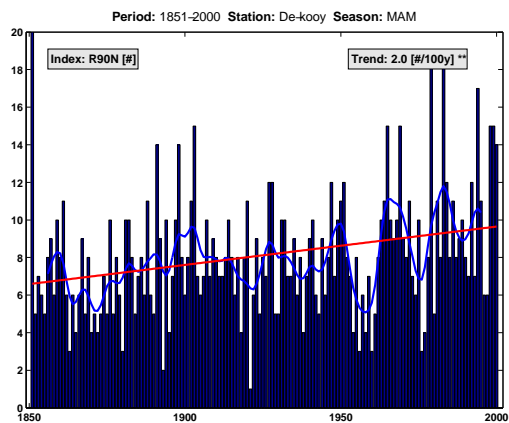
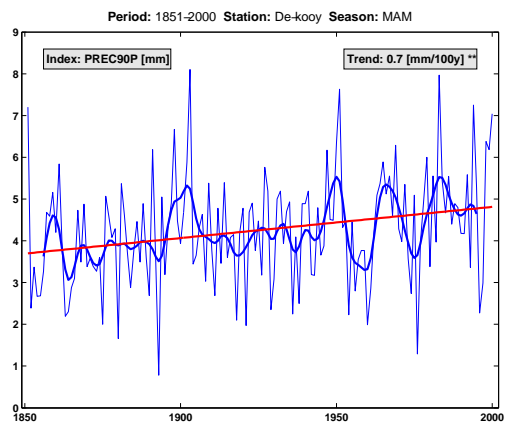
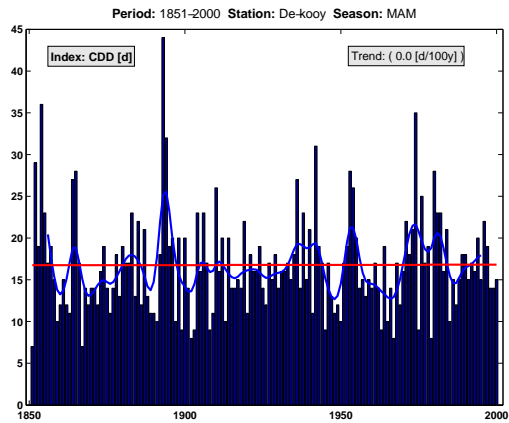
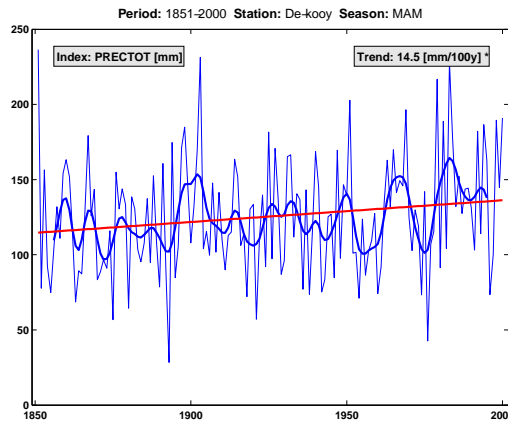
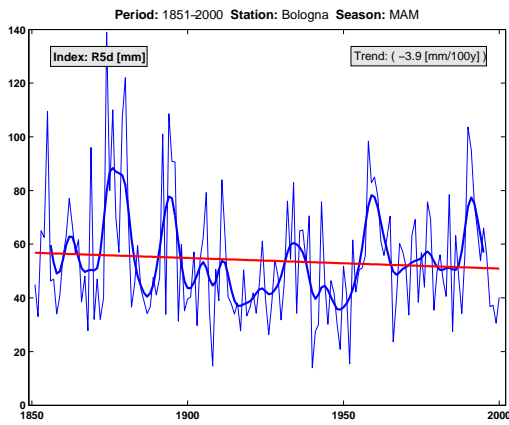
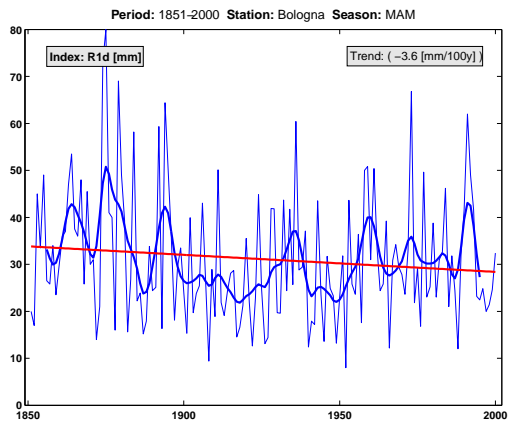
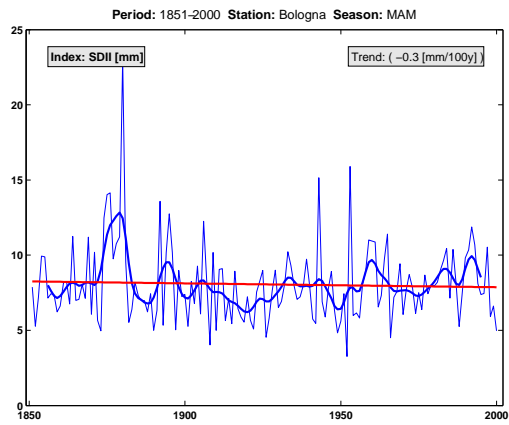
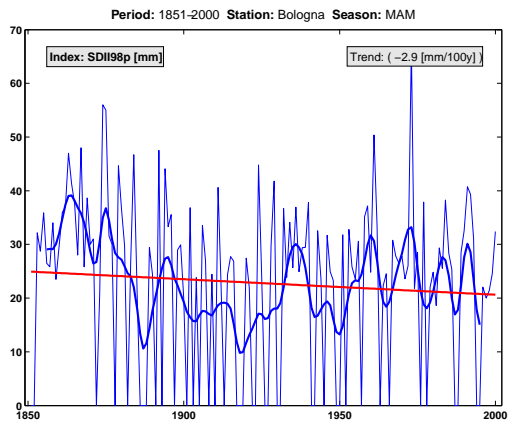


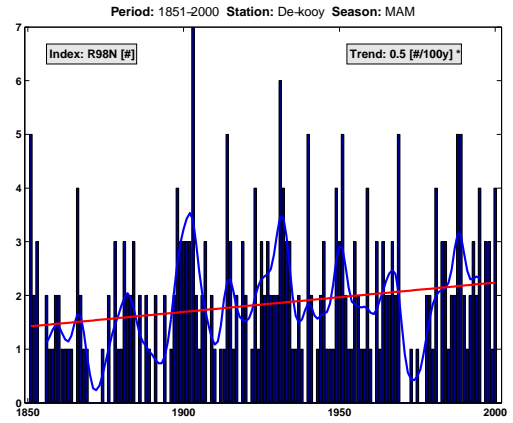
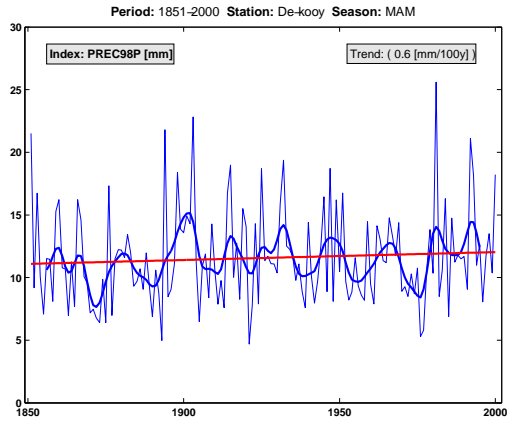
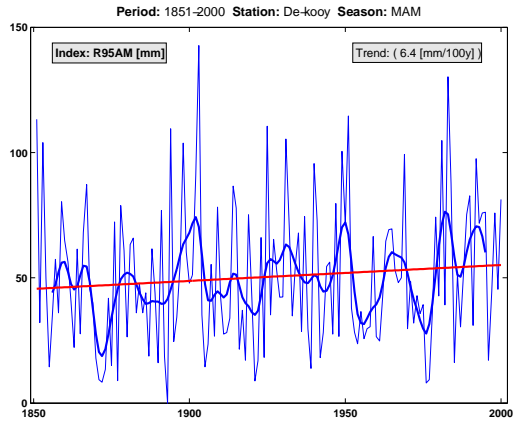
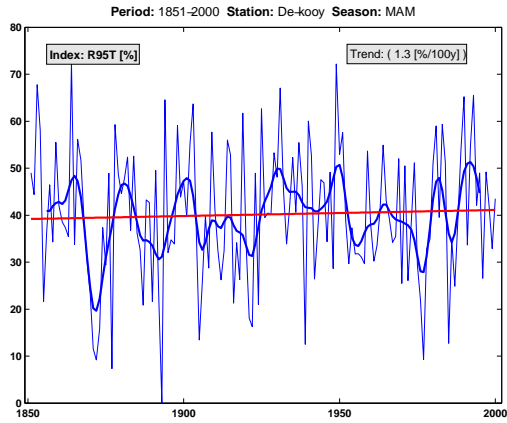
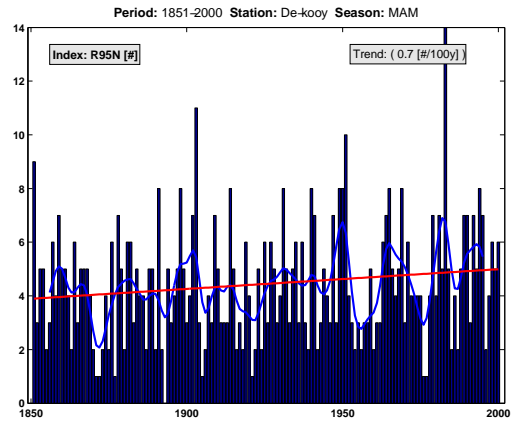
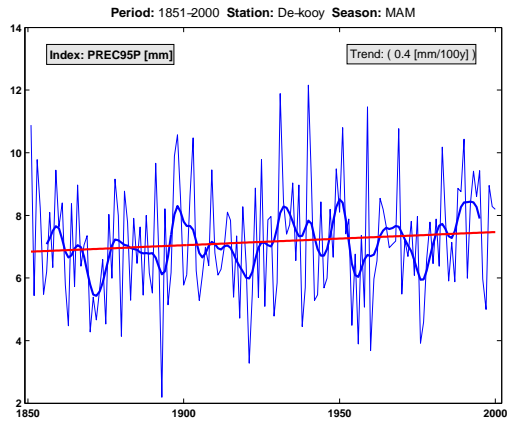
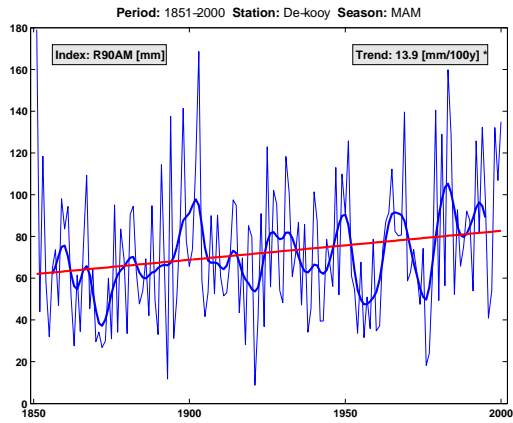
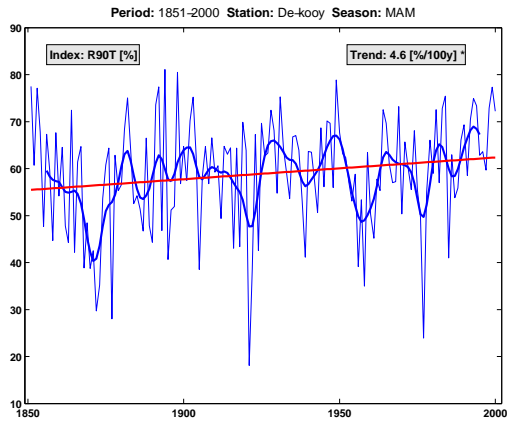


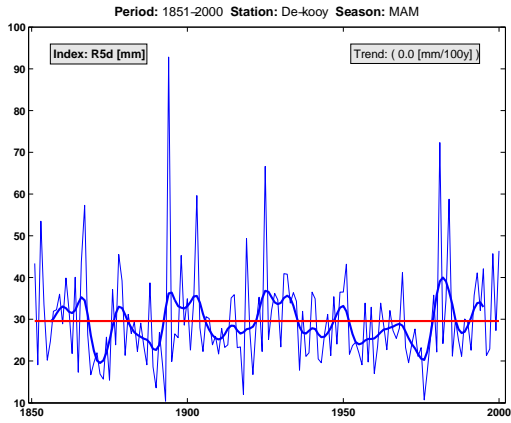
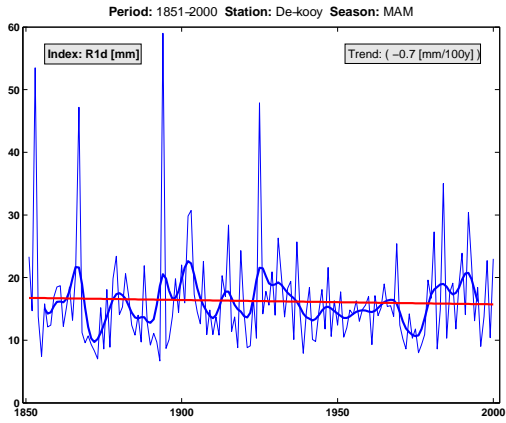
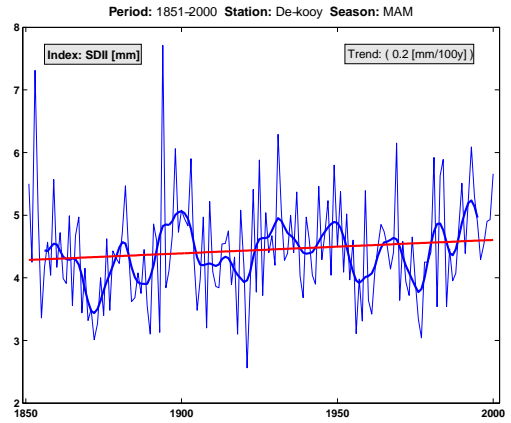
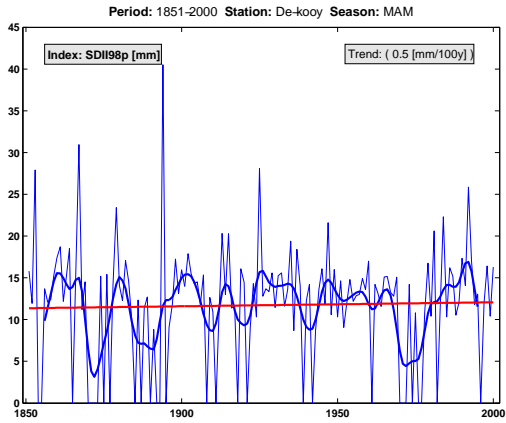
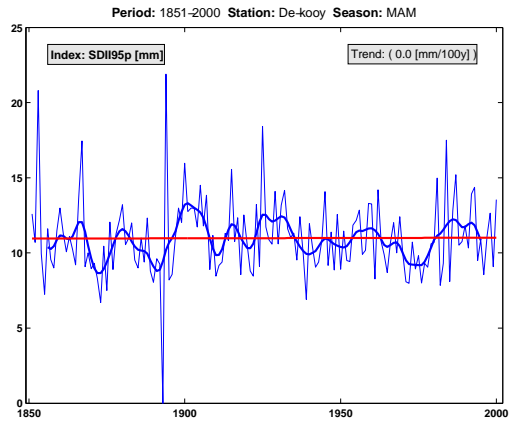
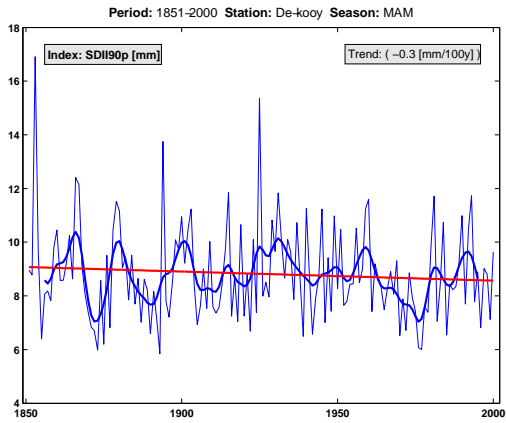
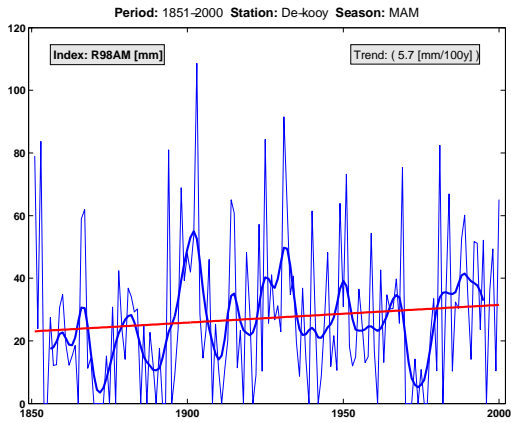
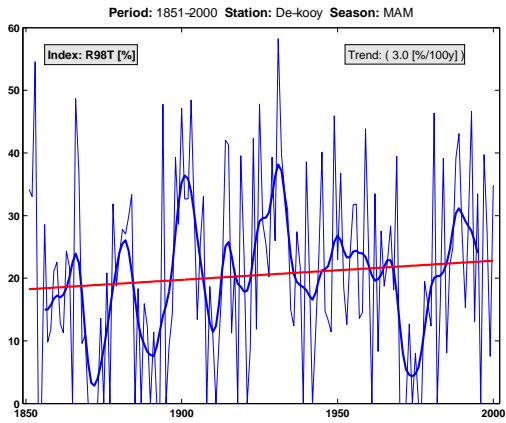


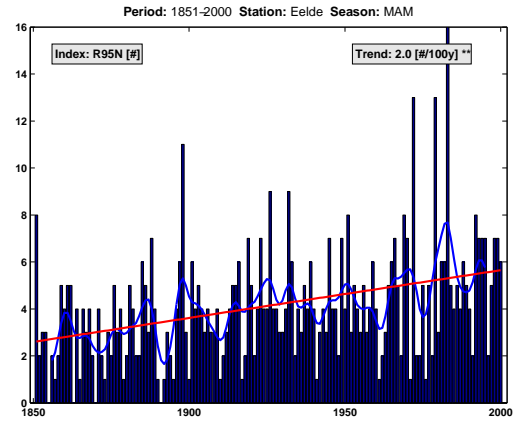
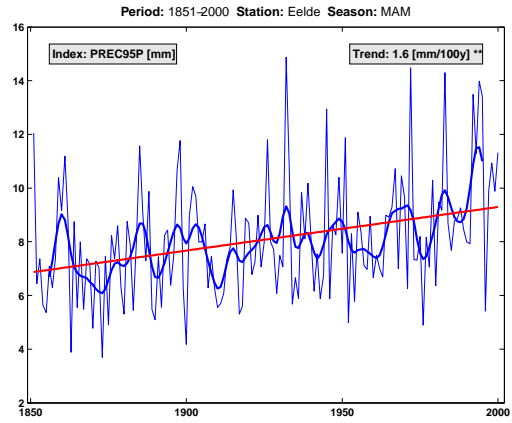
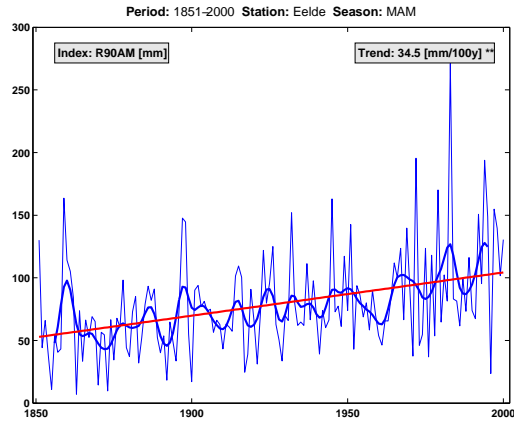
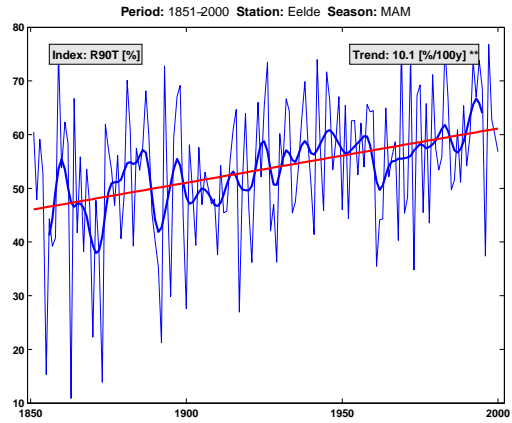
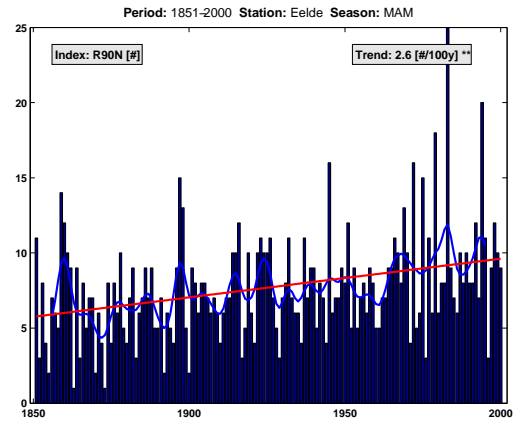
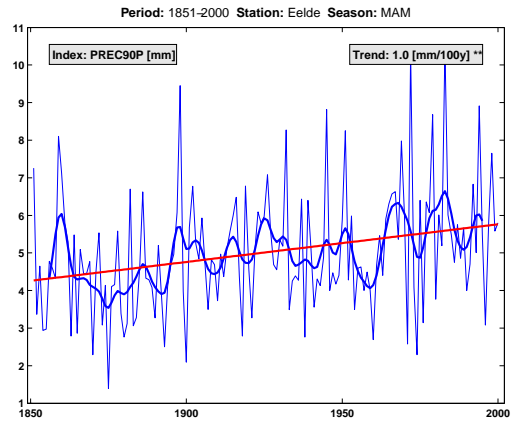
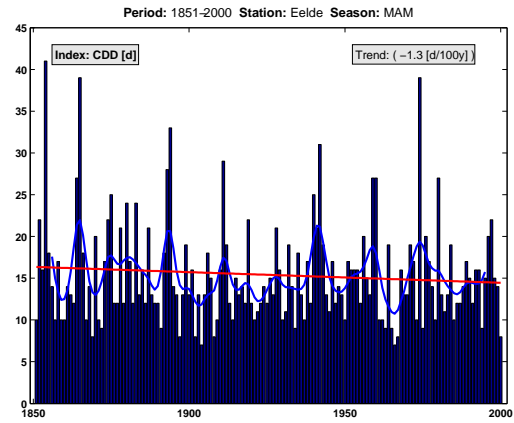
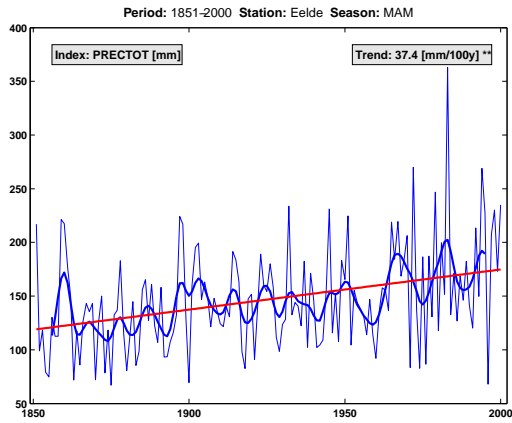


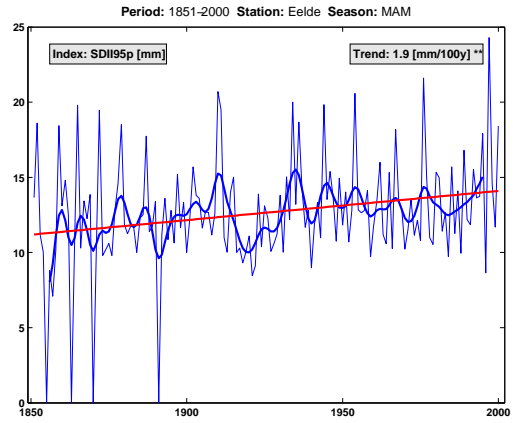
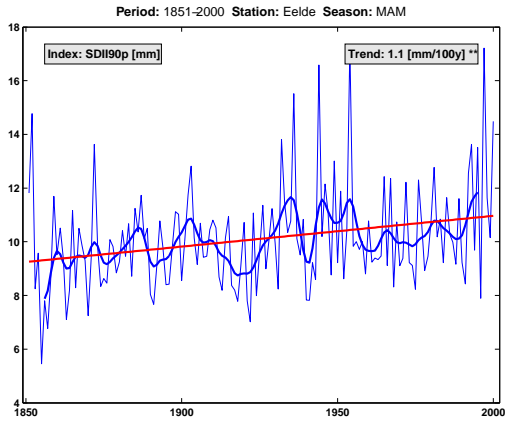
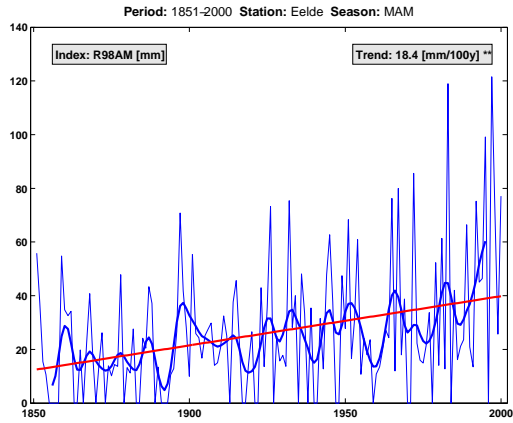
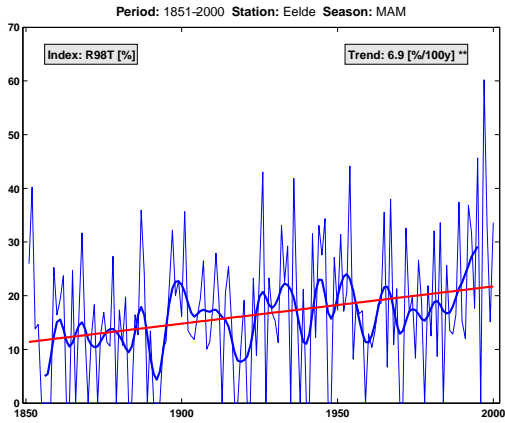
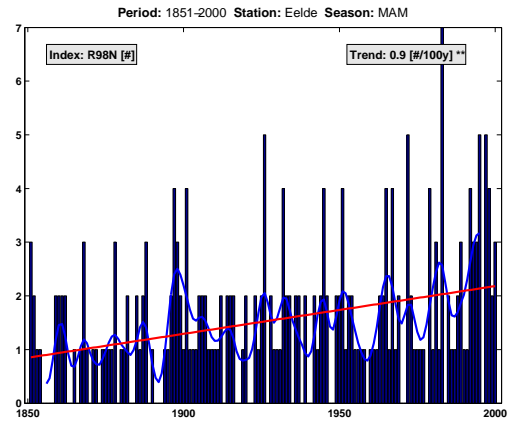
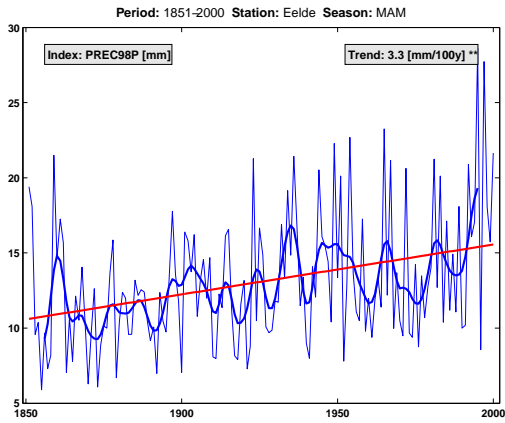
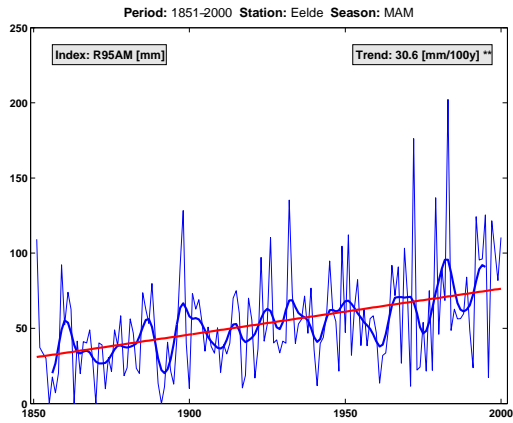
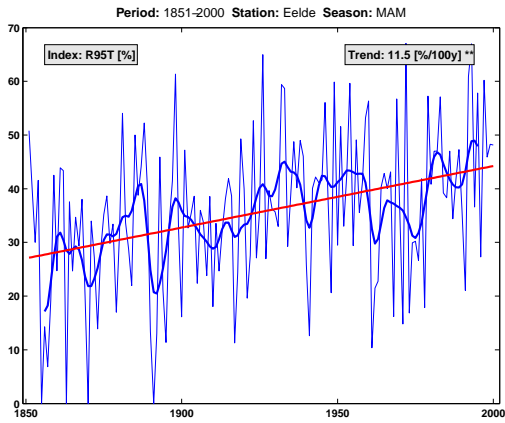


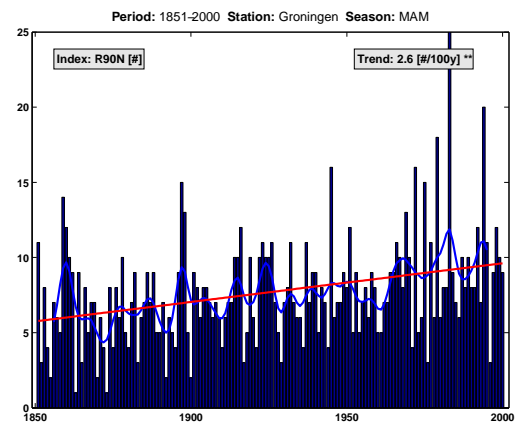
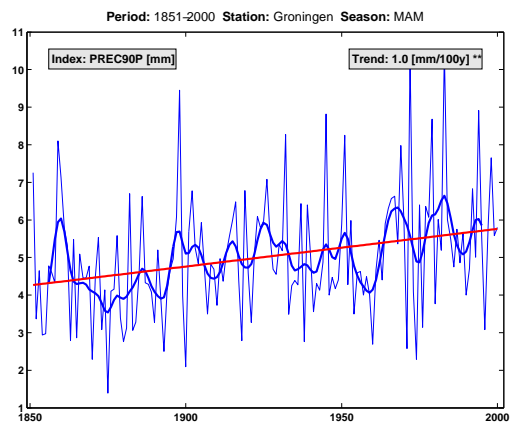
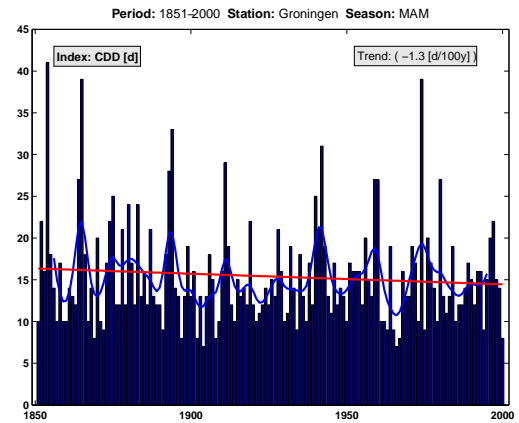
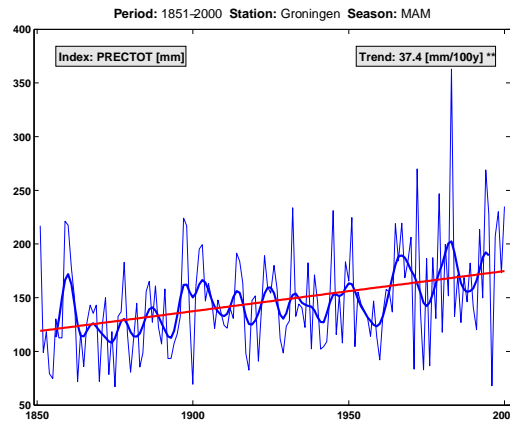
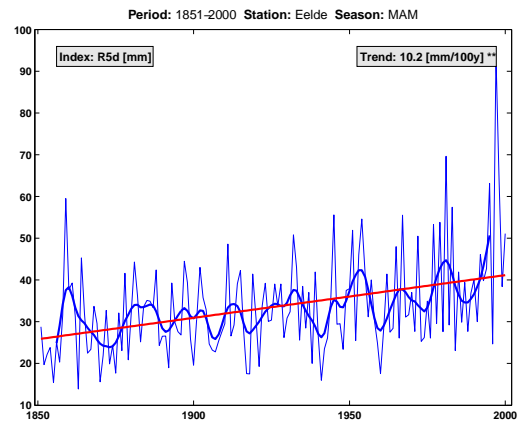
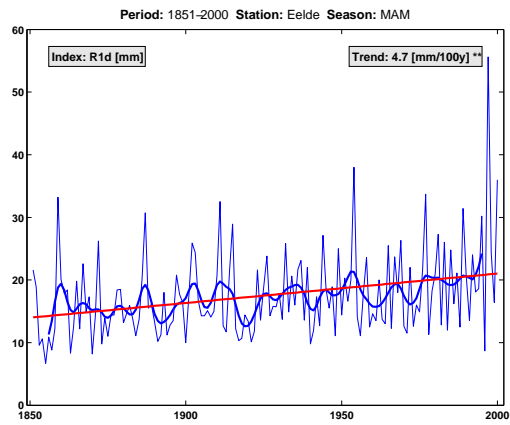
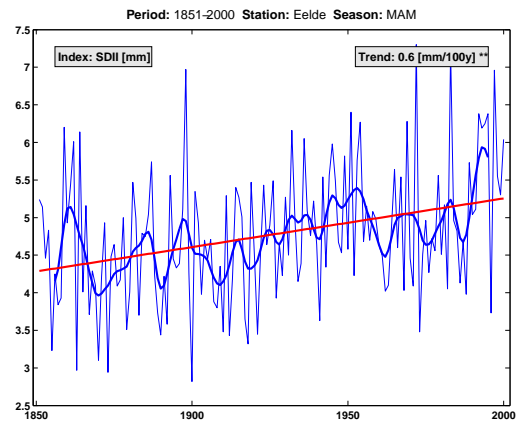
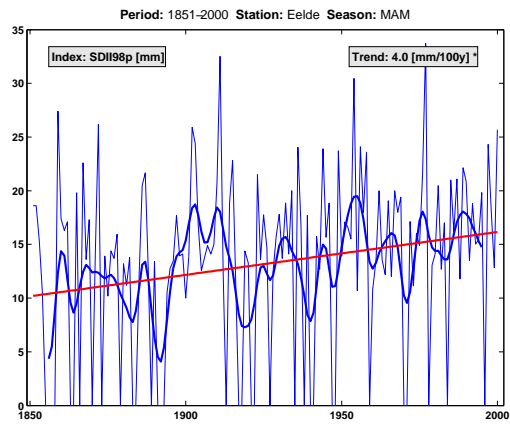


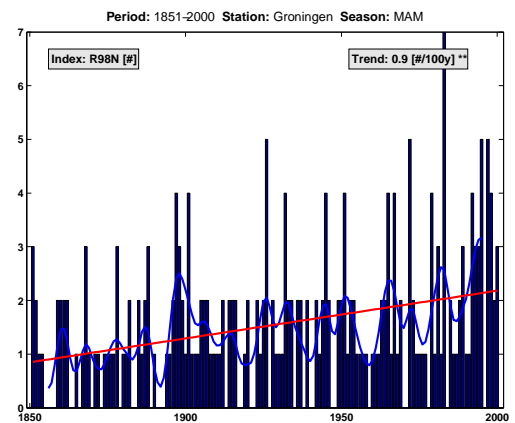
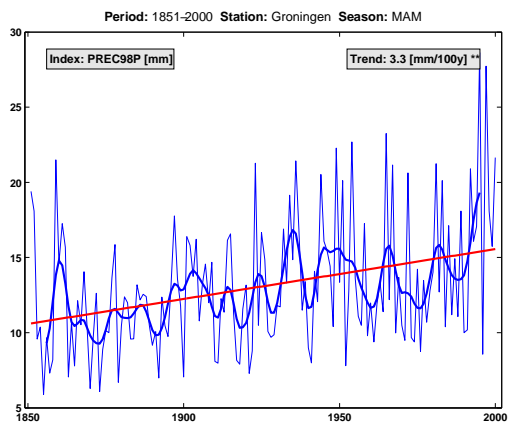
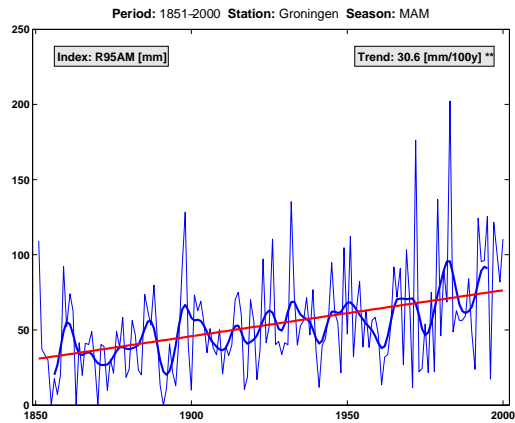
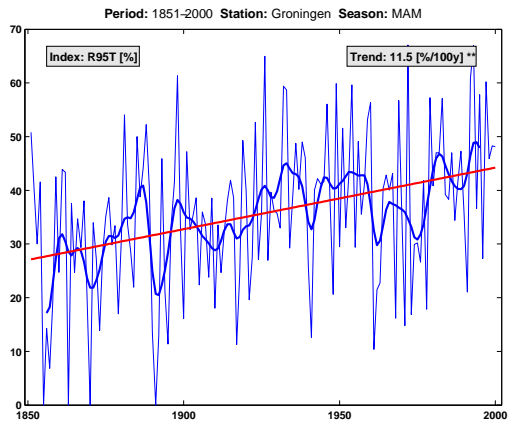
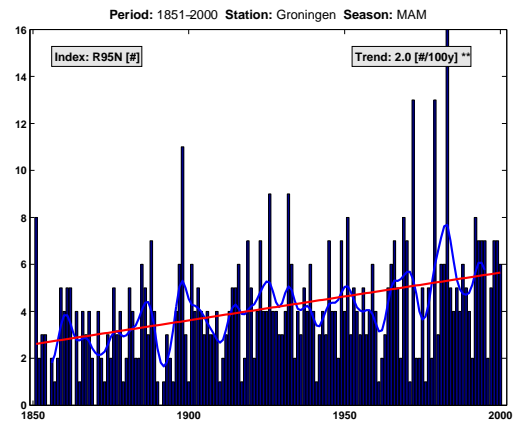
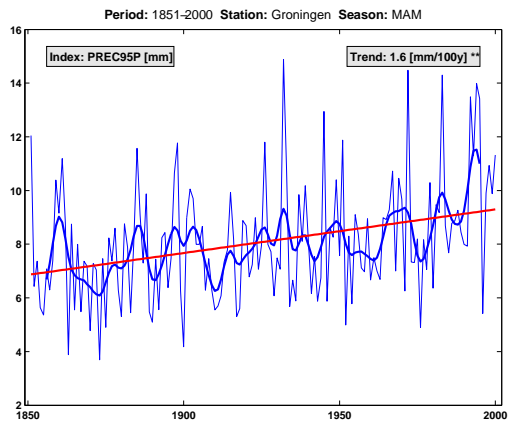
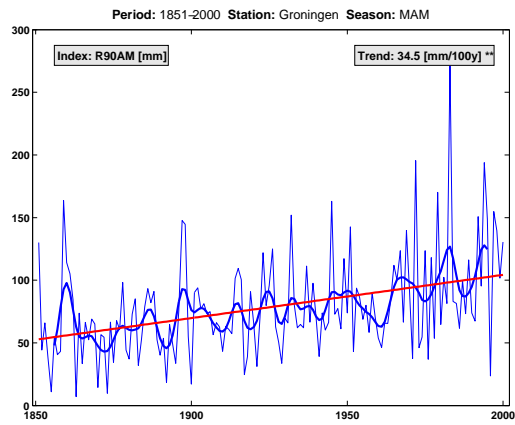
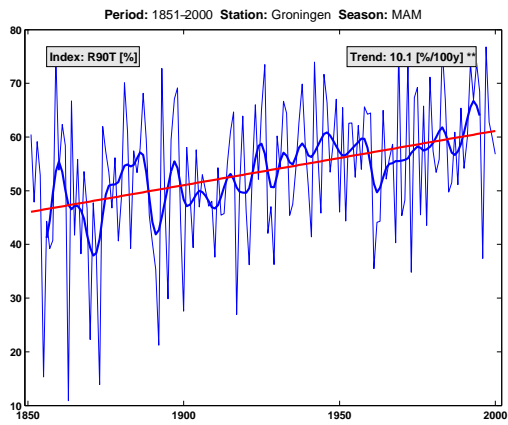


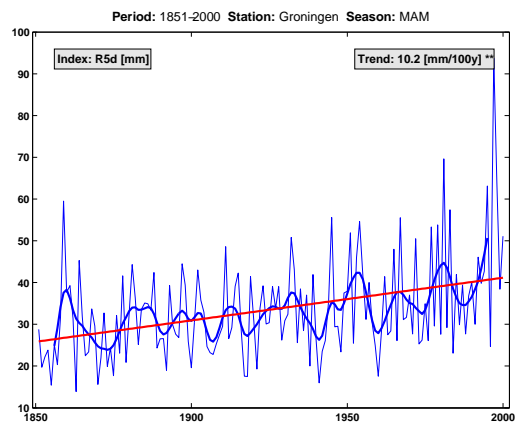
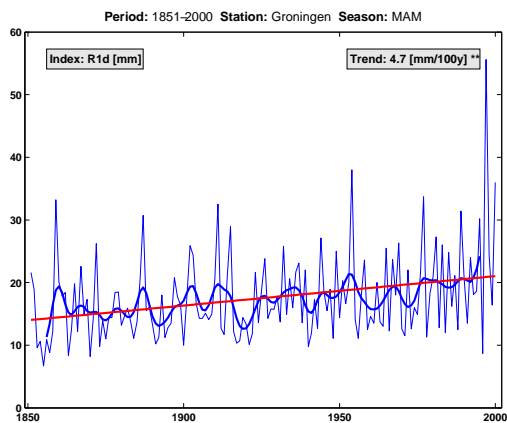
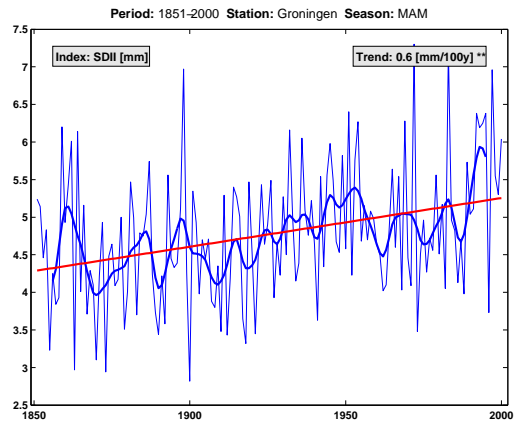
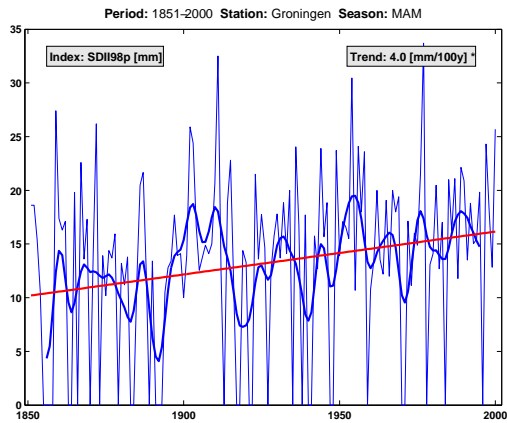
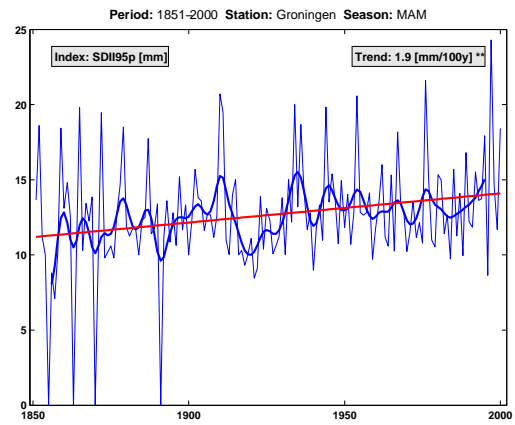
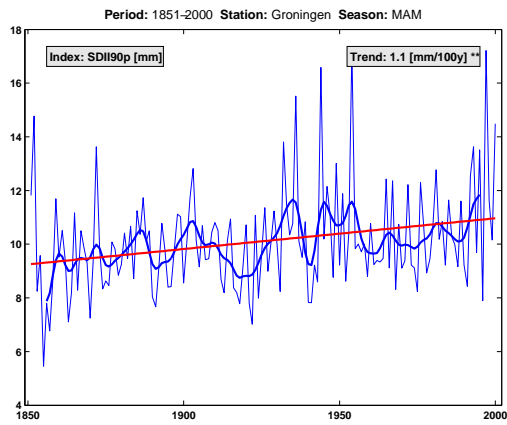
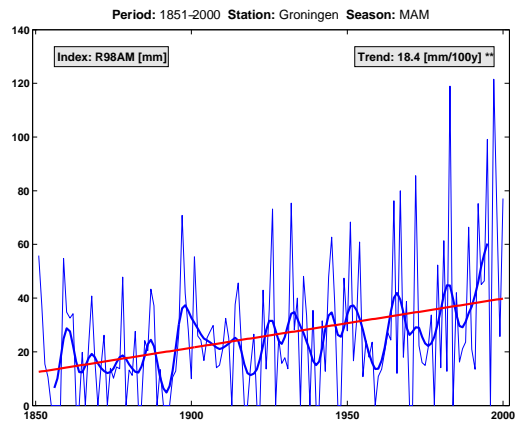
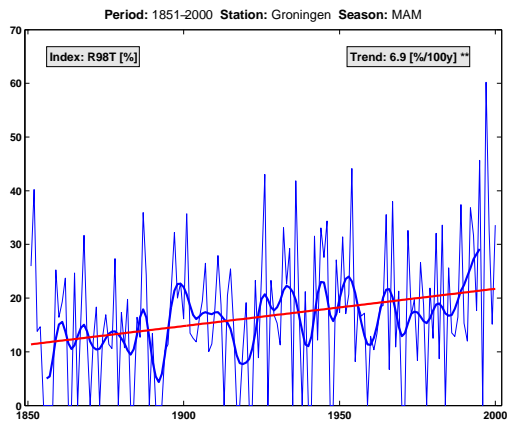


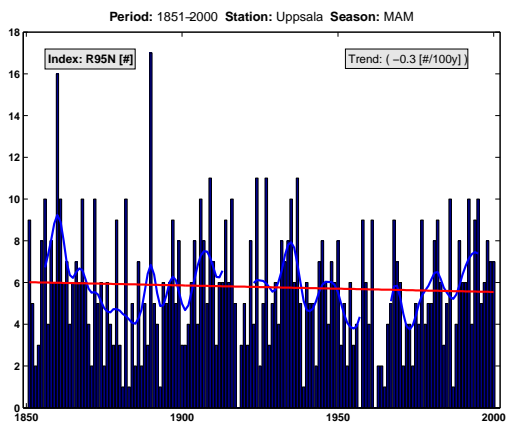
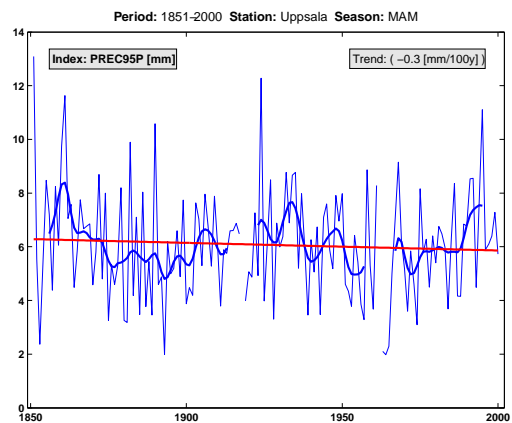
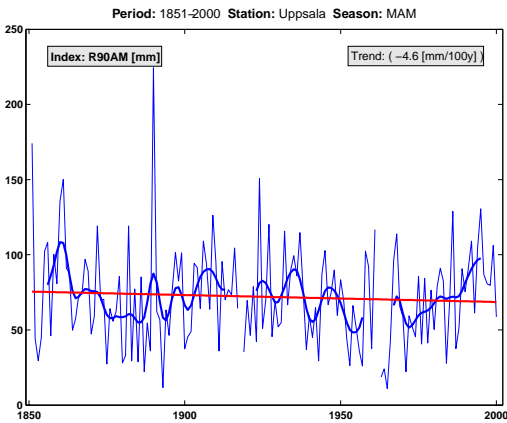
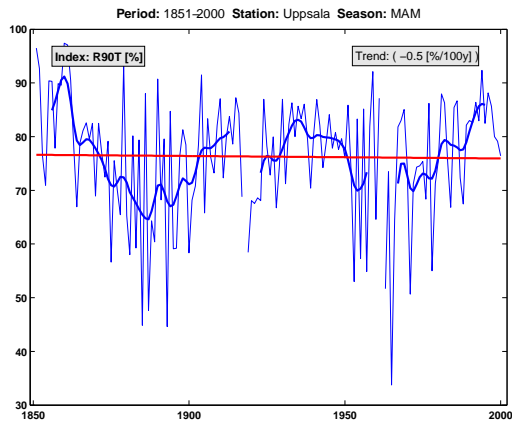
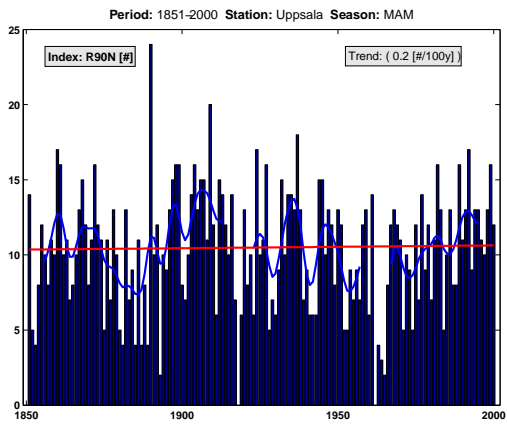
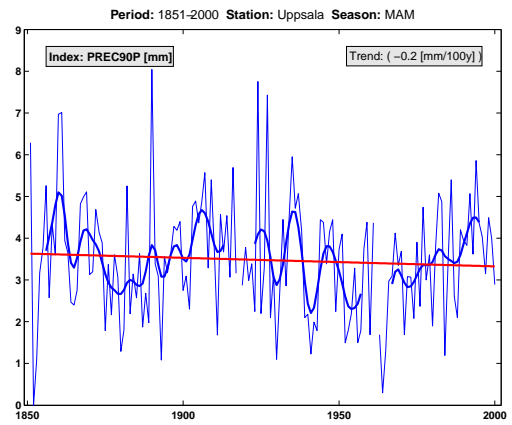
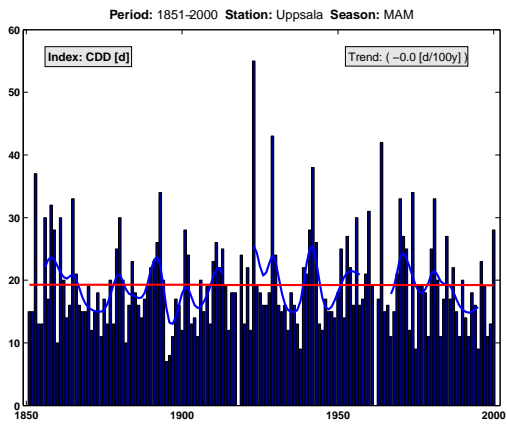
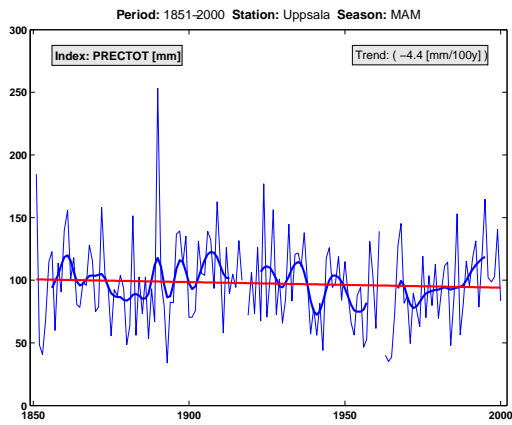


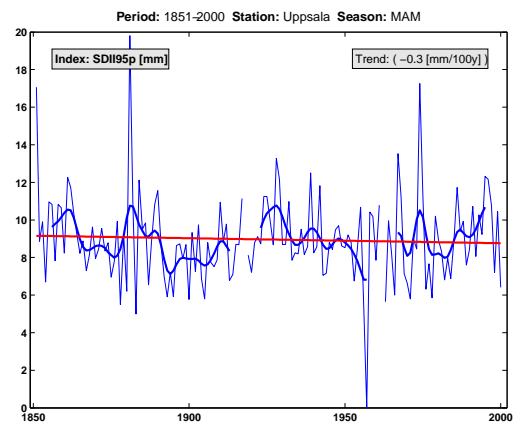
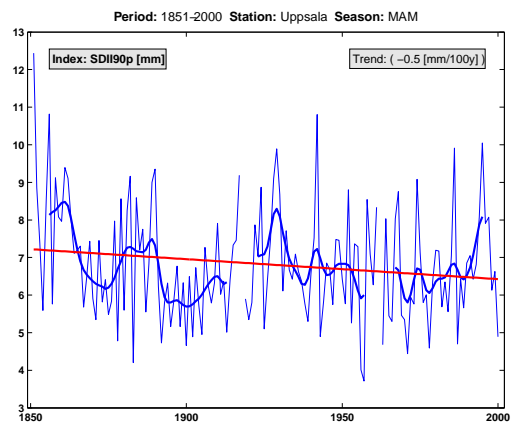
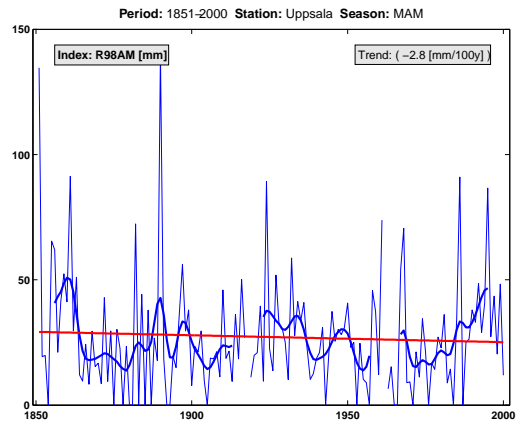
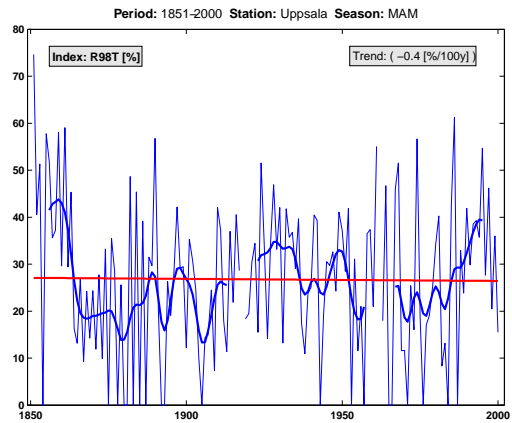
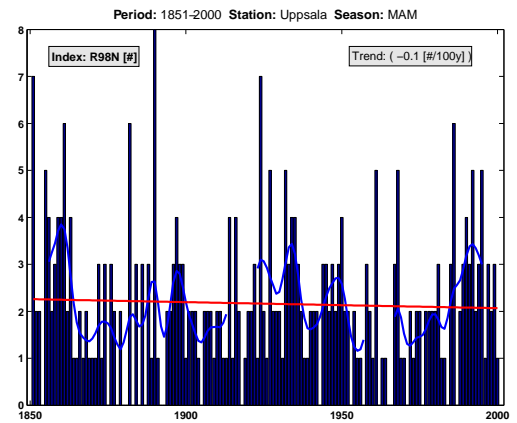
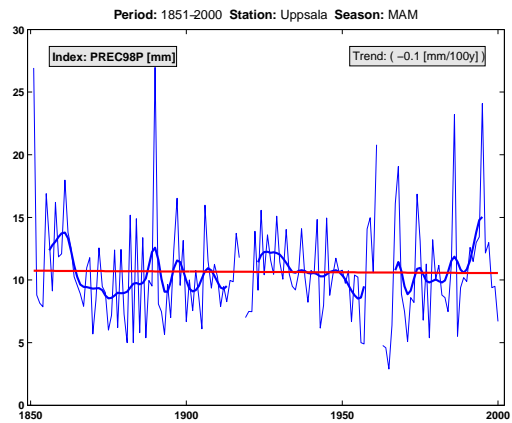
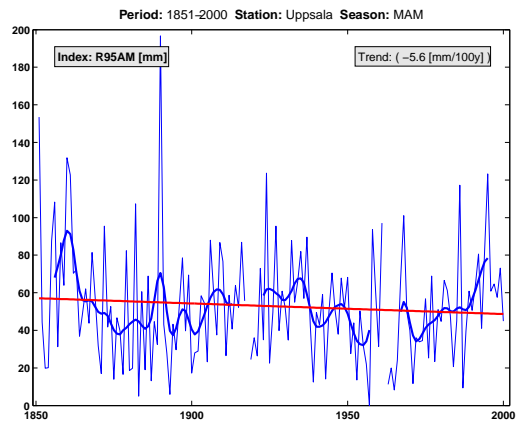
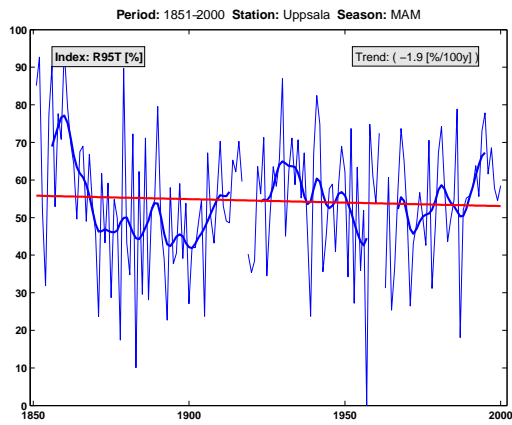


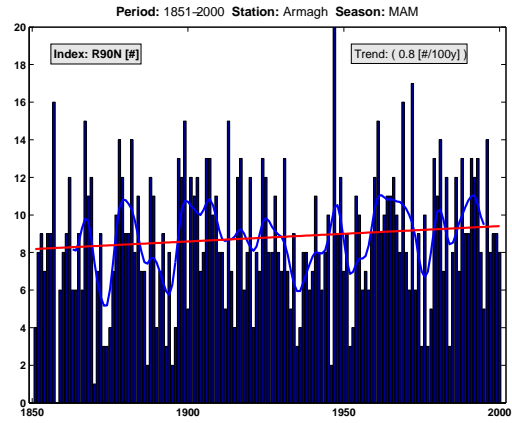
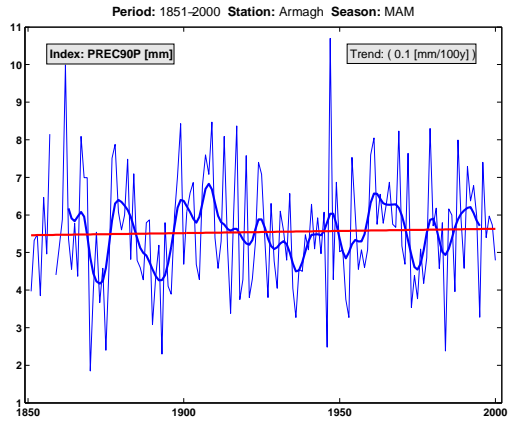
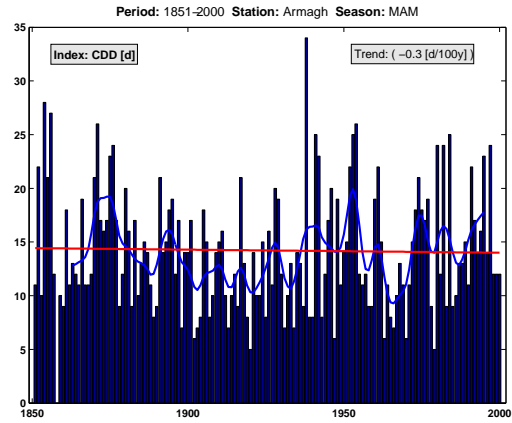
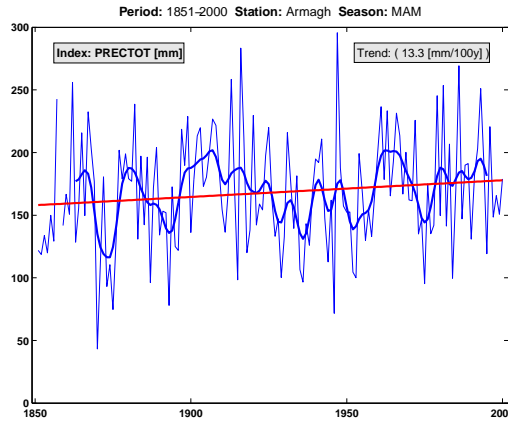
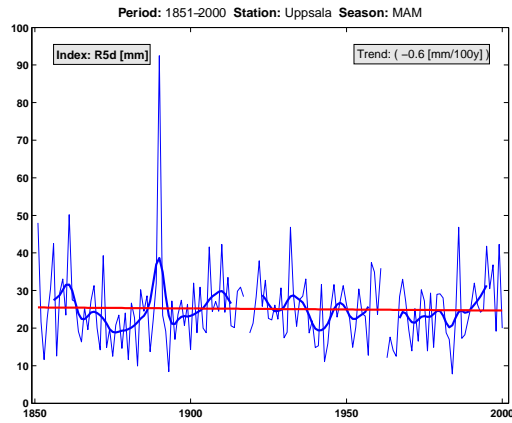
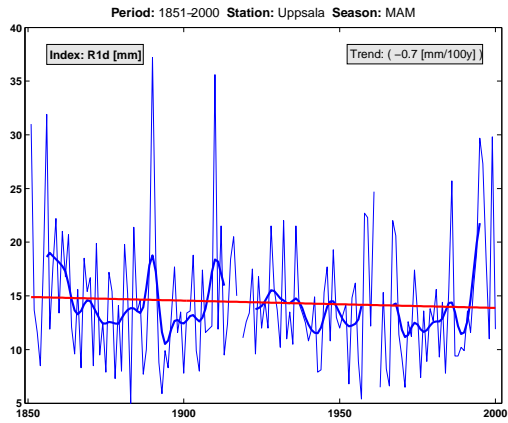
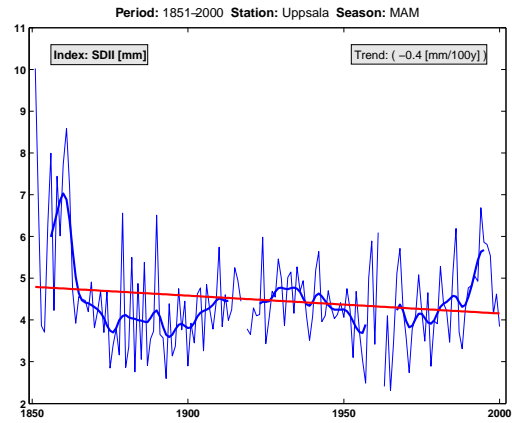
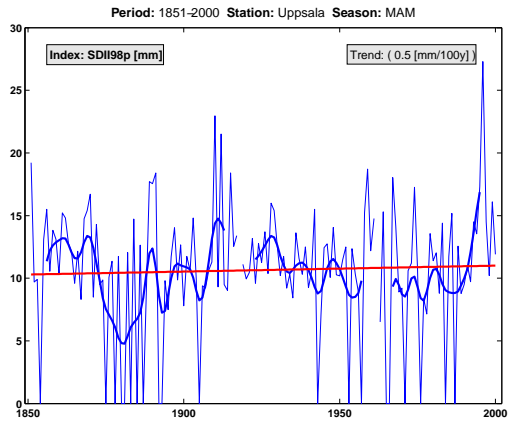


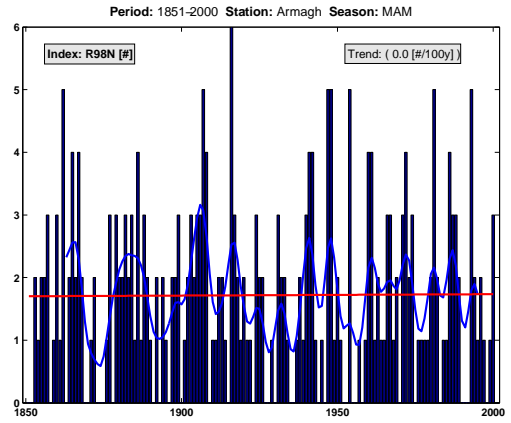
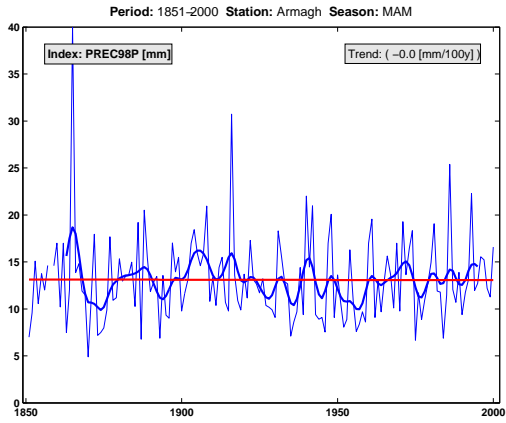
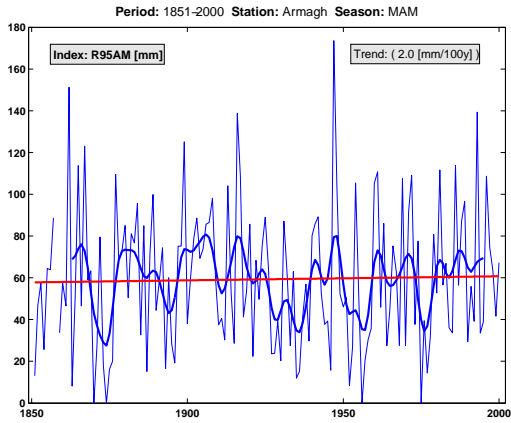
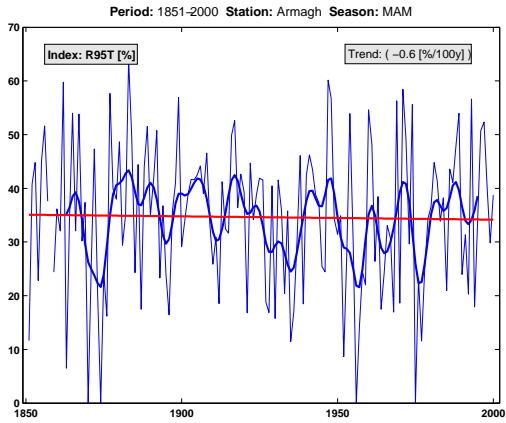
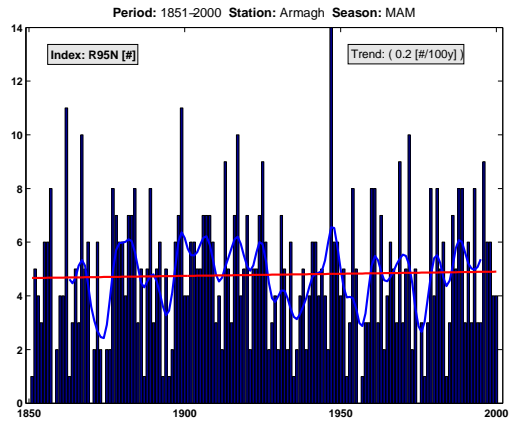
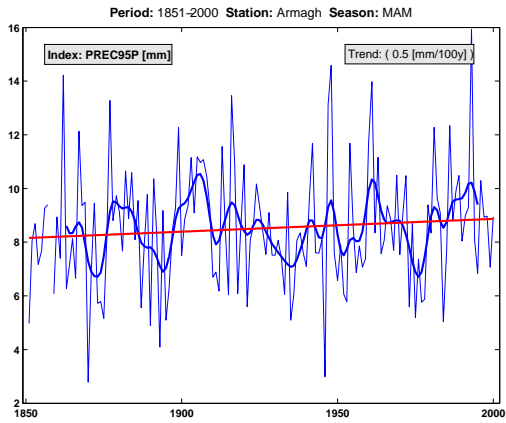
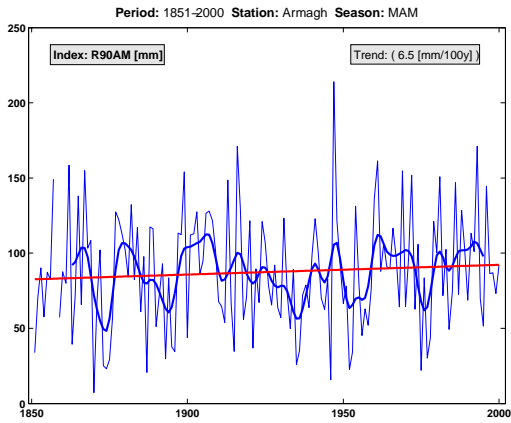
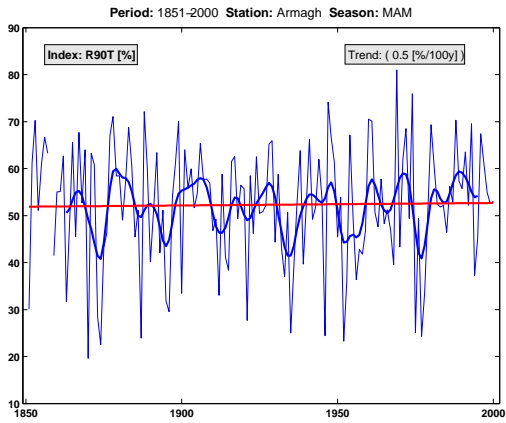


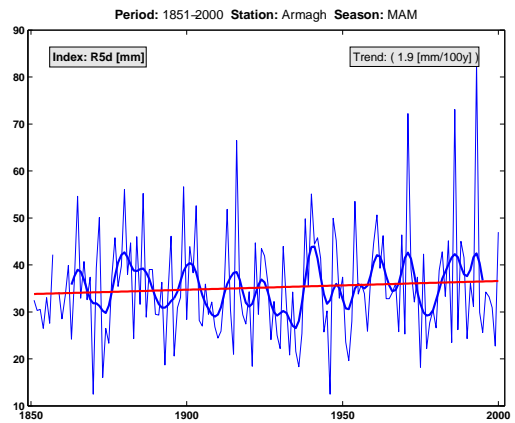
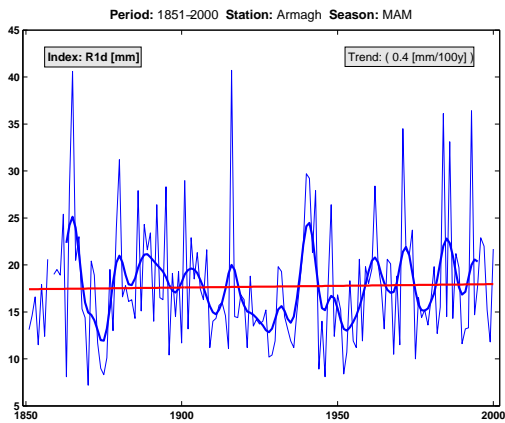
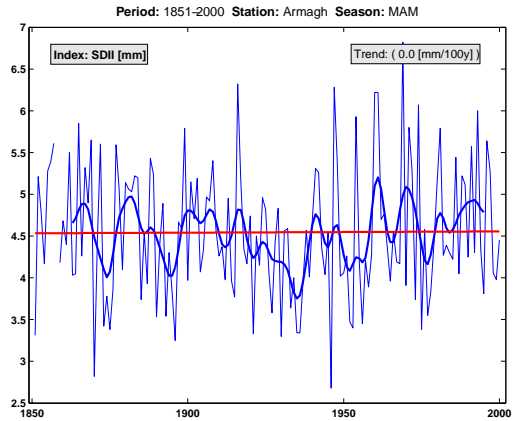
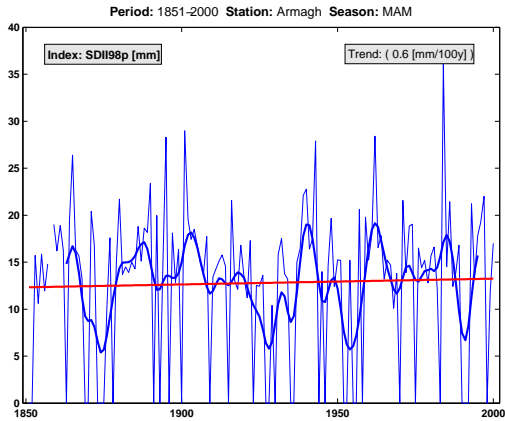
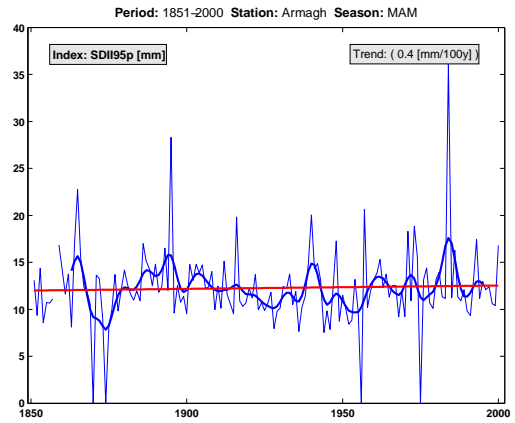
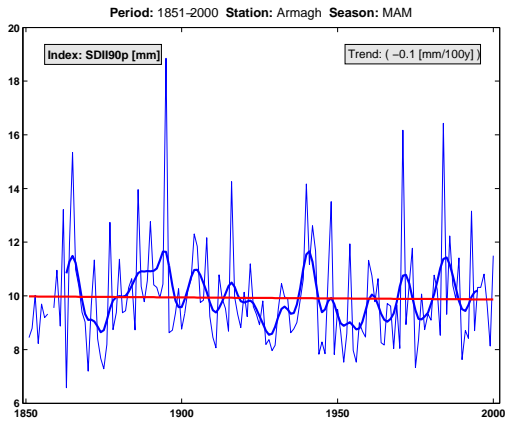
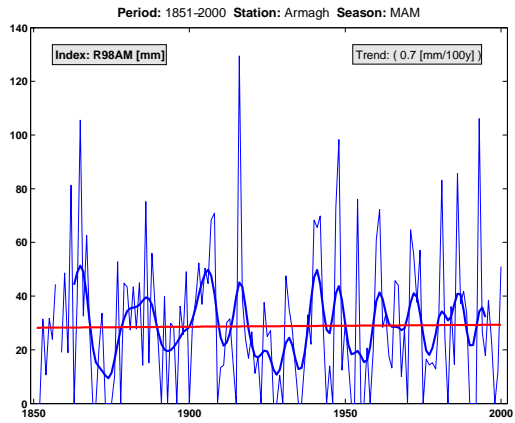
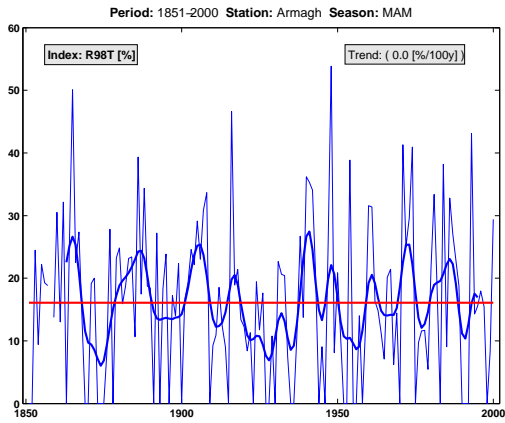


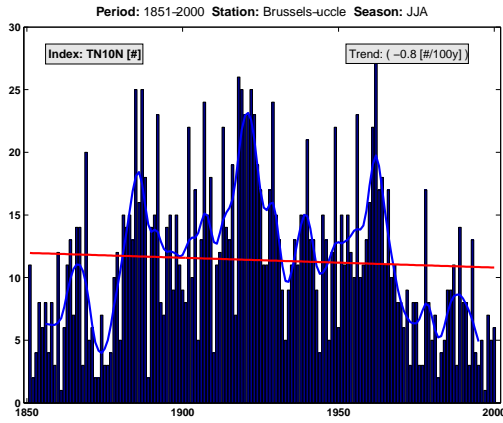
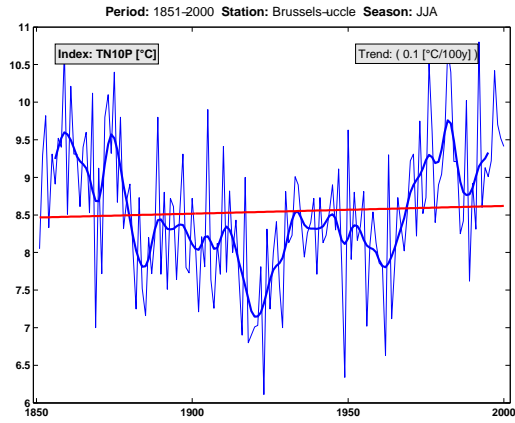
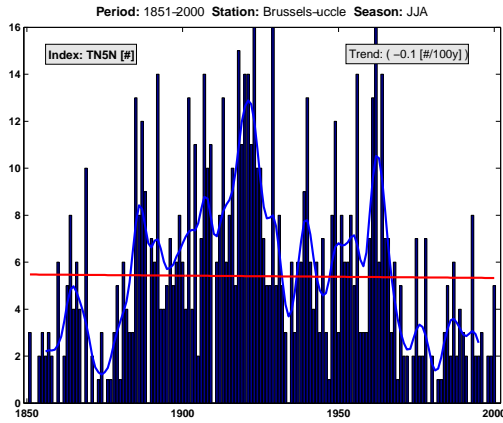
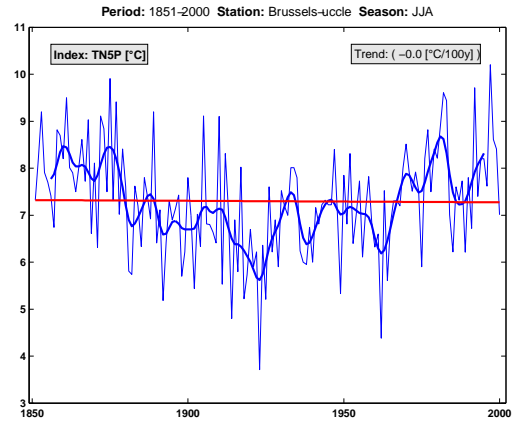
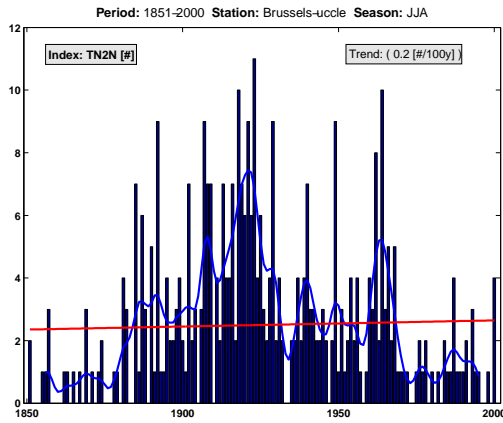
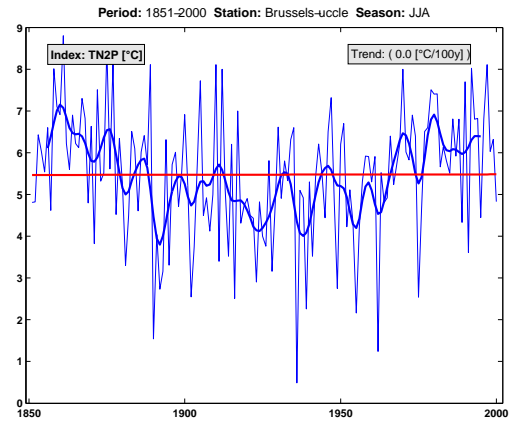
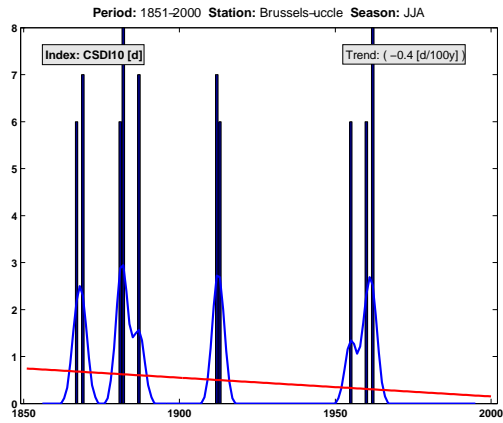
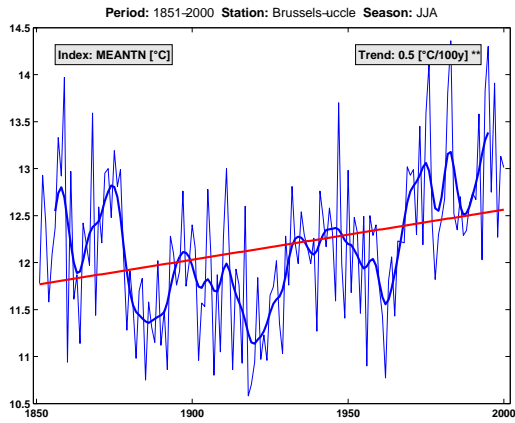


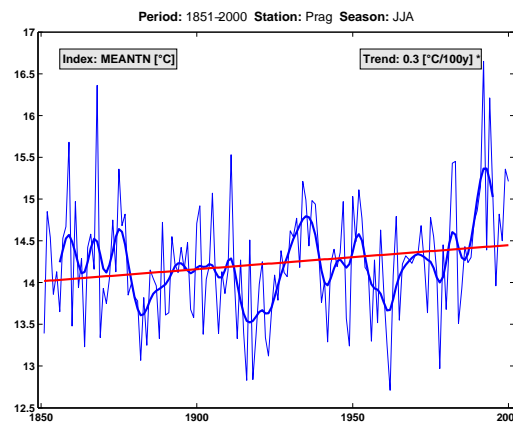
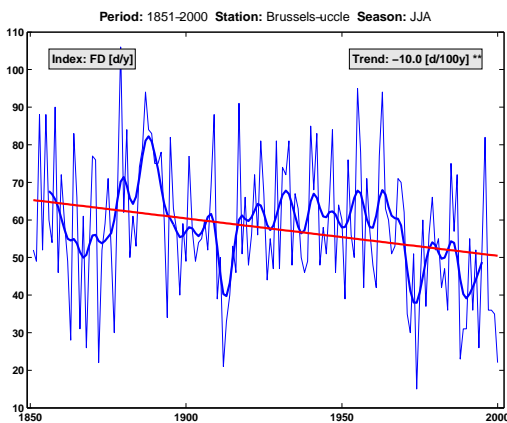
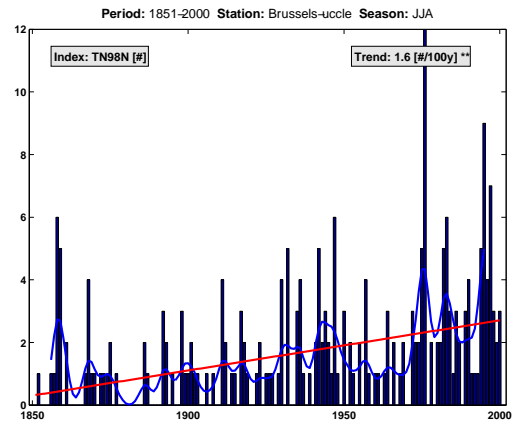
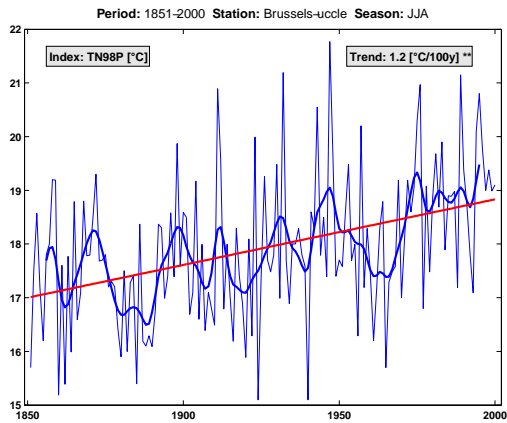
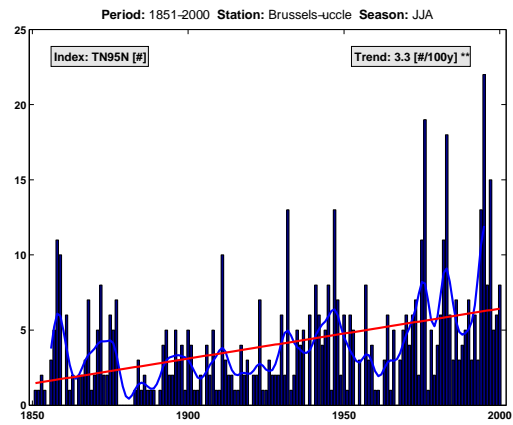
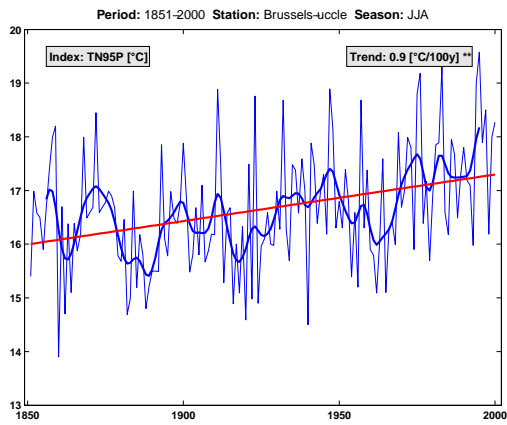
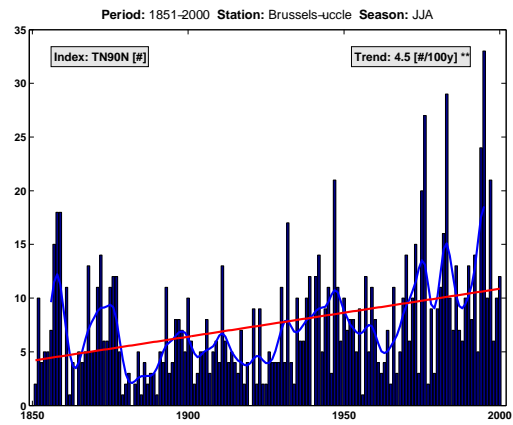
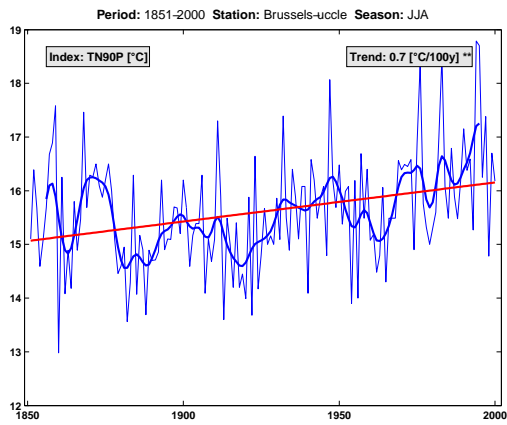


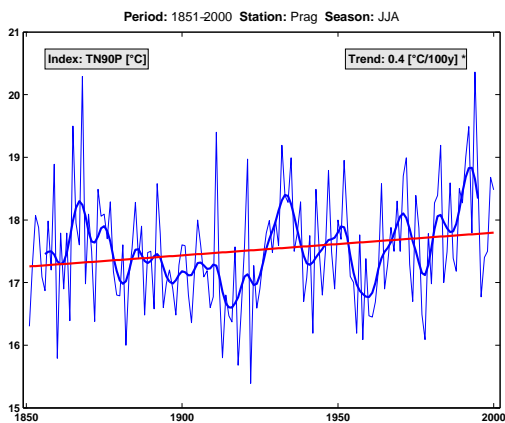
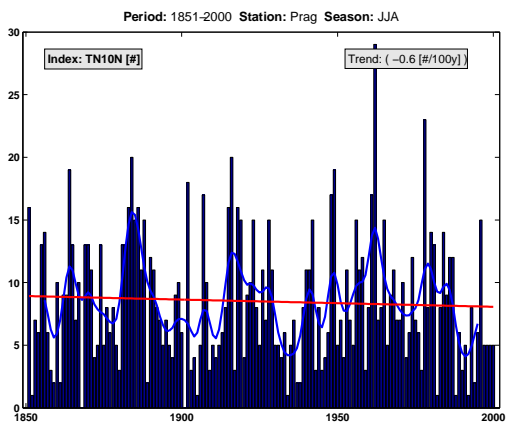
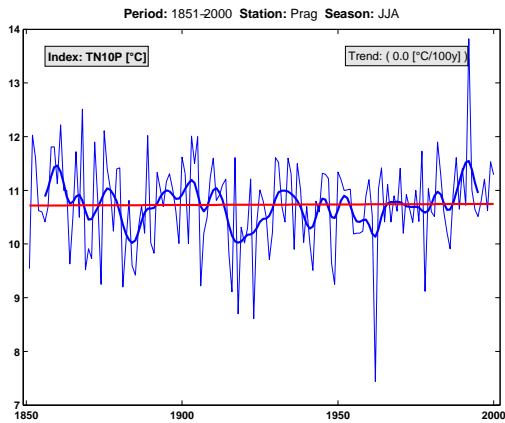
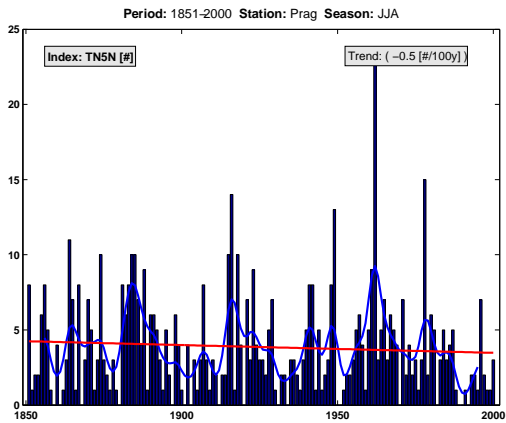
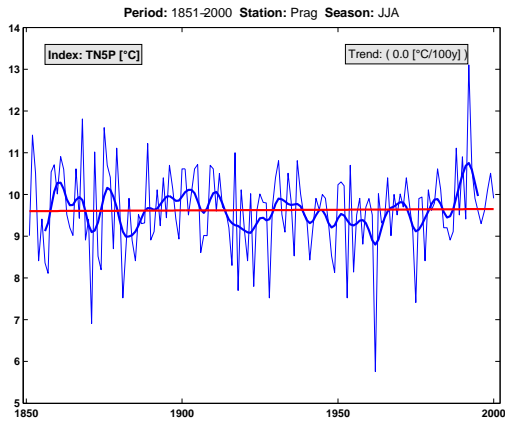
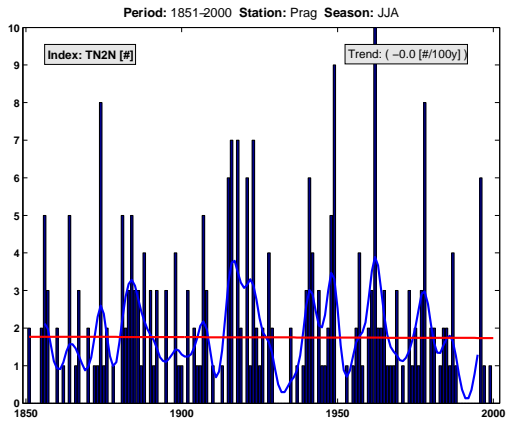
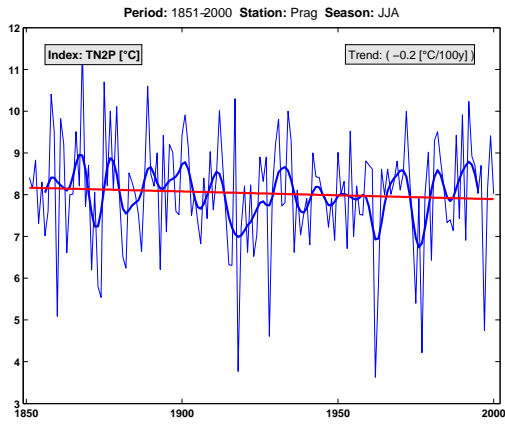
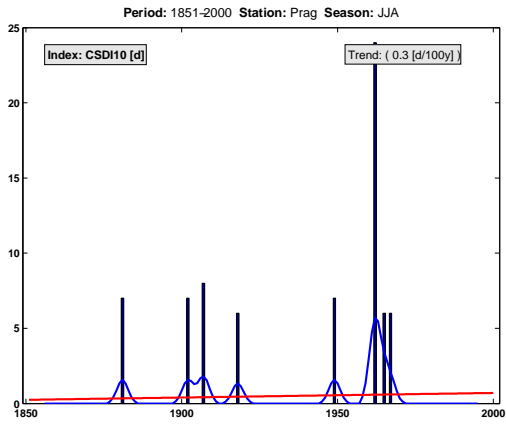


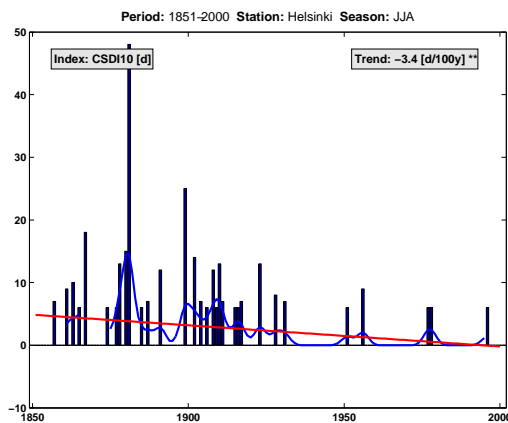
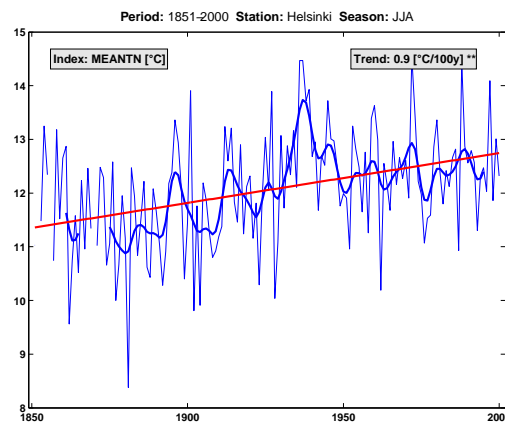
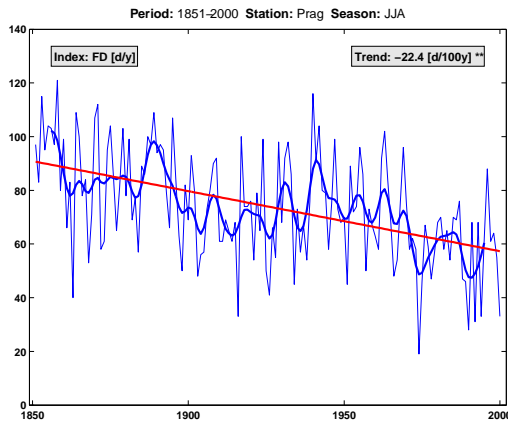
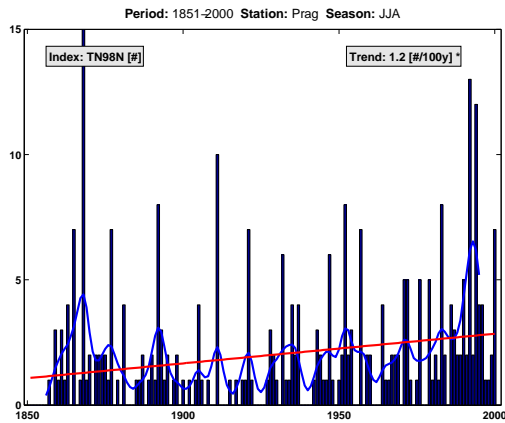
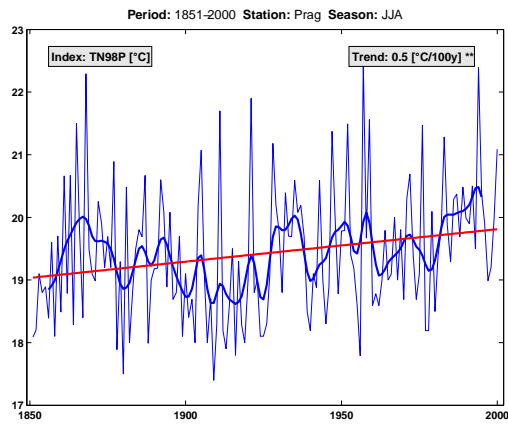
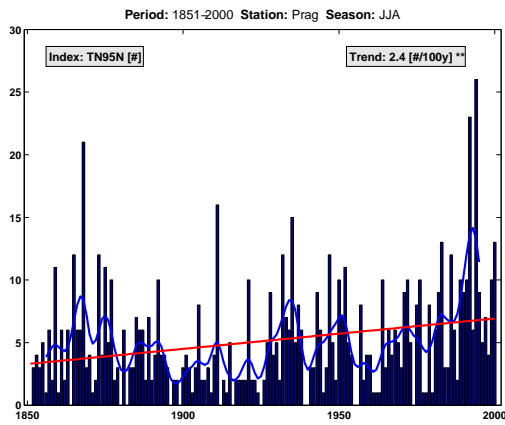
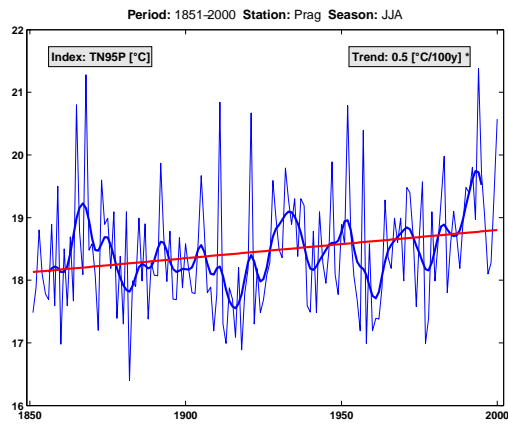
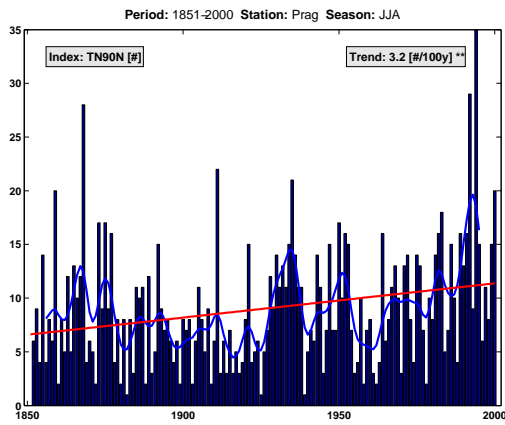


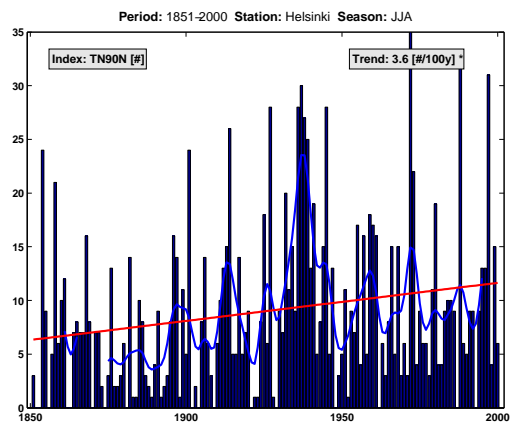
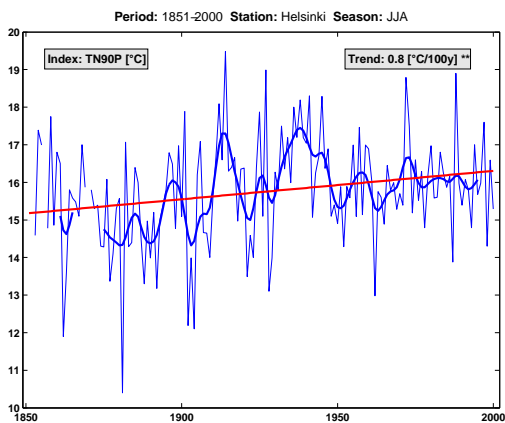
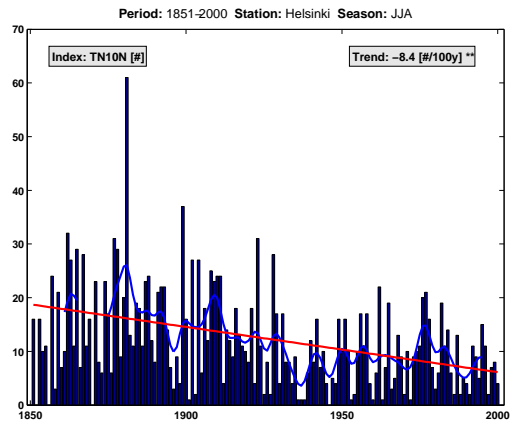
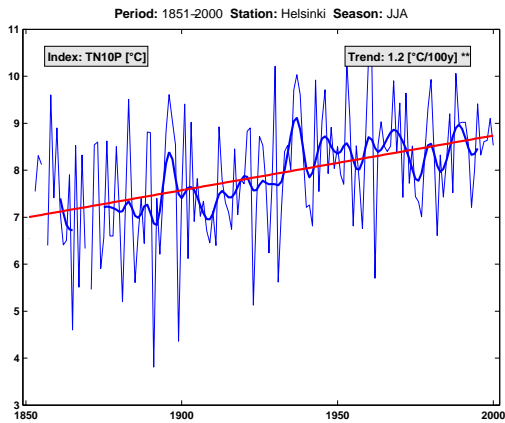
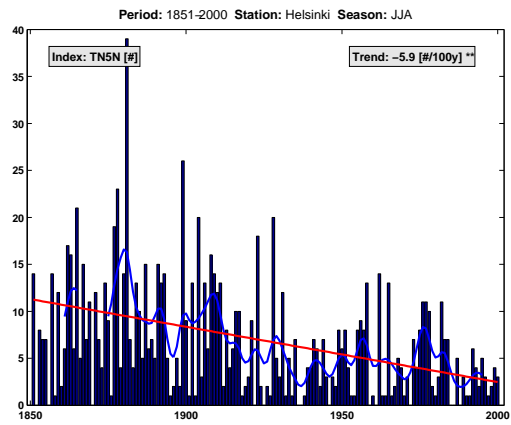
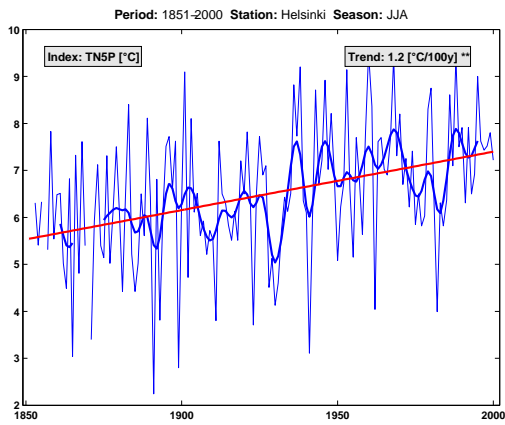
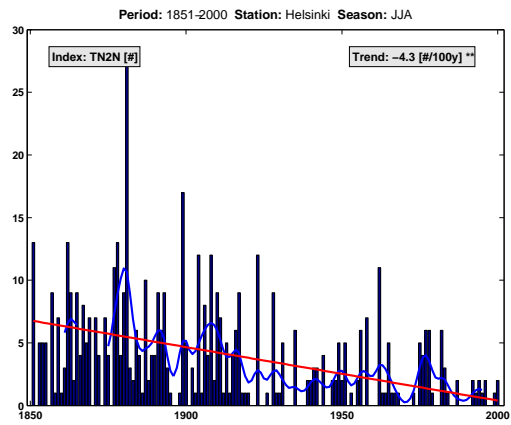
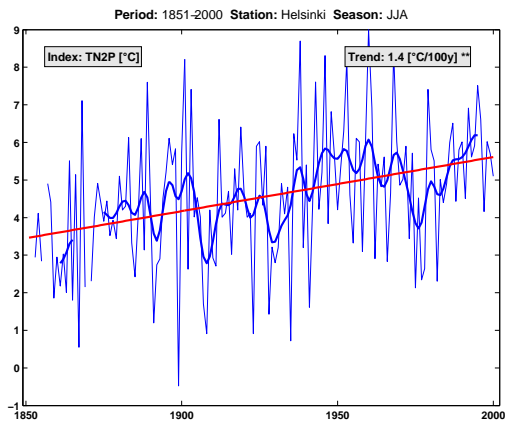


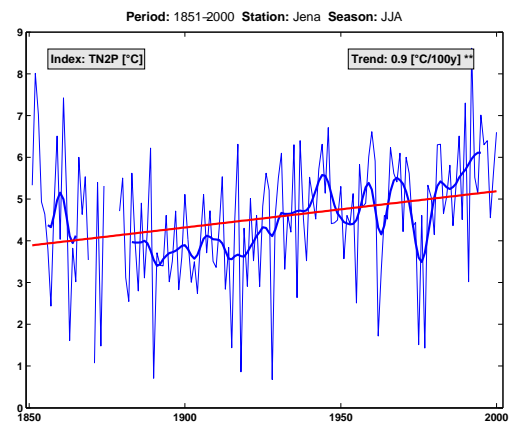
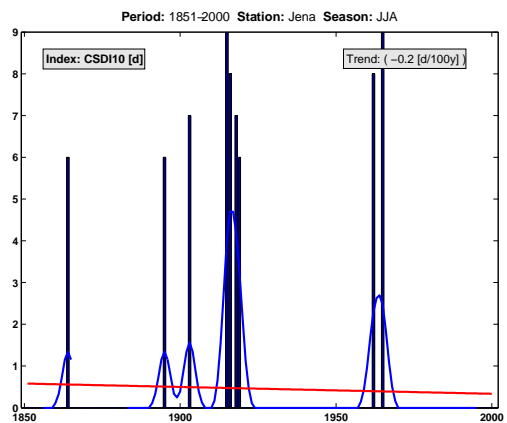
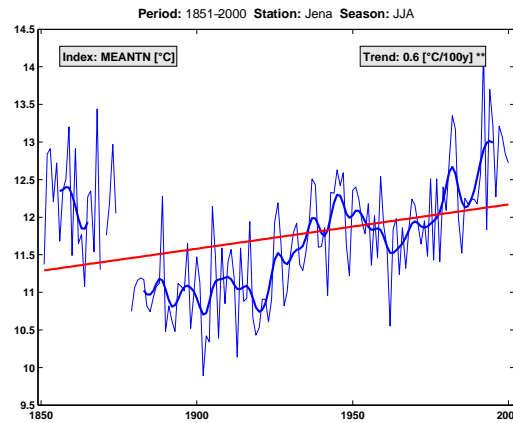
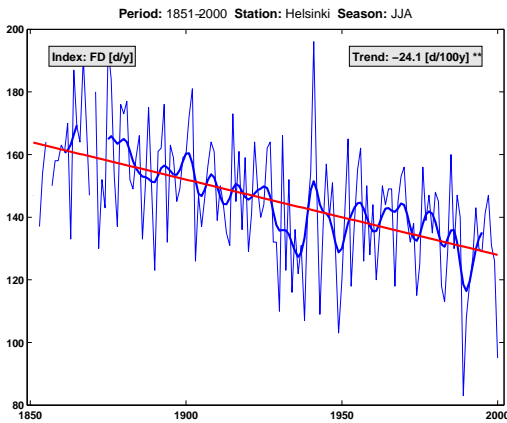
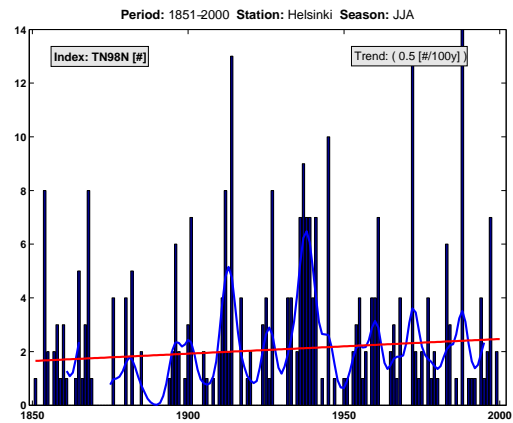
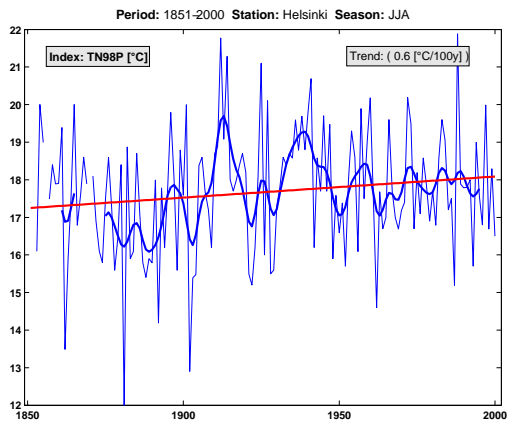
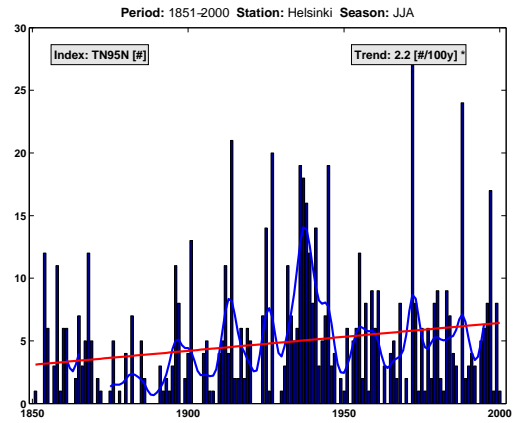
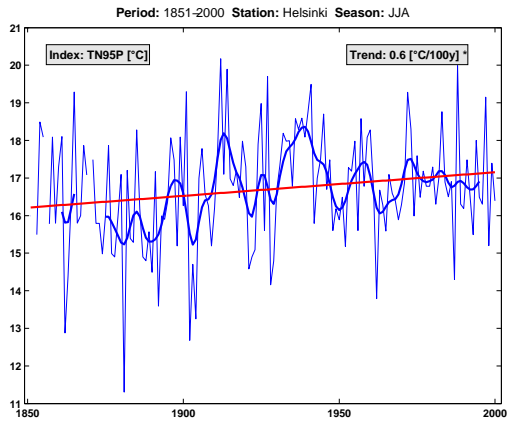


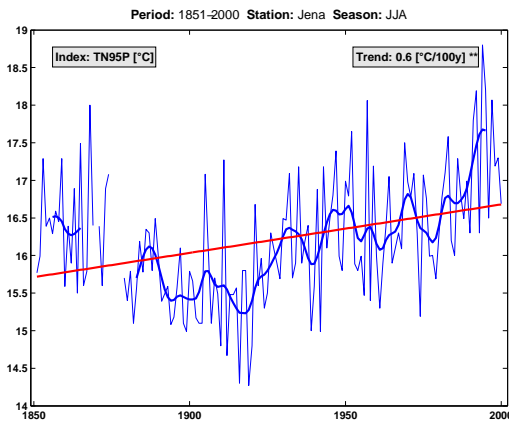
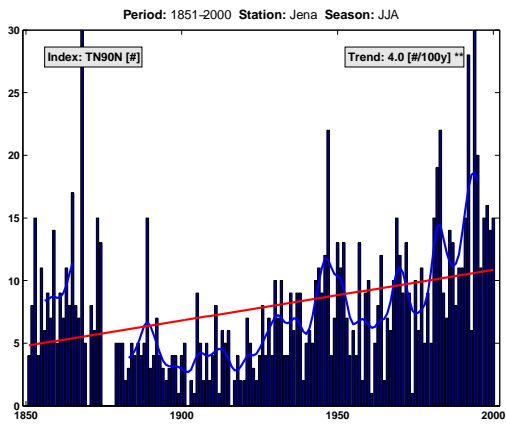
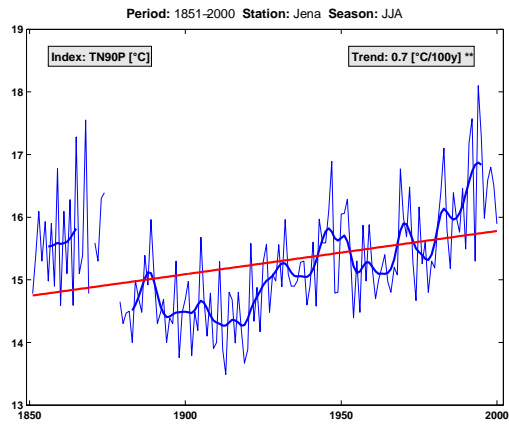
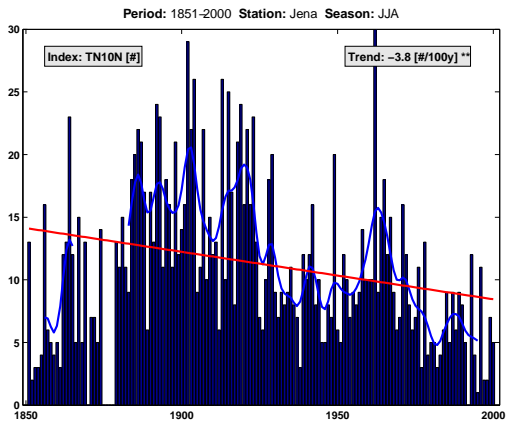
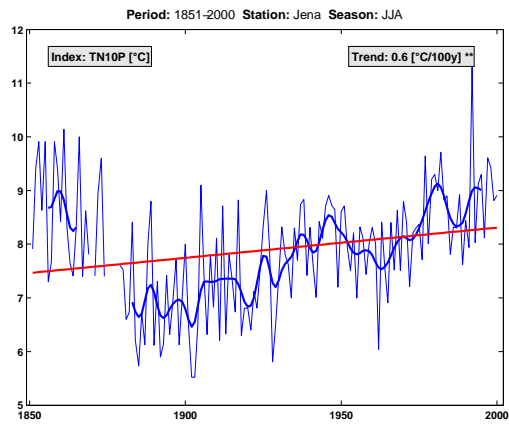
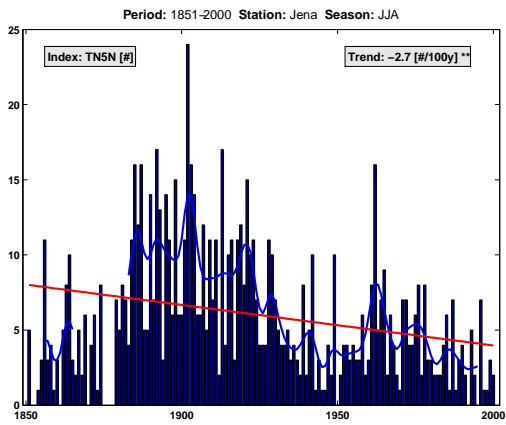
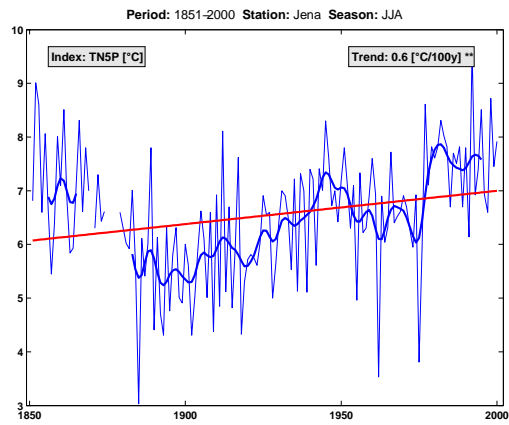
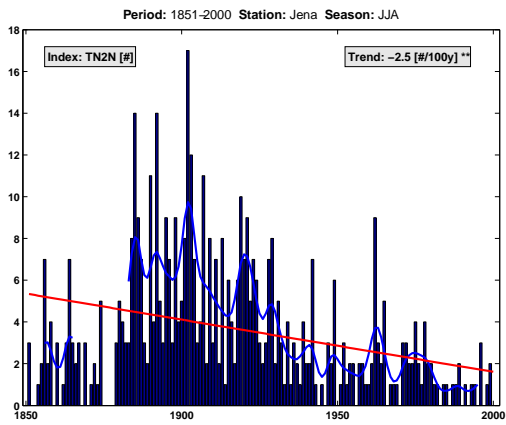


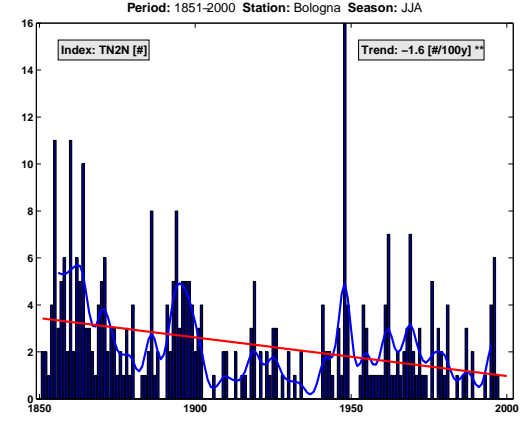
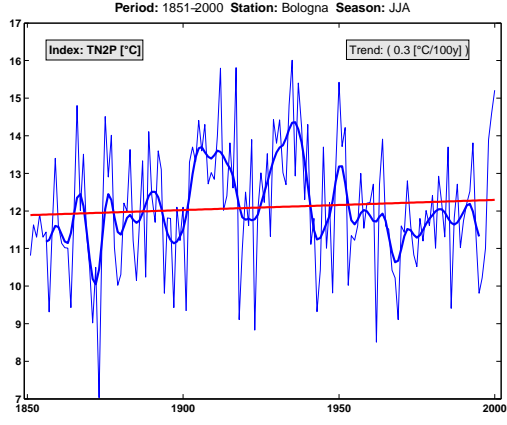
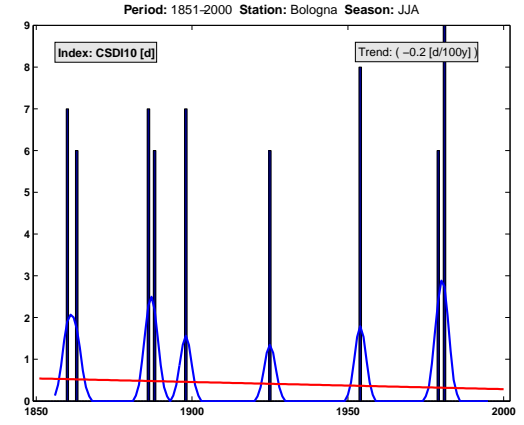
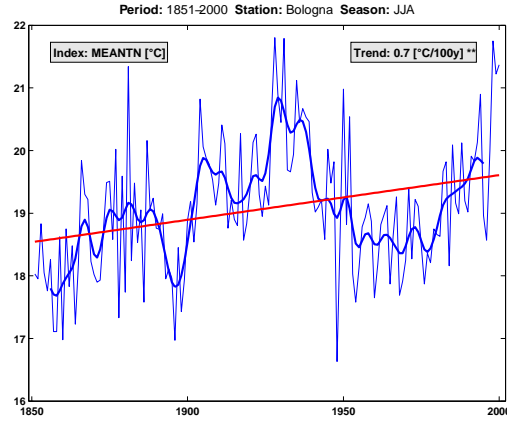
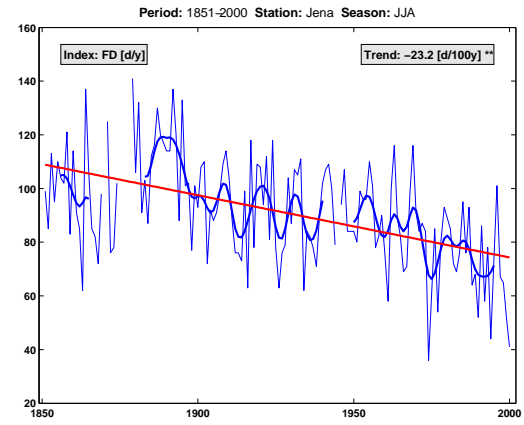
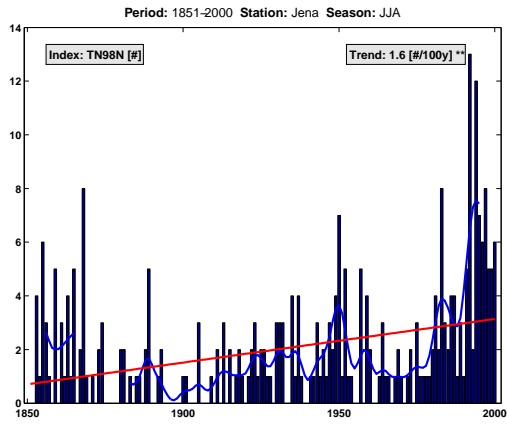
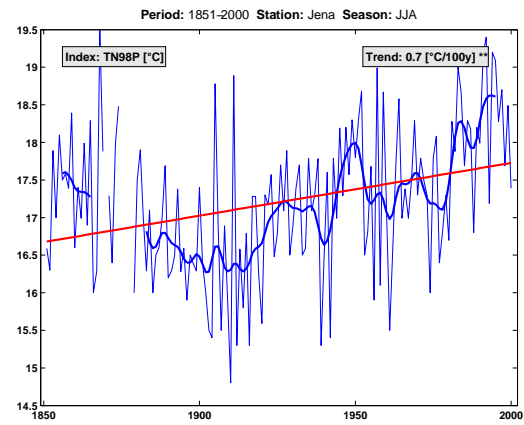
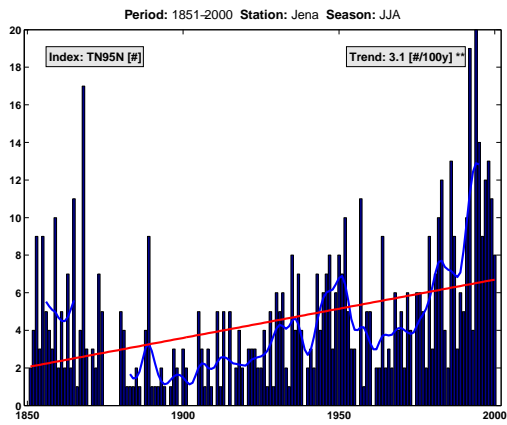


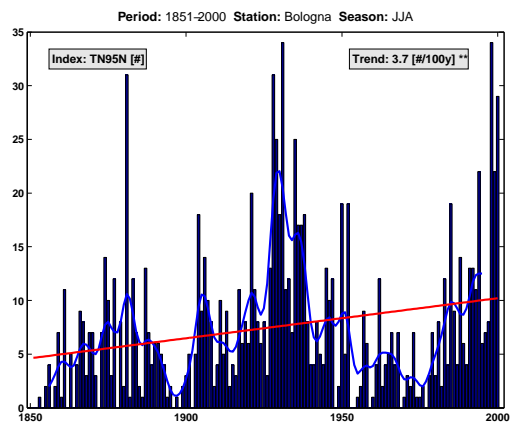
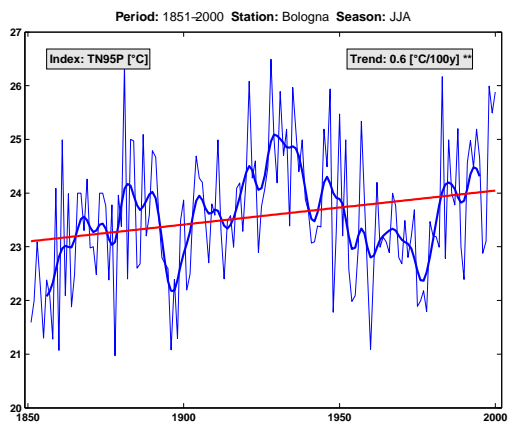
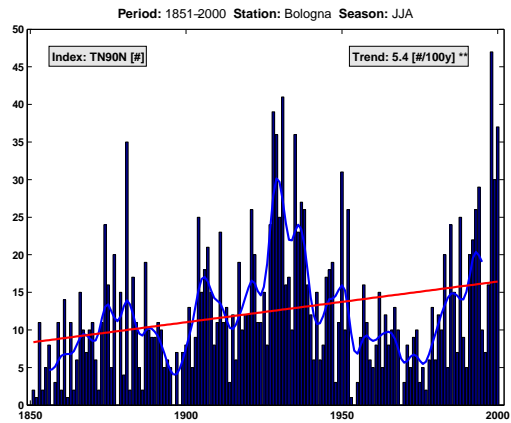
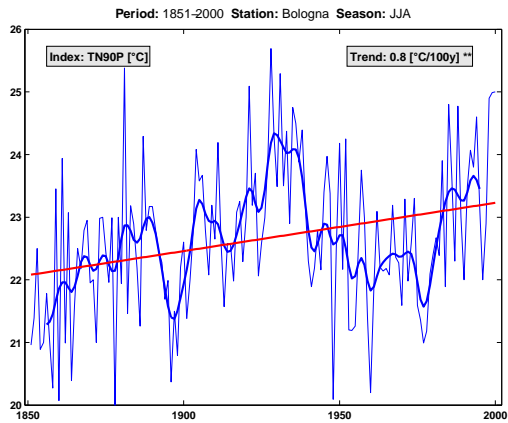
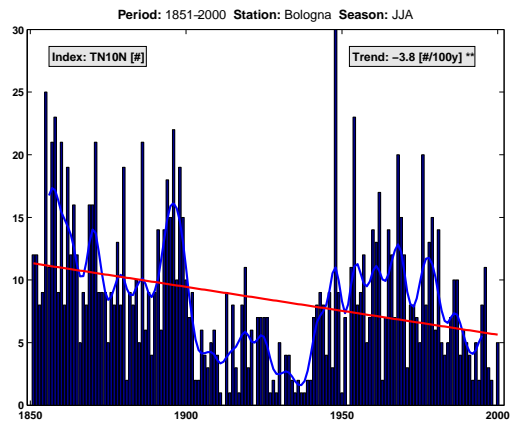
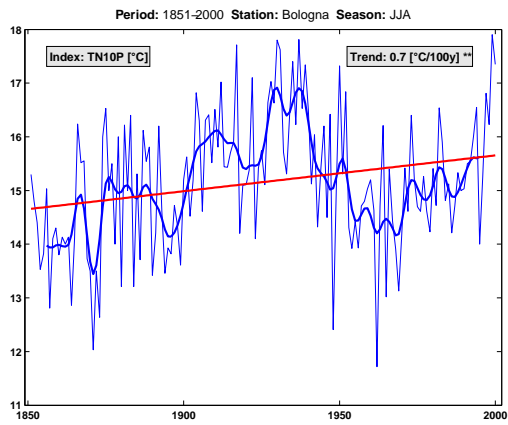
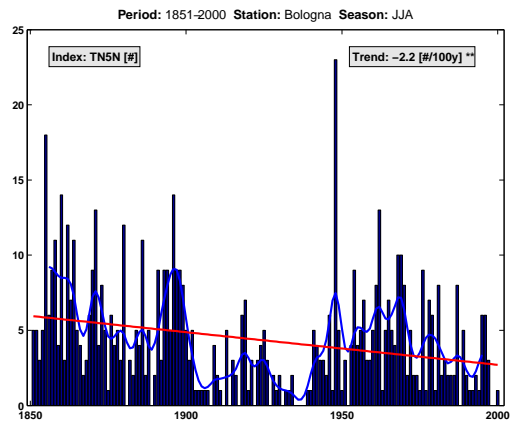
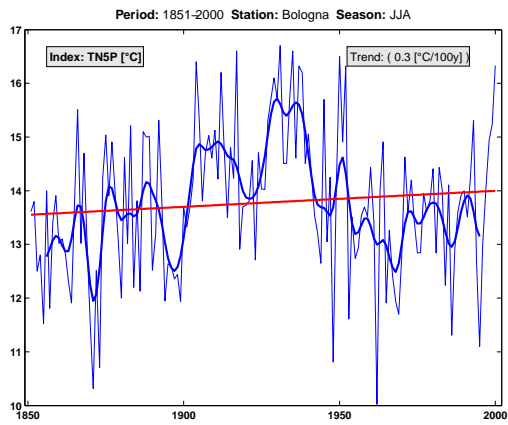


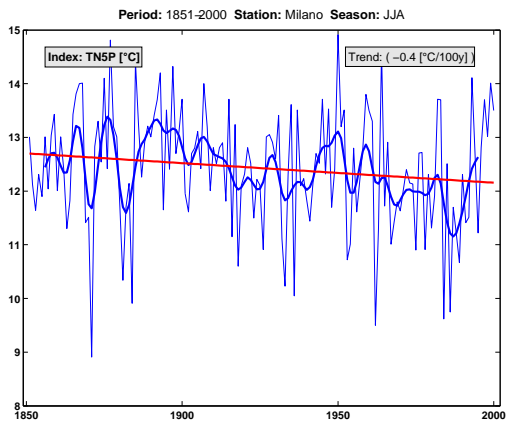
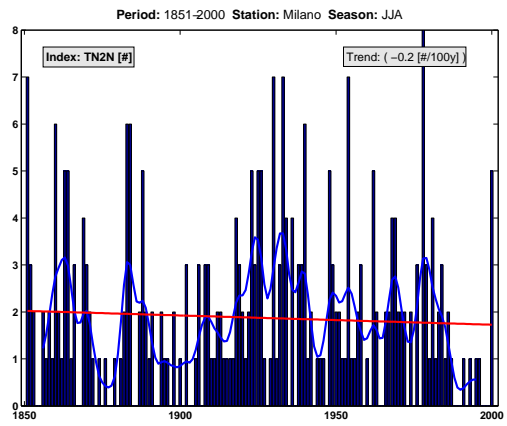
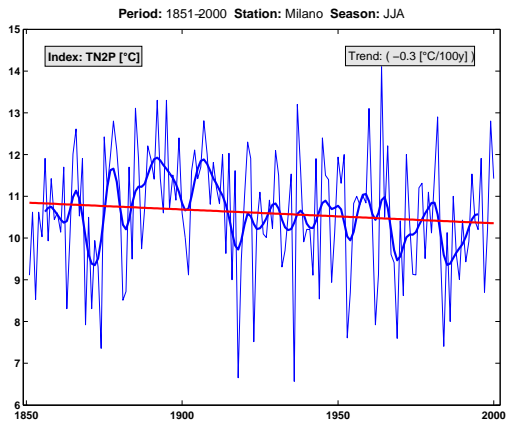
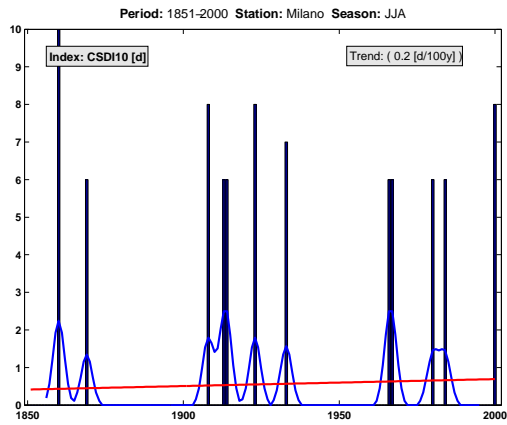
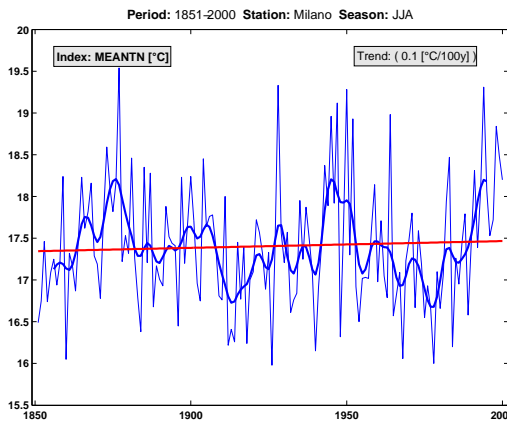
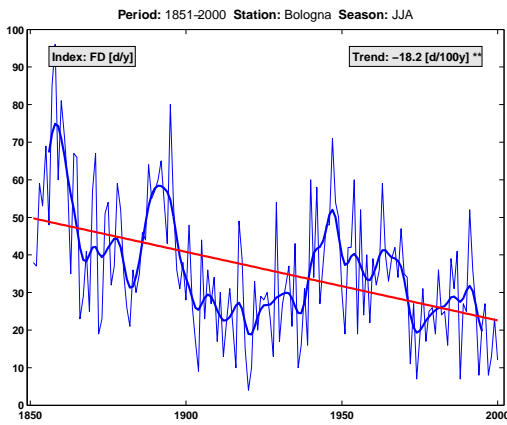
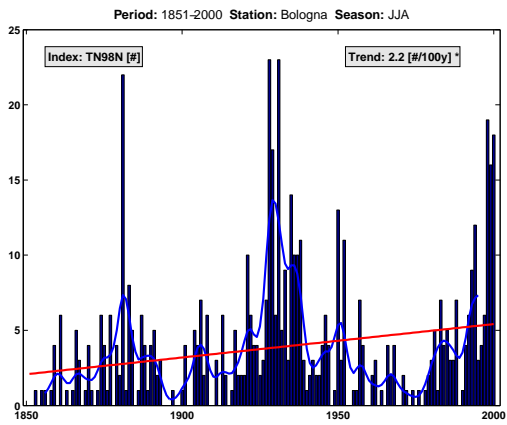
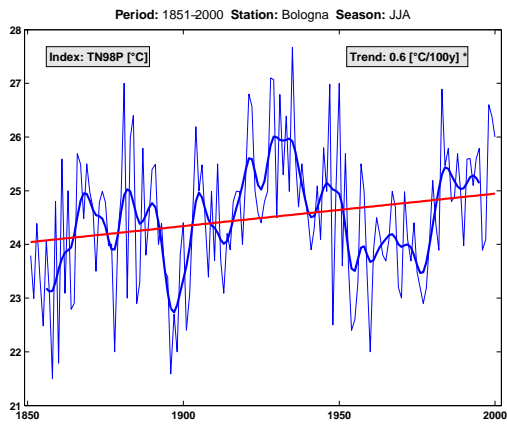


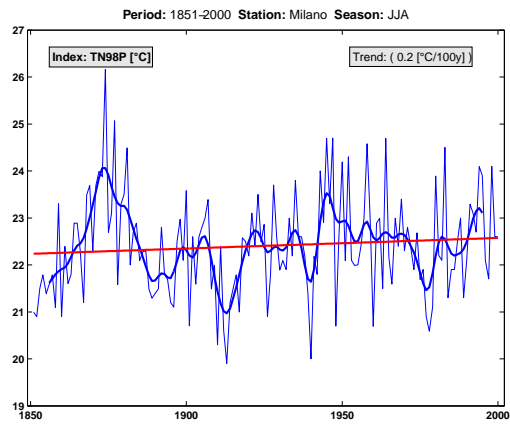
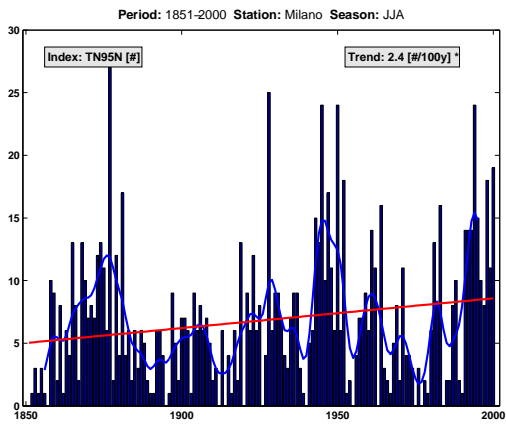
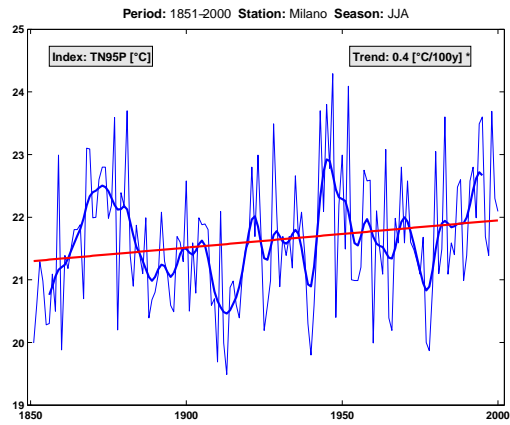
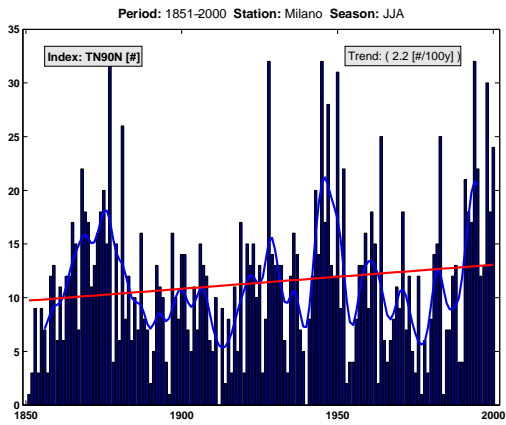
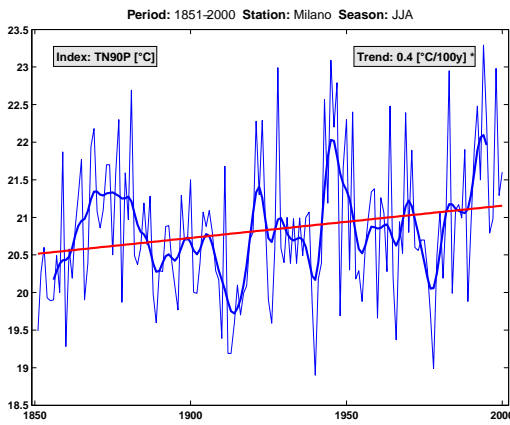
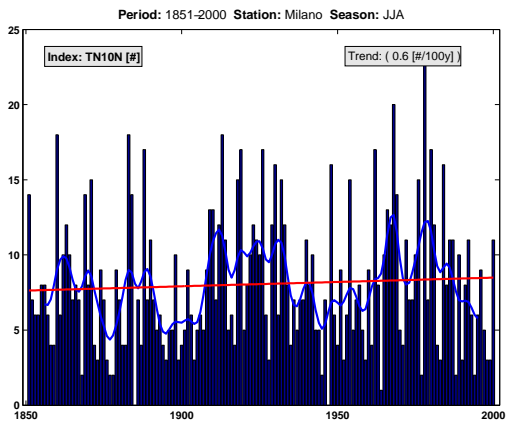
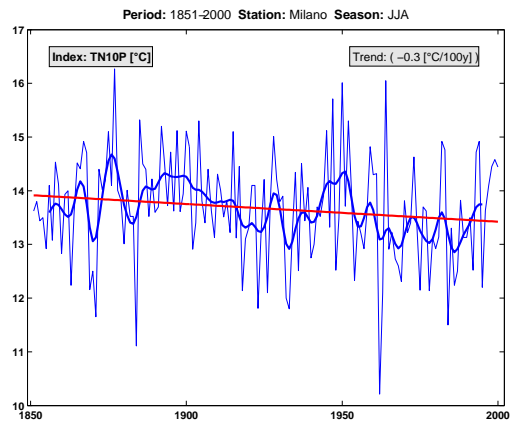
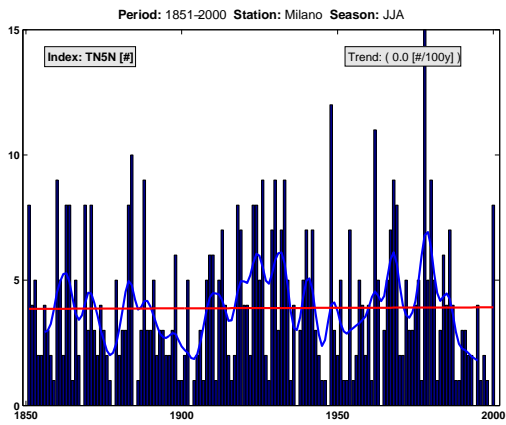


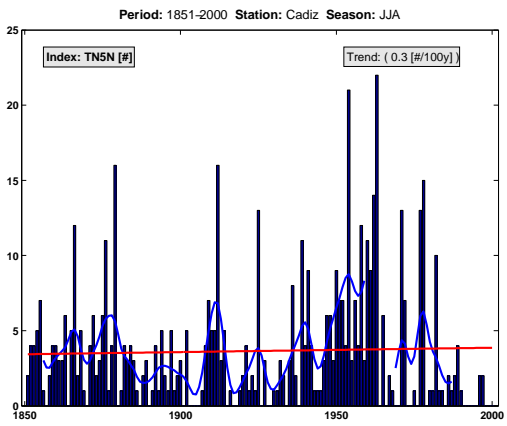
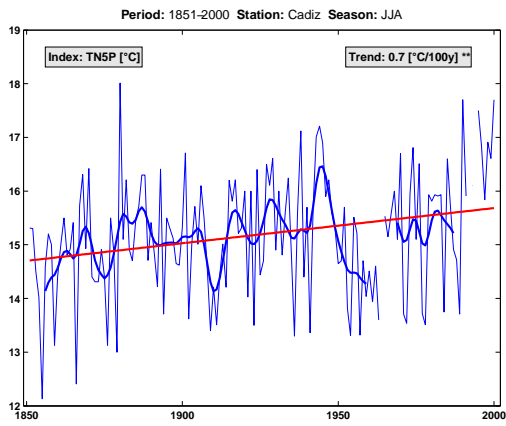
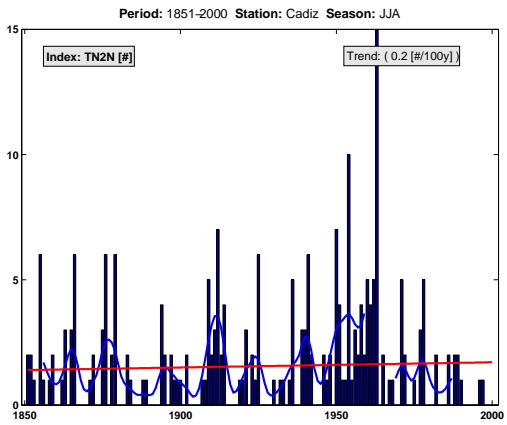
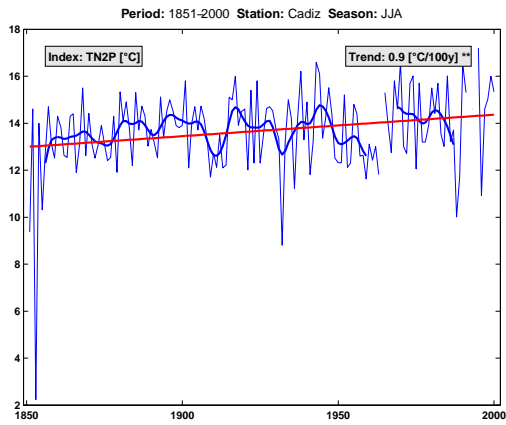
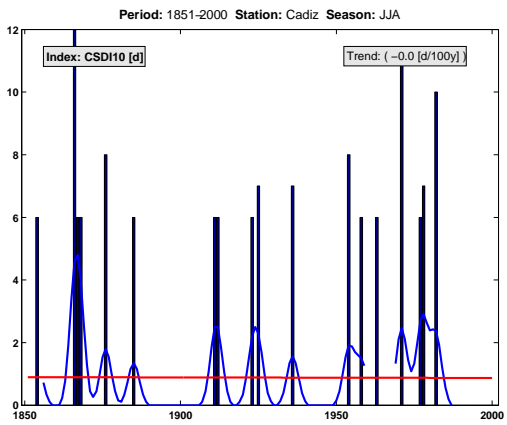
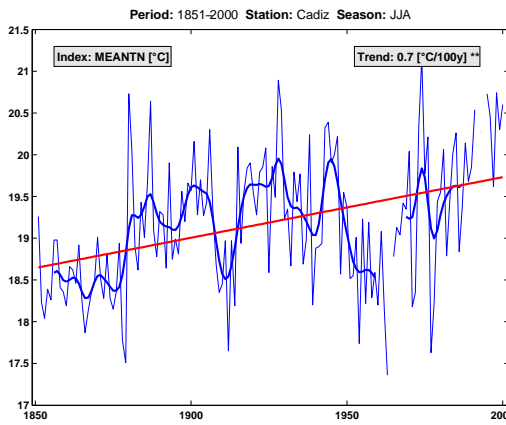
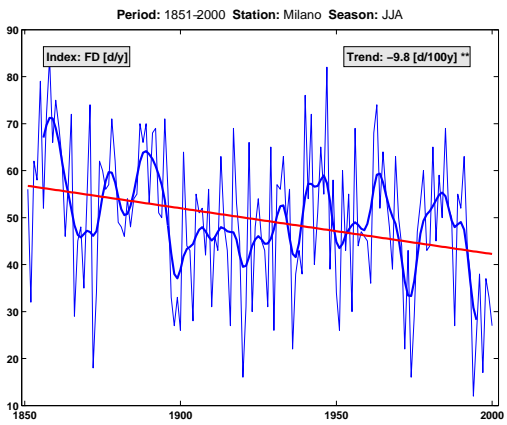
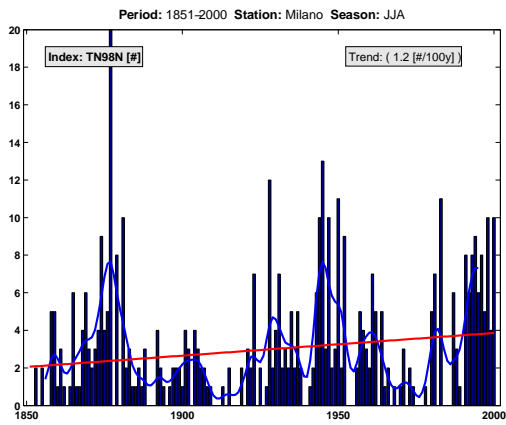


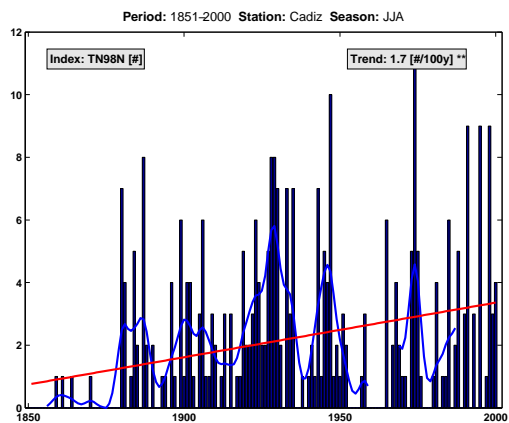
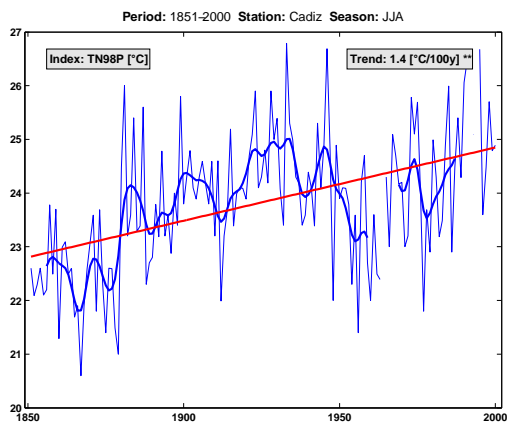
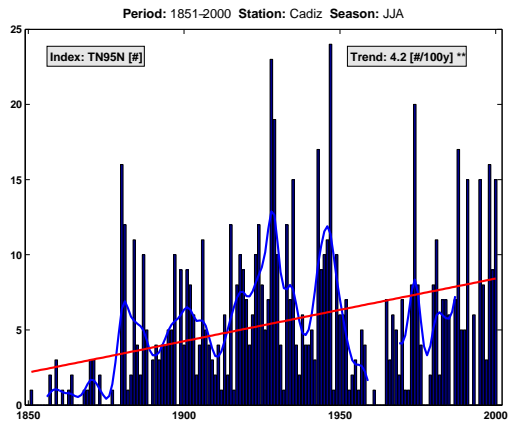
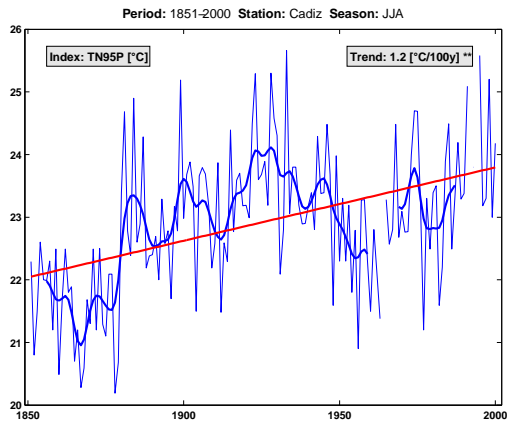
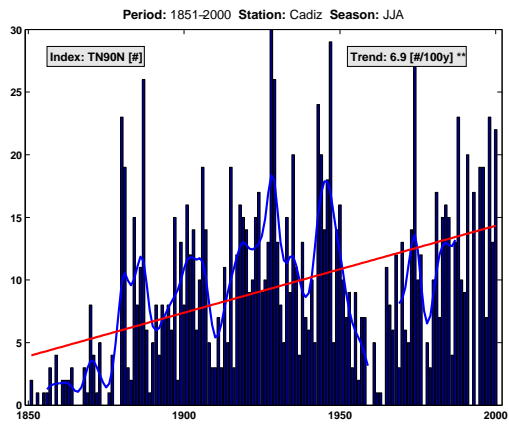
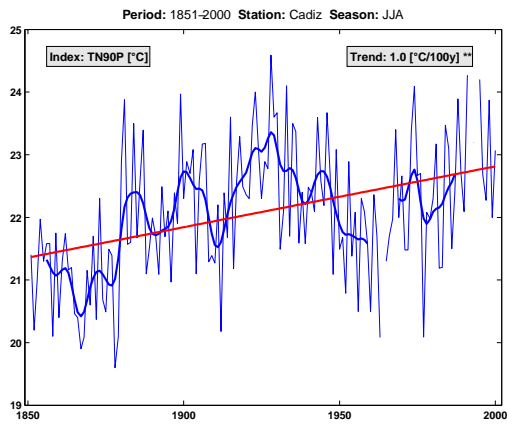
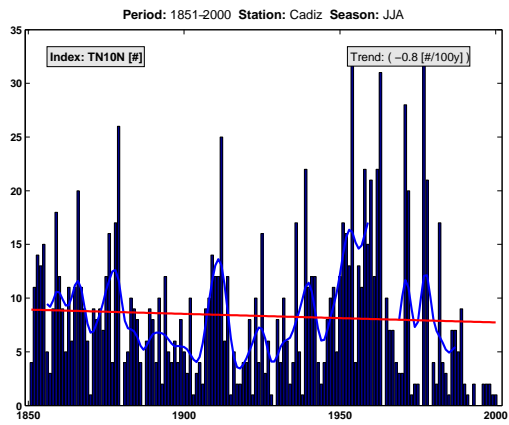
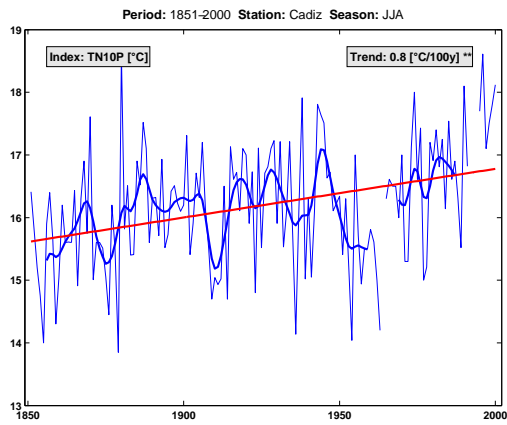


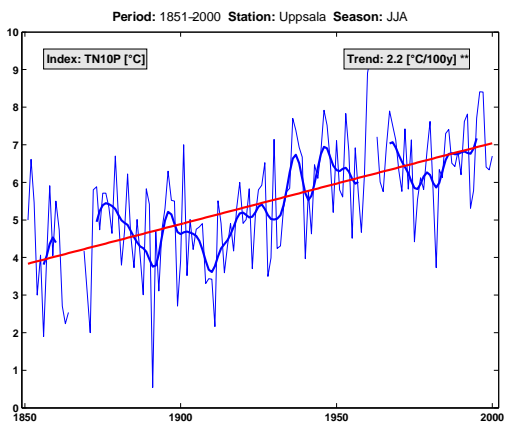
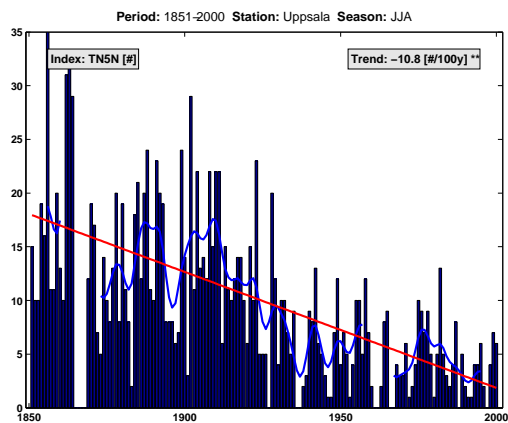
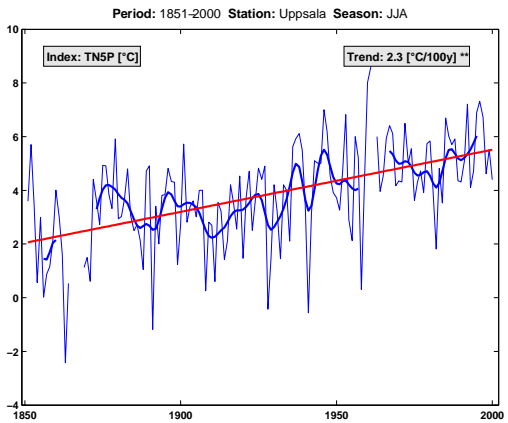
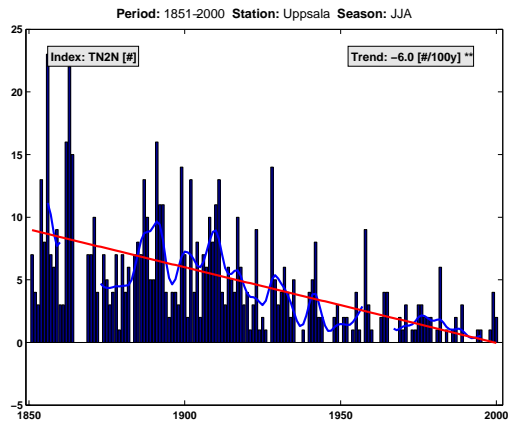
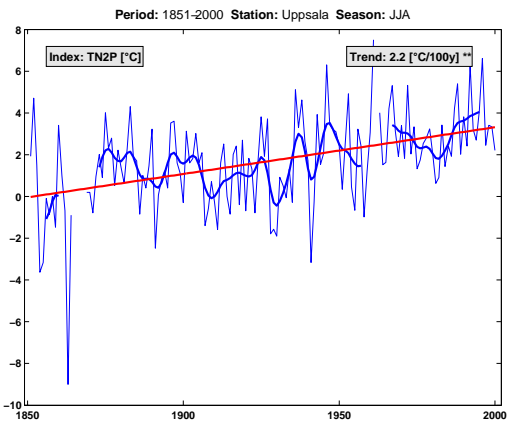
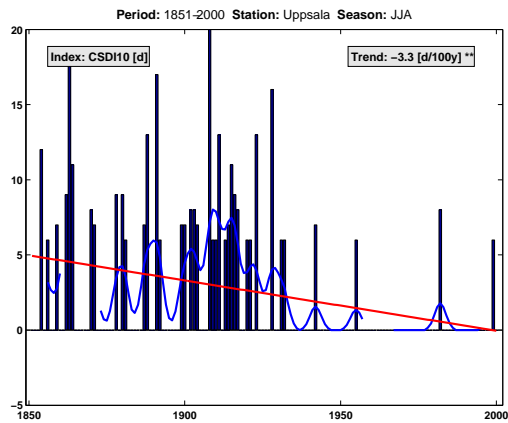
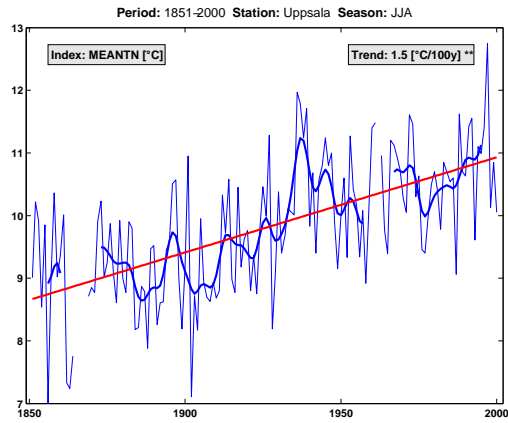
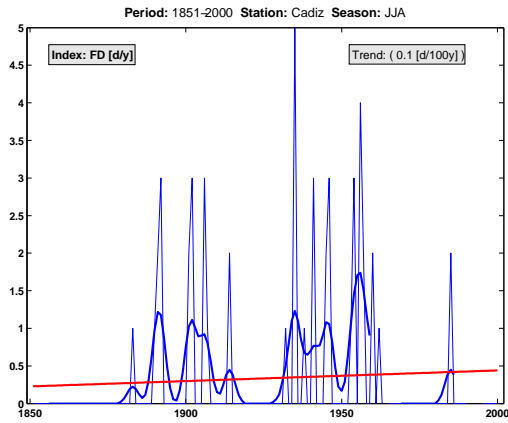


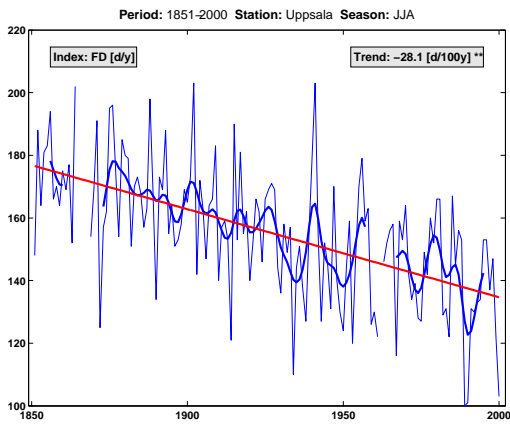
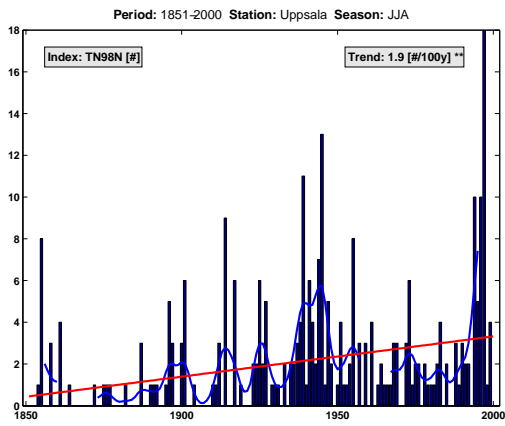
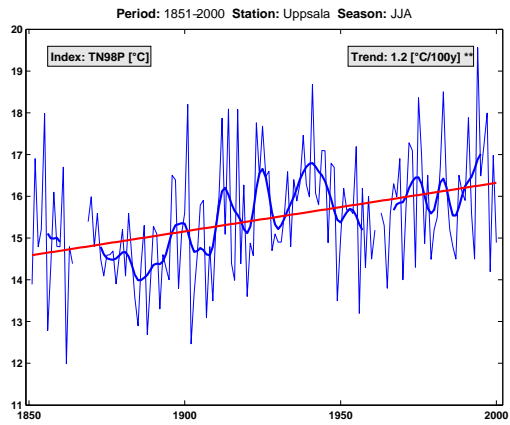
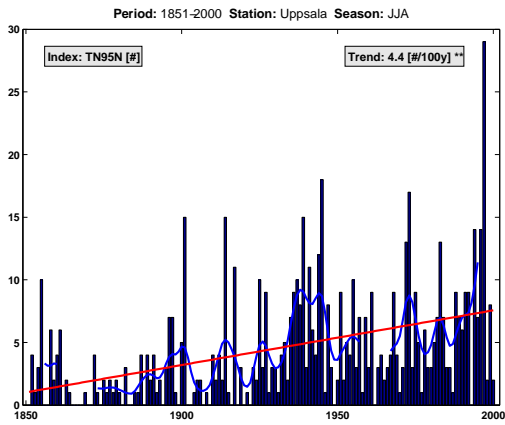
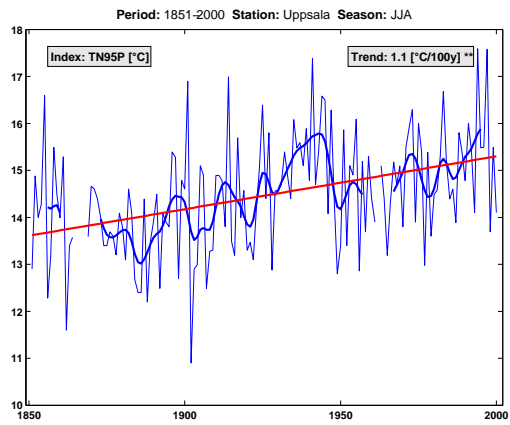
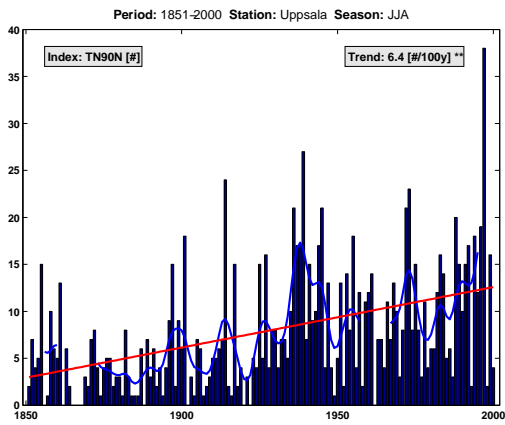
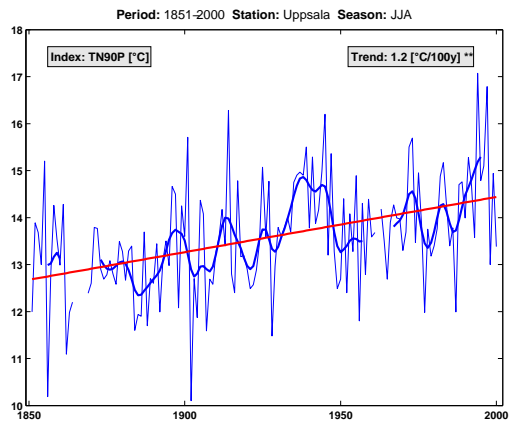
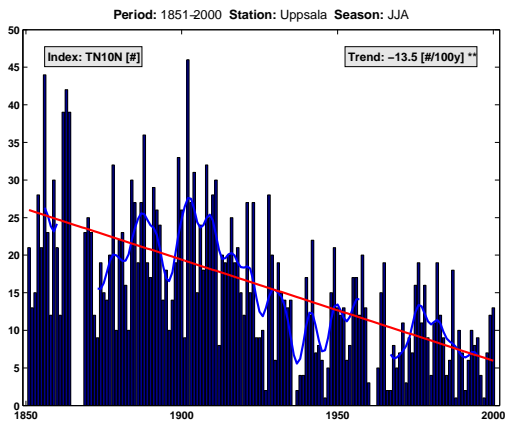


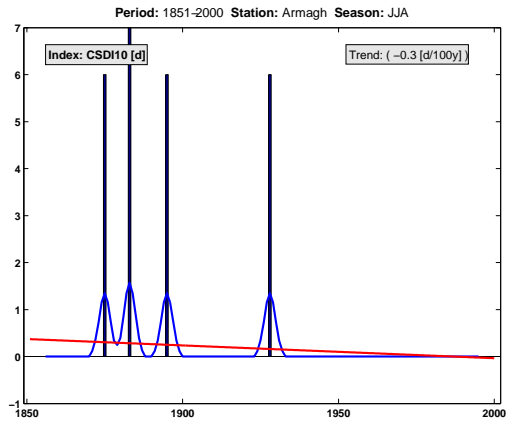
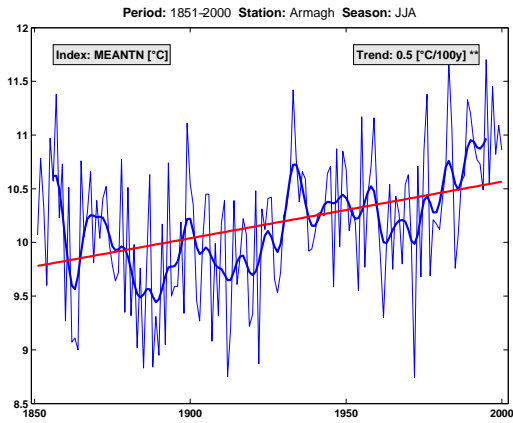




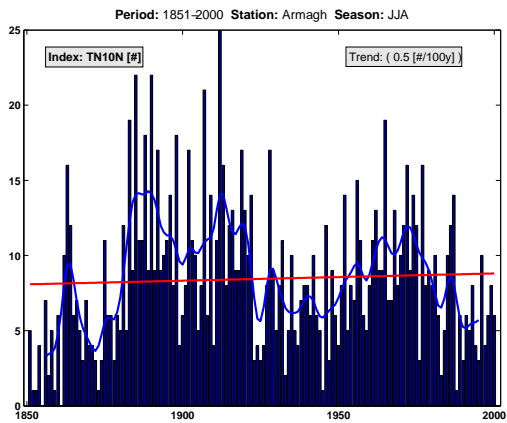
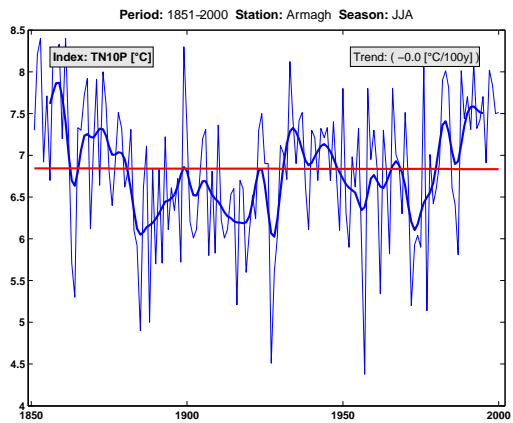
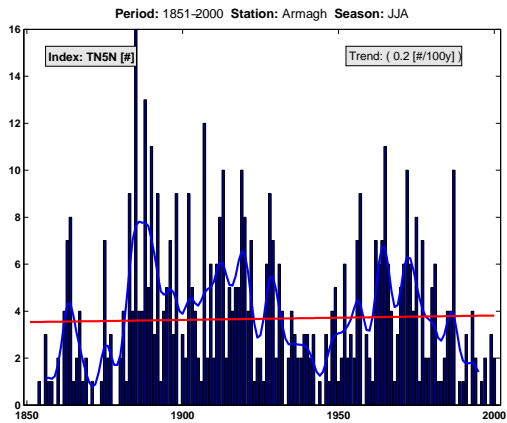
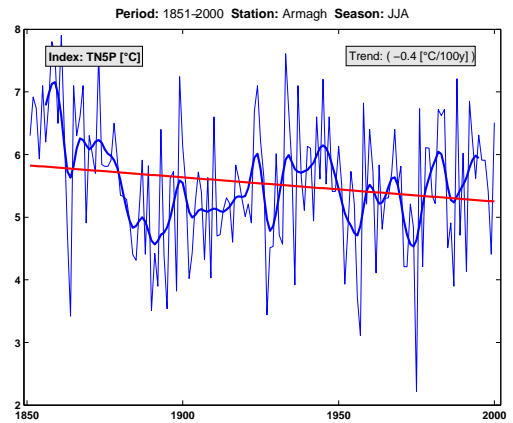
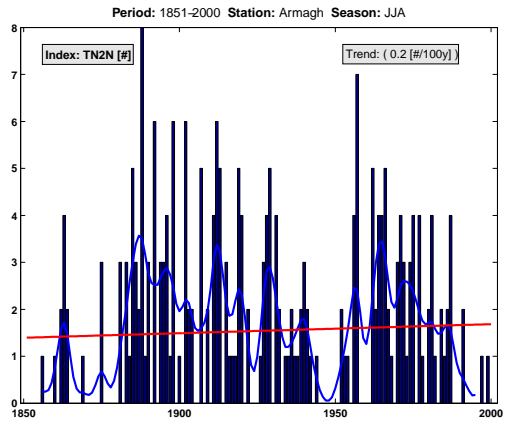


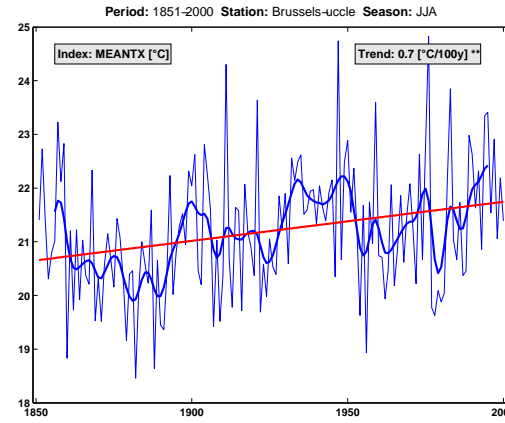
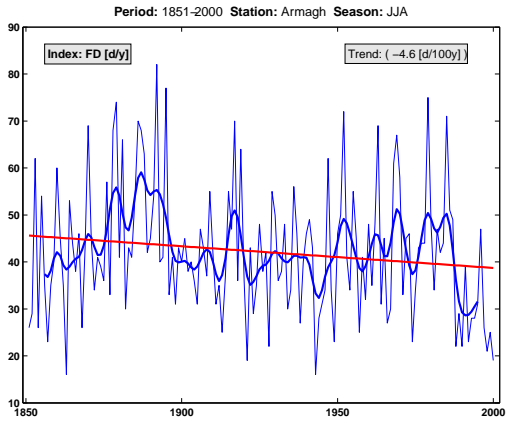
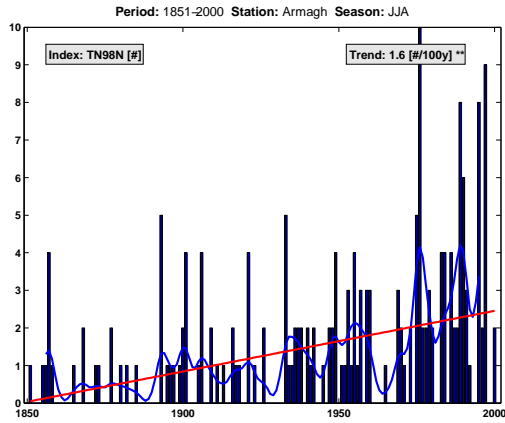
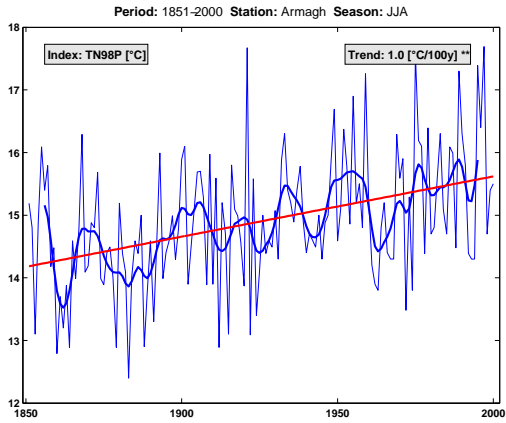
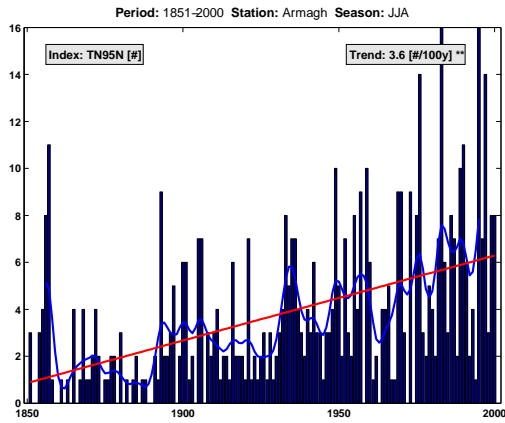
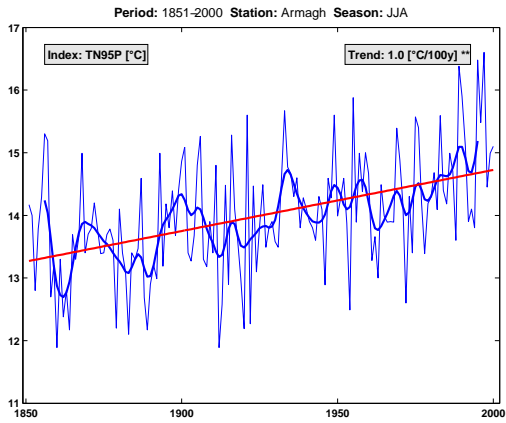
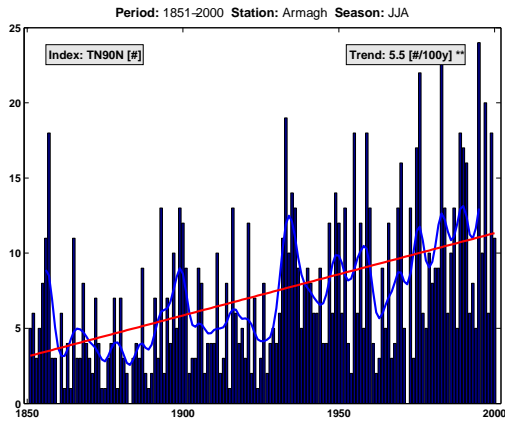
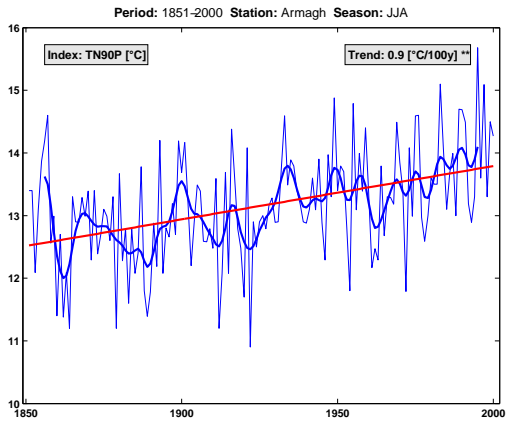


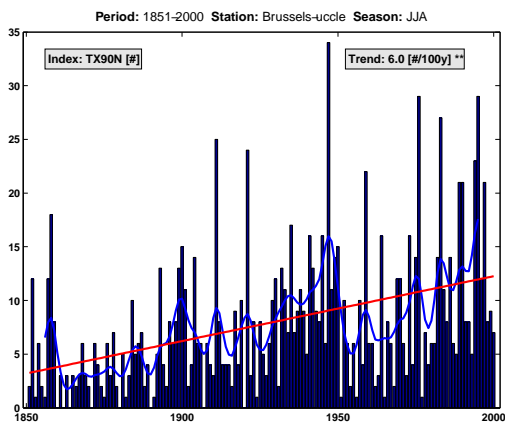
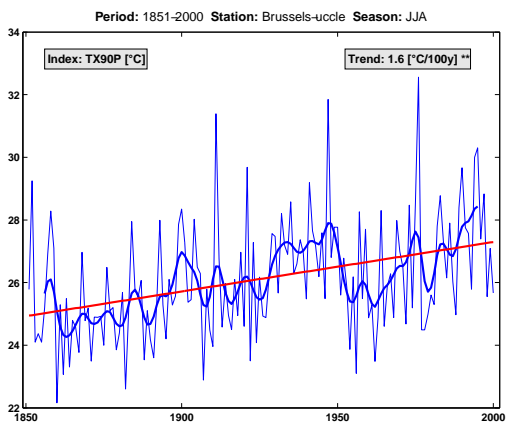
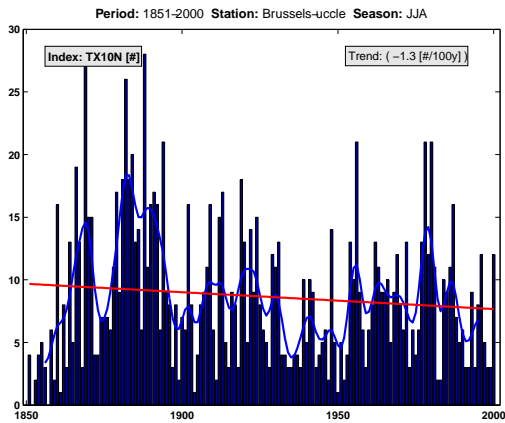
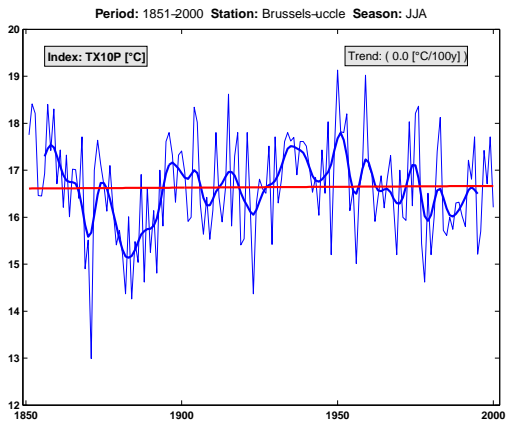
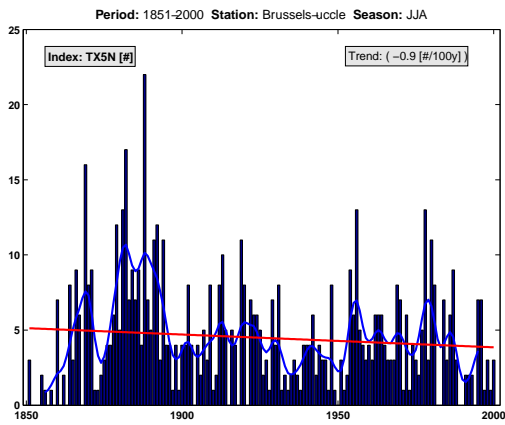
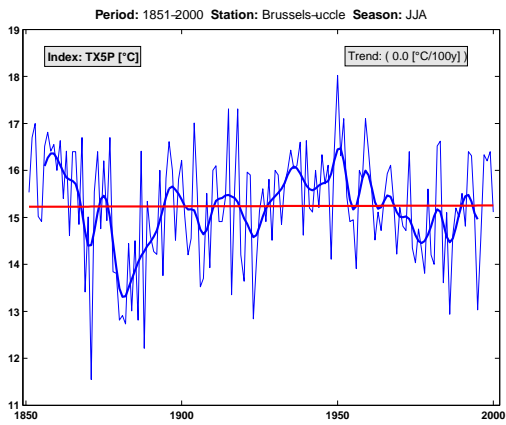
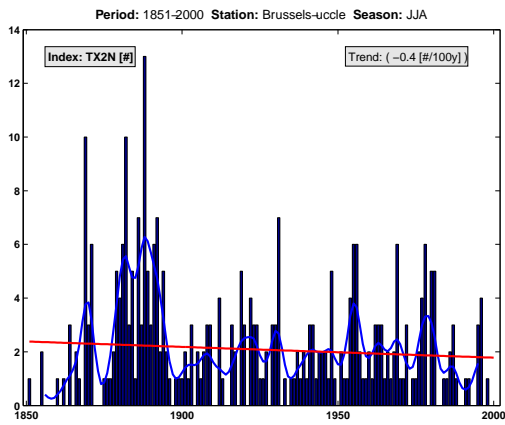
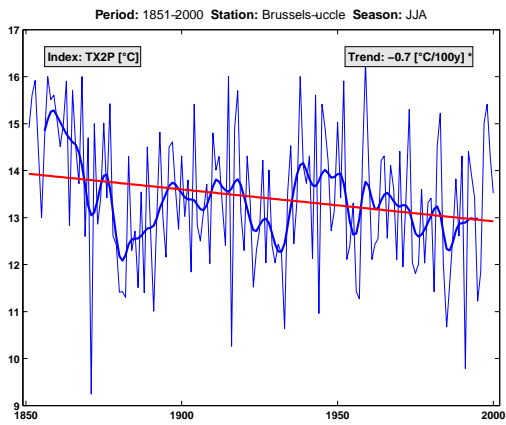


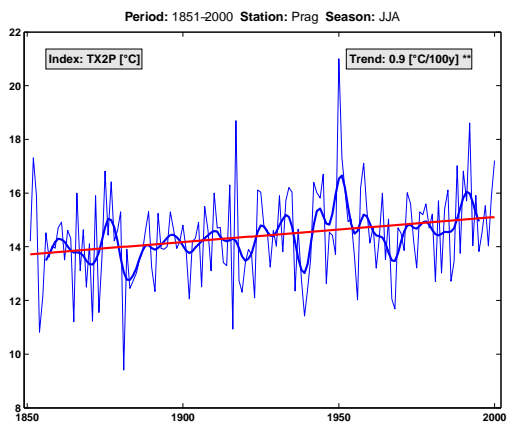
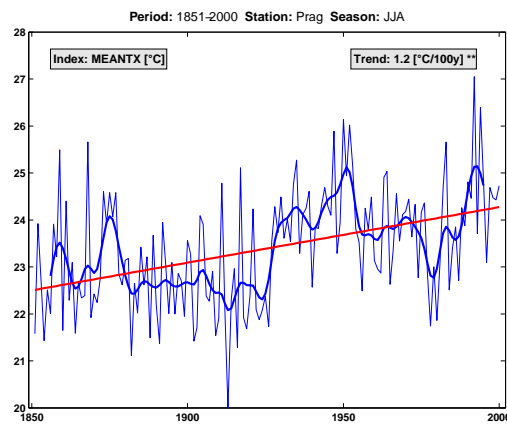
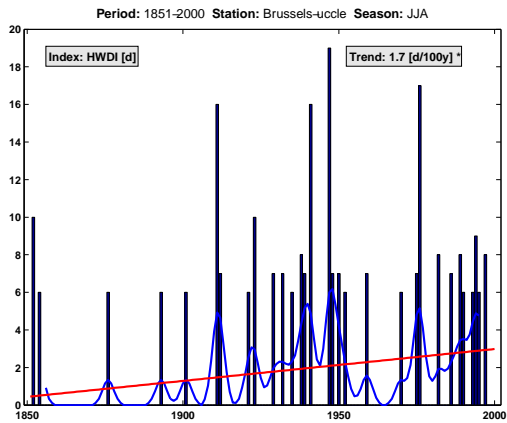
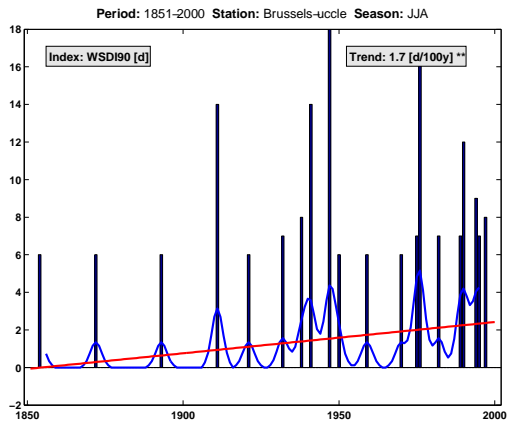
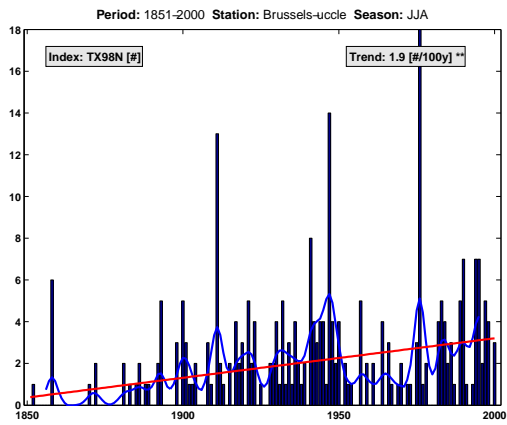
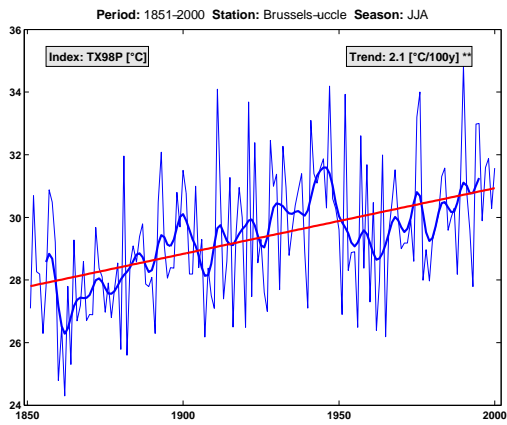
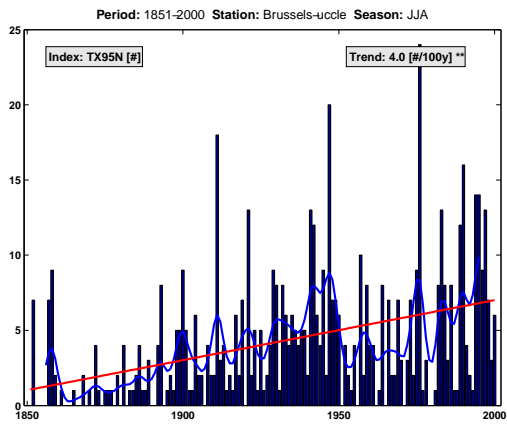
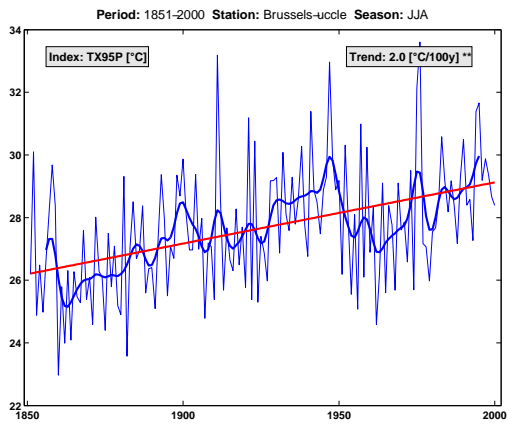


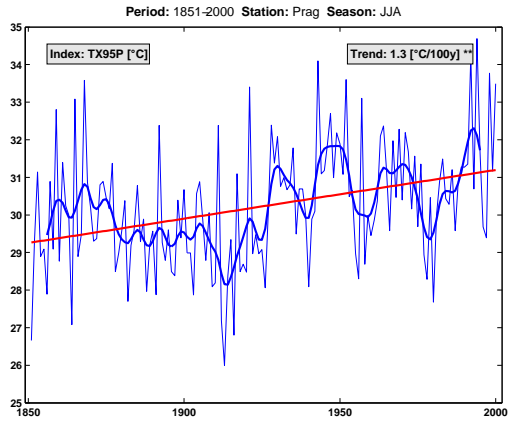
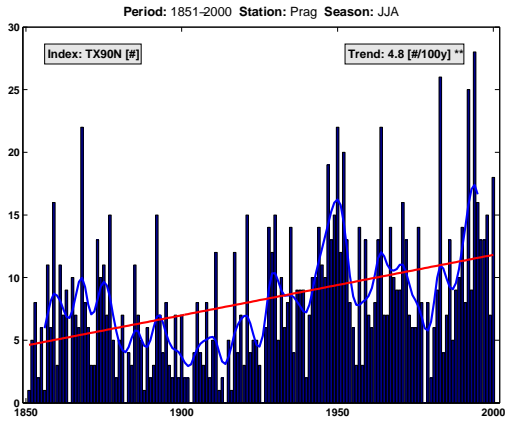
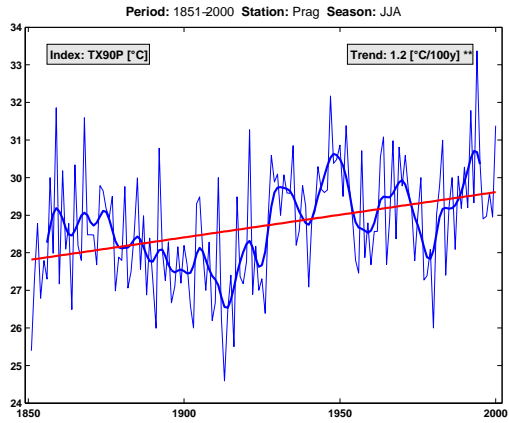
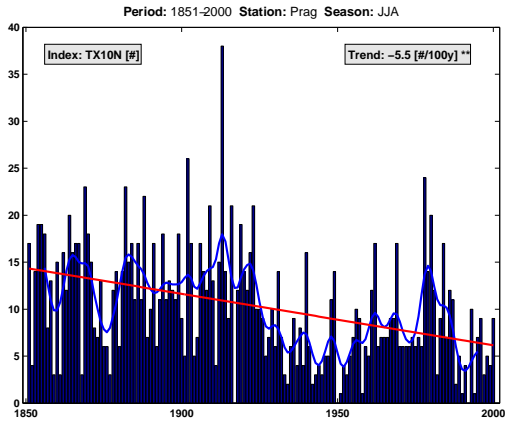
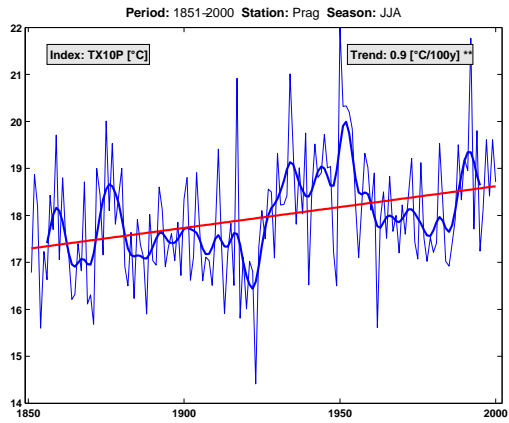
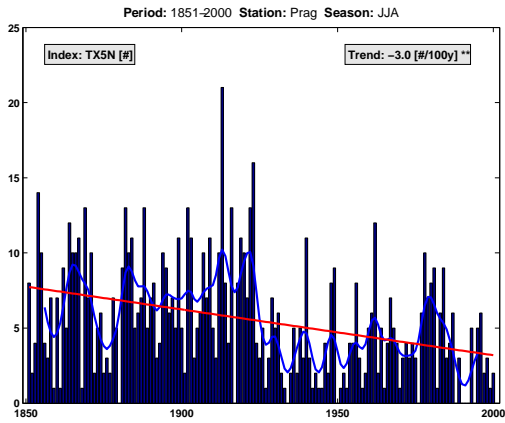
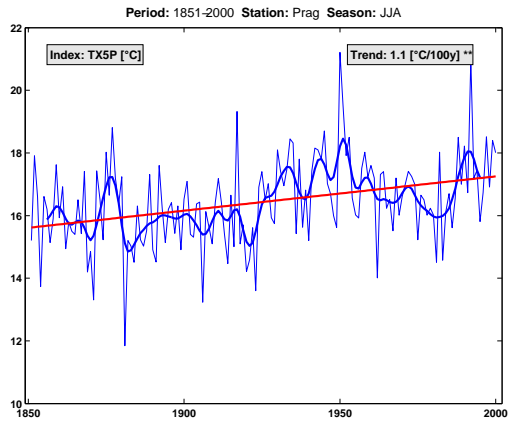
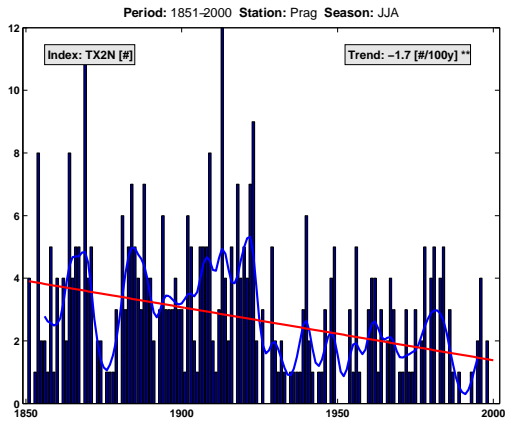
TimeSeries: Station 9/9

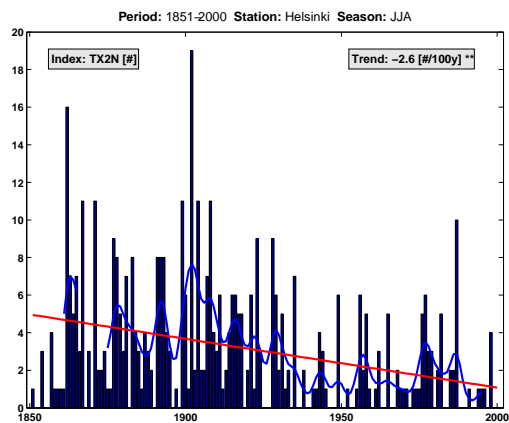
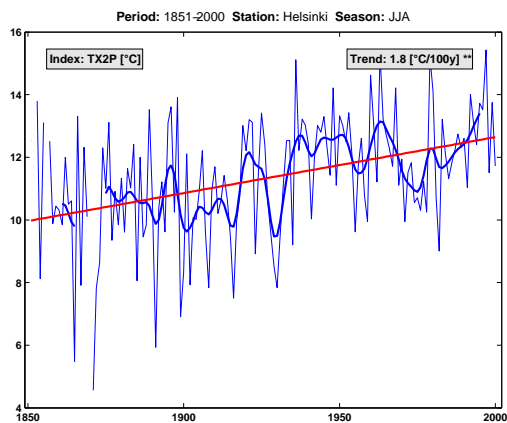
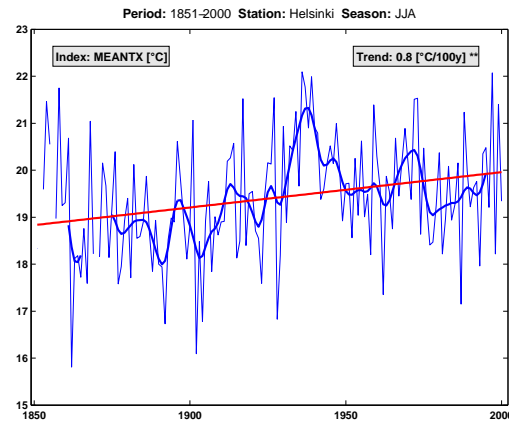
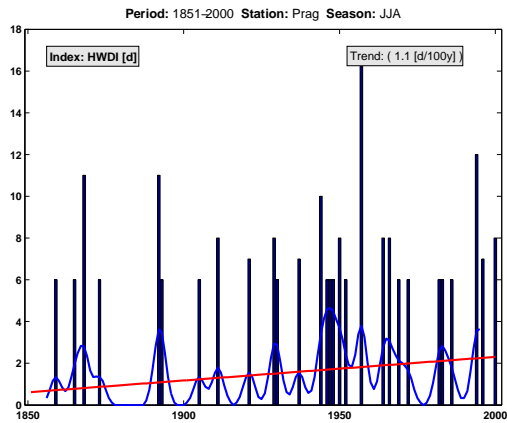
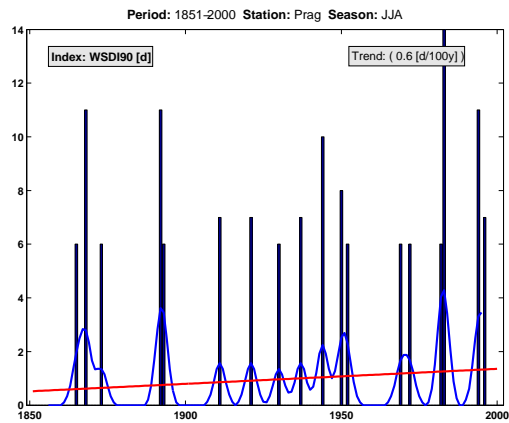
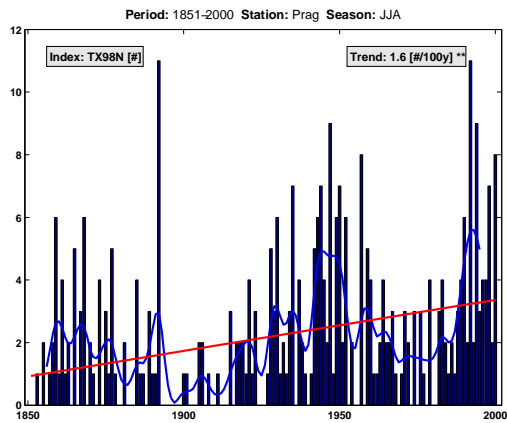
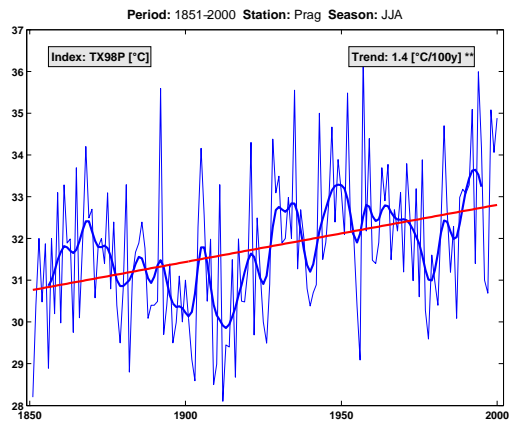
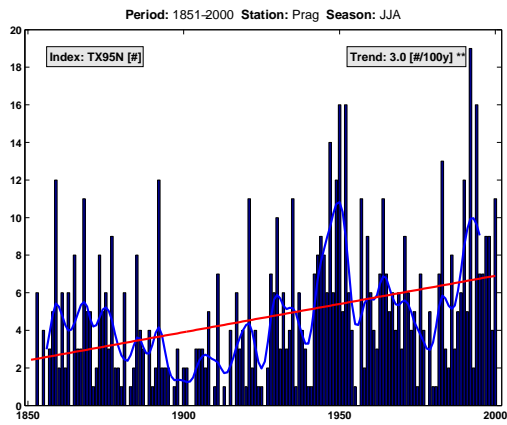


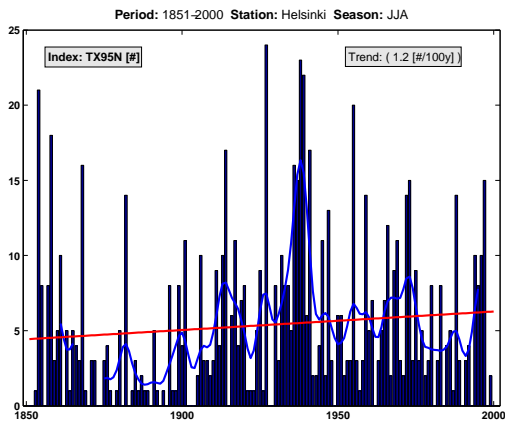
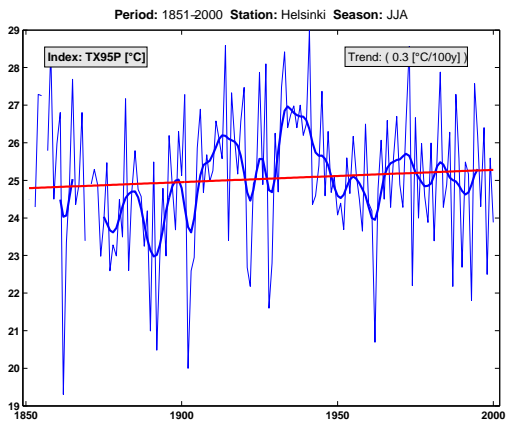
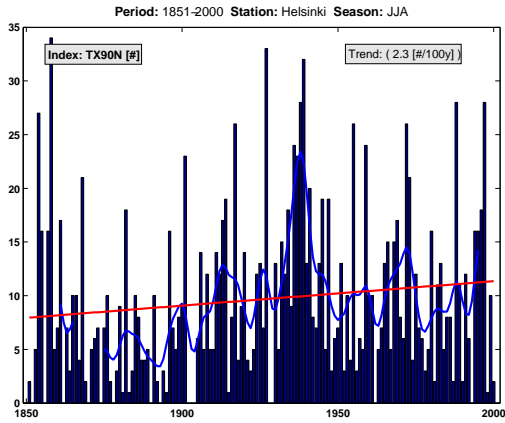
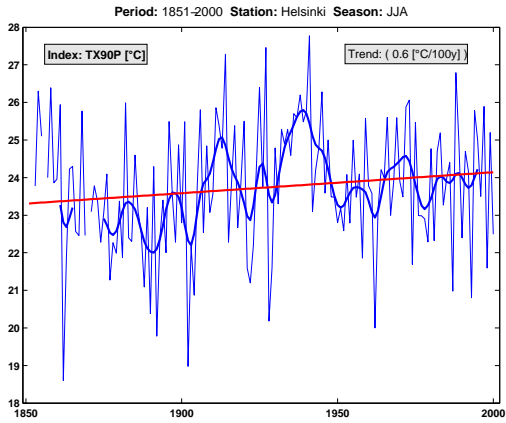
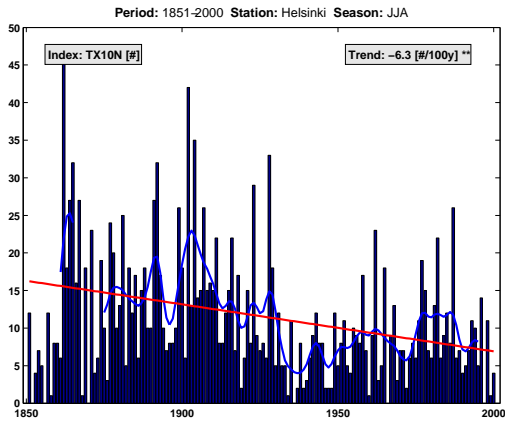
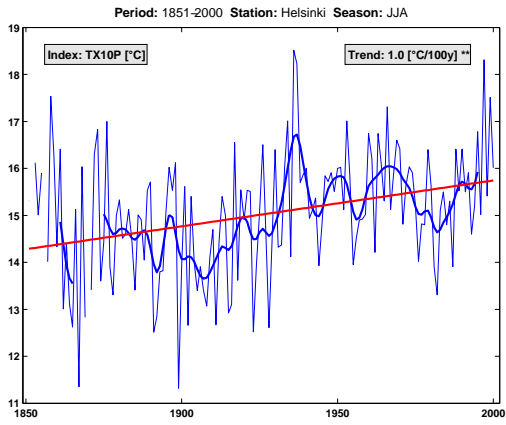
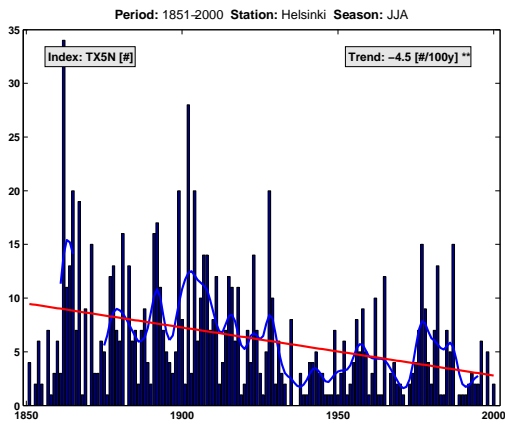
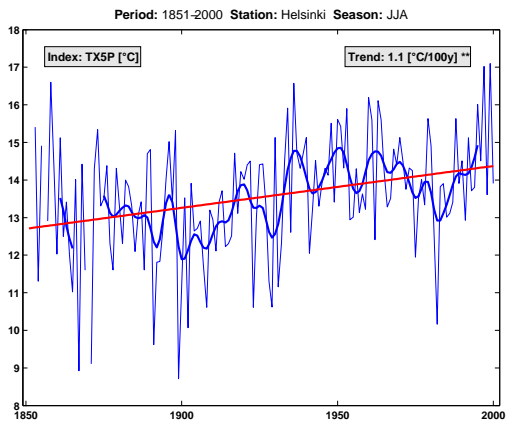


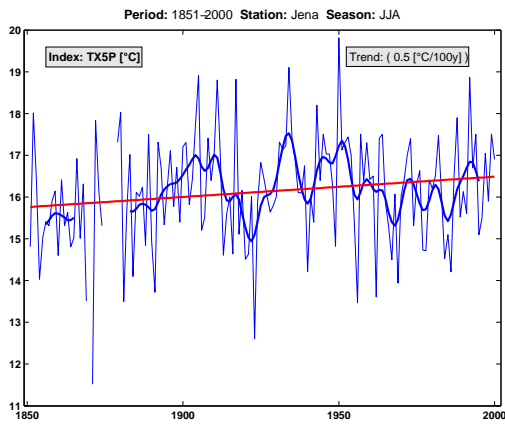
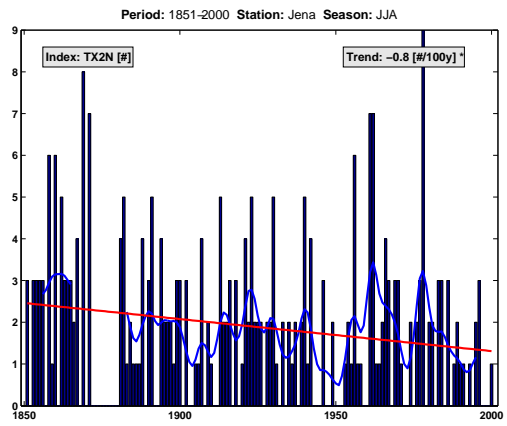
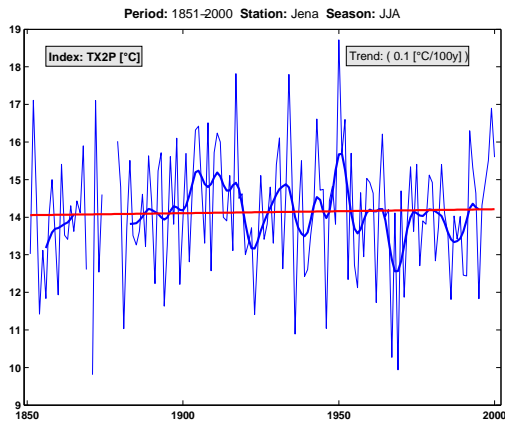
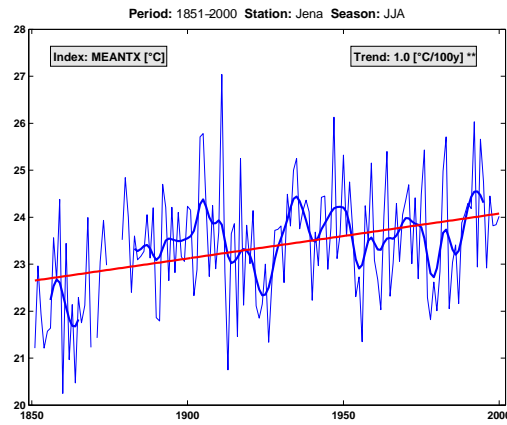
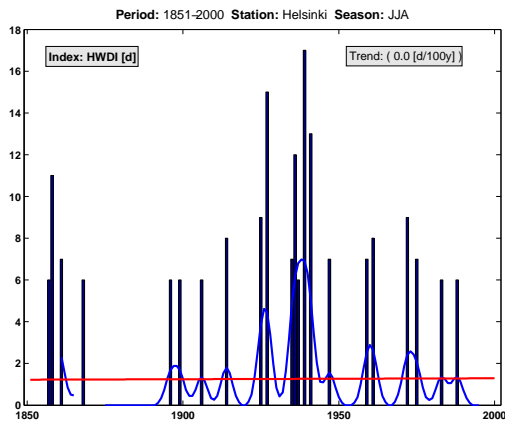
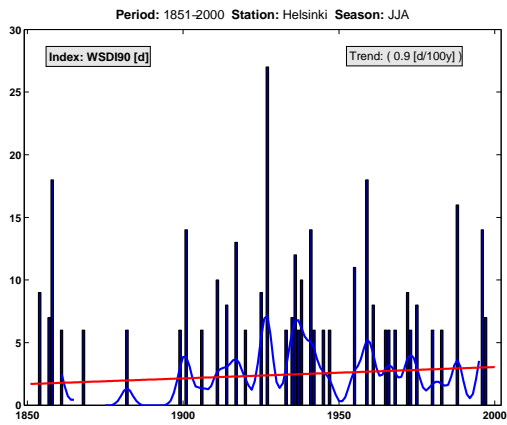
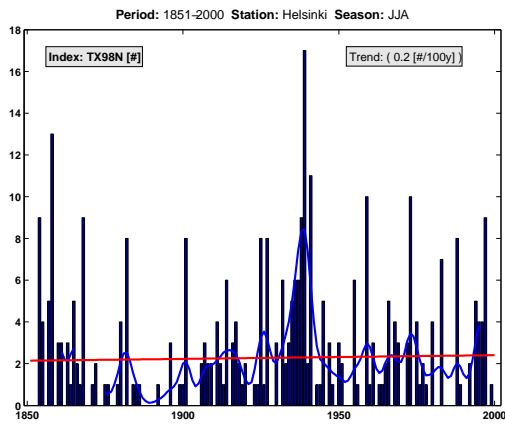
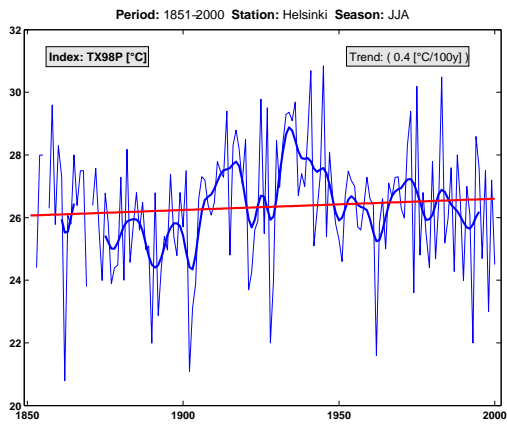


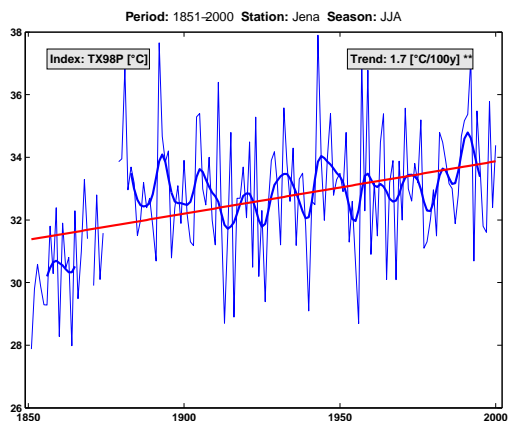
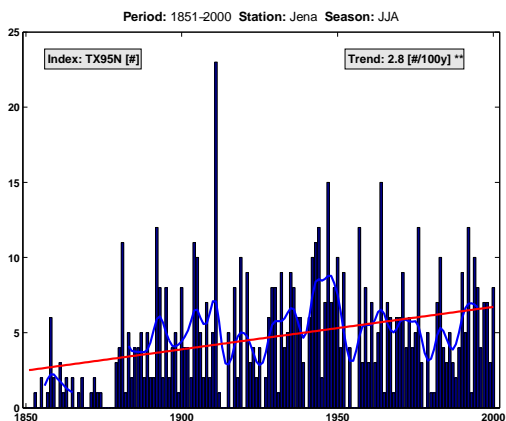
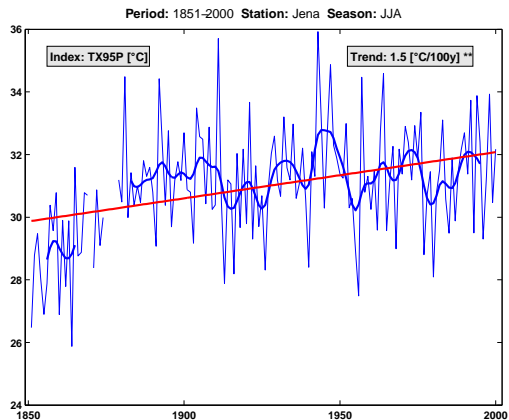
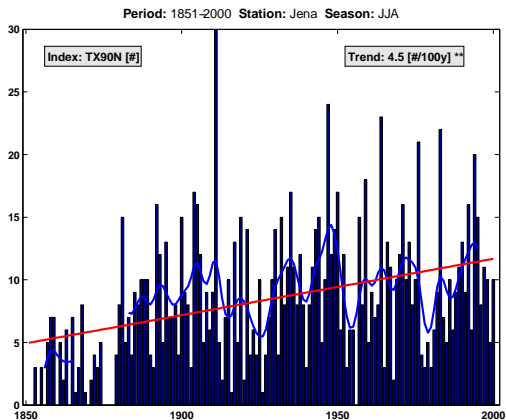
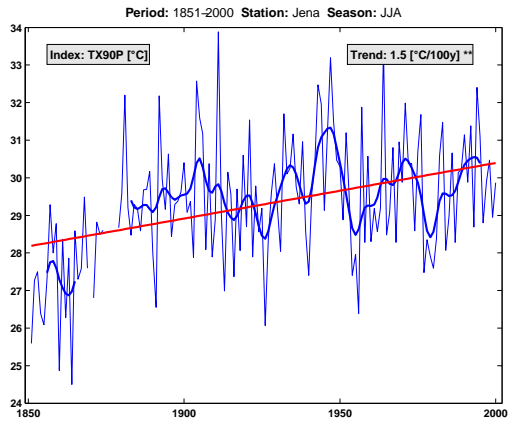
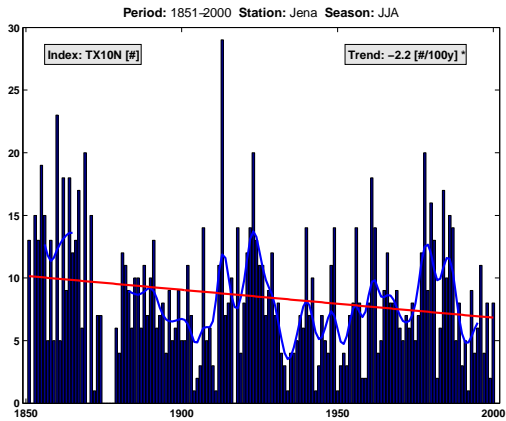
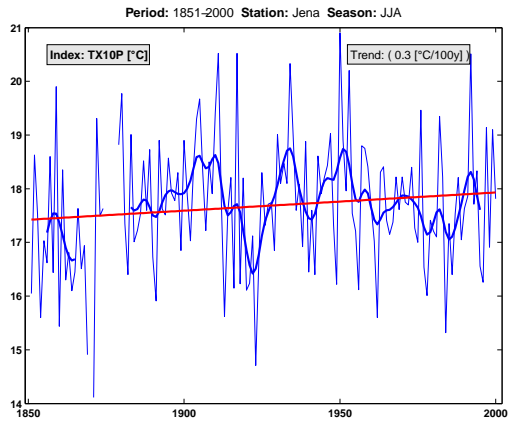
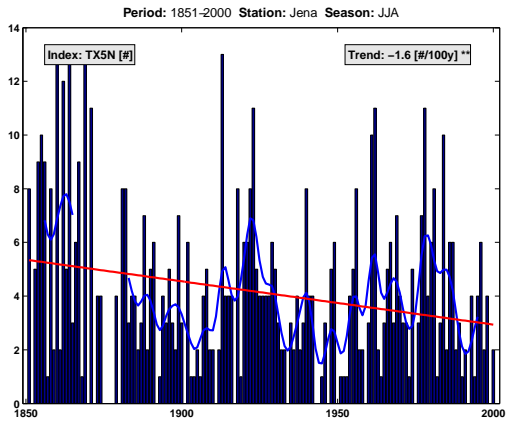


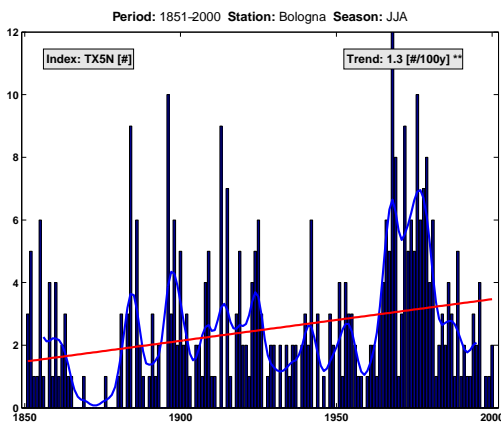
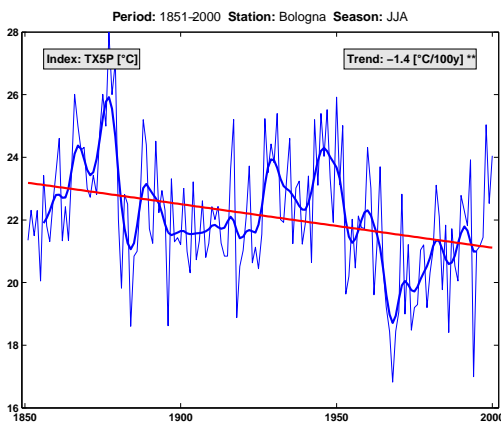
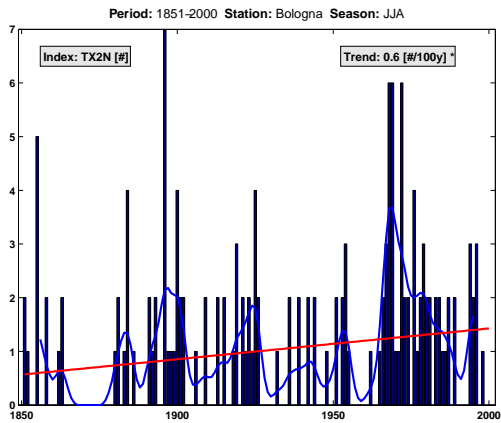
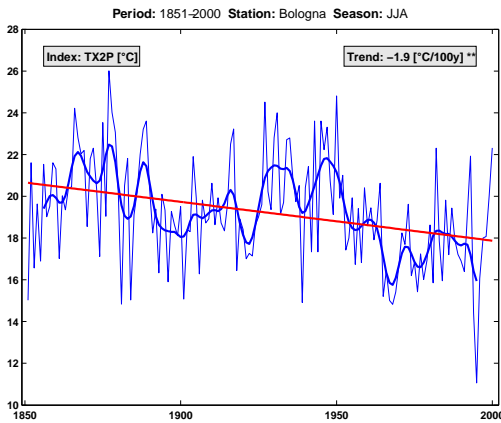
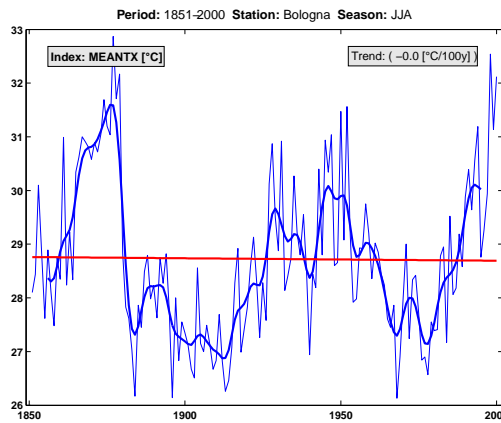
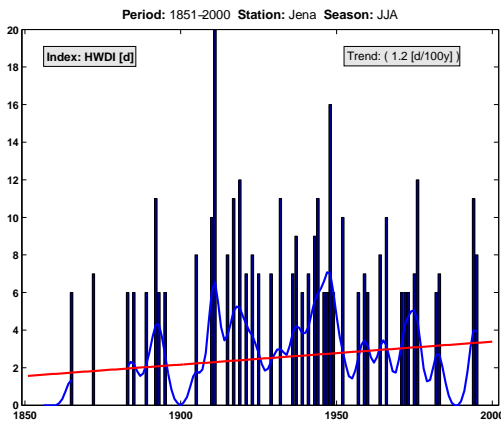
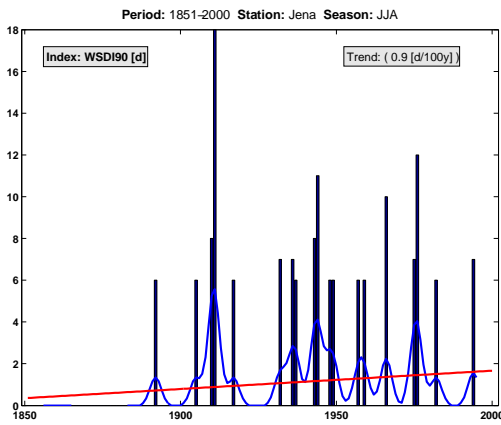
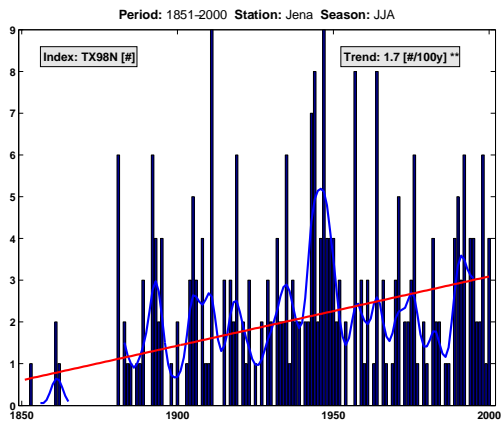


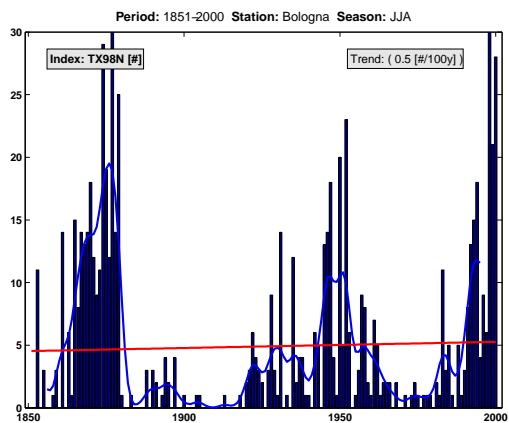
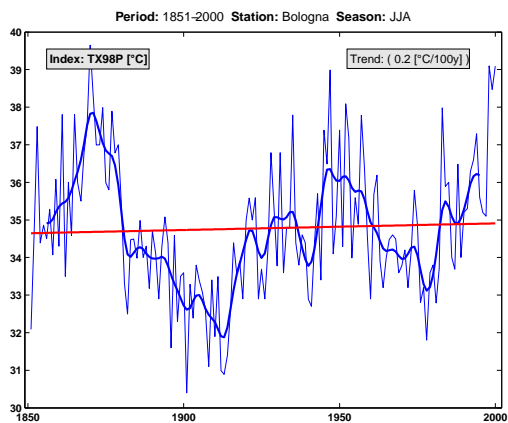
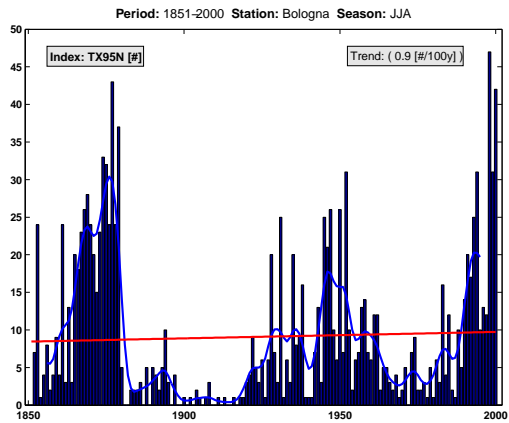
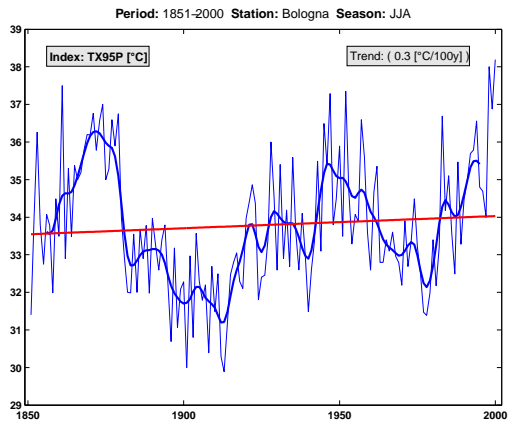
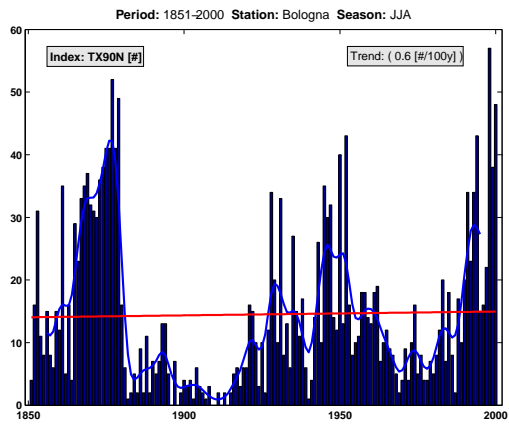
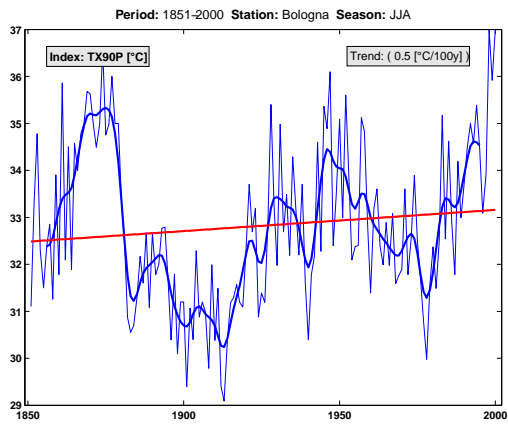
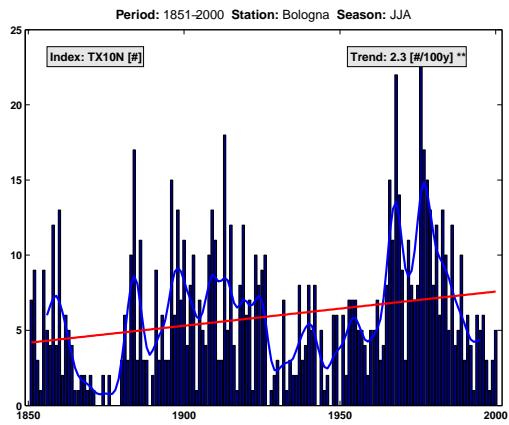
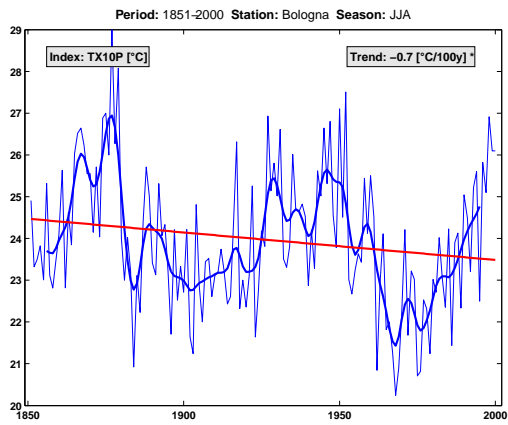


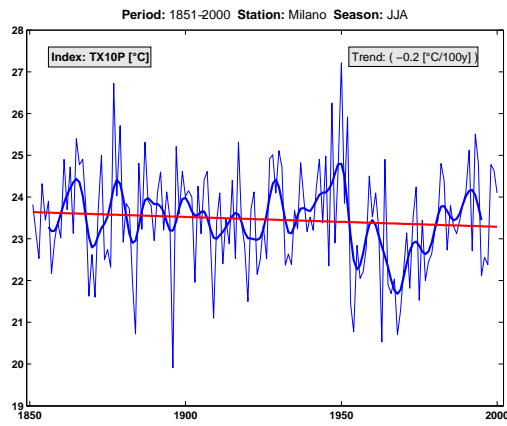
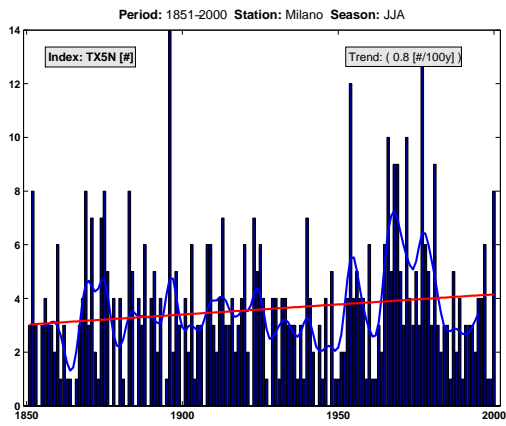
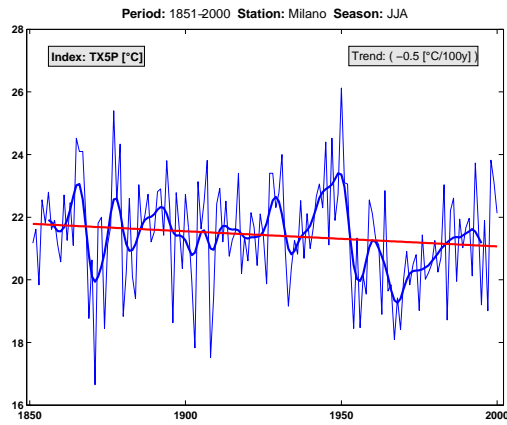
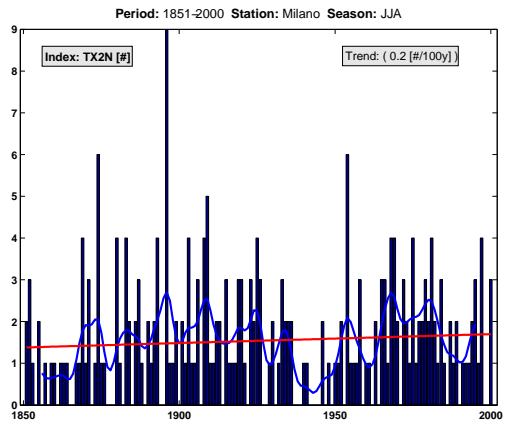
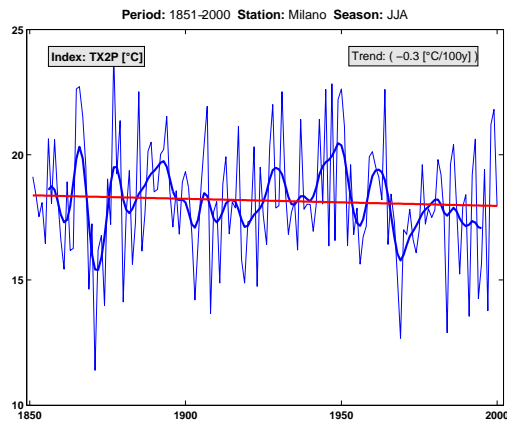
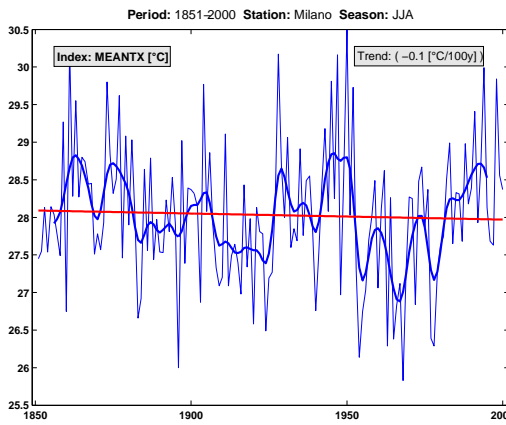
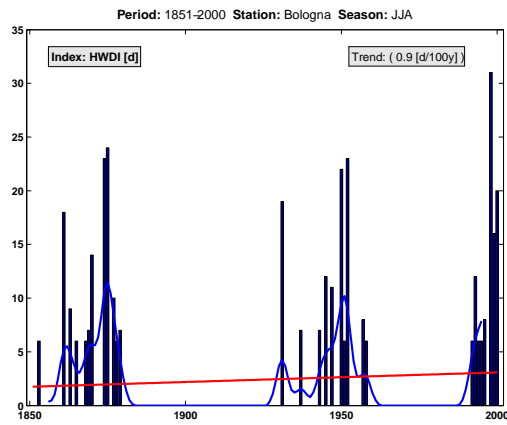
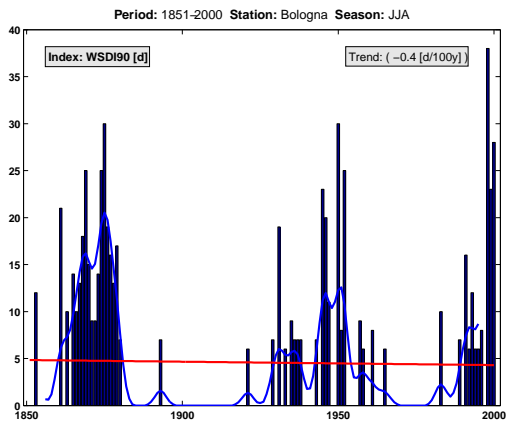


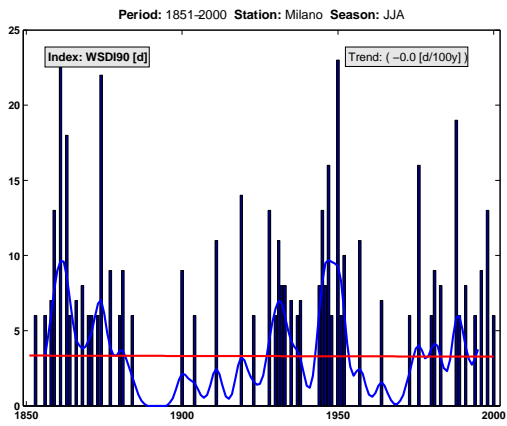
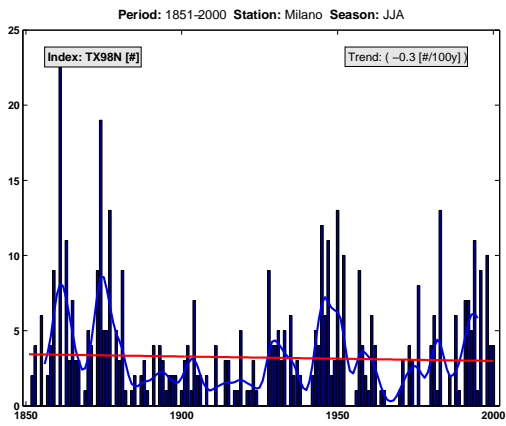
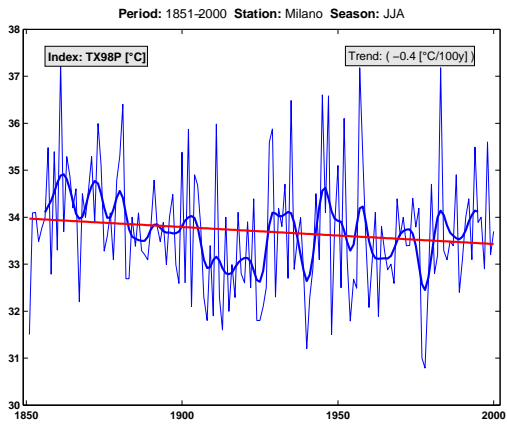
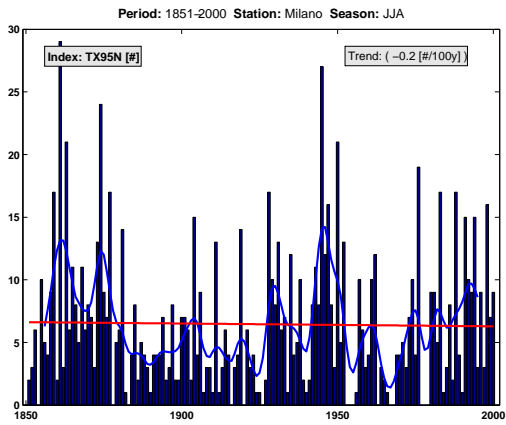
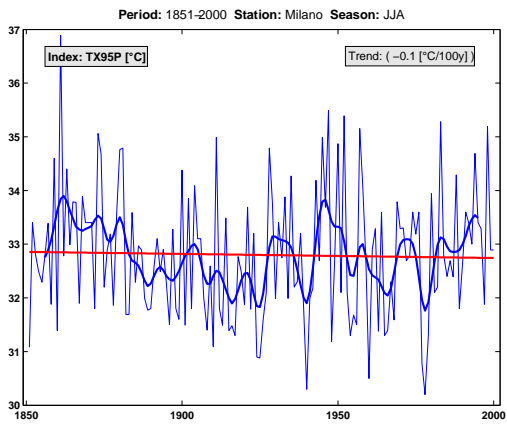
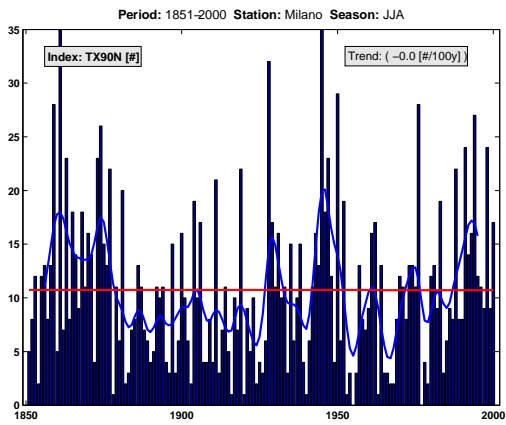
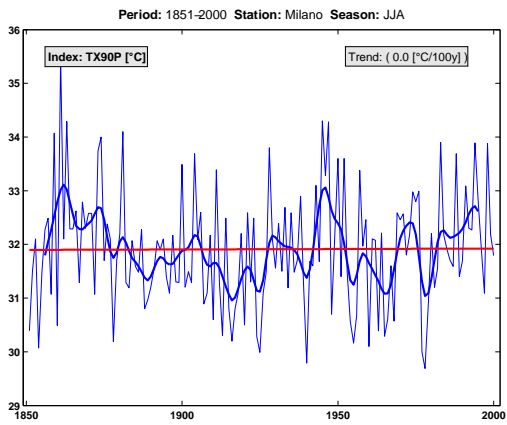
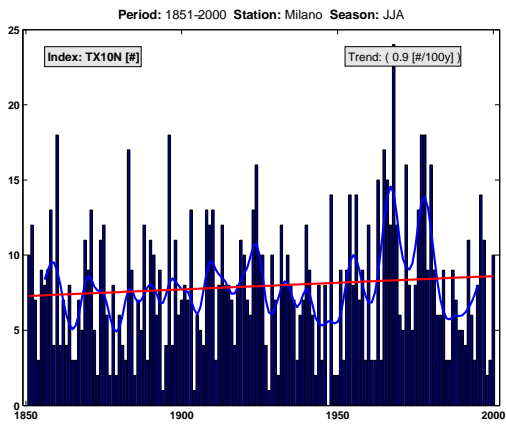


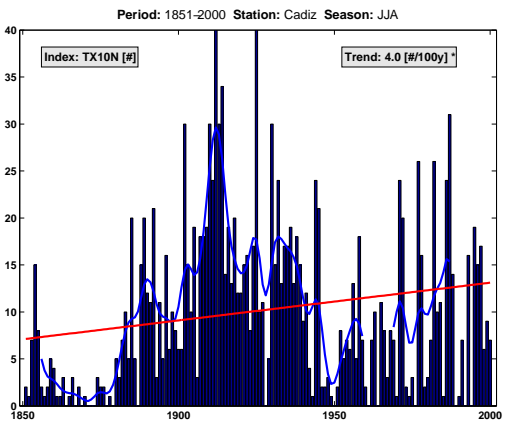
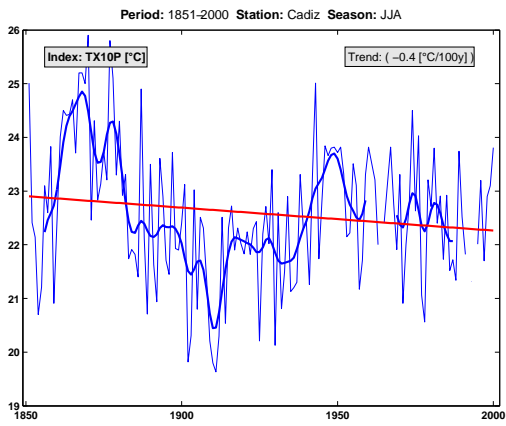
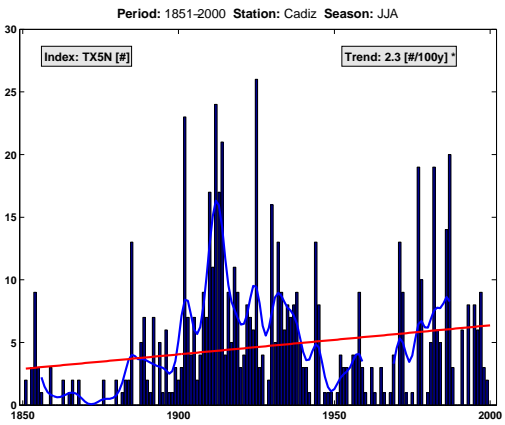
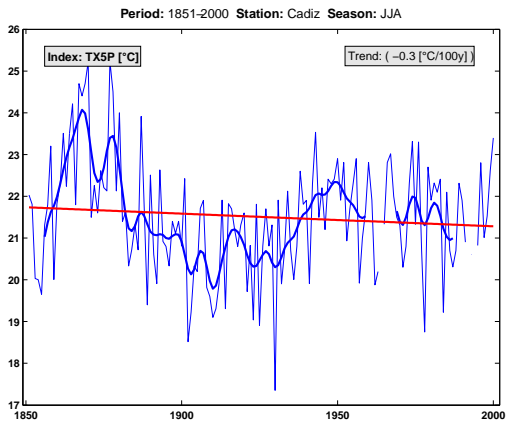
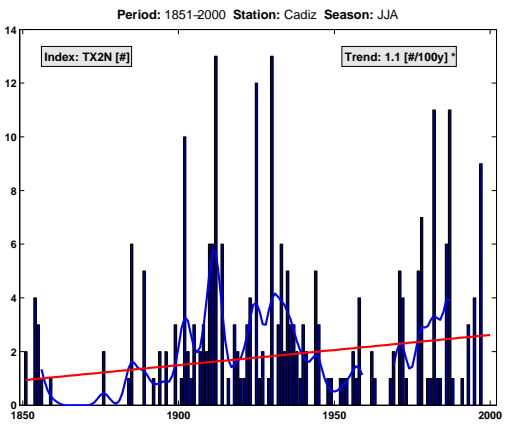
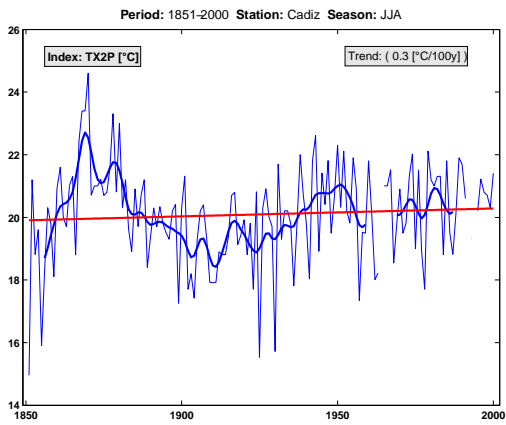
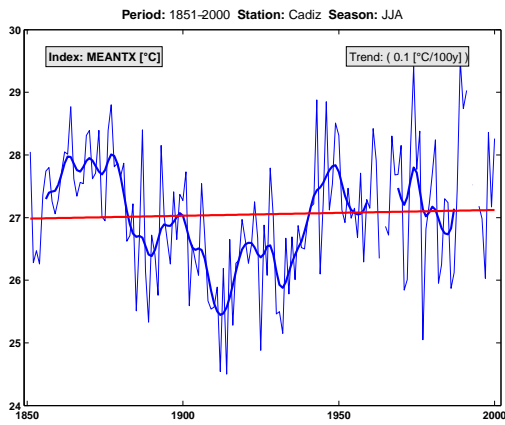
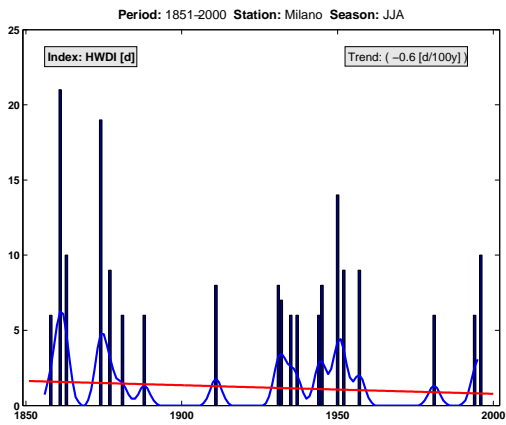


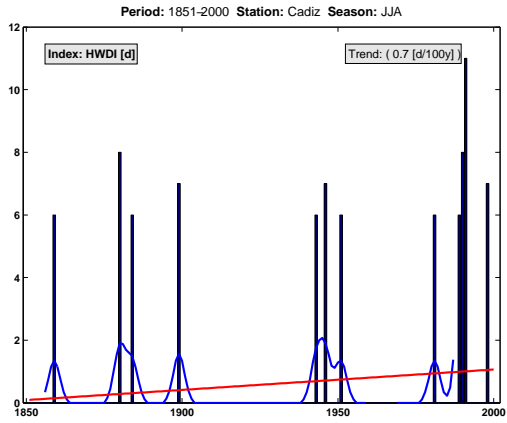
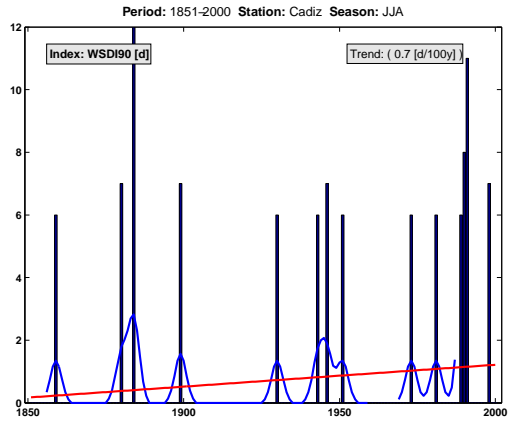
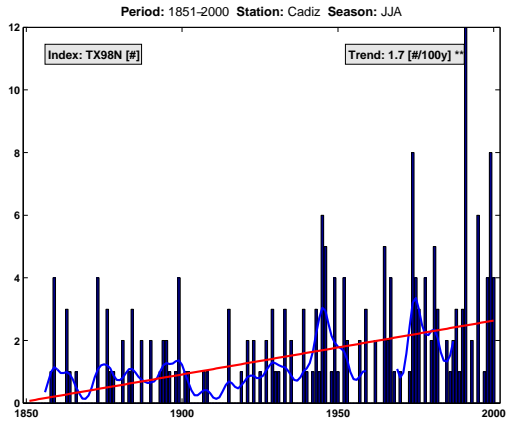
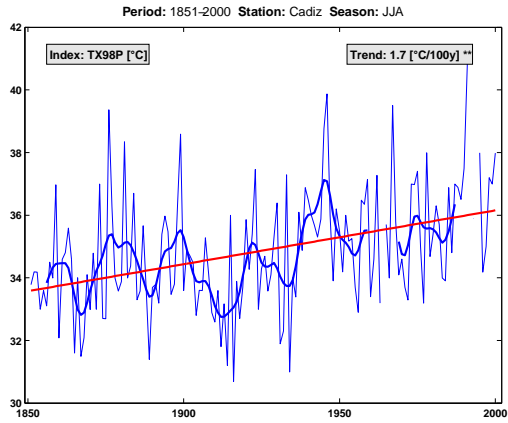
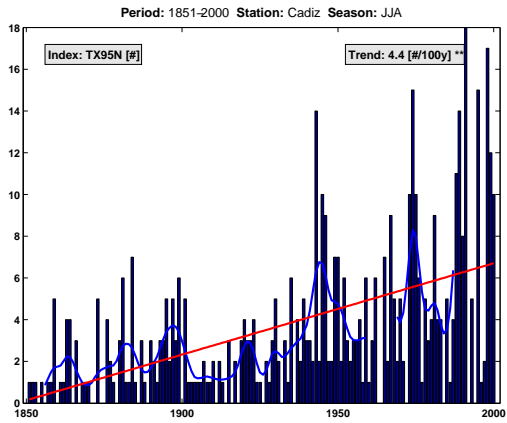
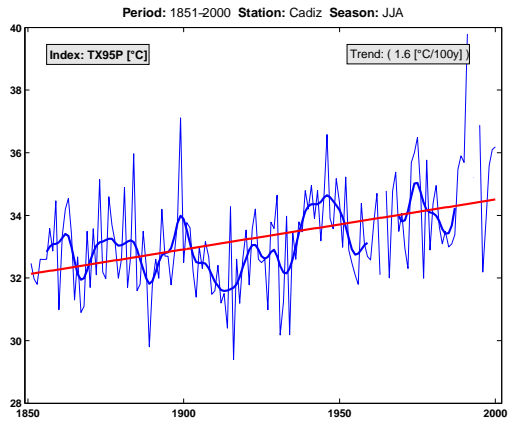
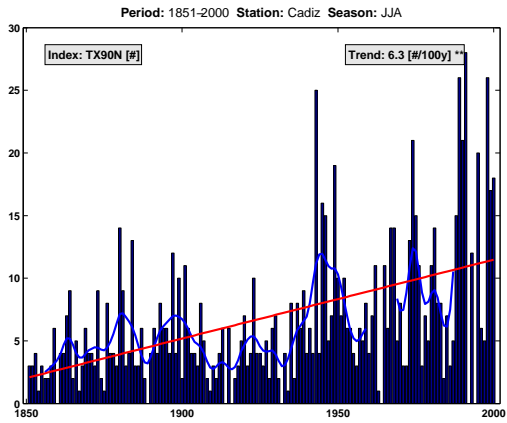
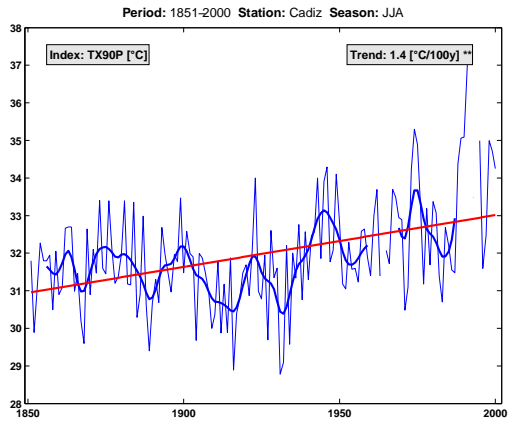


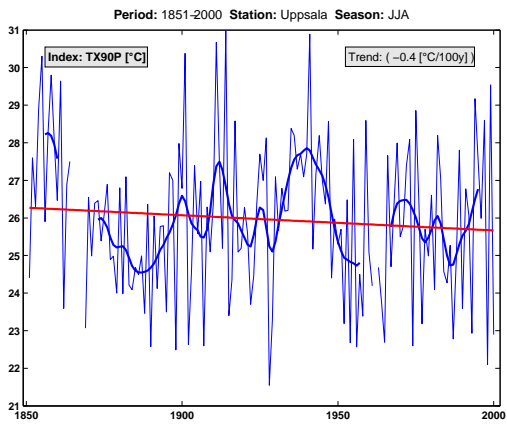
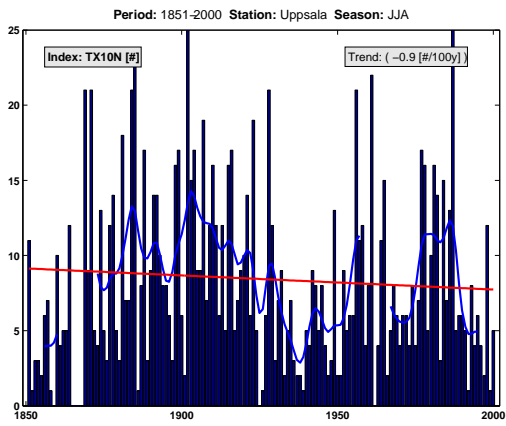
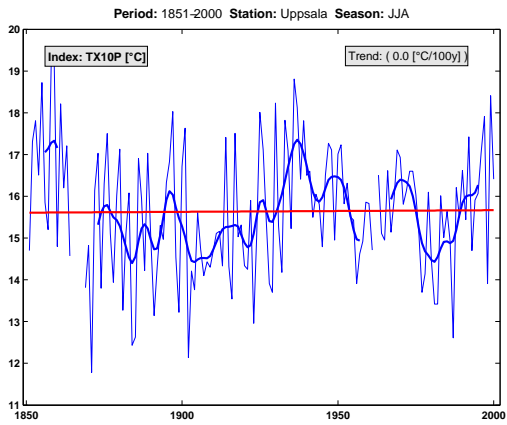
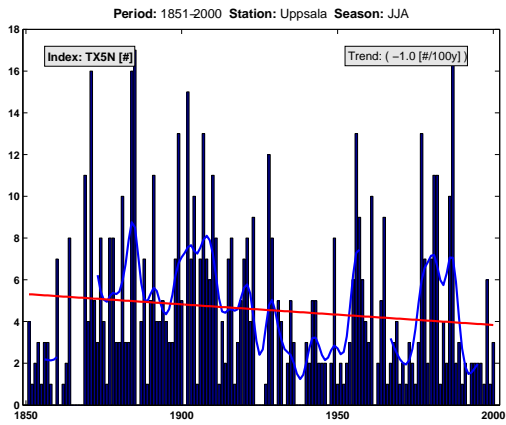
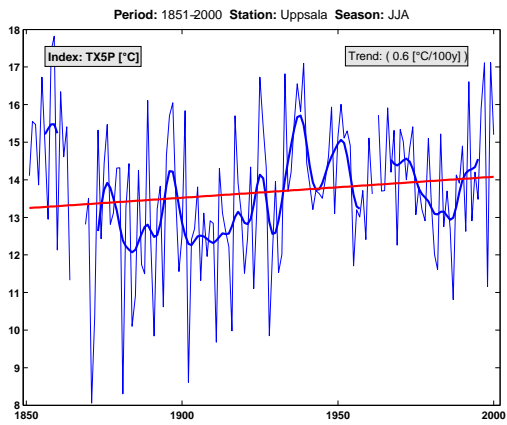
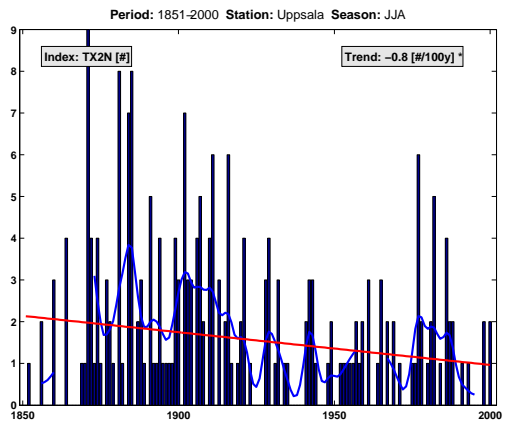
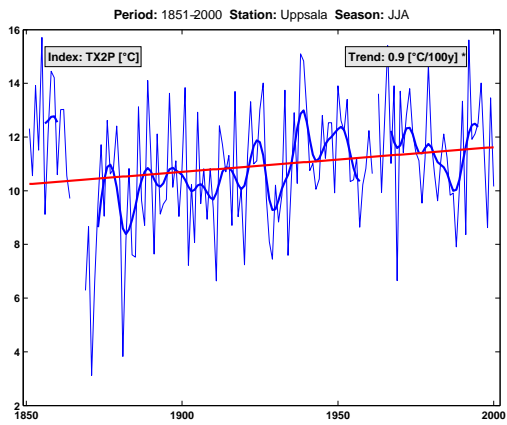
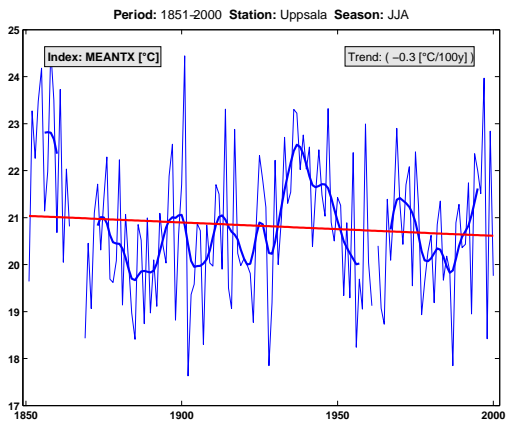


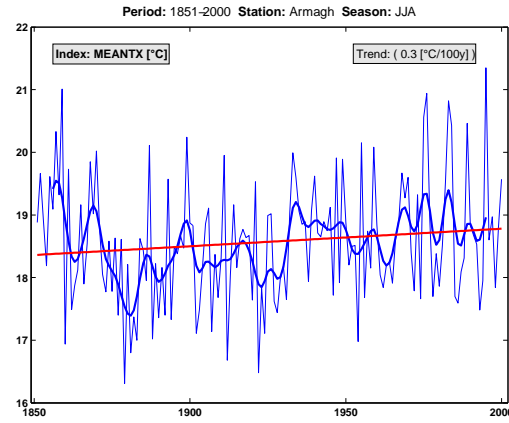
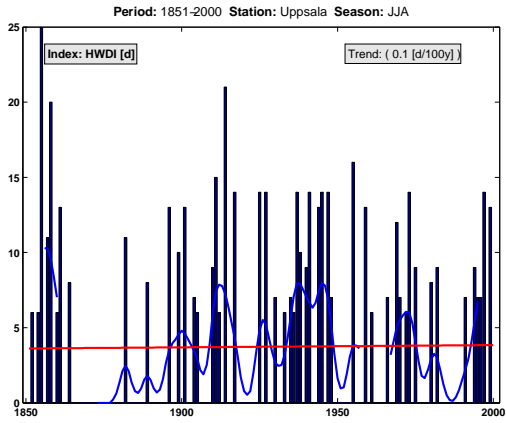
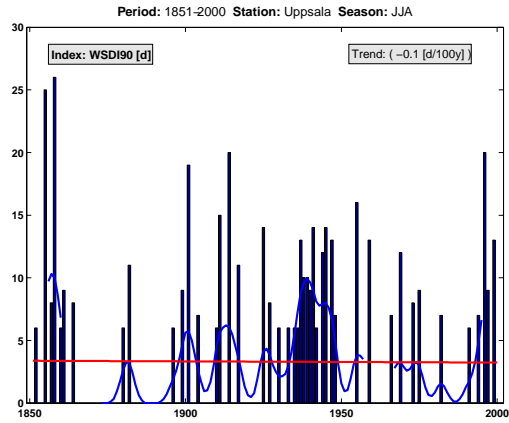
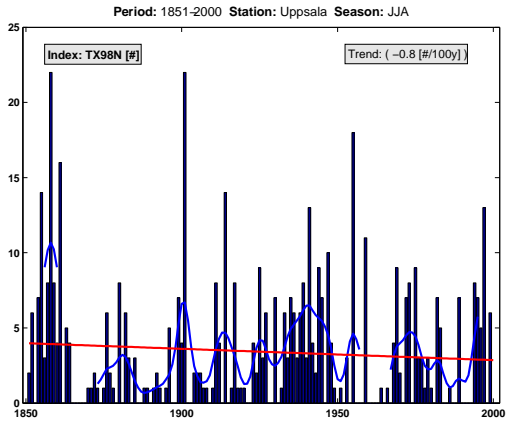
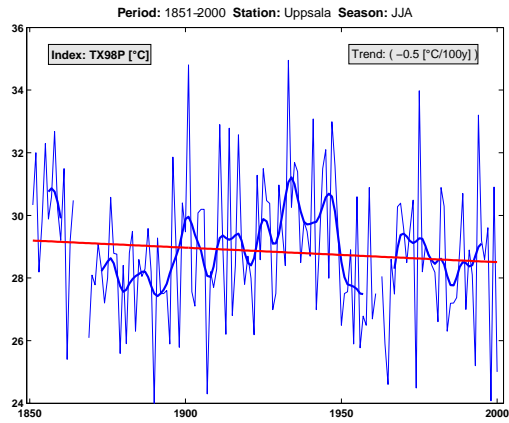
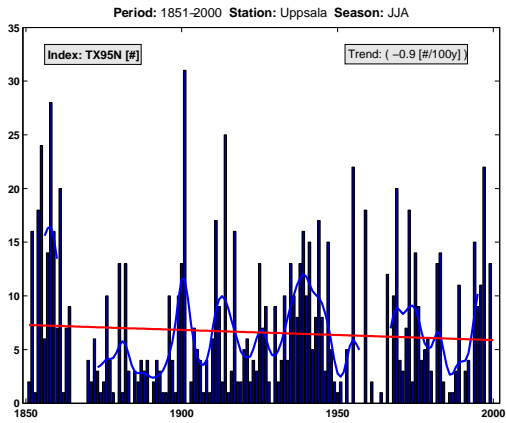
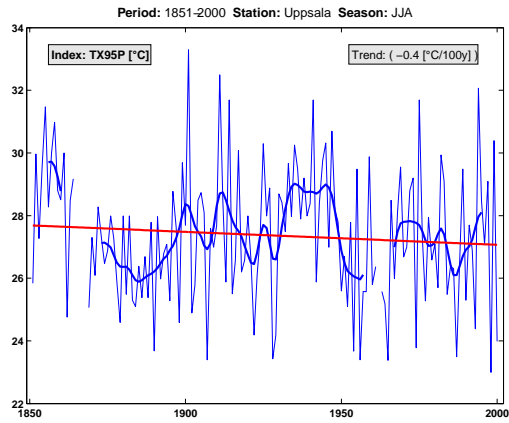
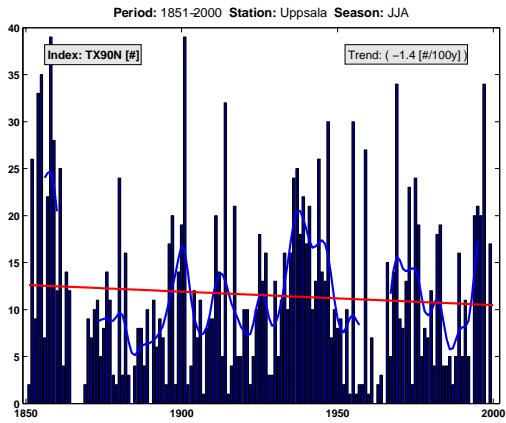


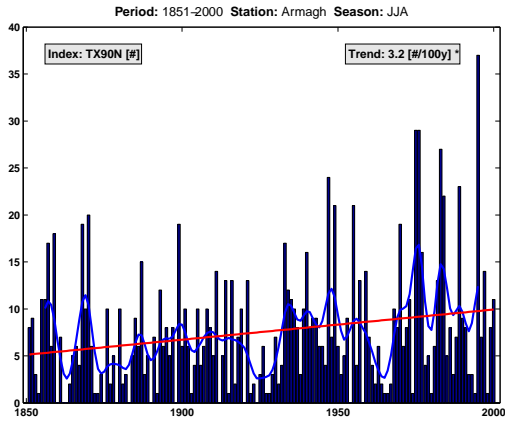
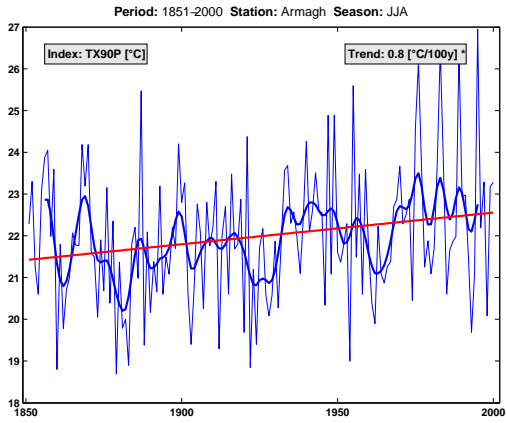
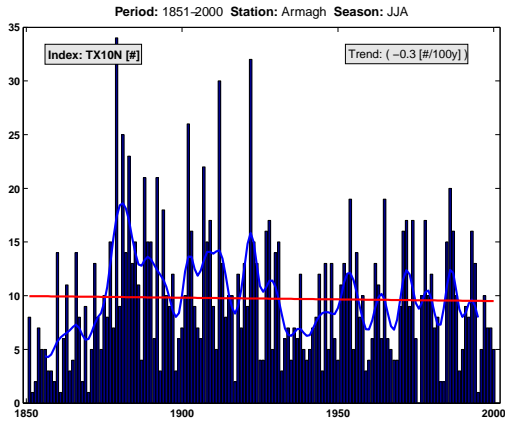
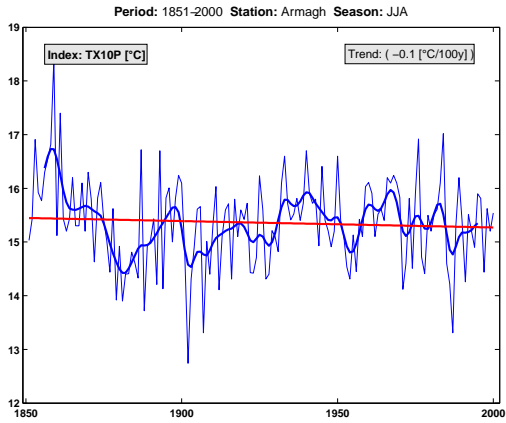
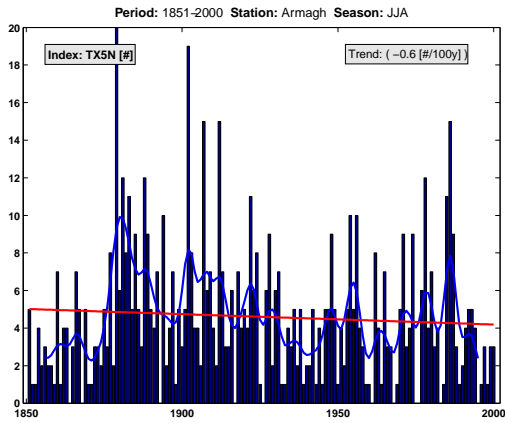
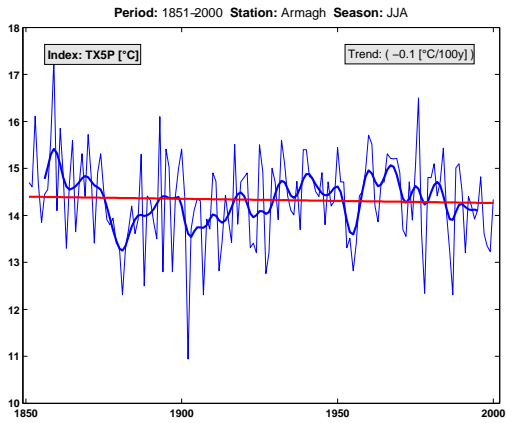
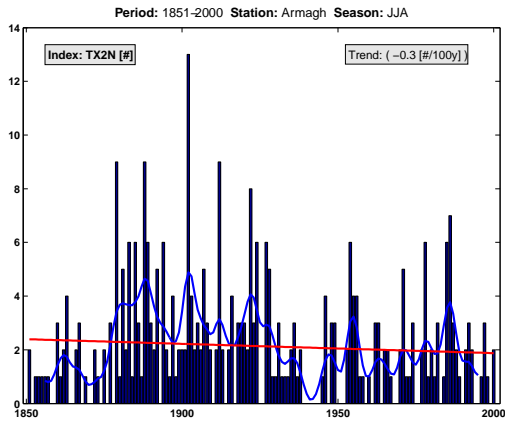
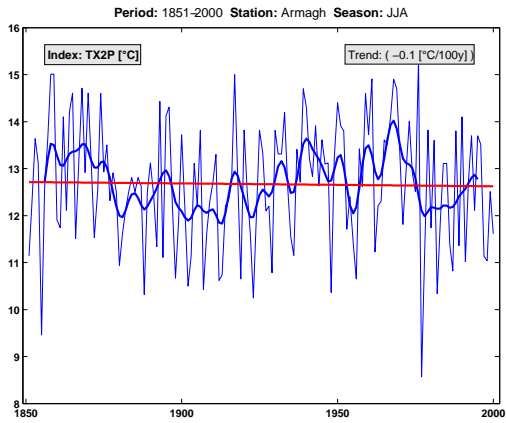


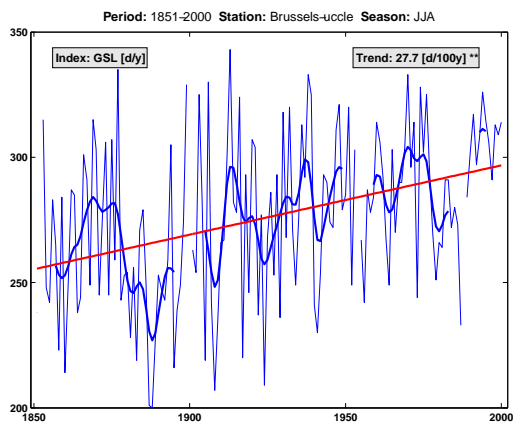
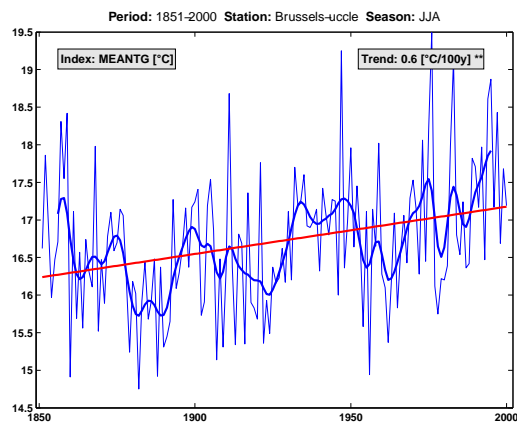
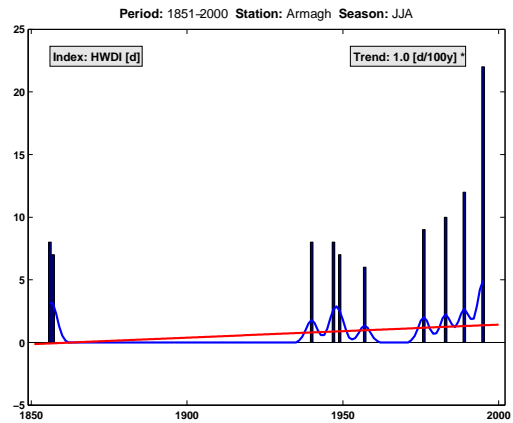
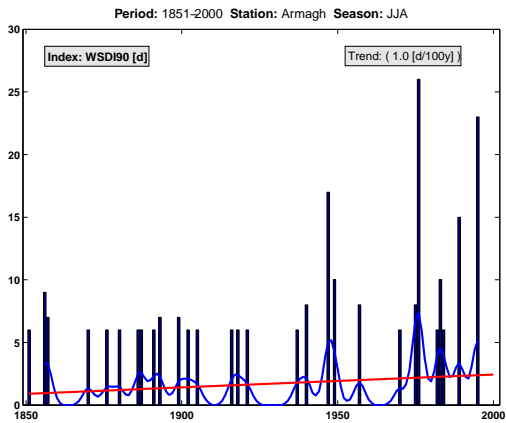
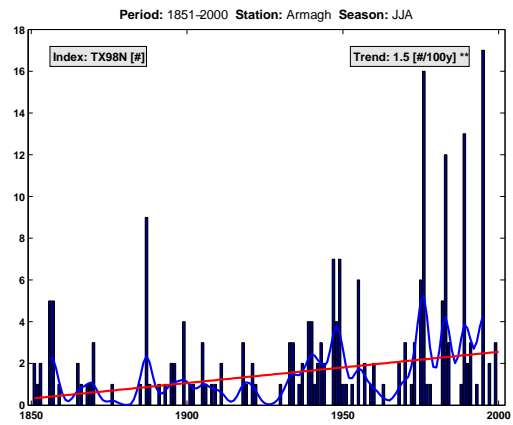
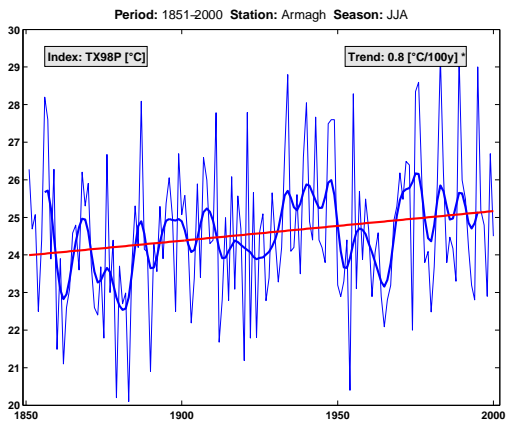
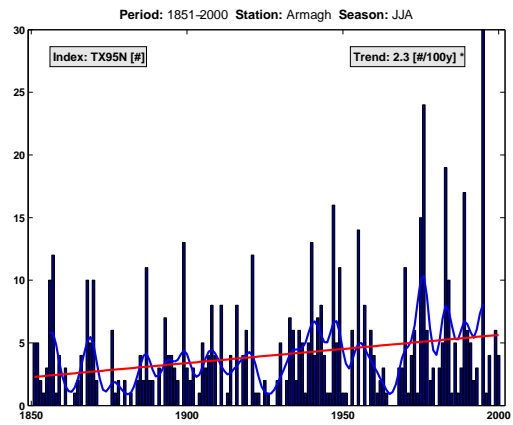
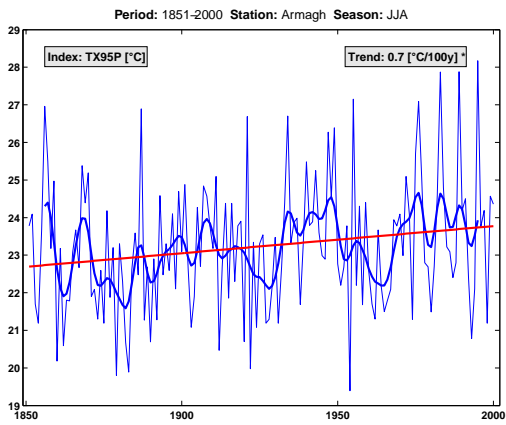


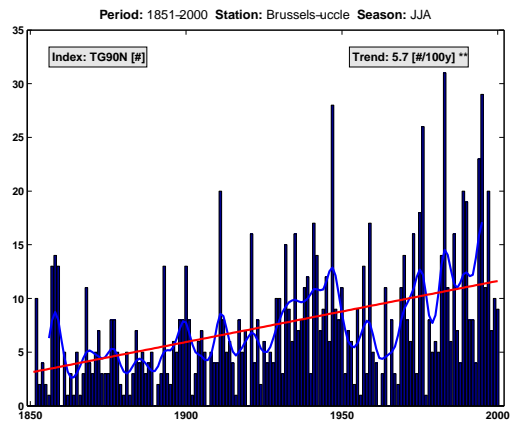
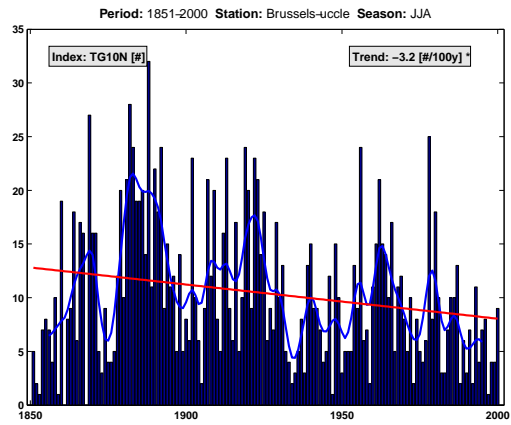
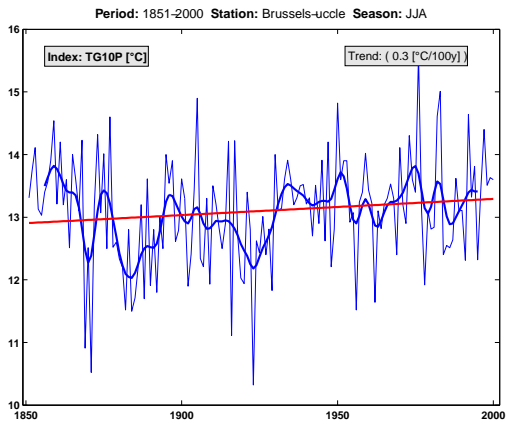
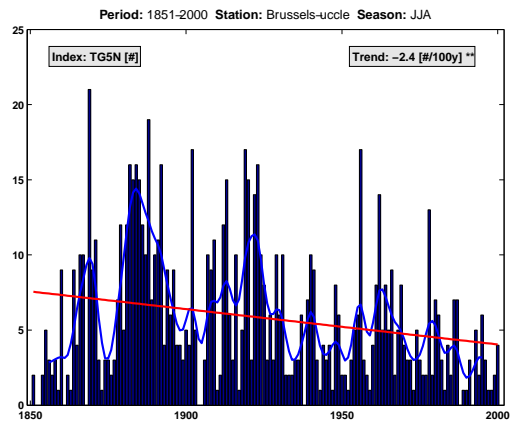
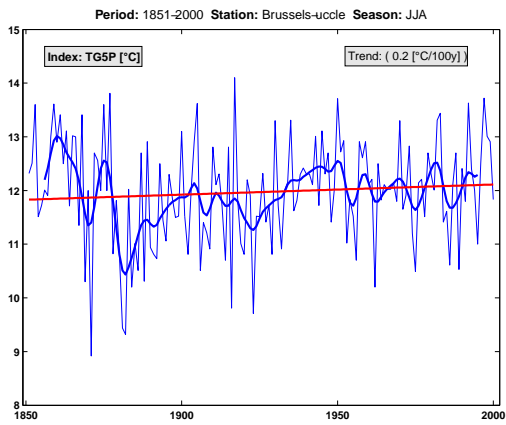
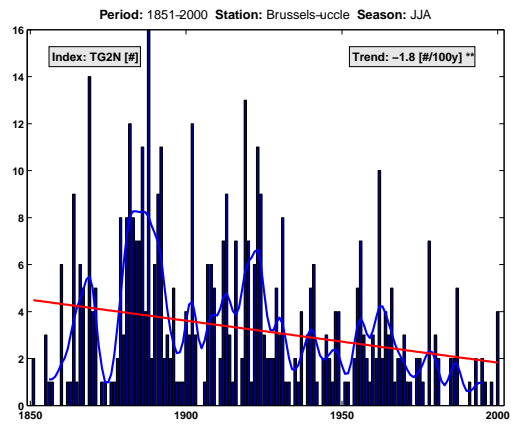
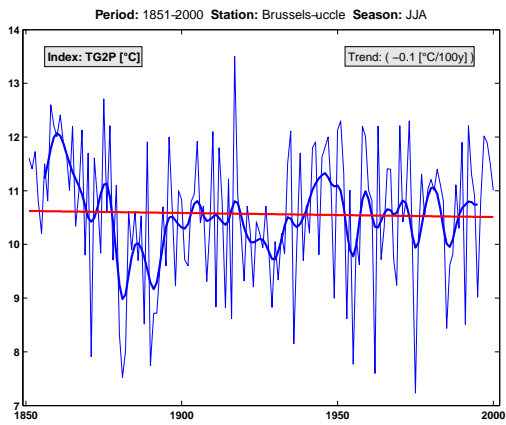


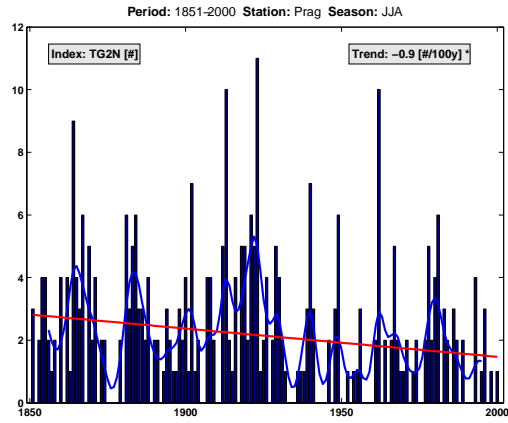
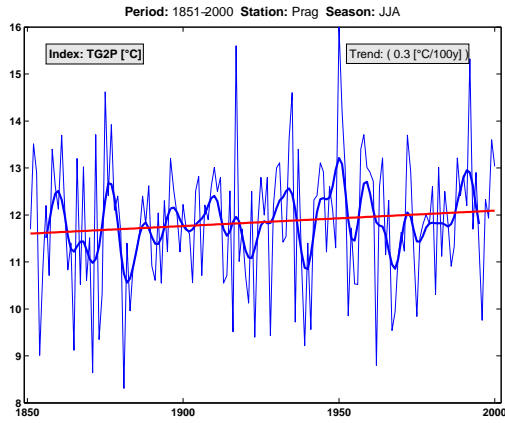
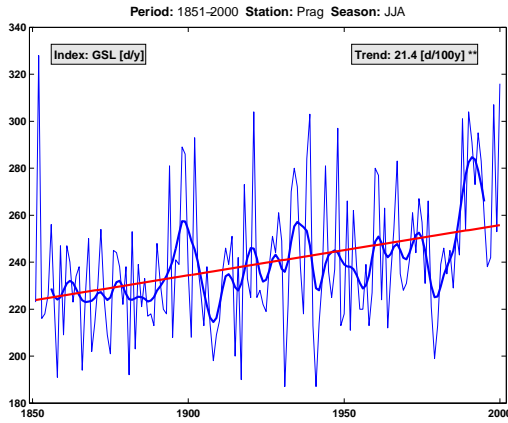
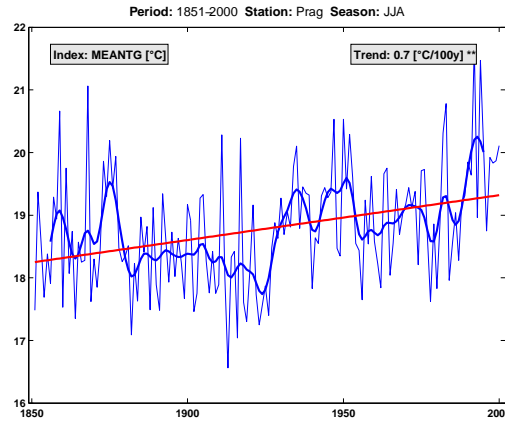
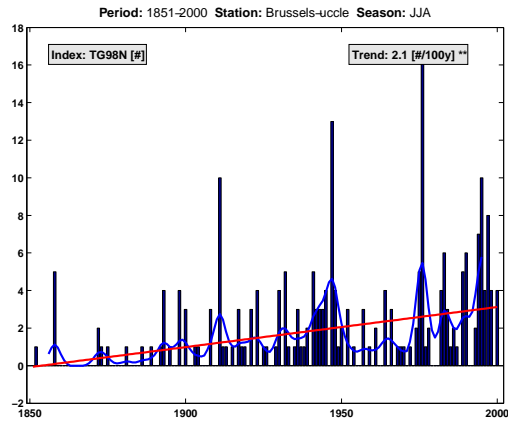
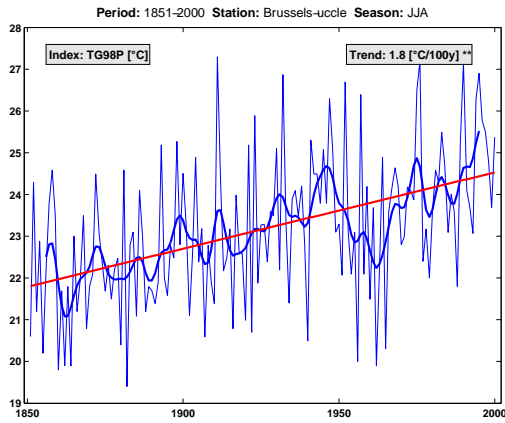
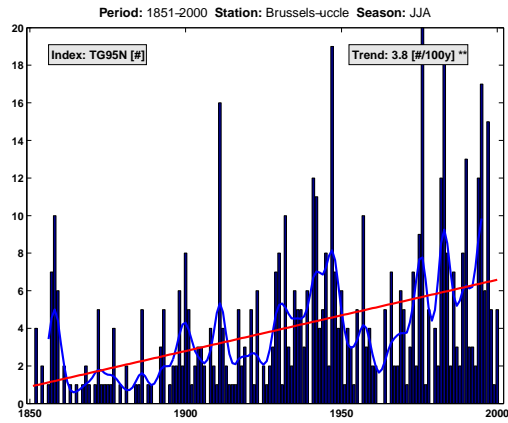
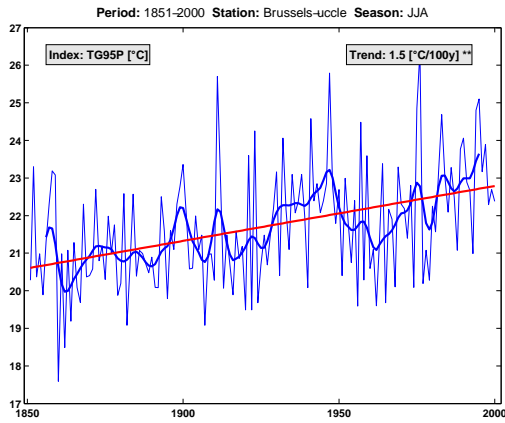


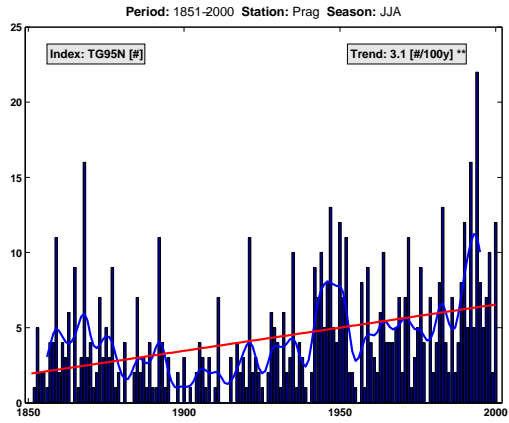
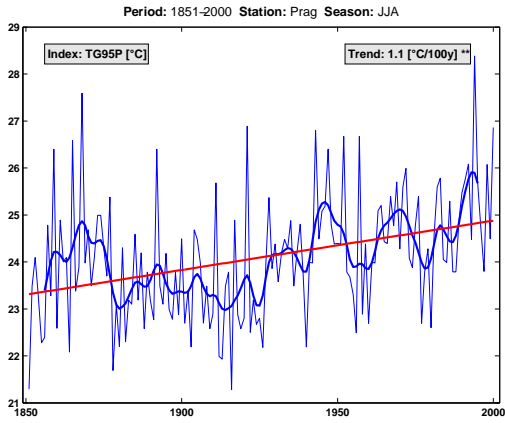
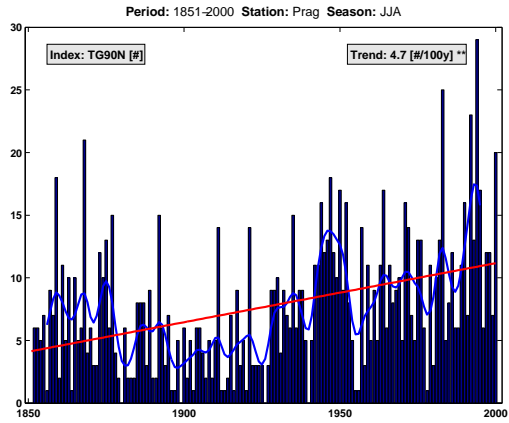
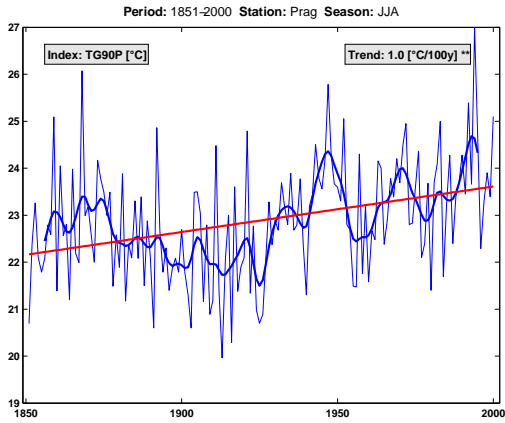
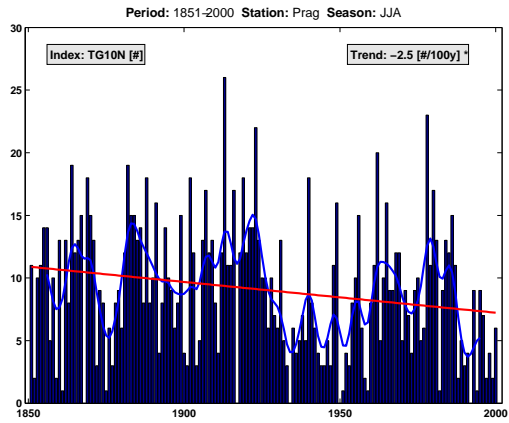
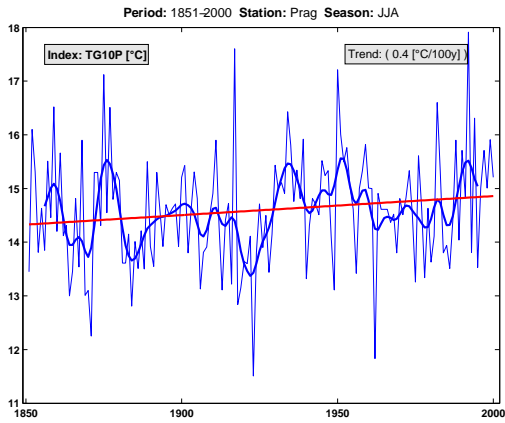
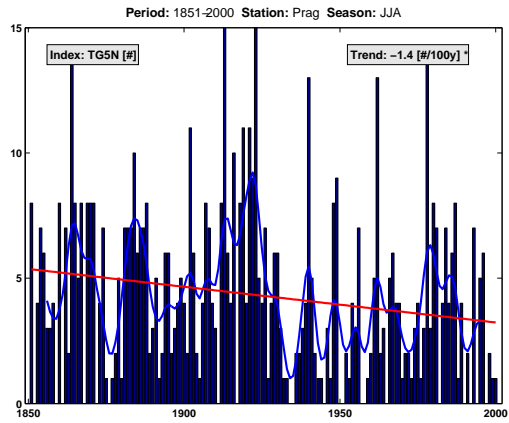
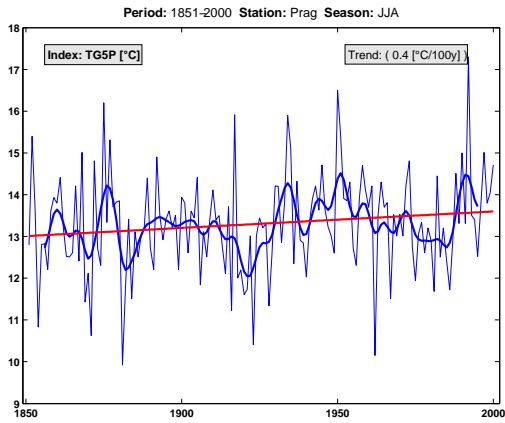


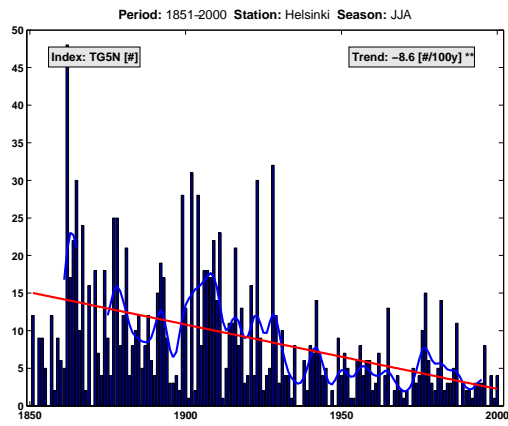
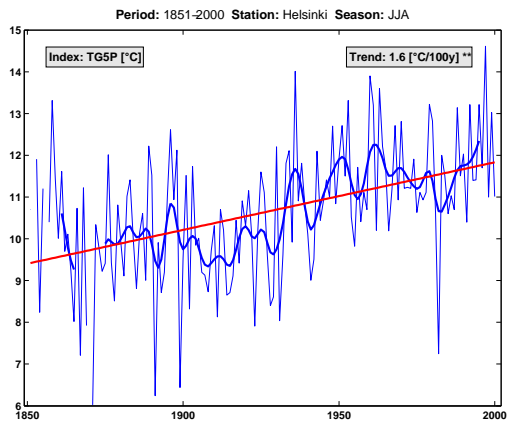
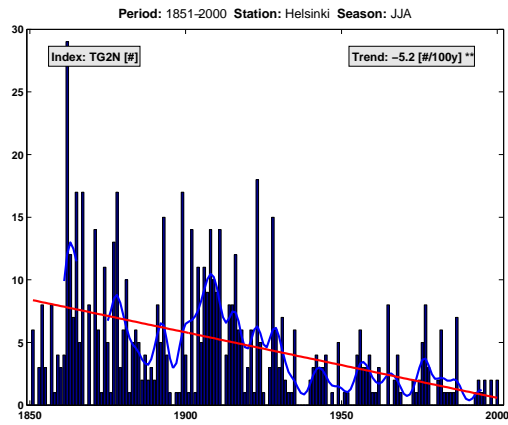
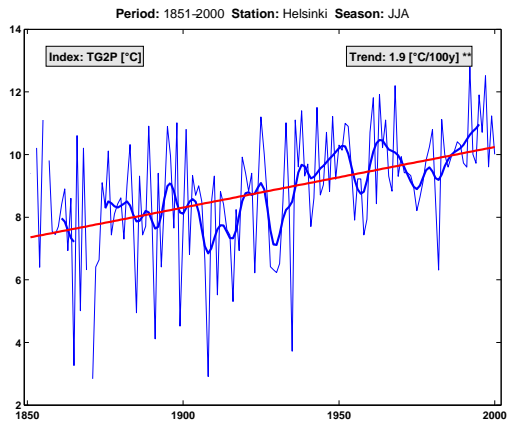
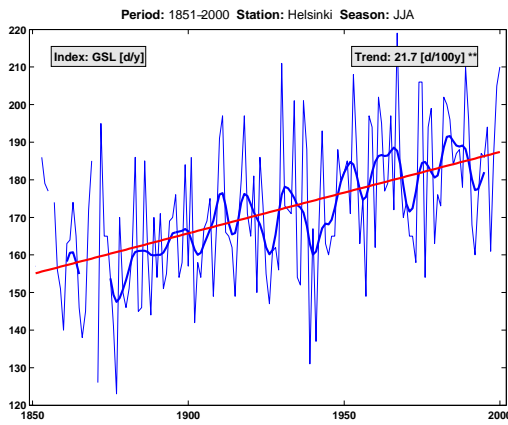
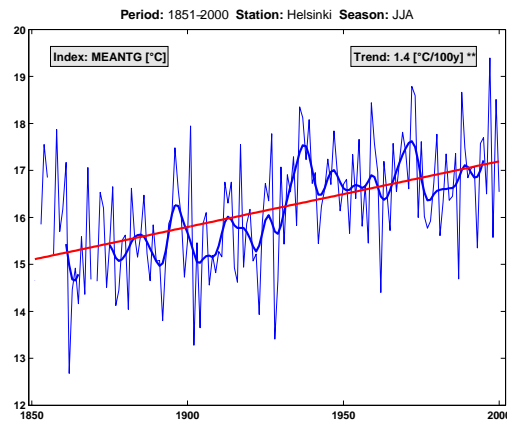
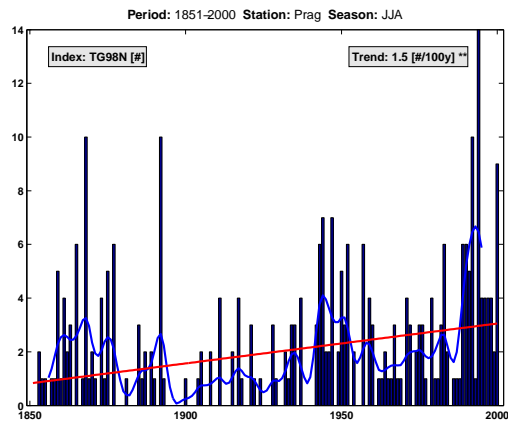
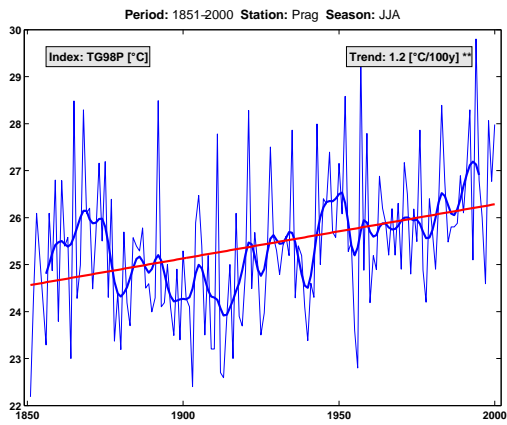


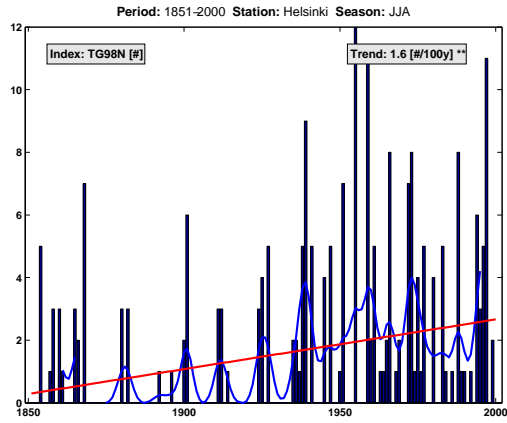
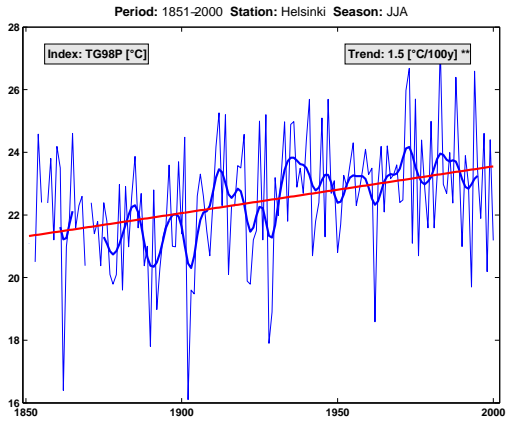
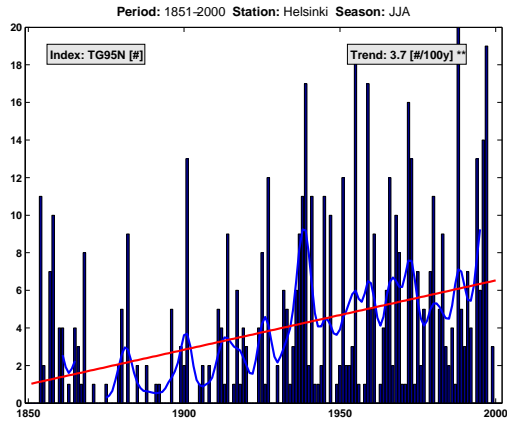
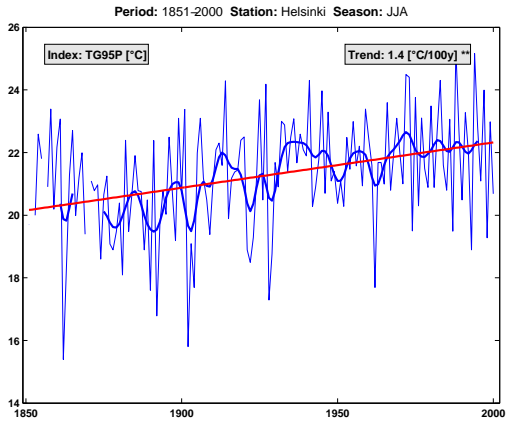
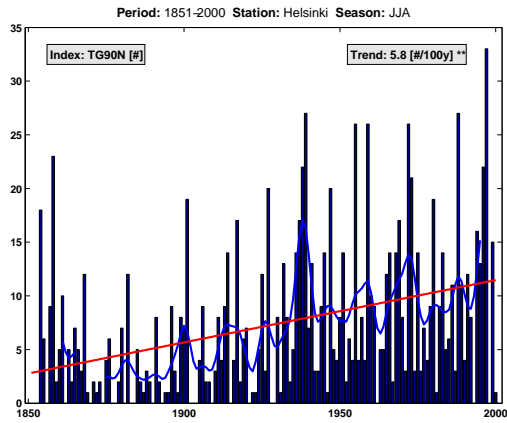
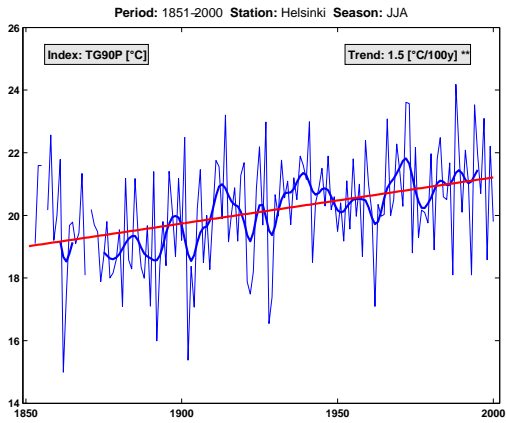
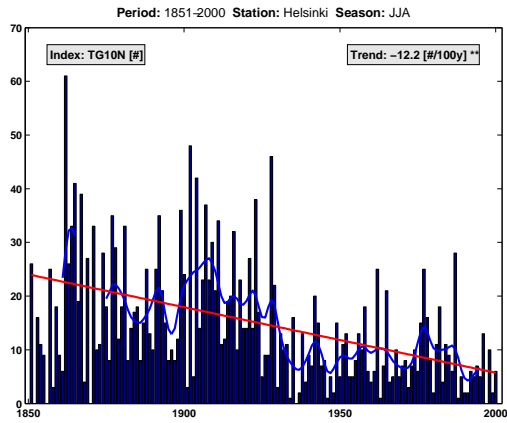
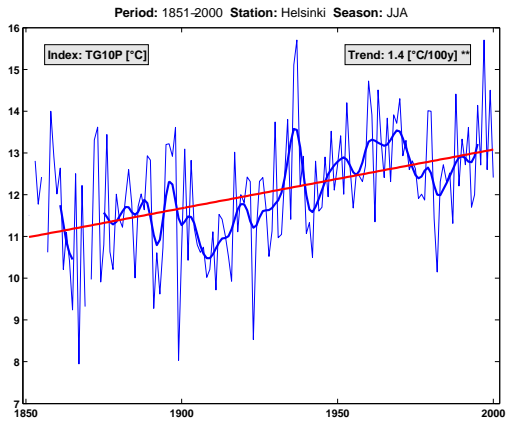


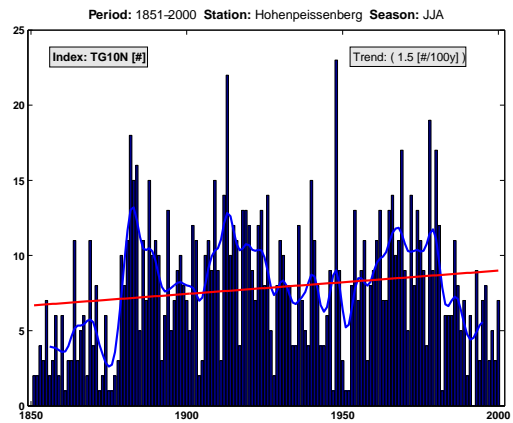
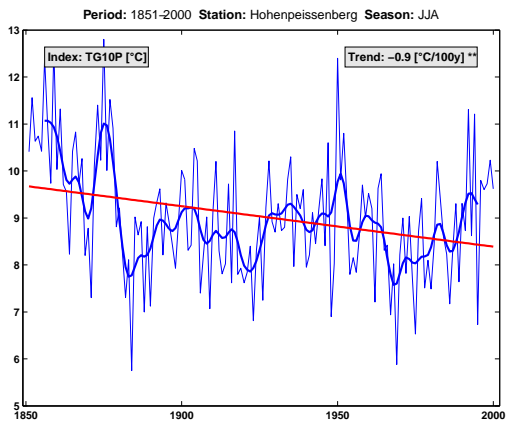
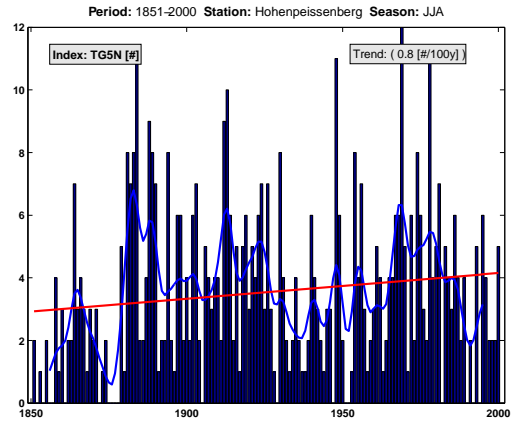
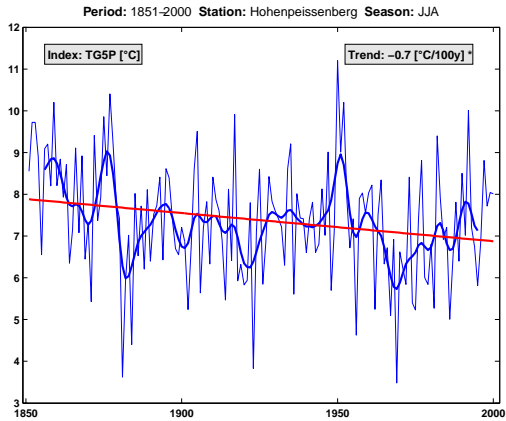
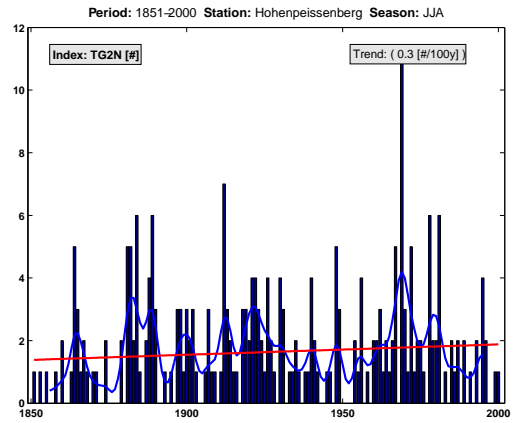
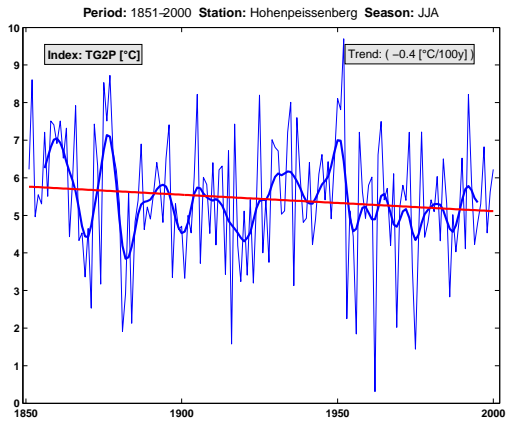
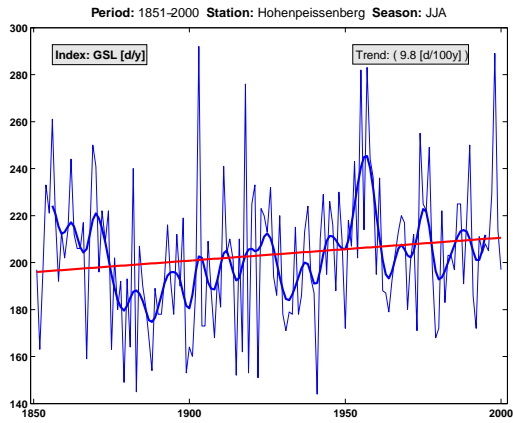
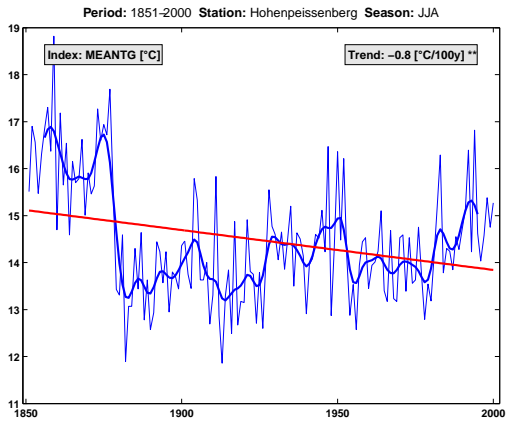


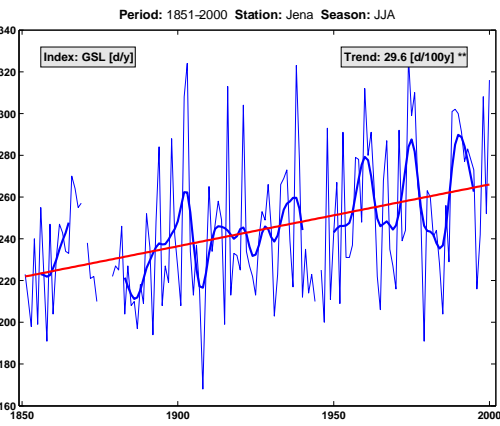
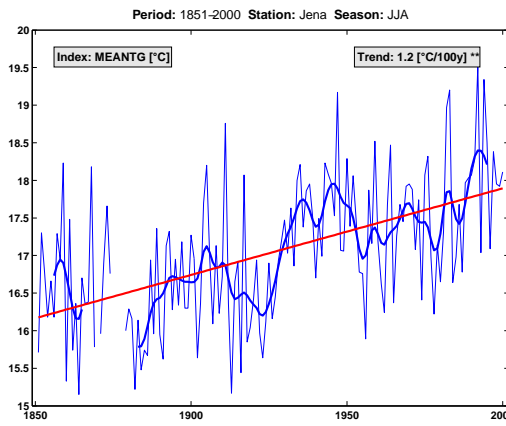
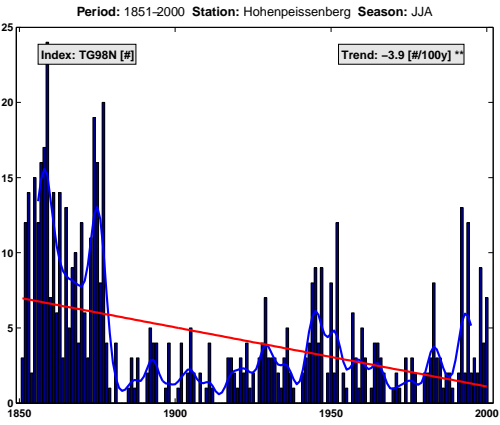
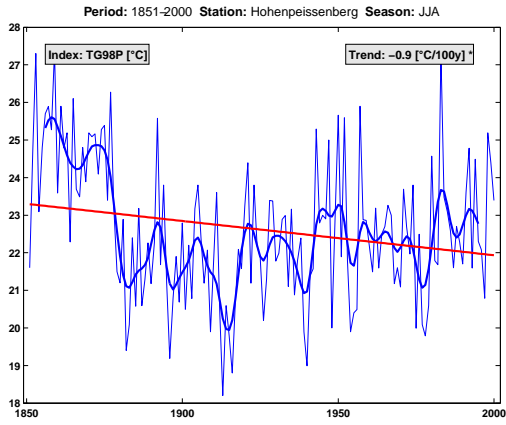
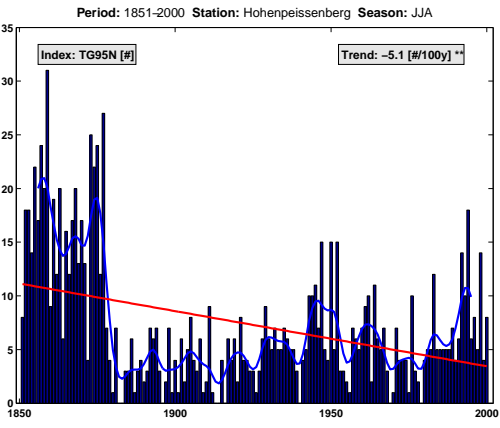
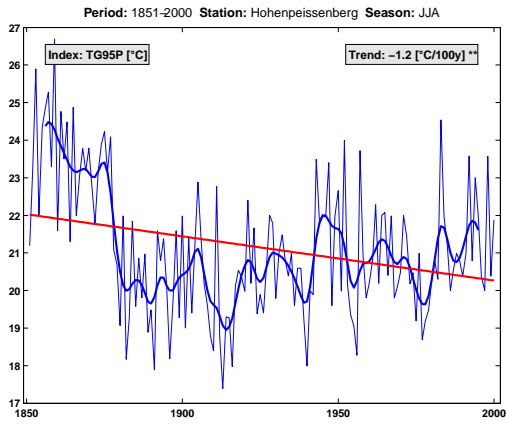
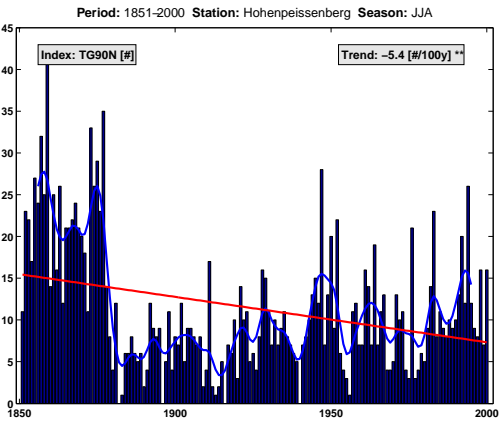
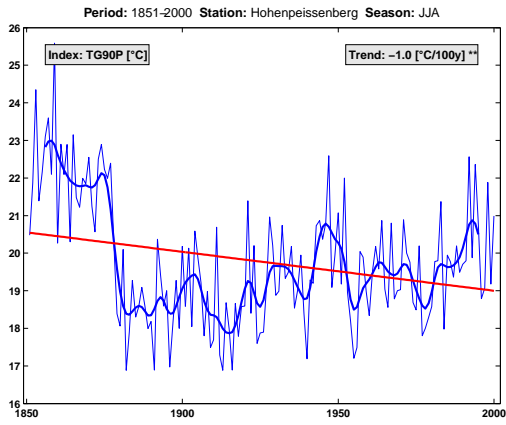


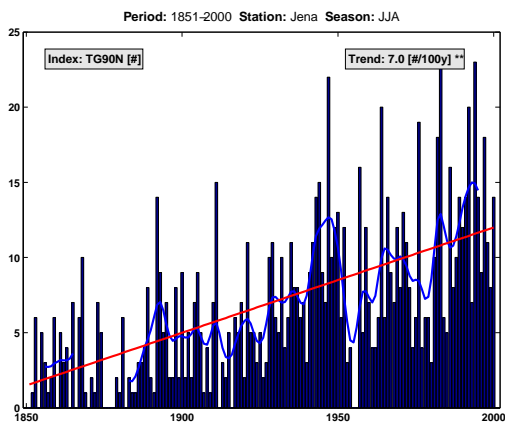
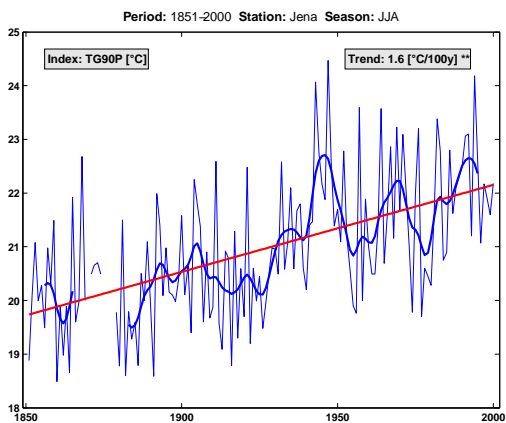
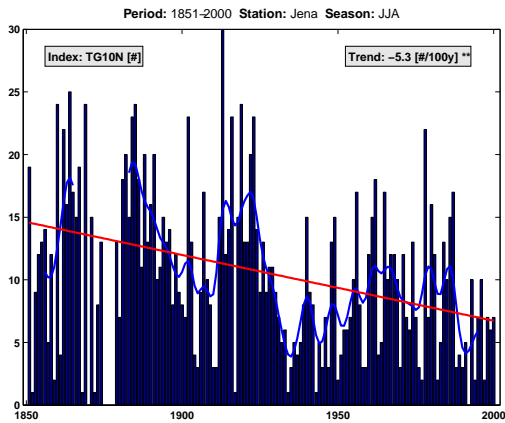
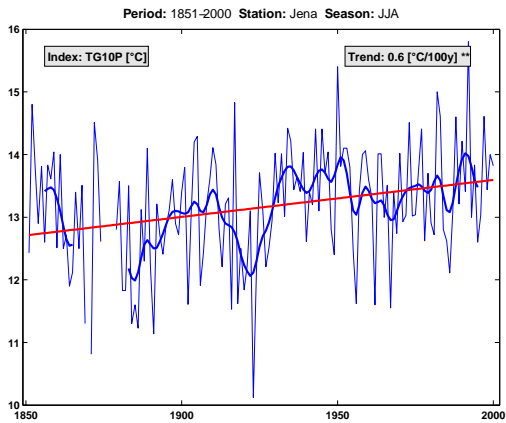
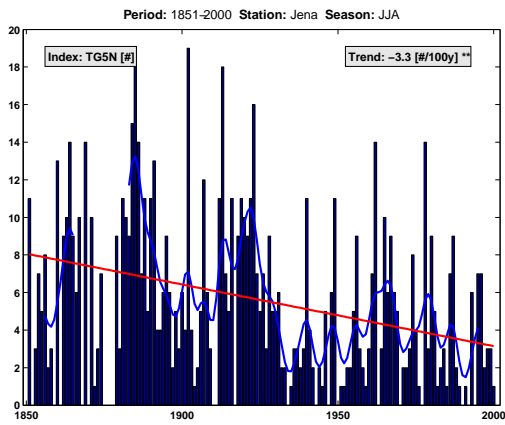
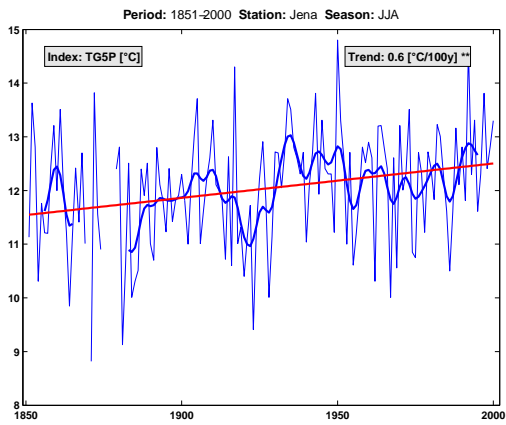
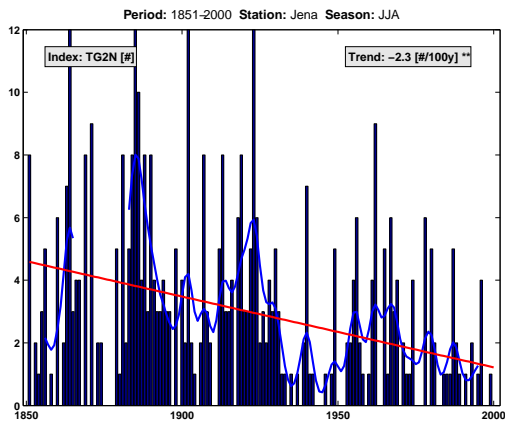
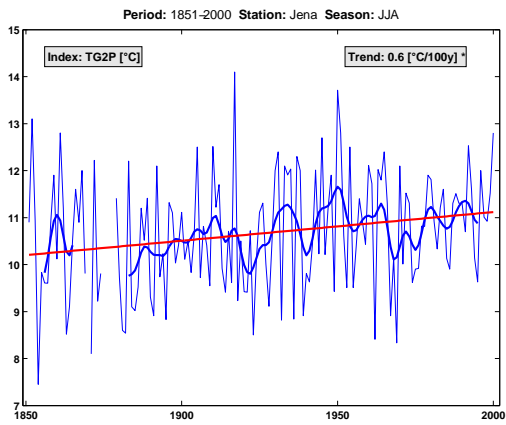


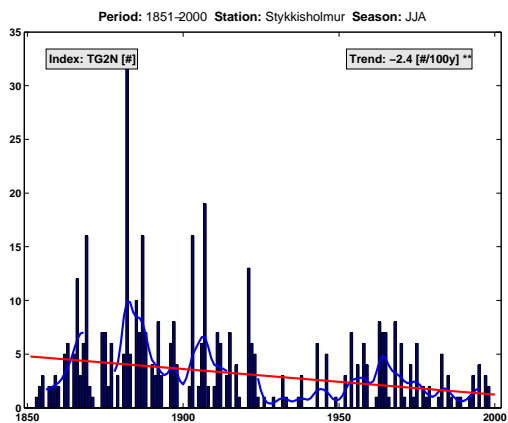
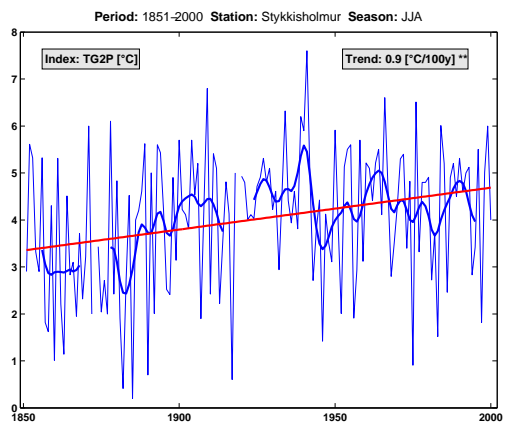
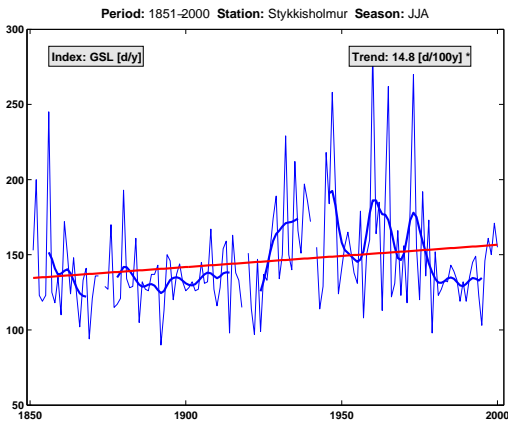
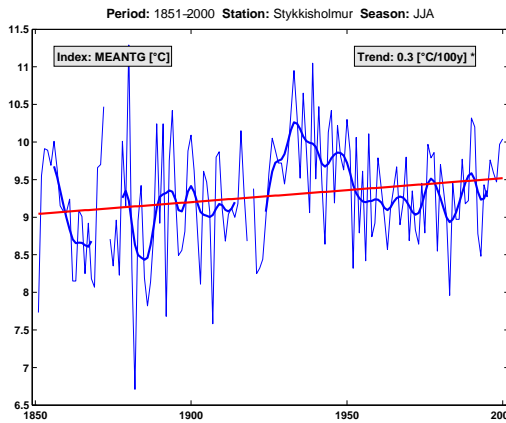
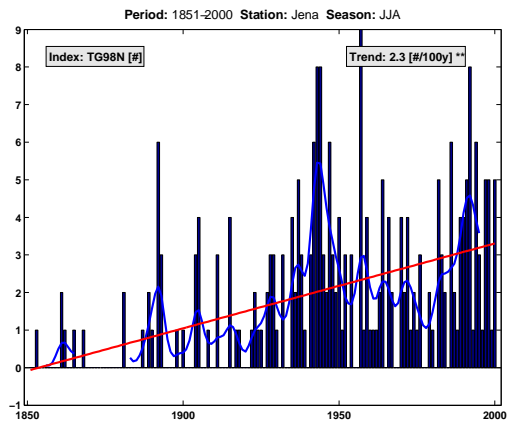
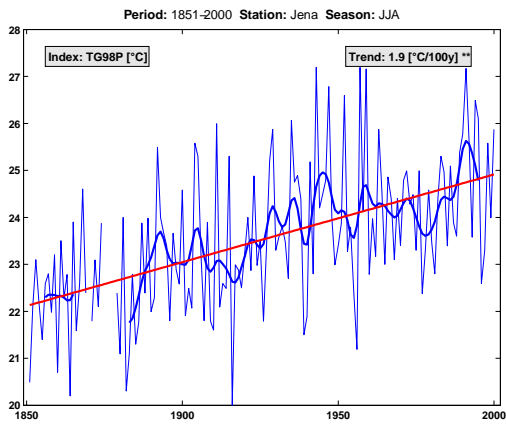
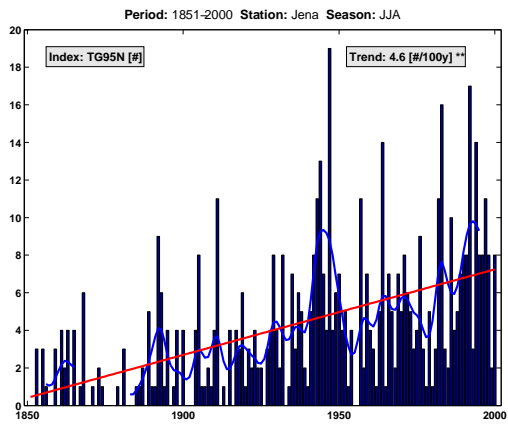
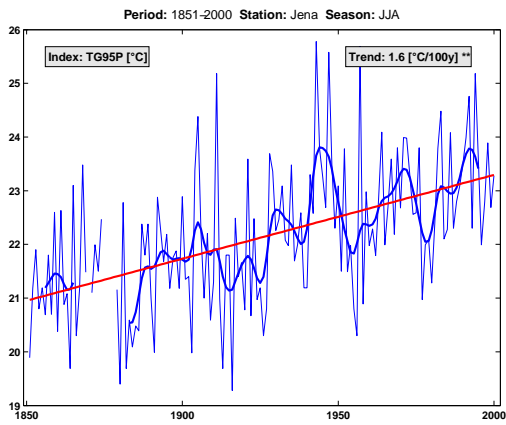


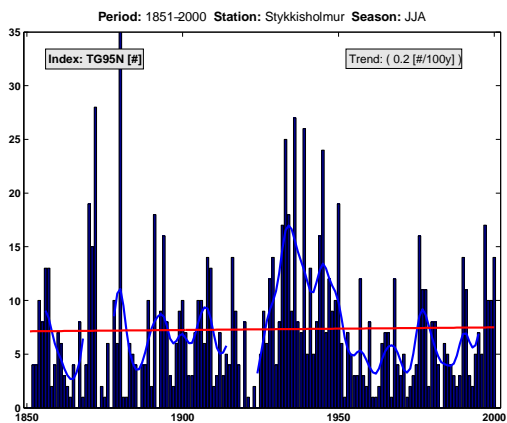
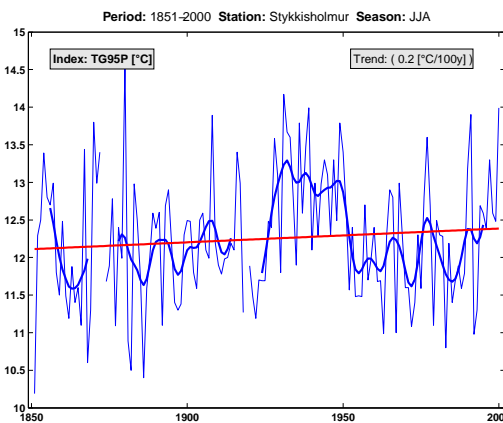
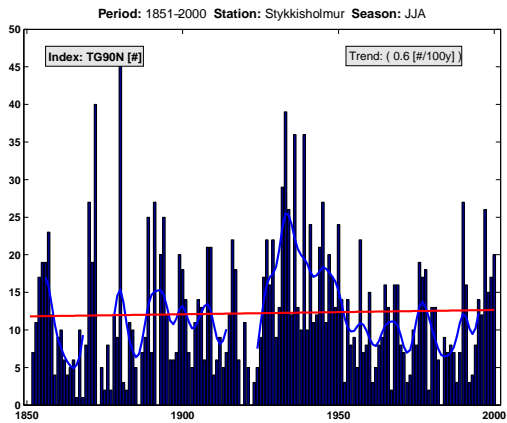
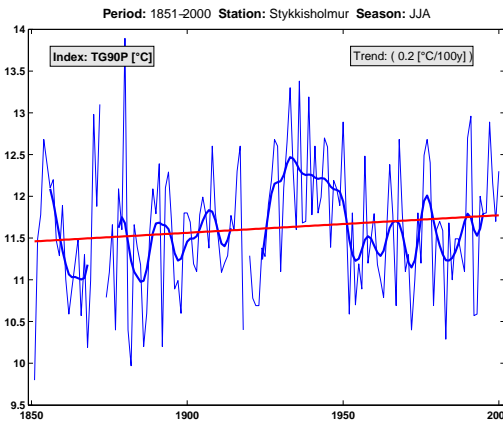
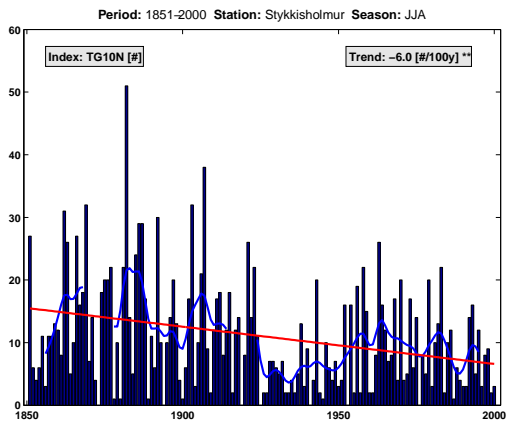
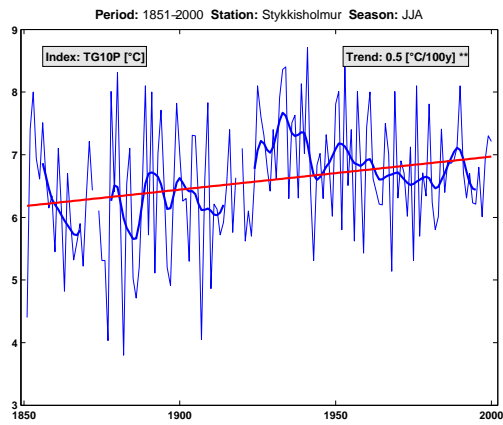
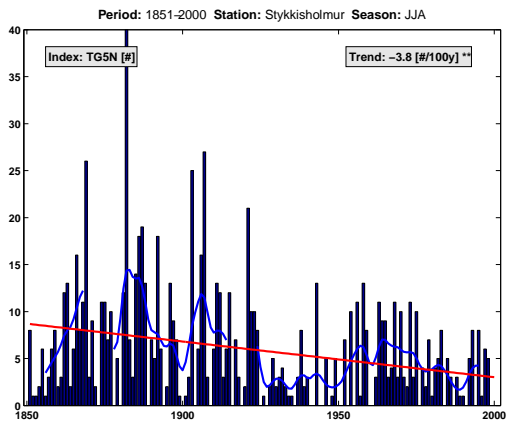
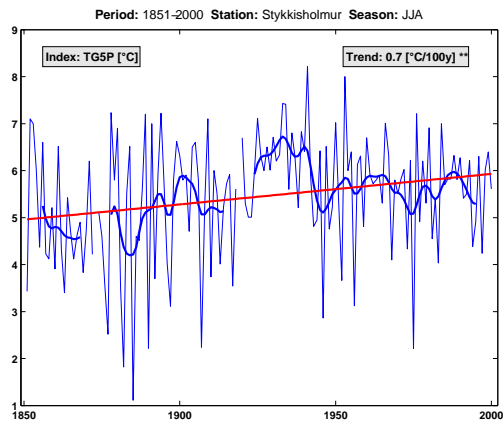


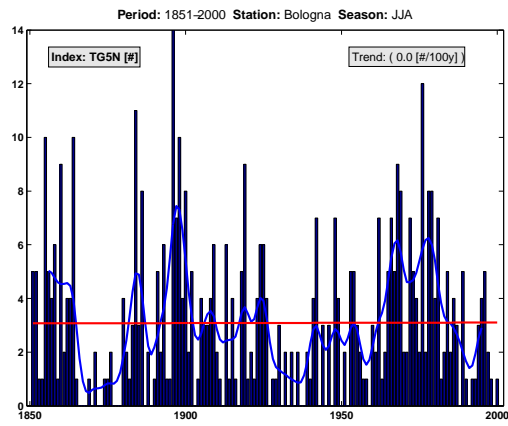
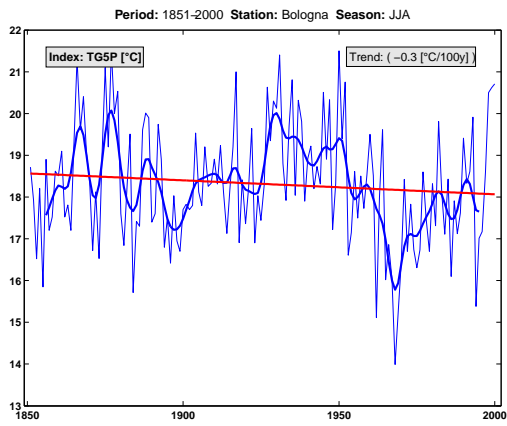
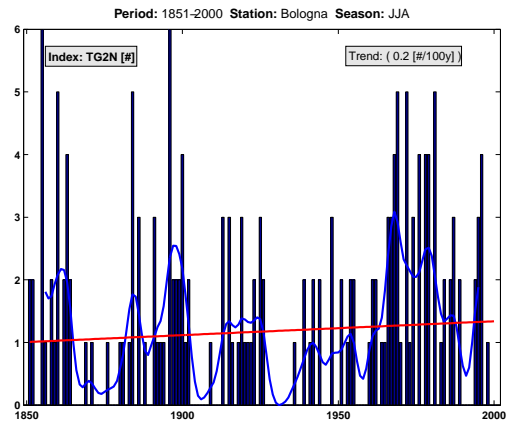
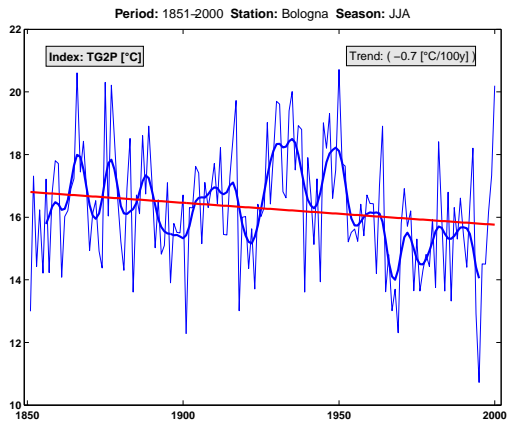
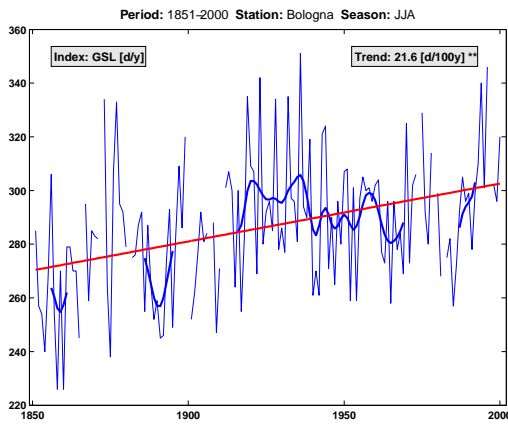
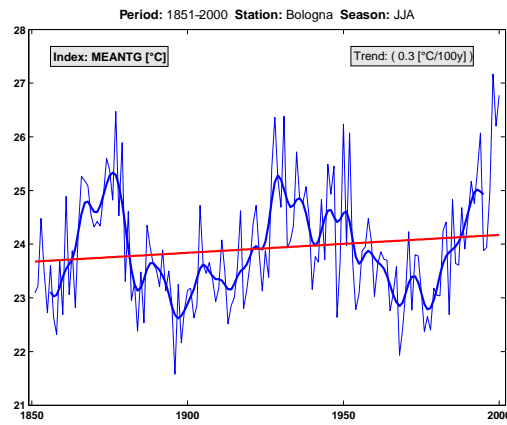
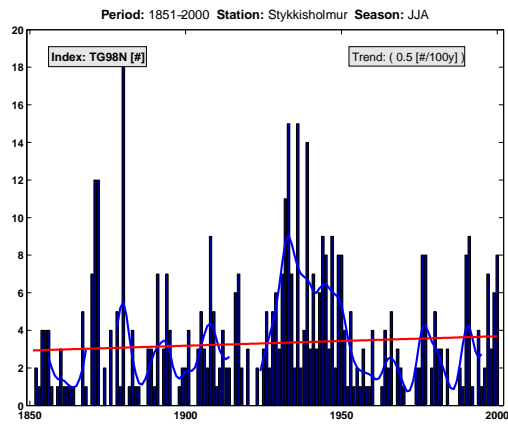
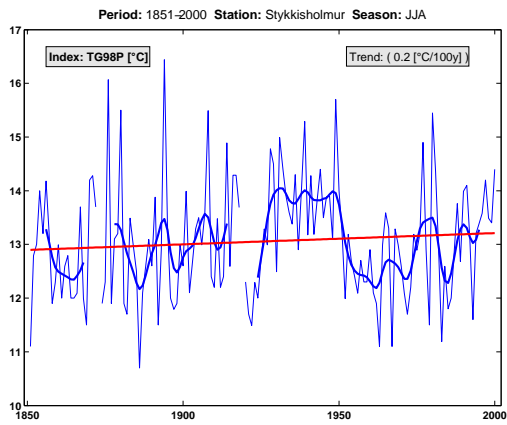


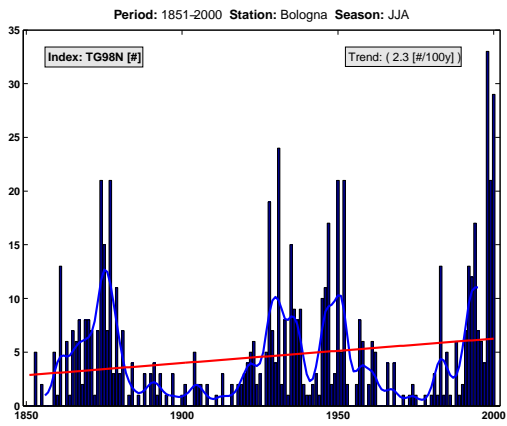
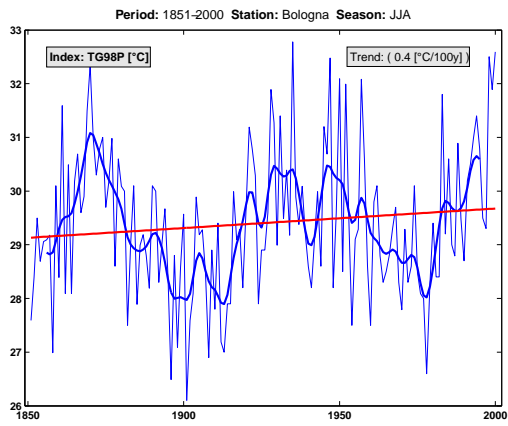
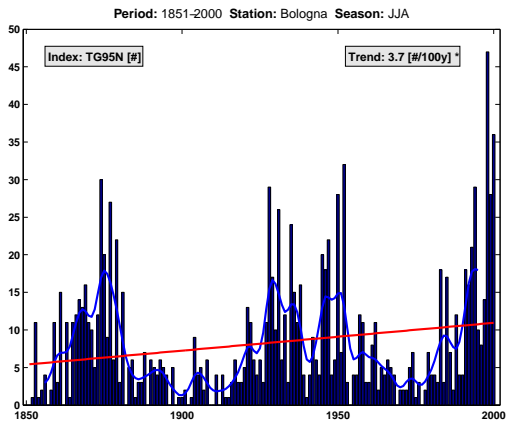
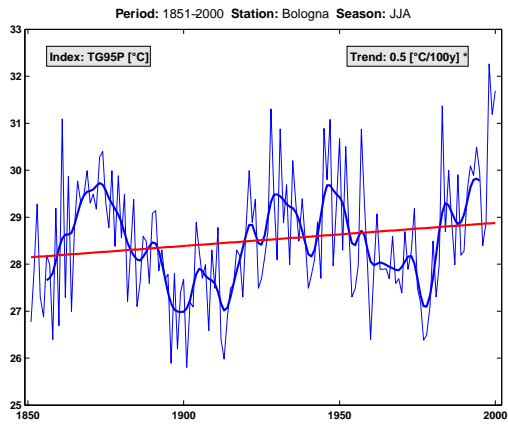
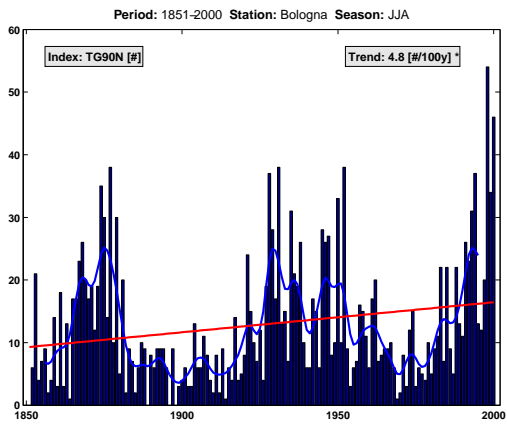
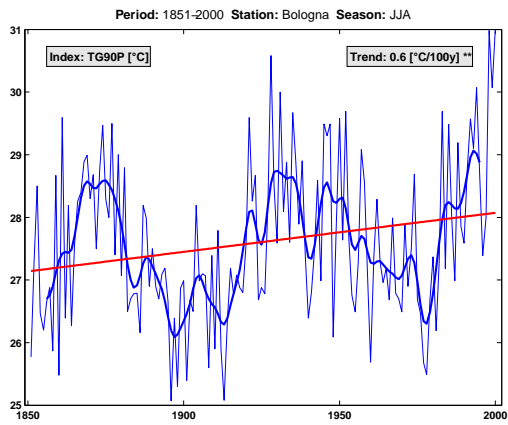
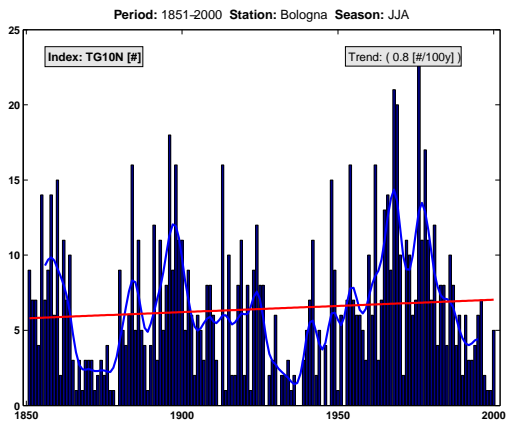
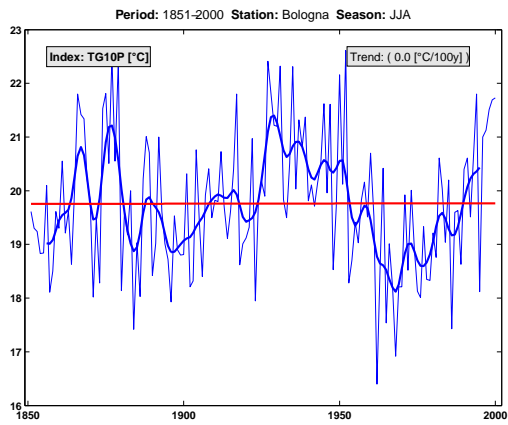


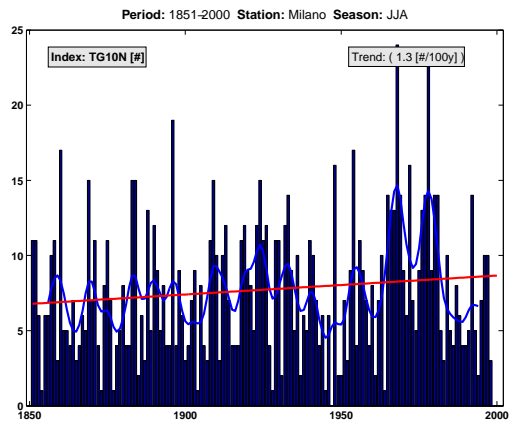
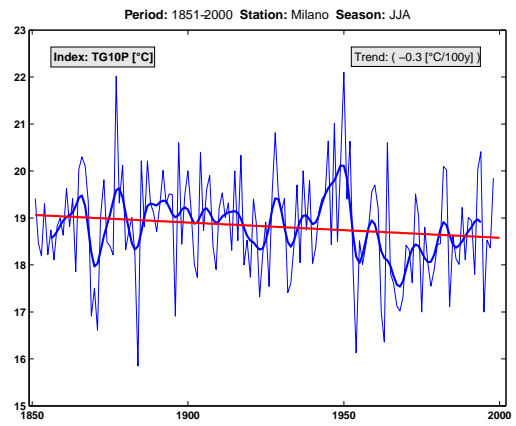
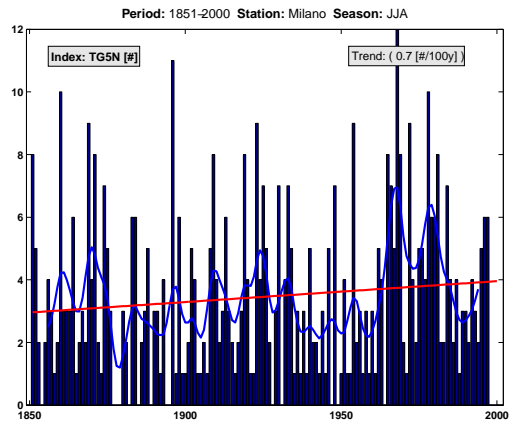
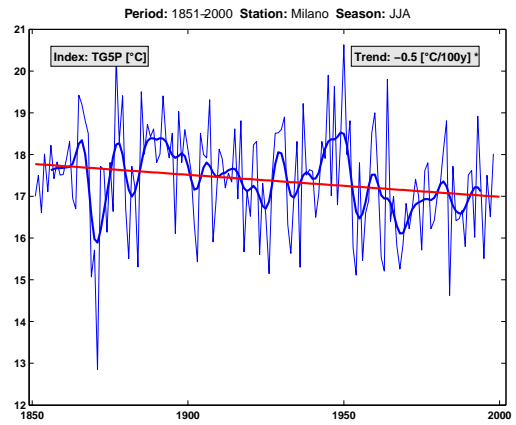
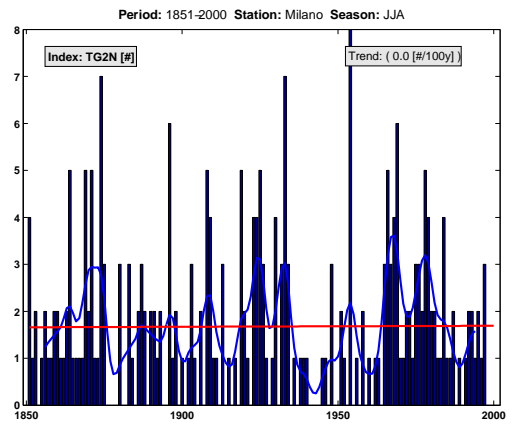
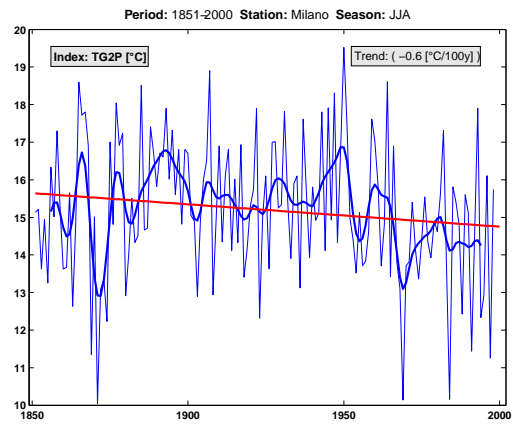
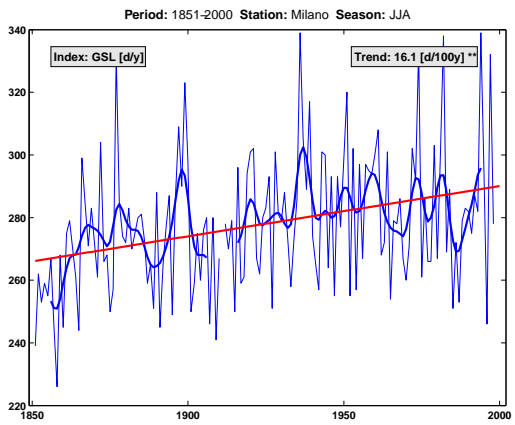
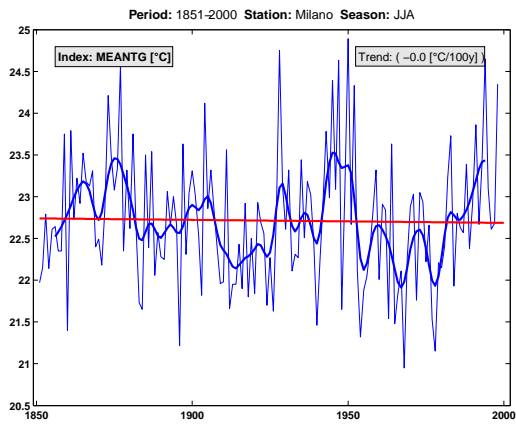


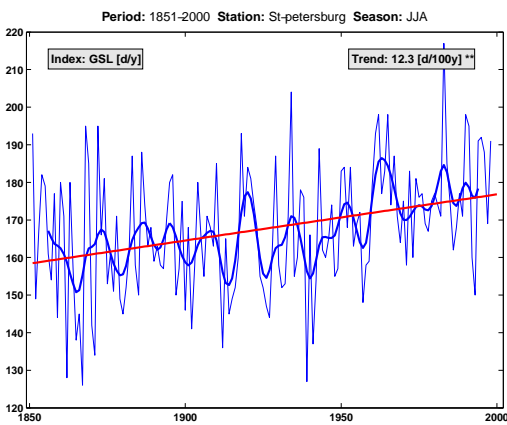
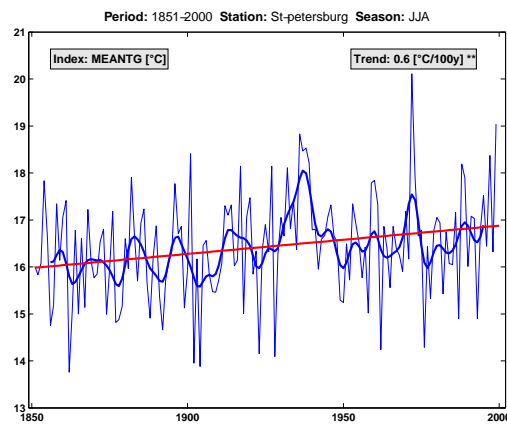
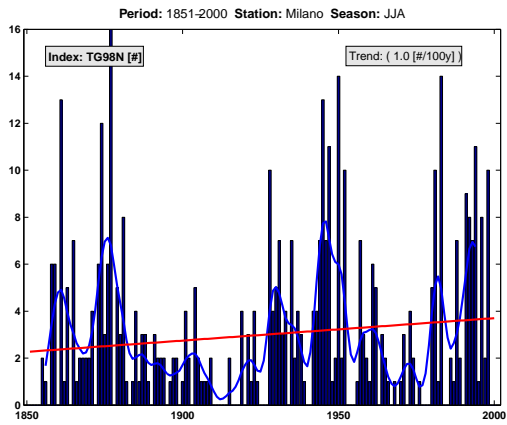
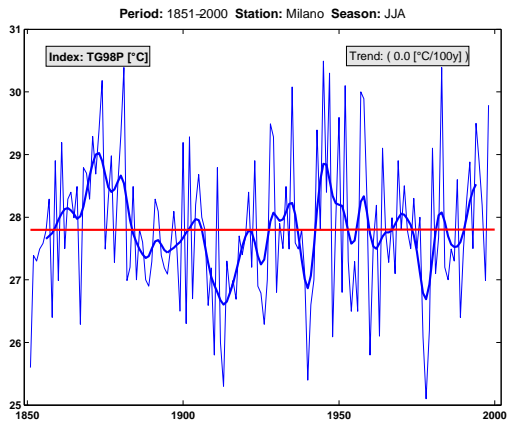
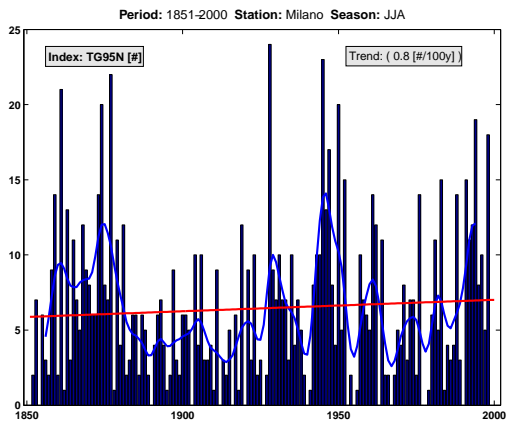
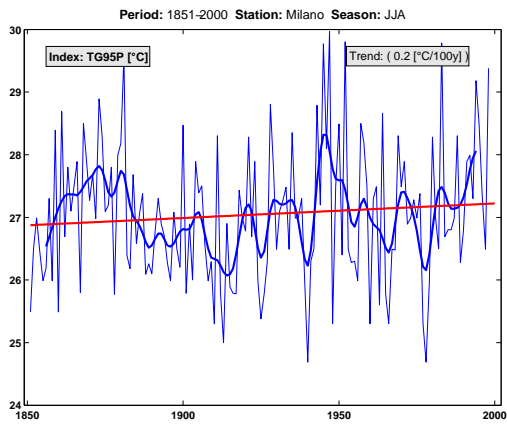
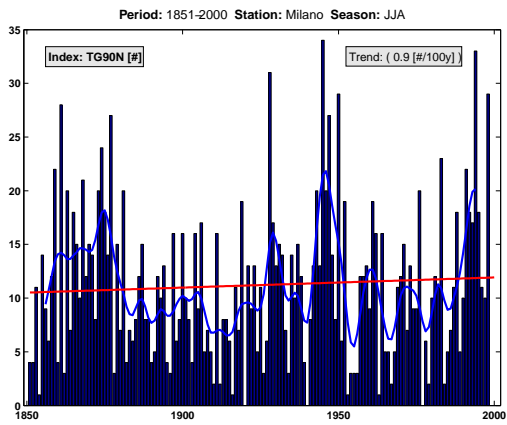
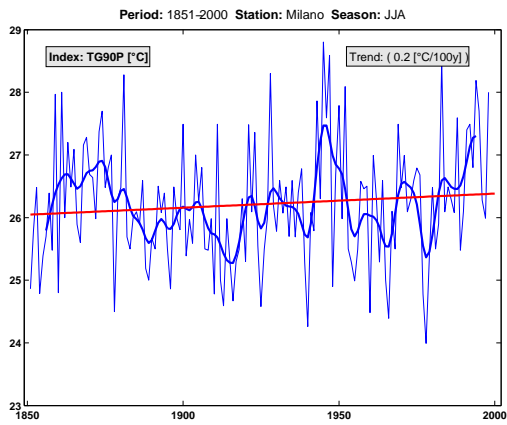


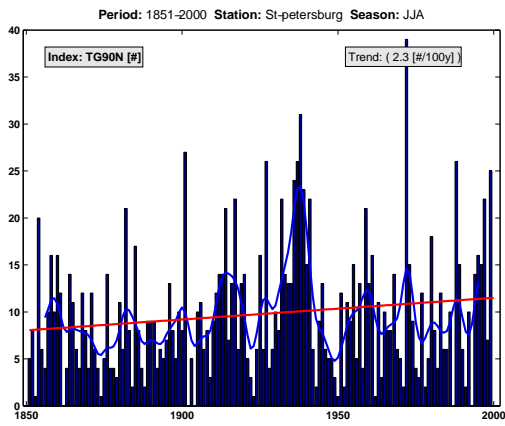
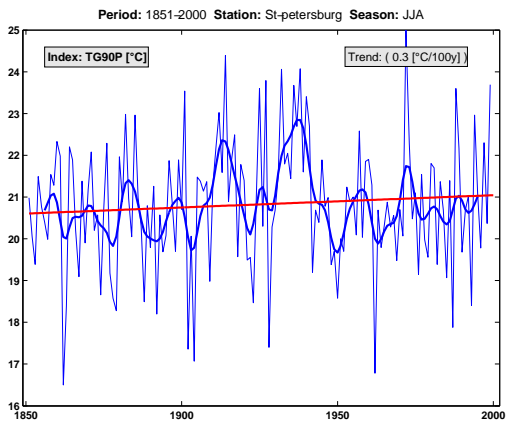
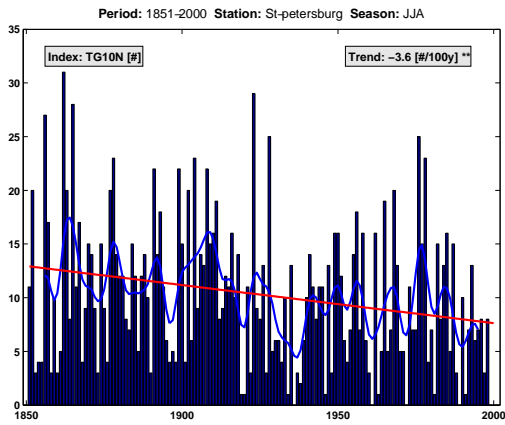
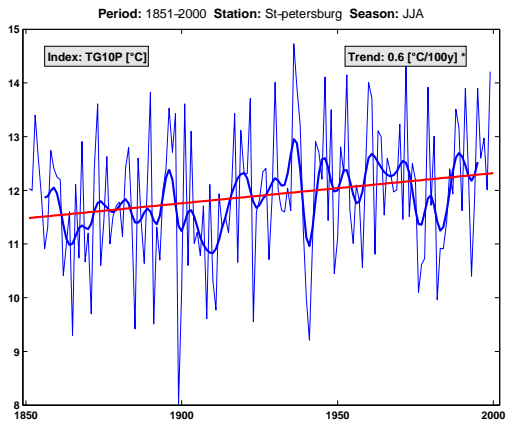
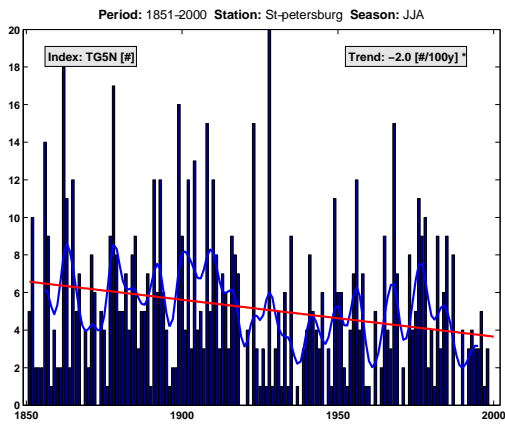
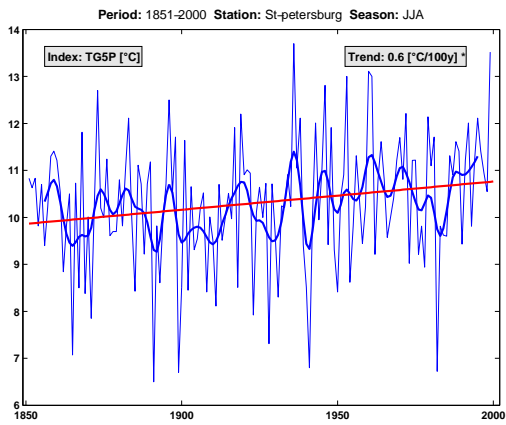
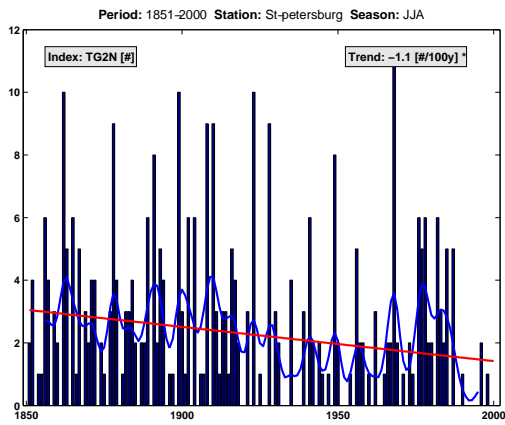
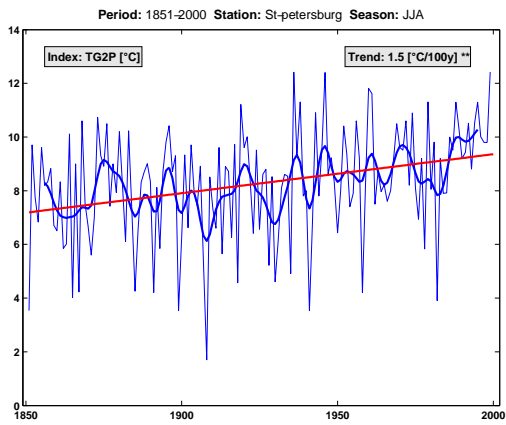


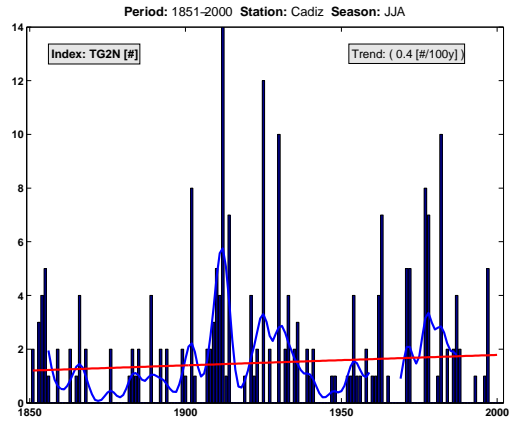
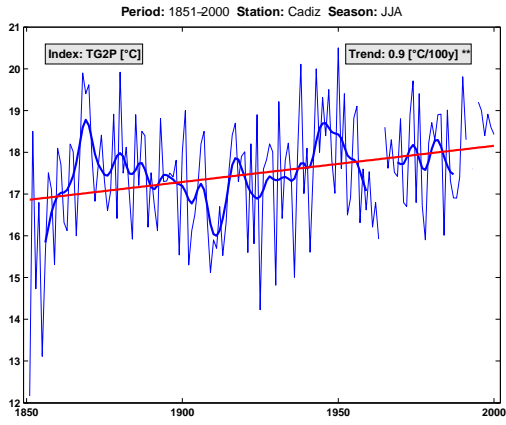
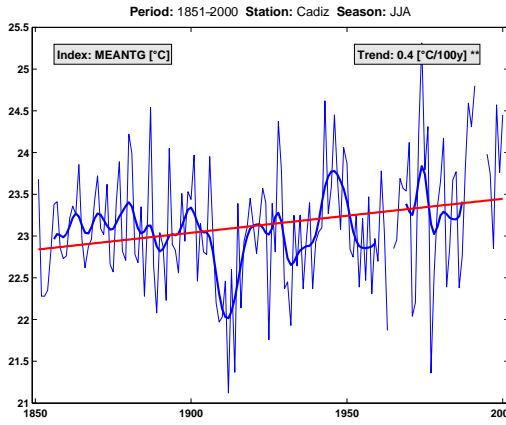
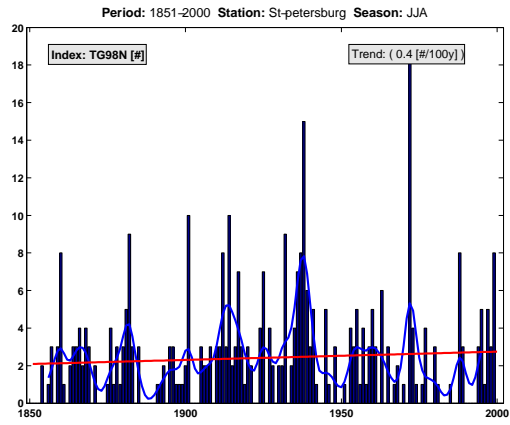
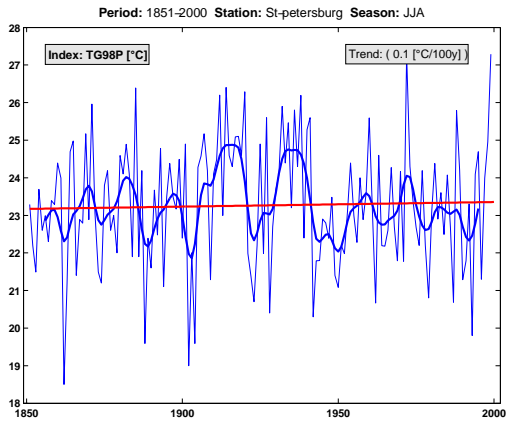
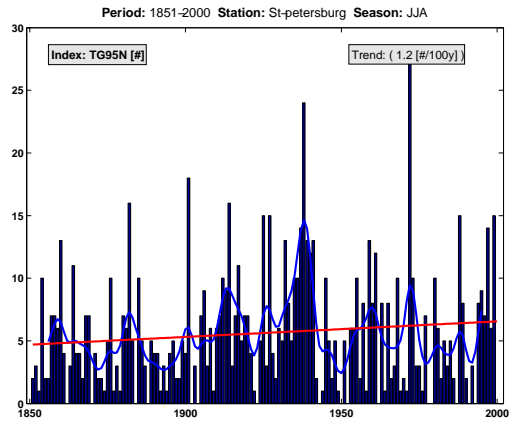
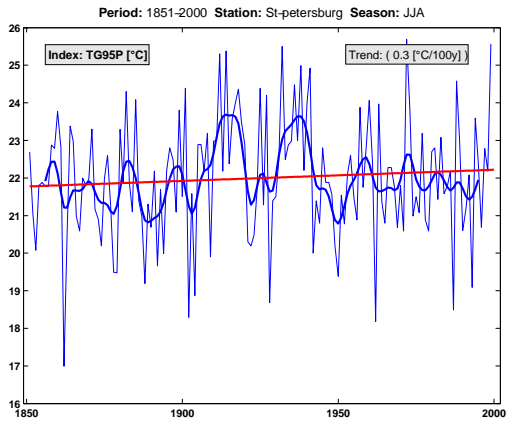


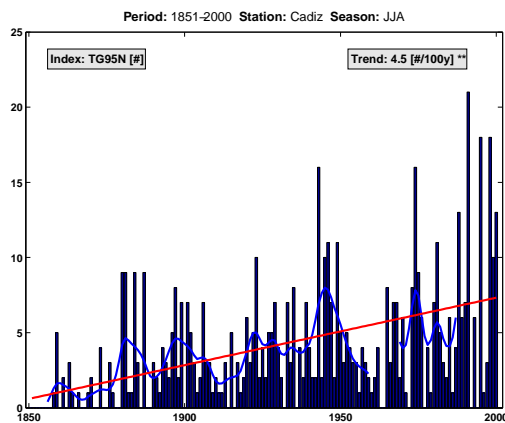
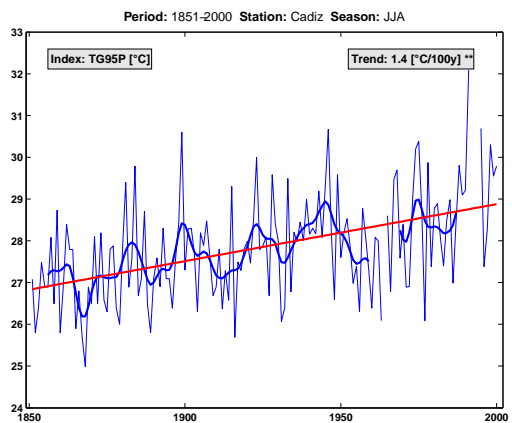
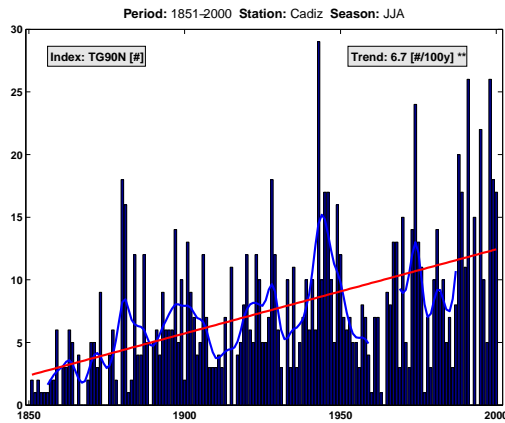
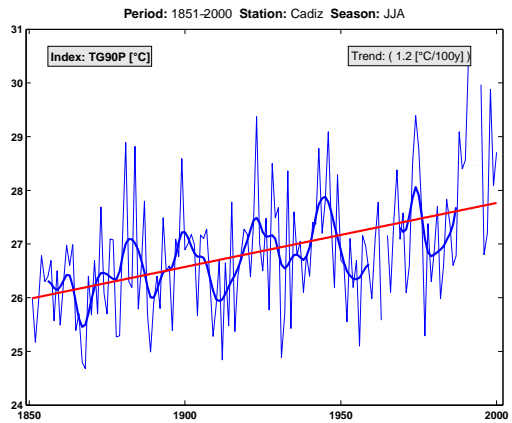
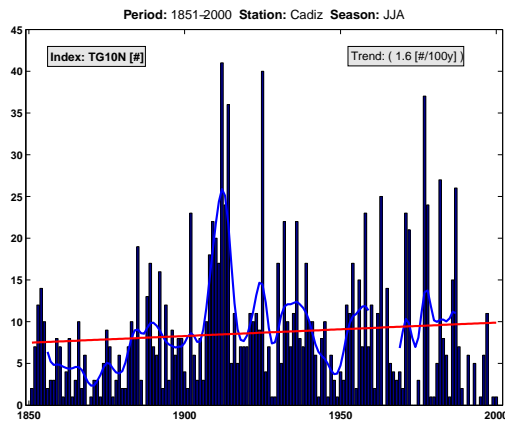
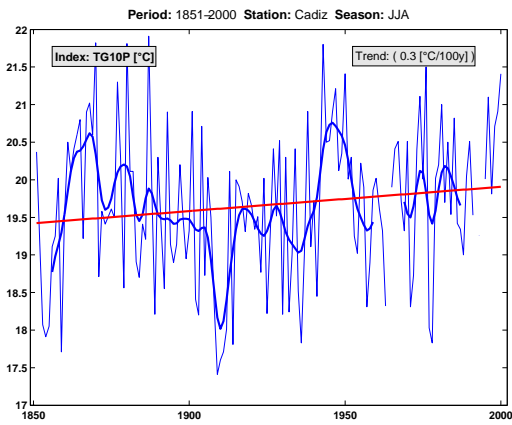
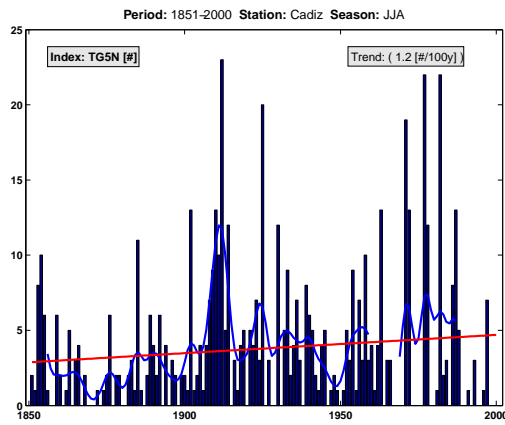
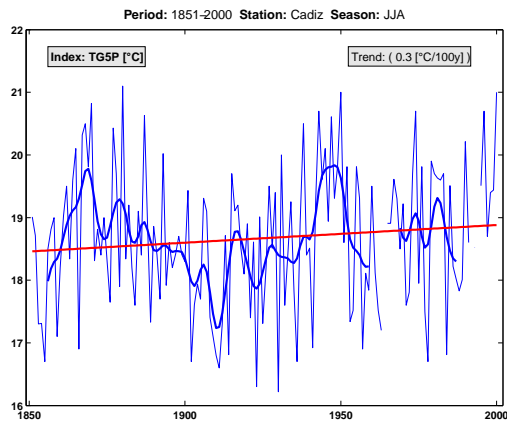


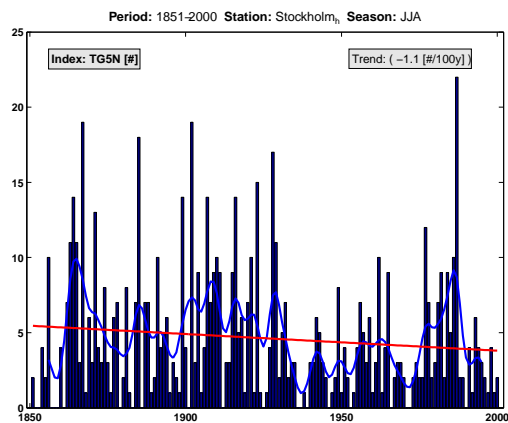
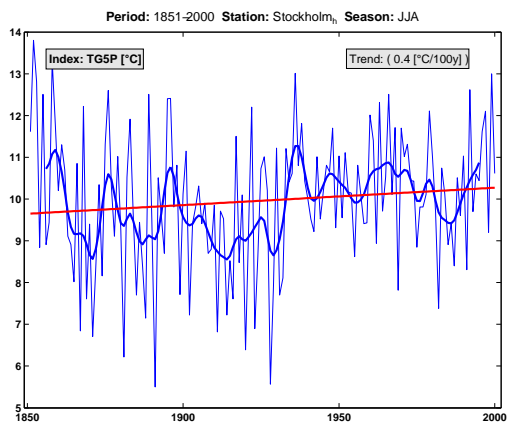
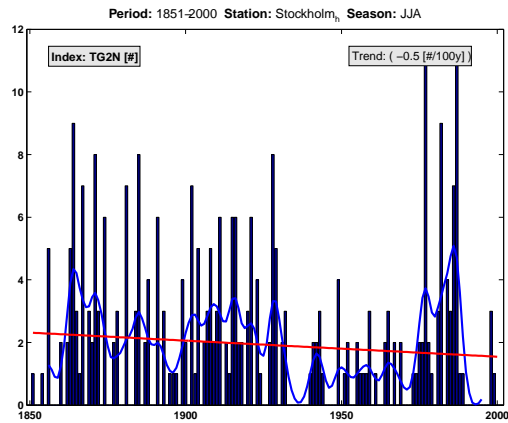
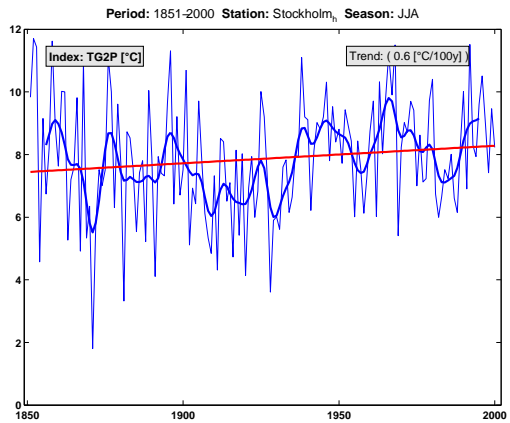
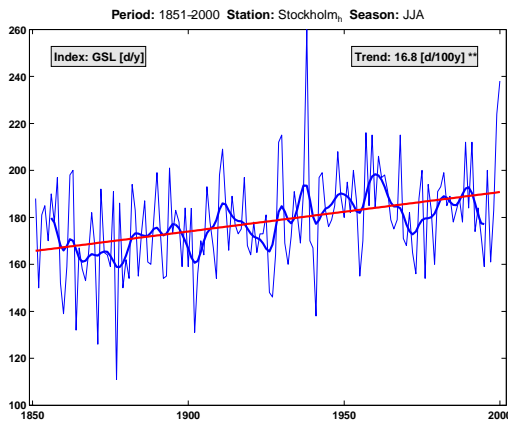
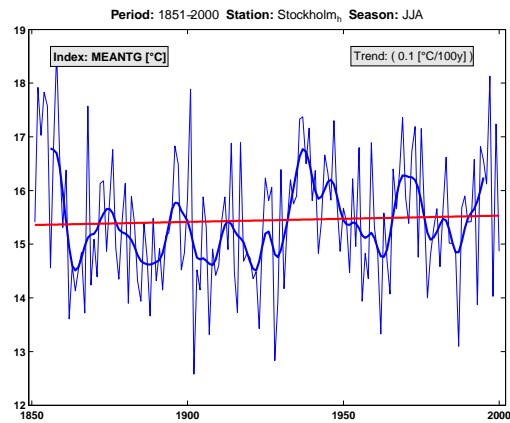
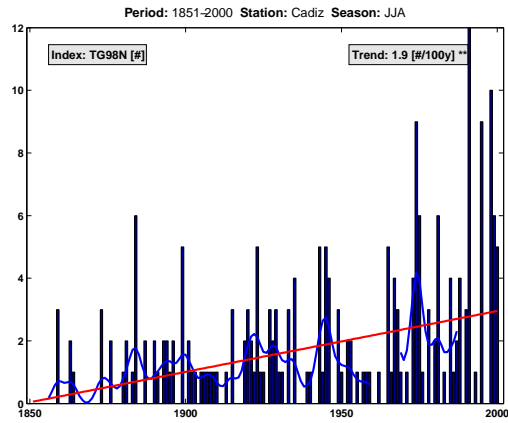
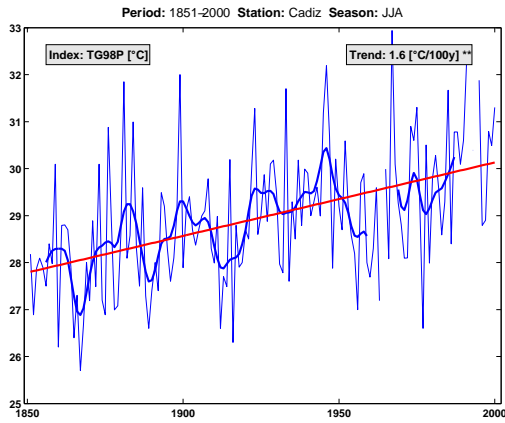


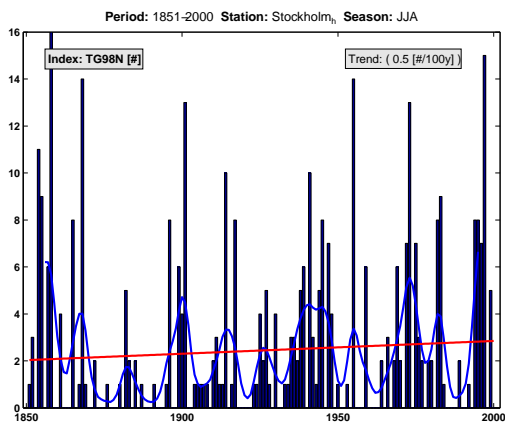
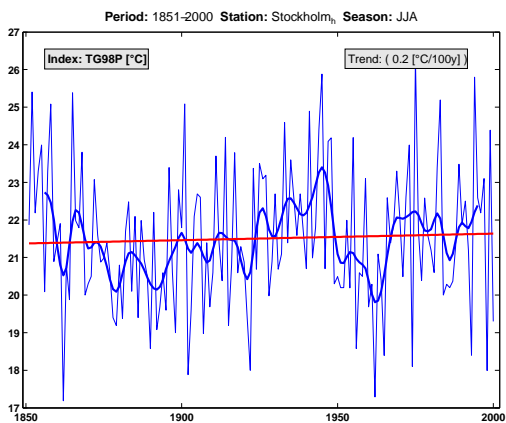
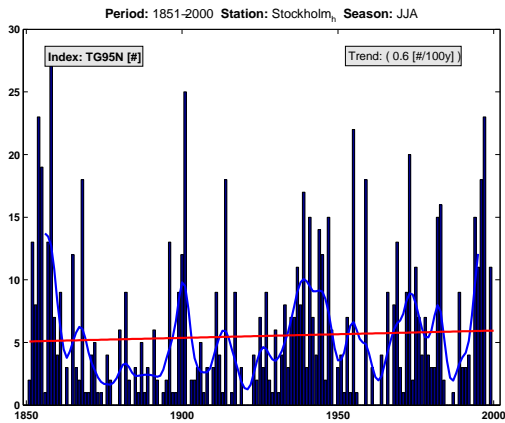
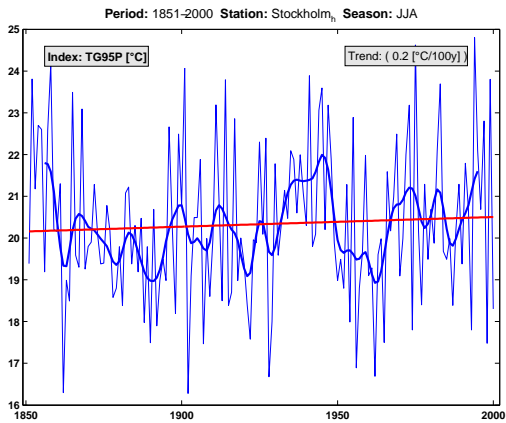
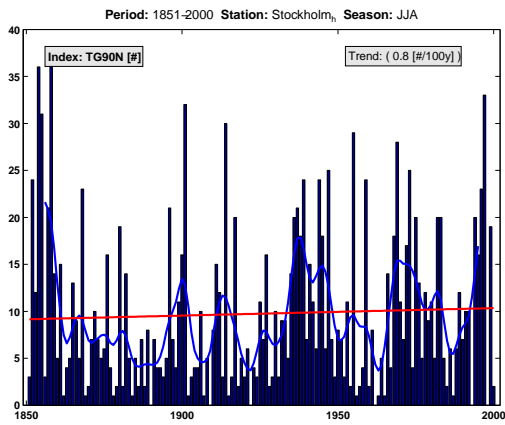
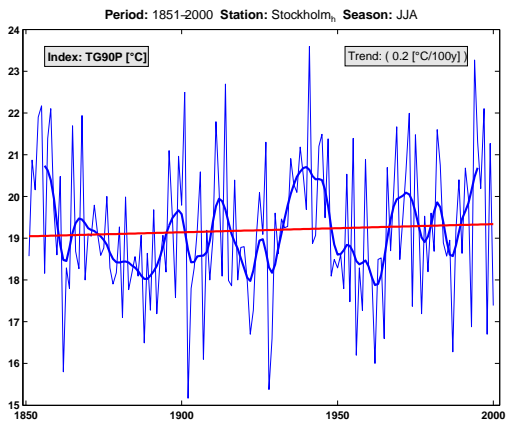
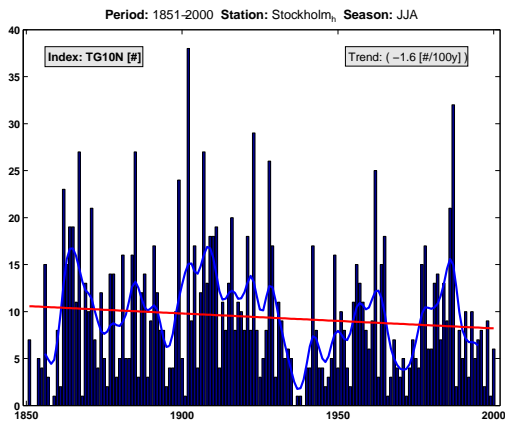
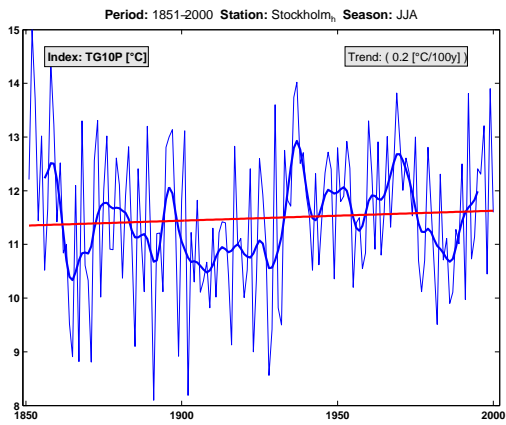


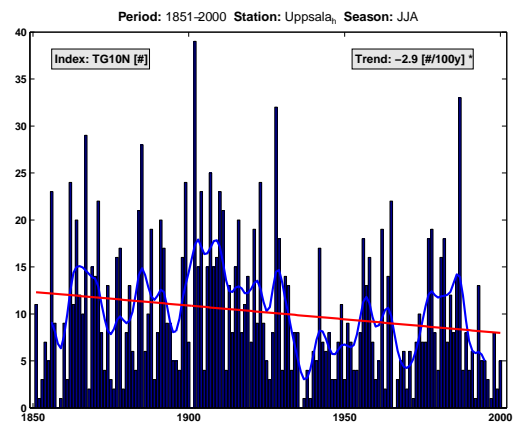
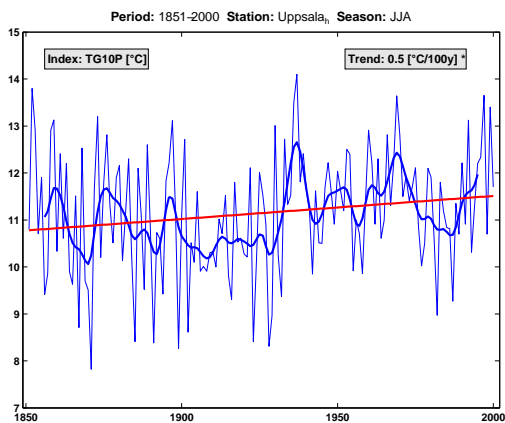
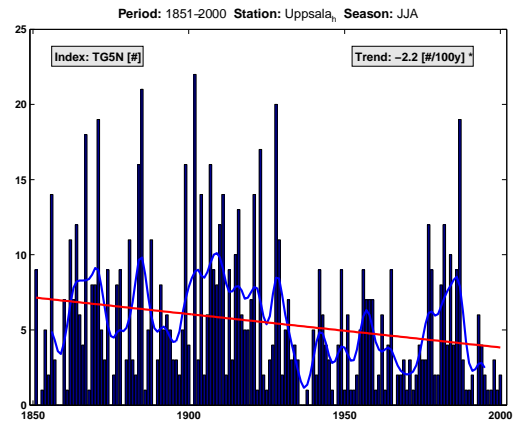
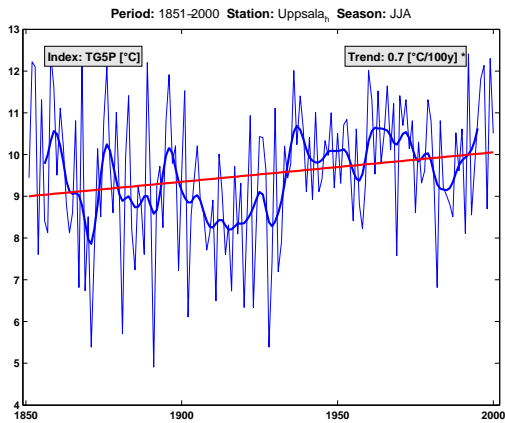
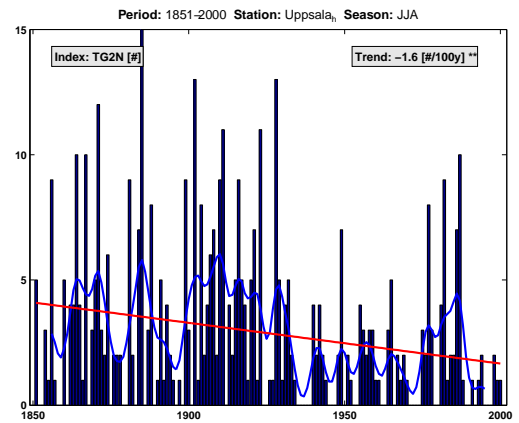
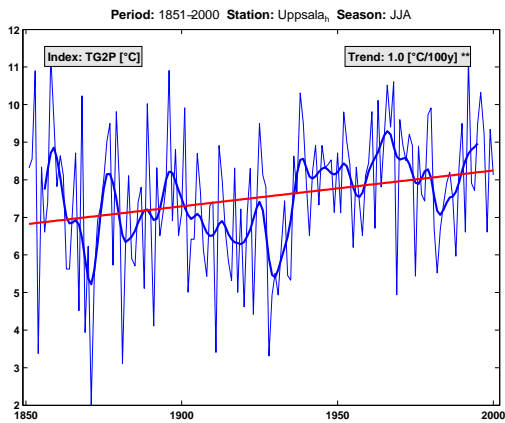
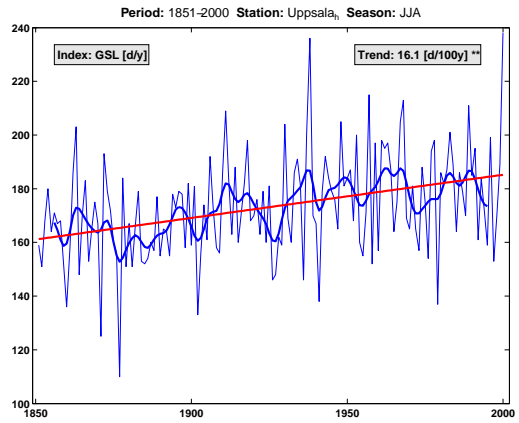
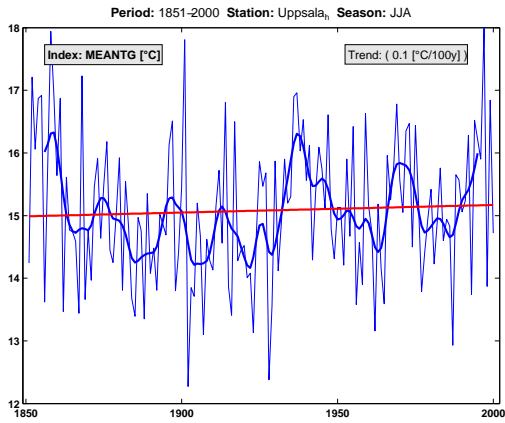


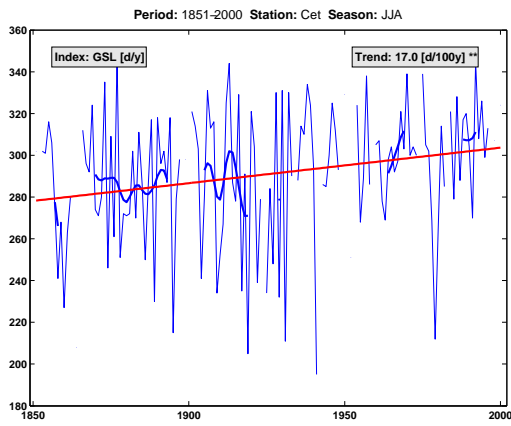
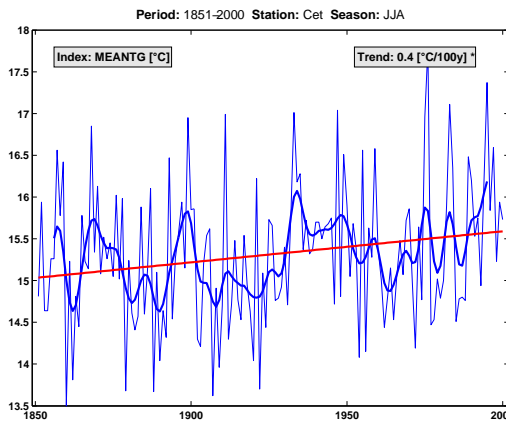
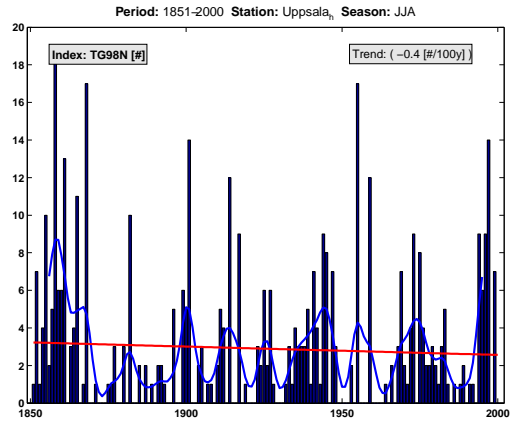
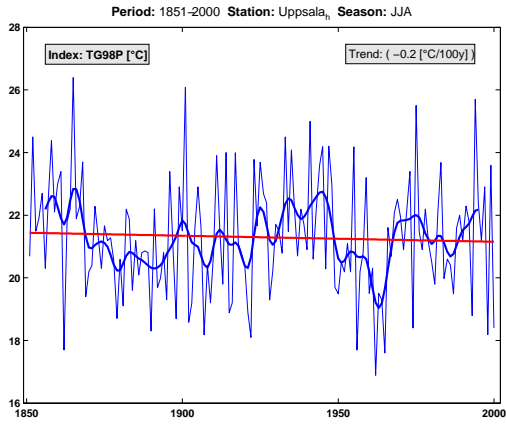
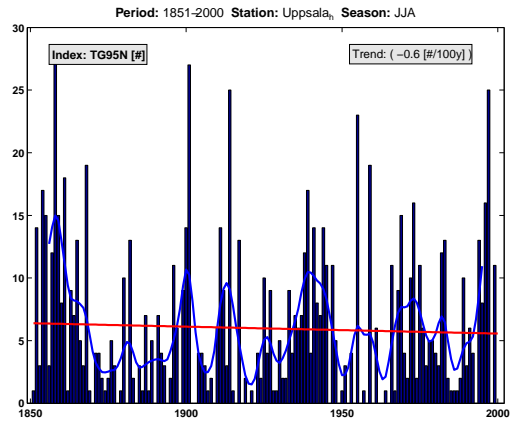
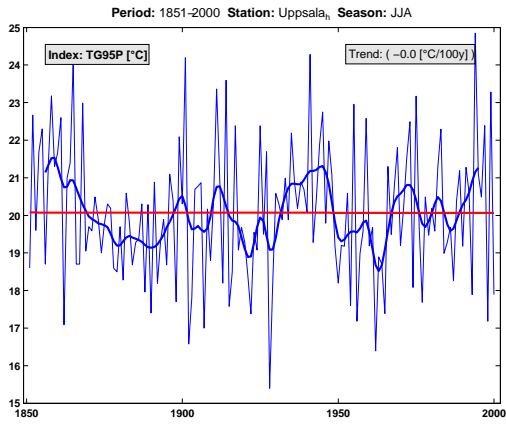
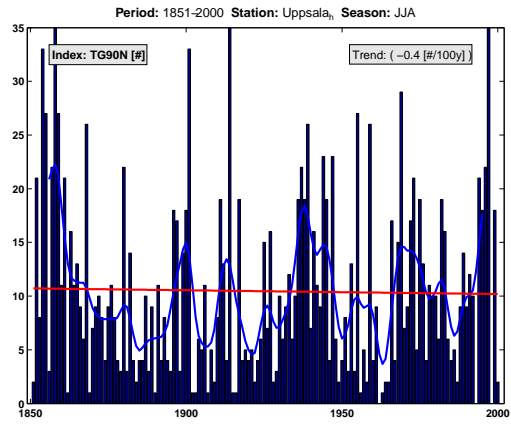
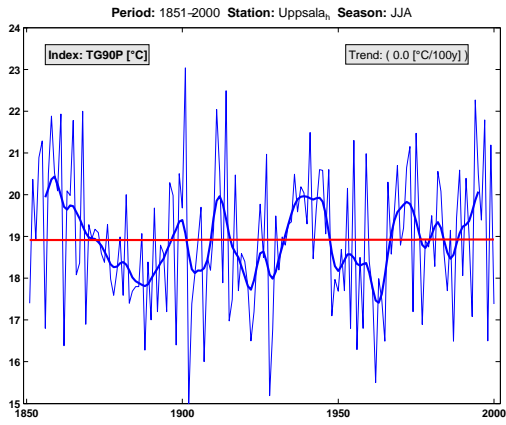


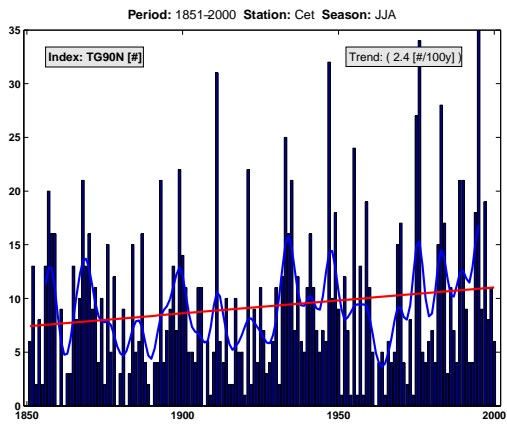
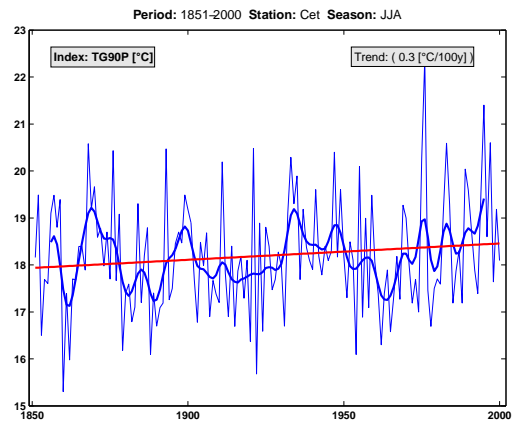
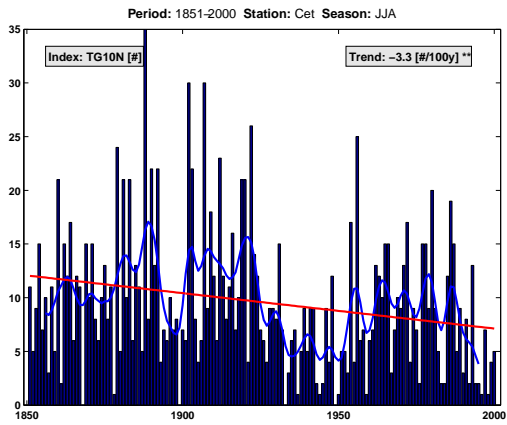
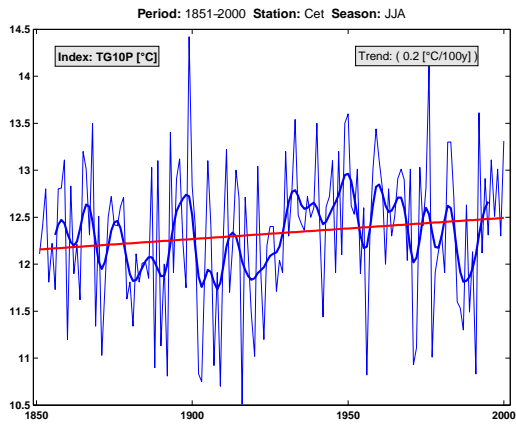
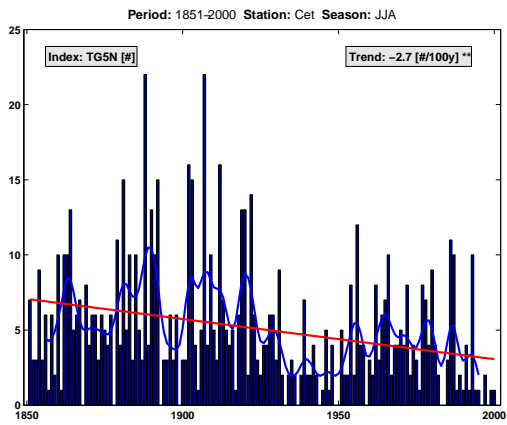
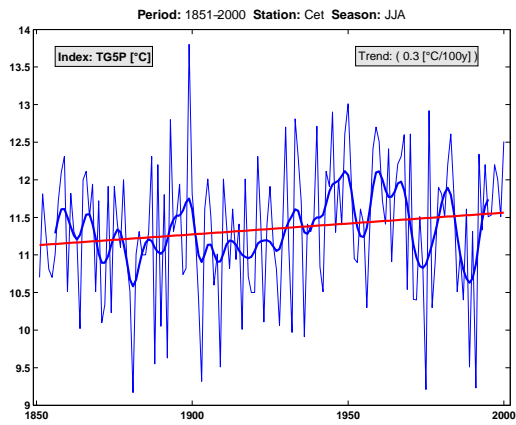
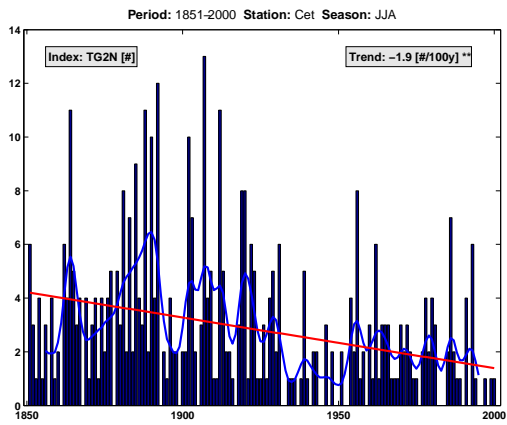
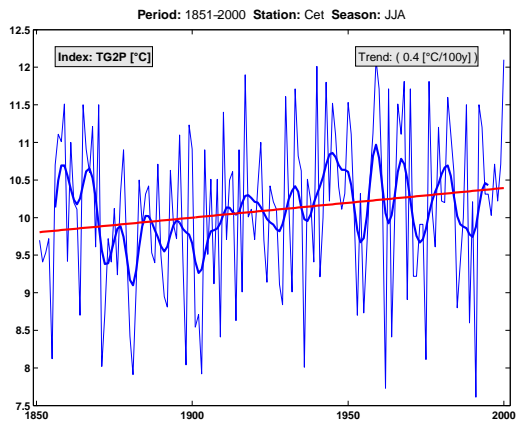


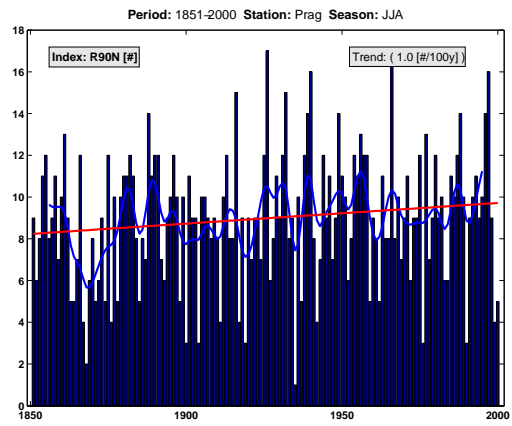
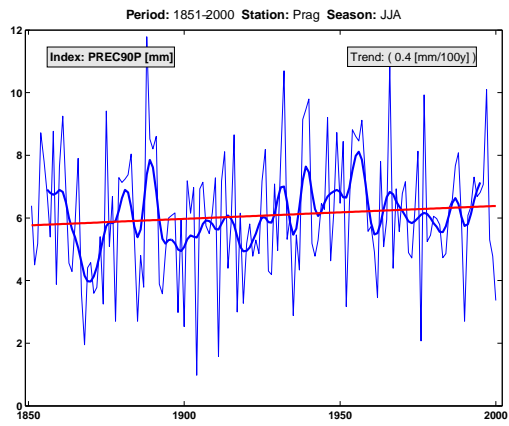
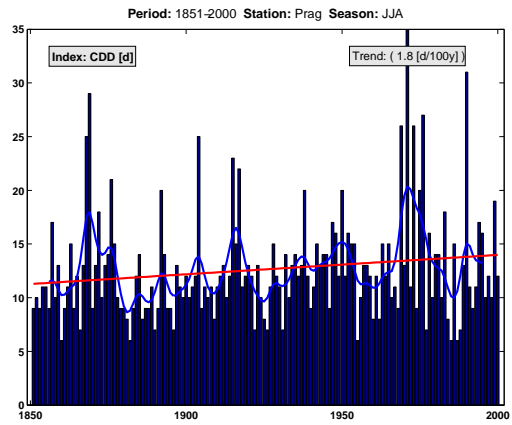
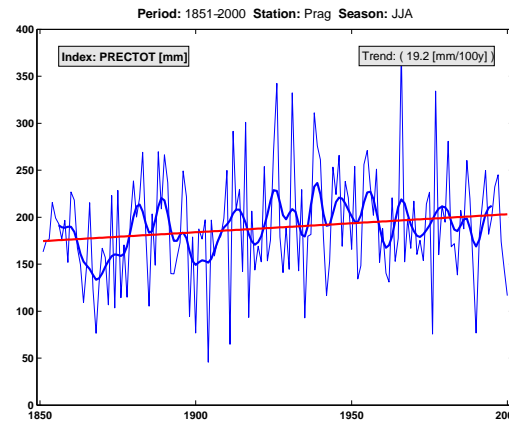
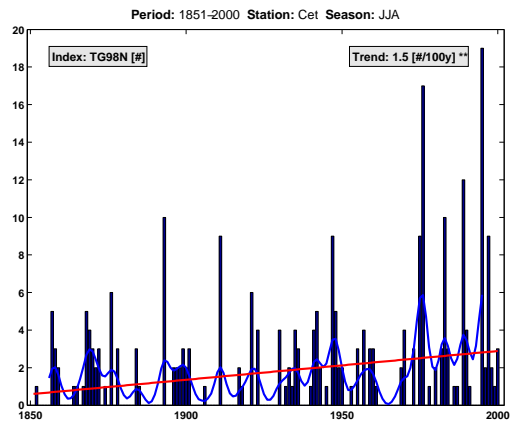
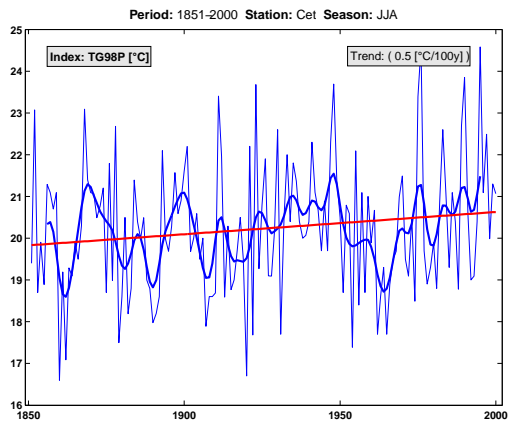
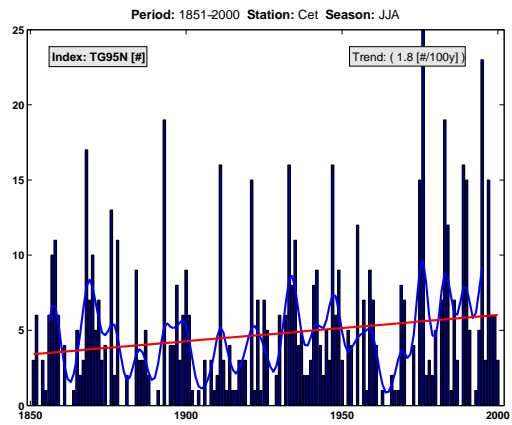
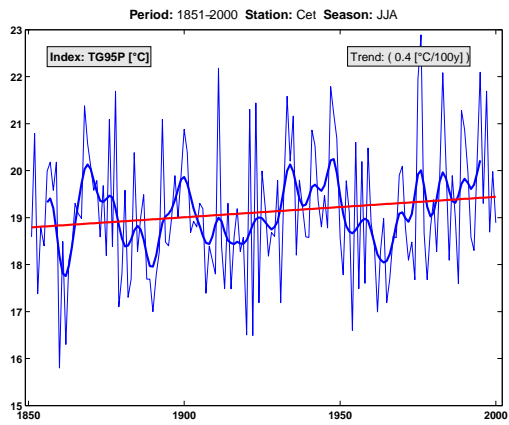


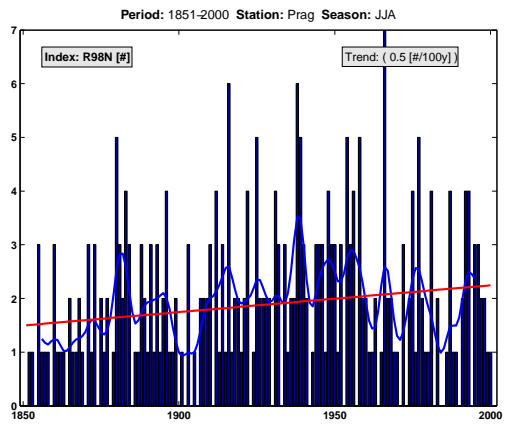
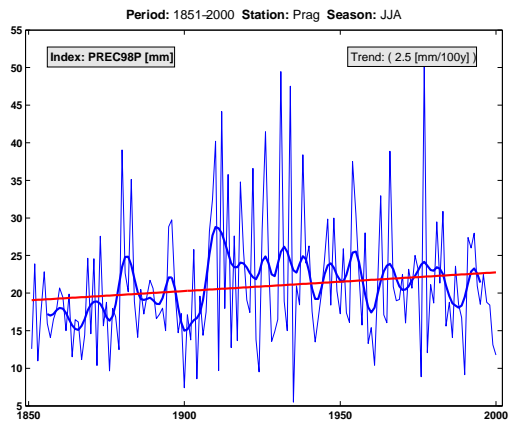
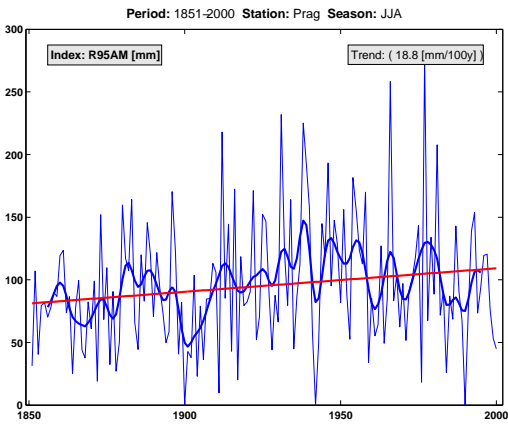
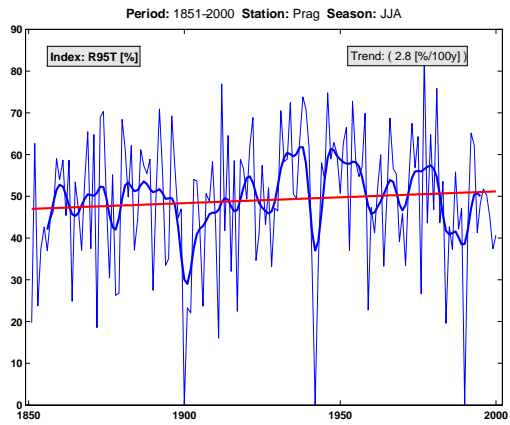
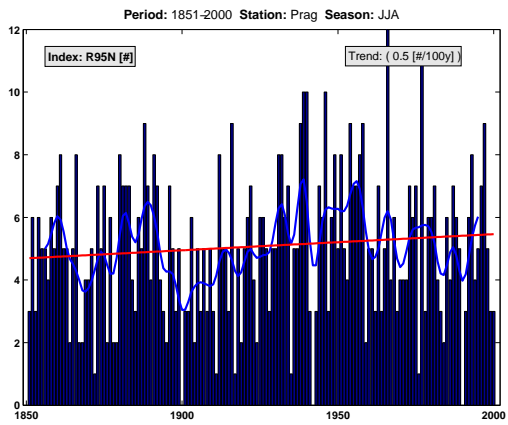
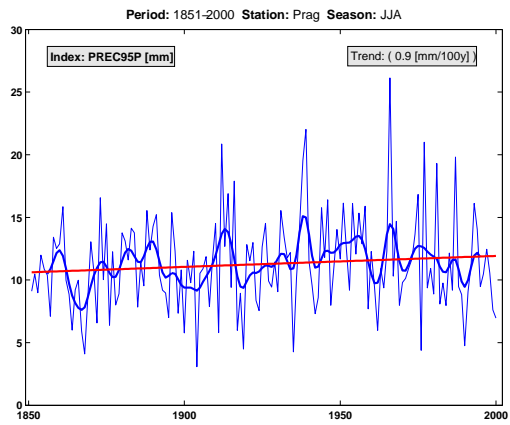
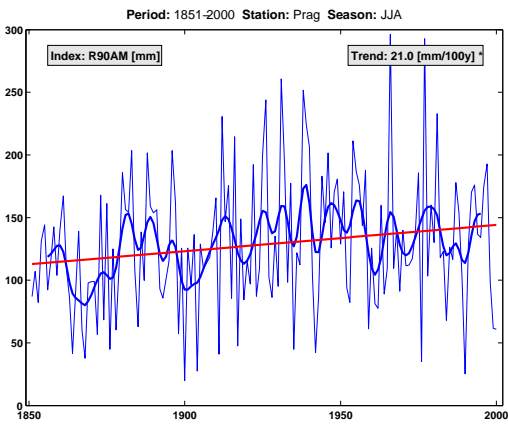
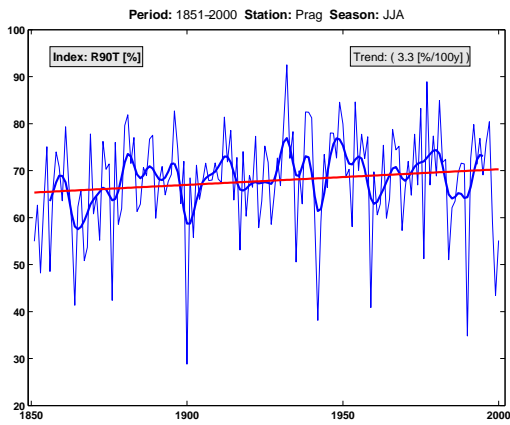


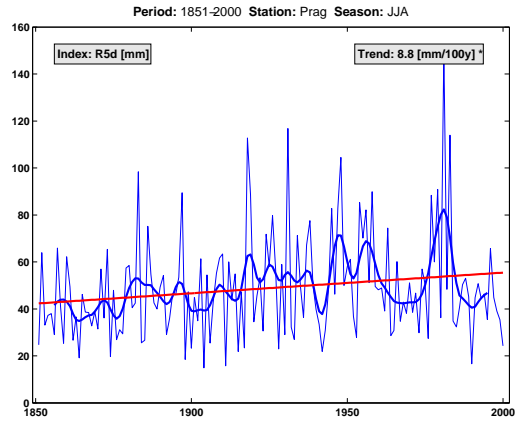
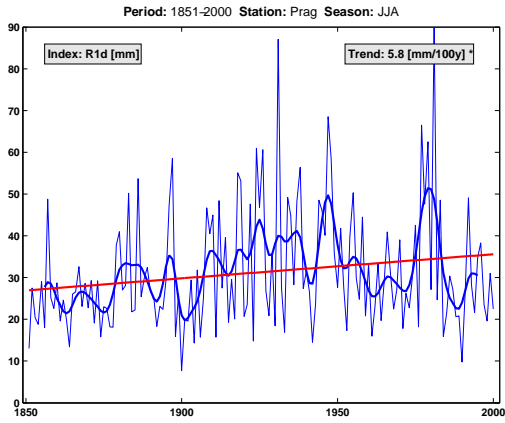
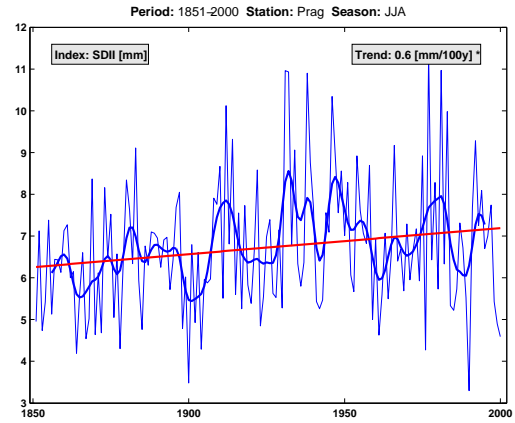
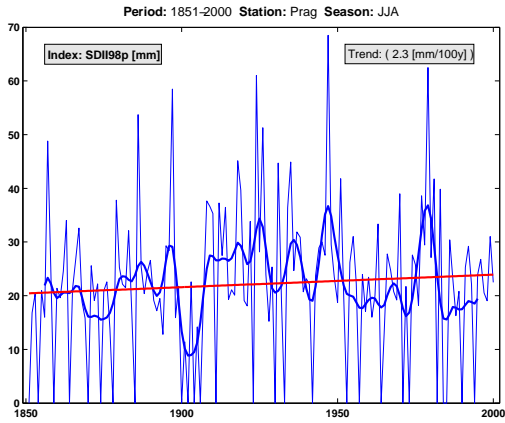
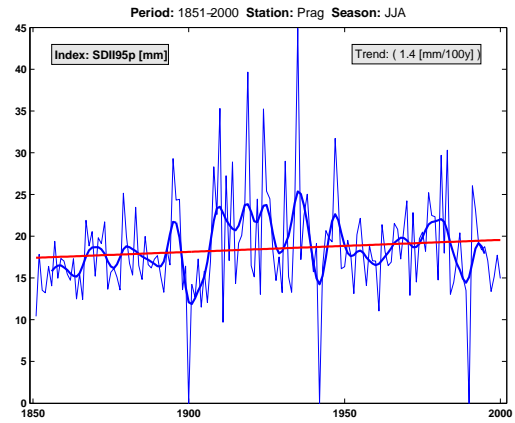
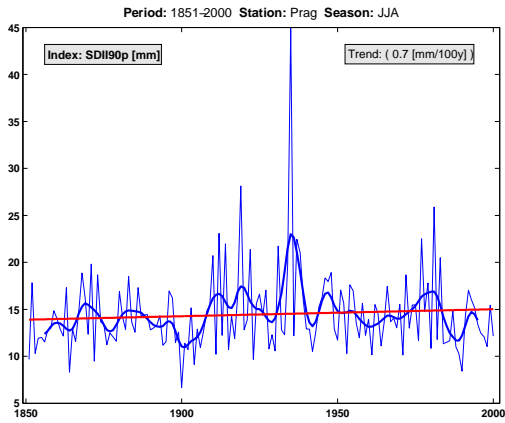
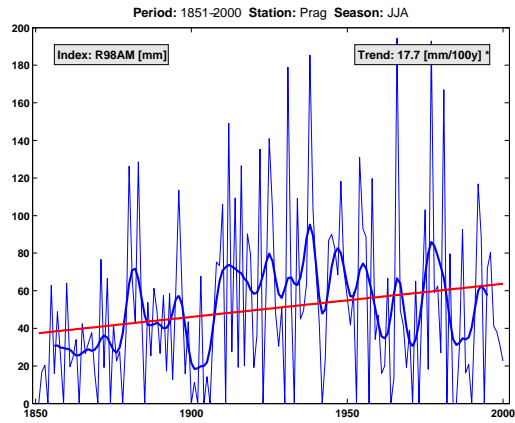
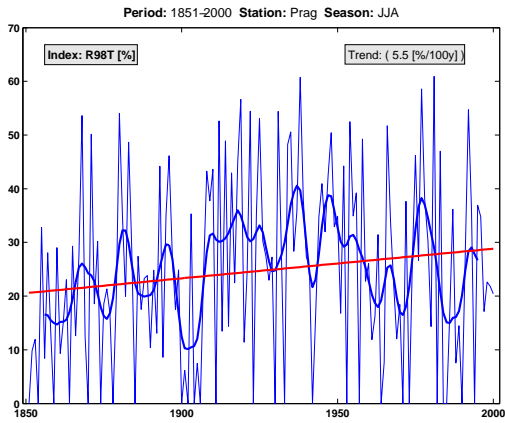


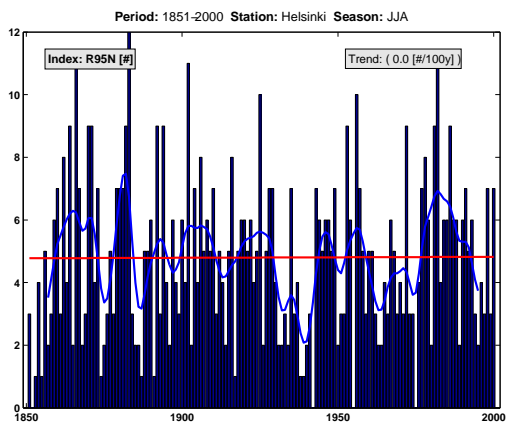
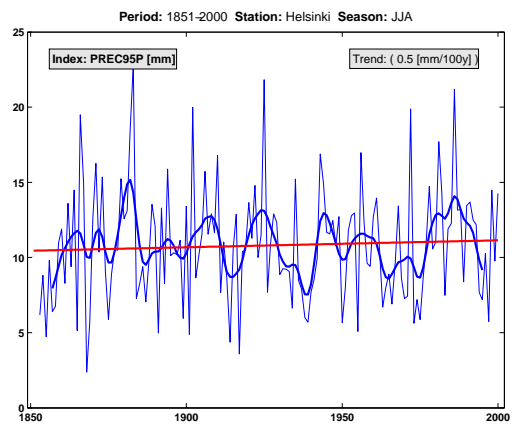
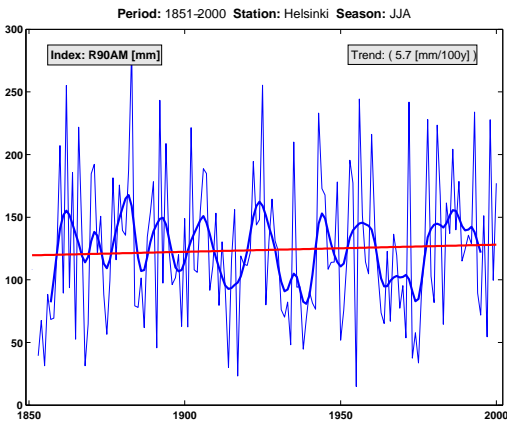
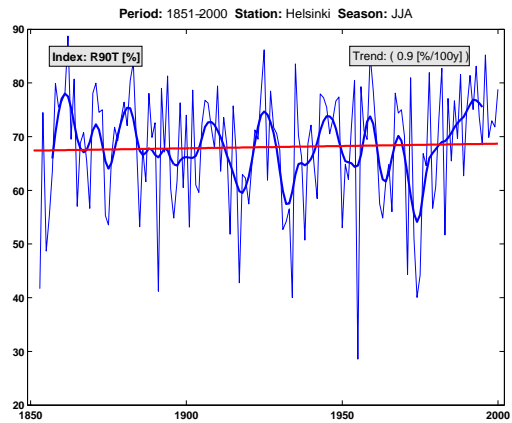
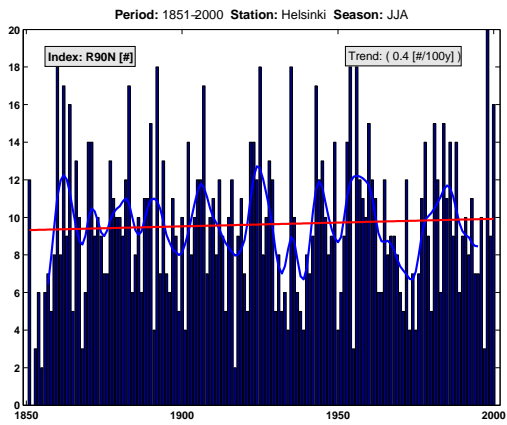
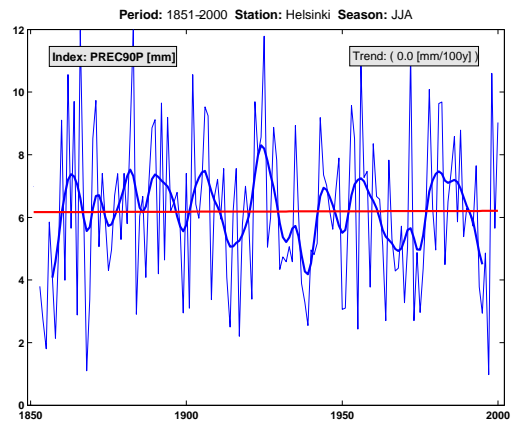
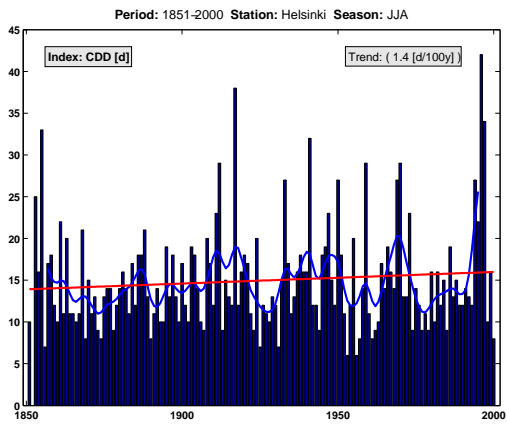
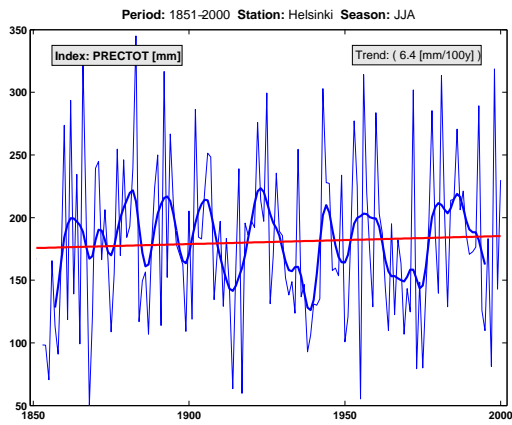


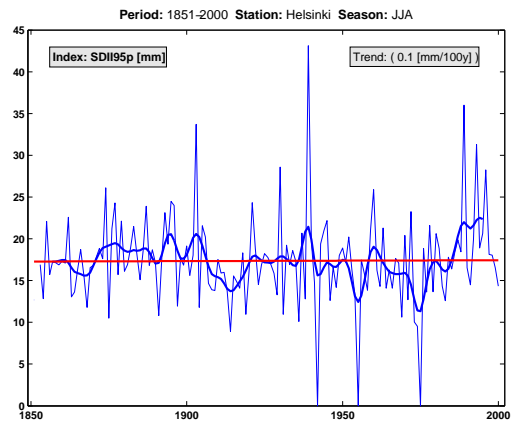
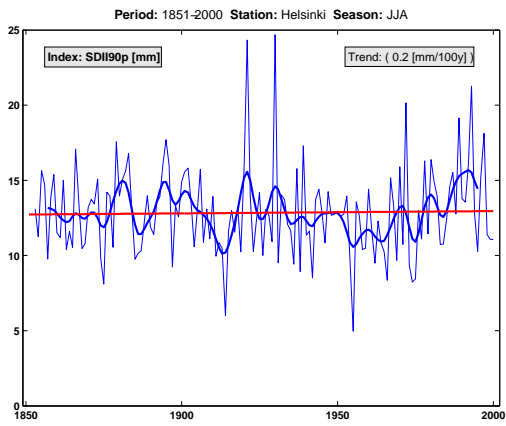
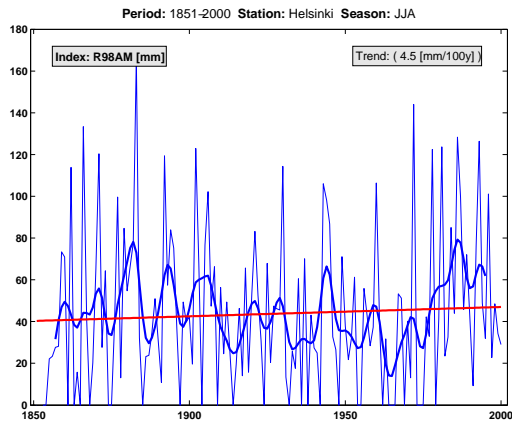
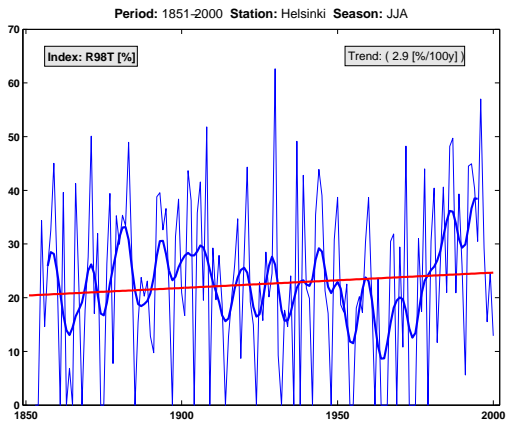
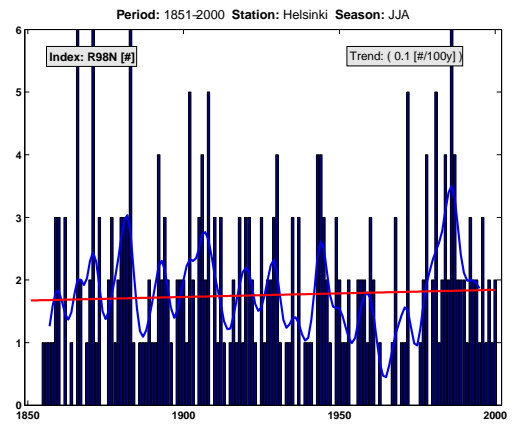
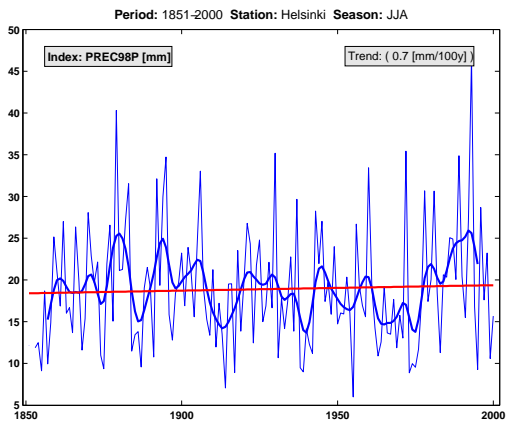
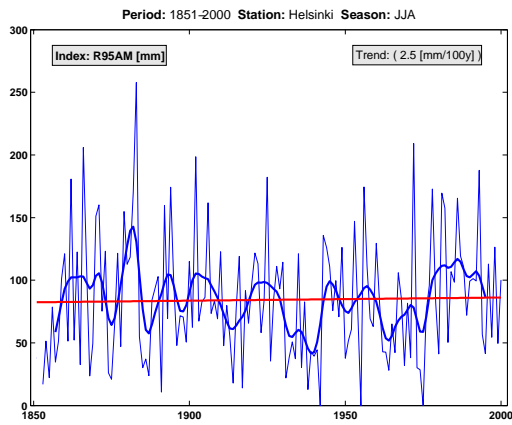
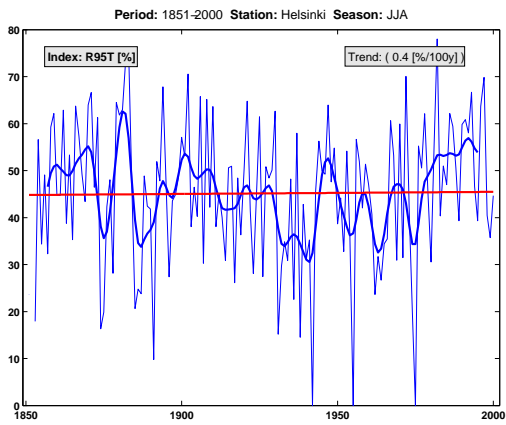


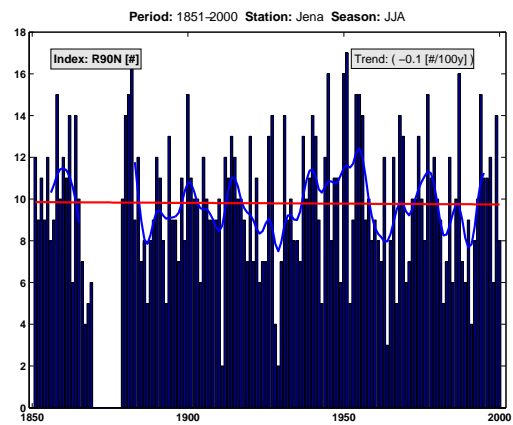
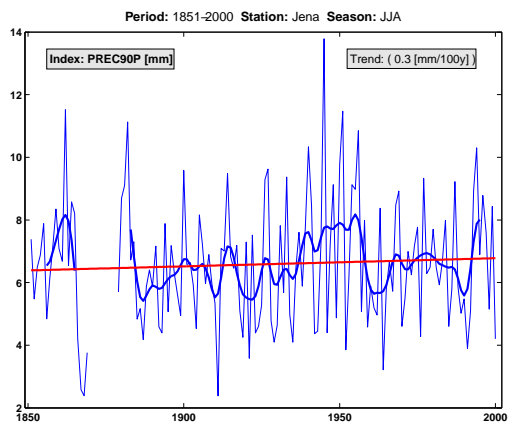
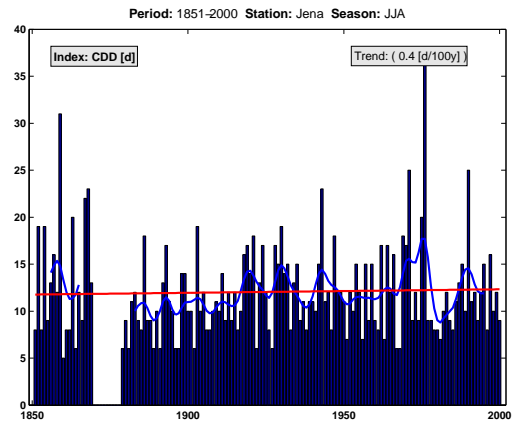
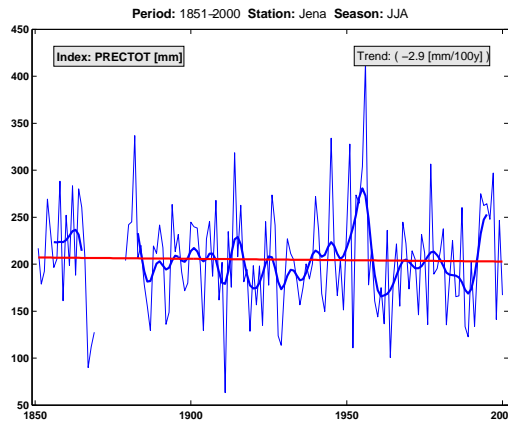
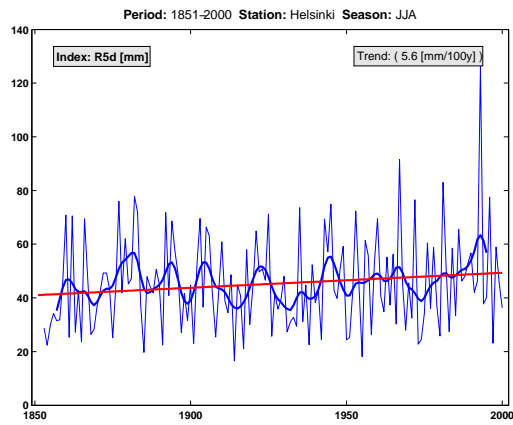
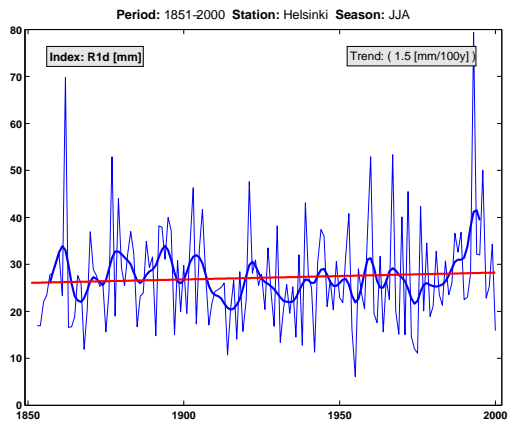
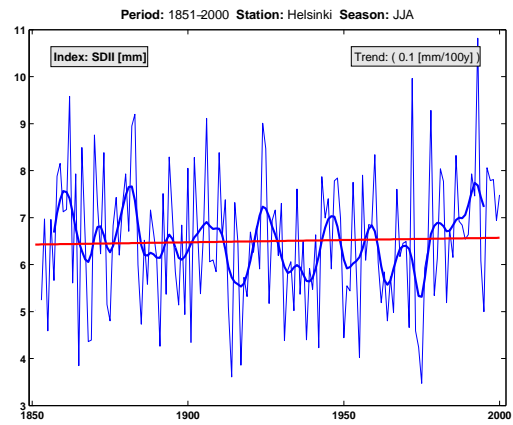
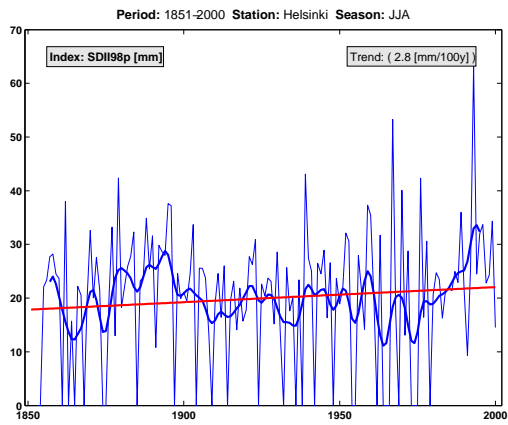


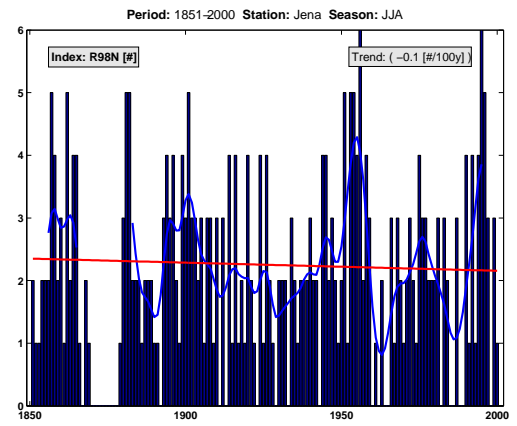
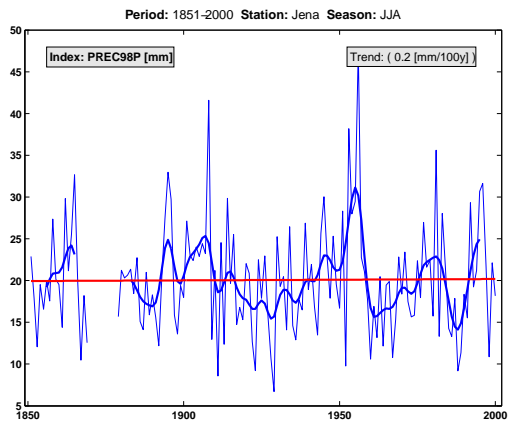
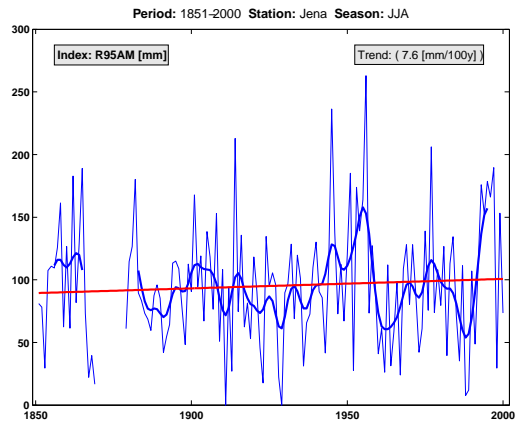
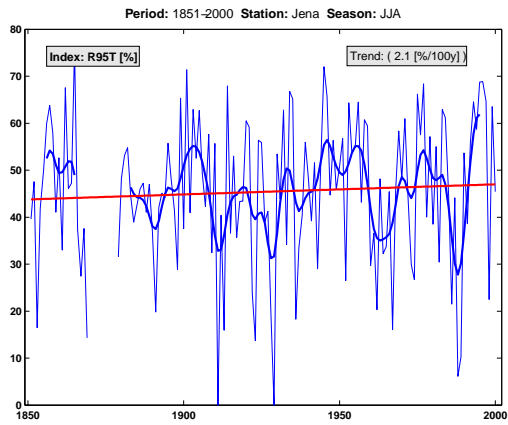
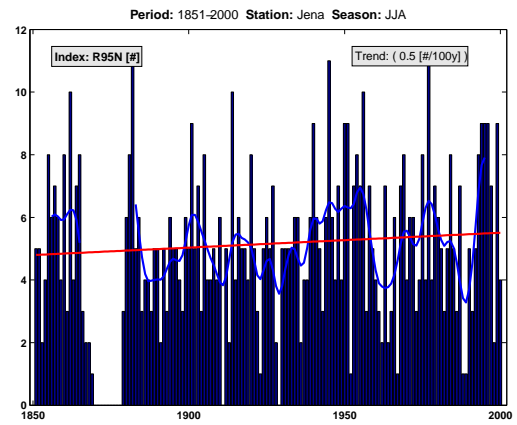
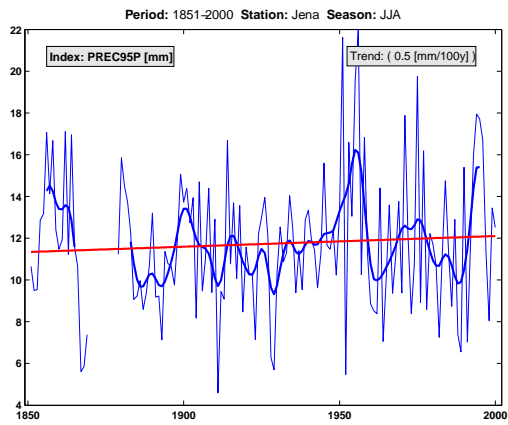
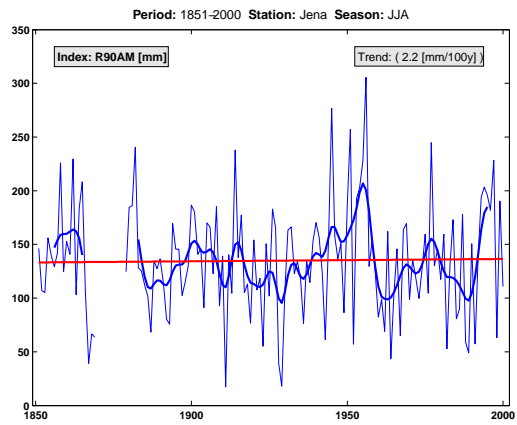
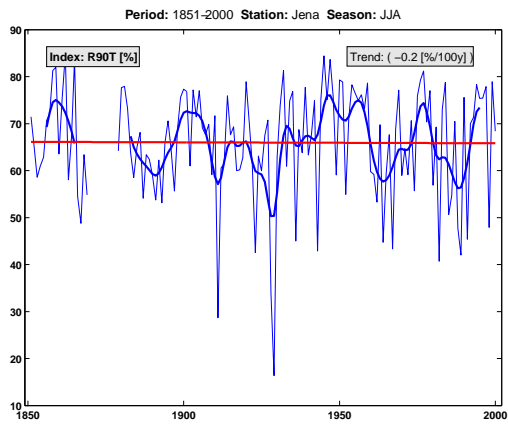


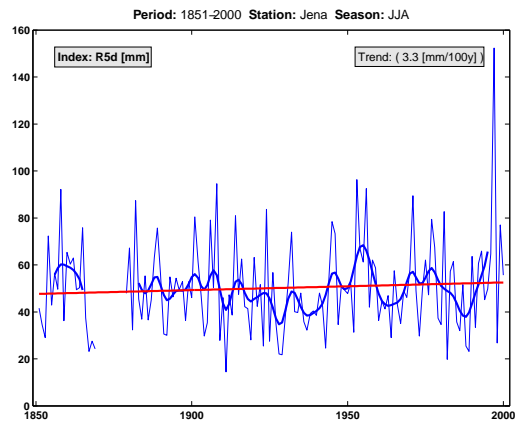
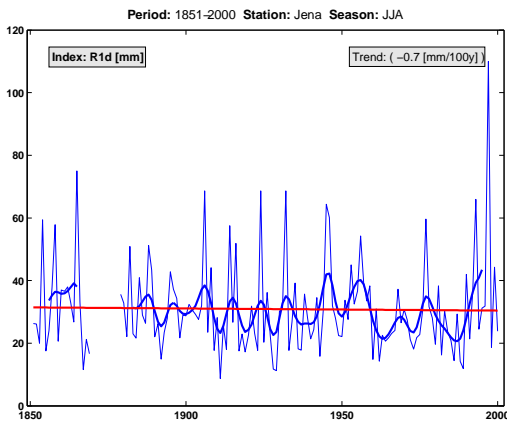
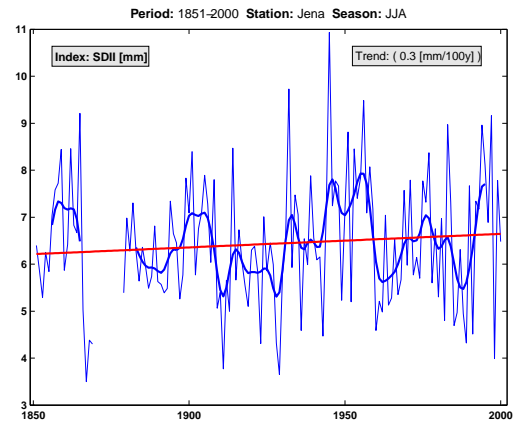
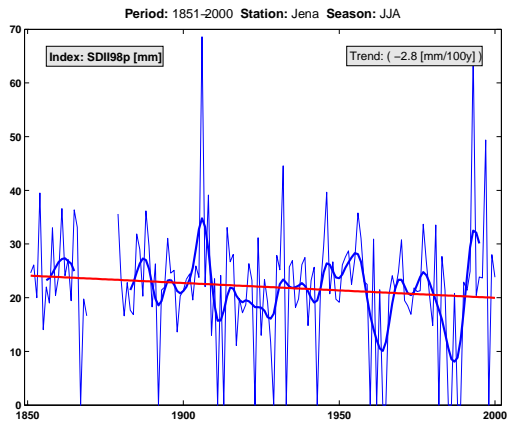
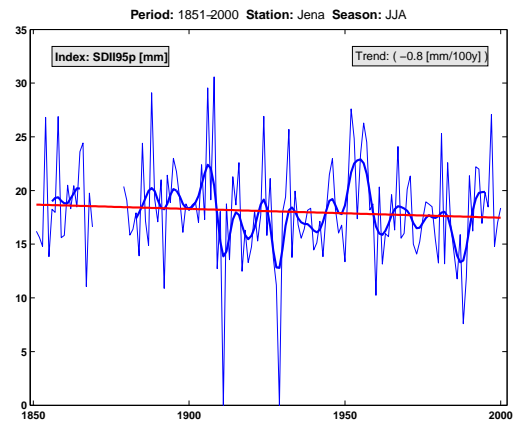
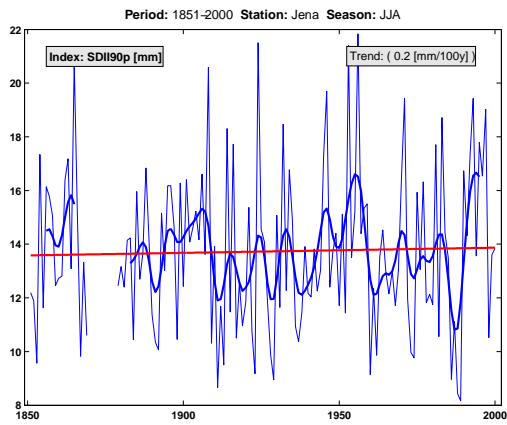
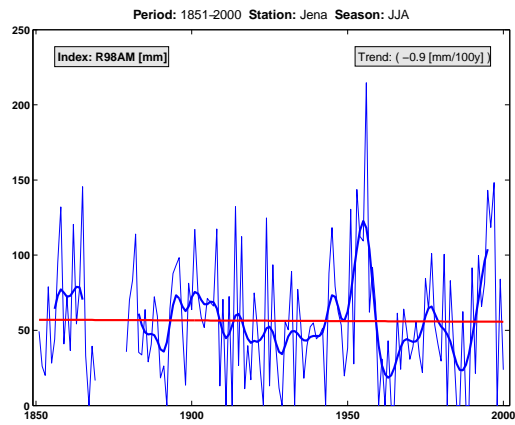
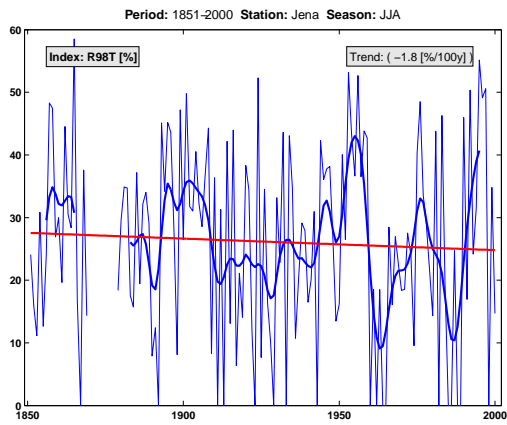


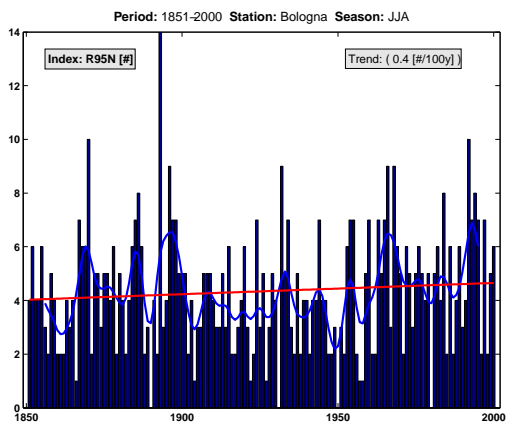
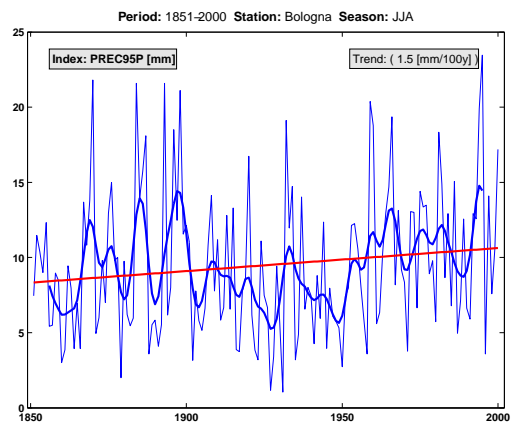
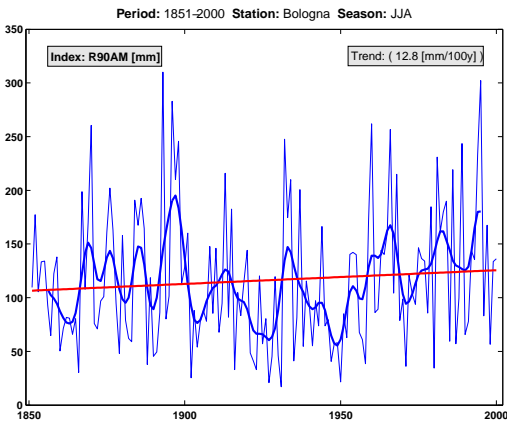
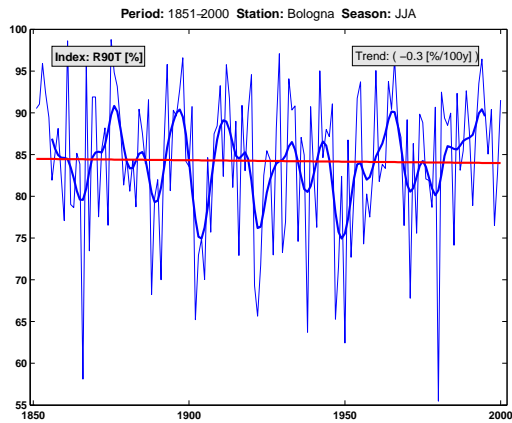
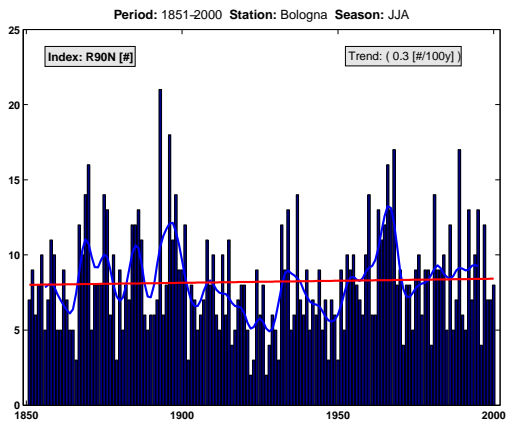
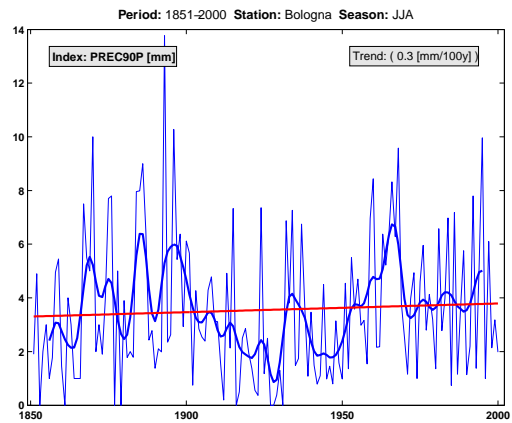
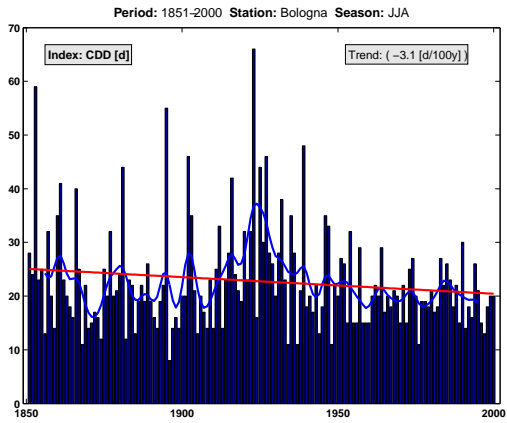
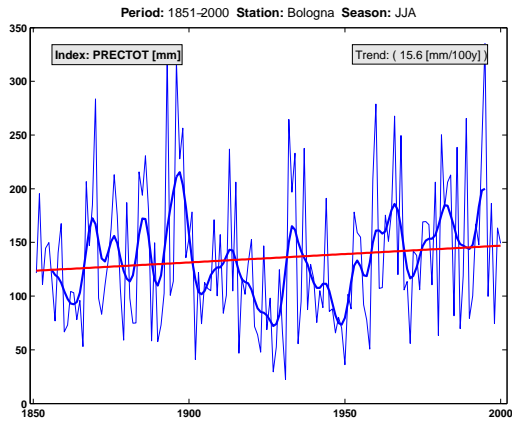


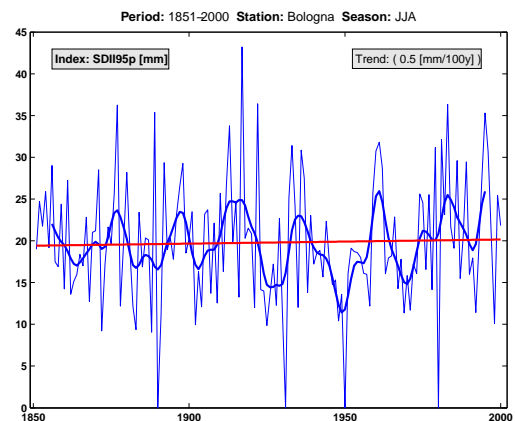
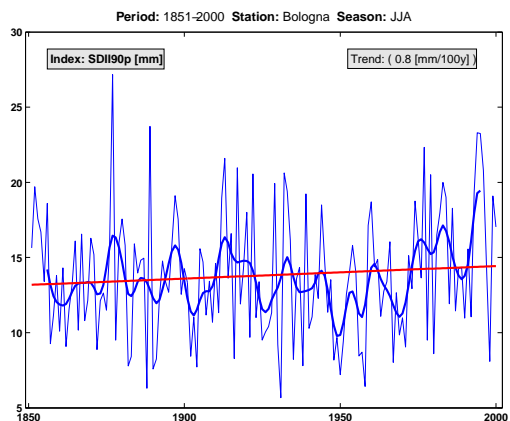
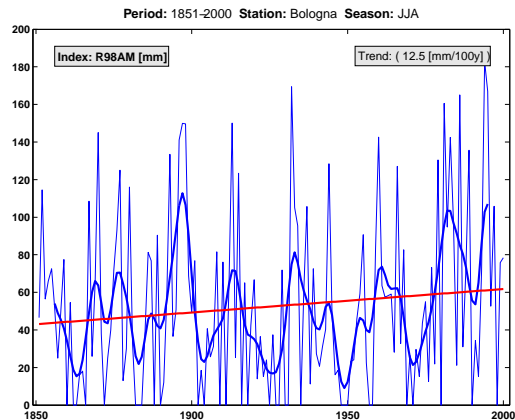
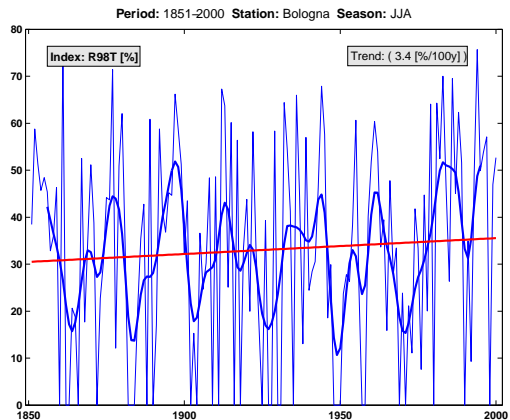
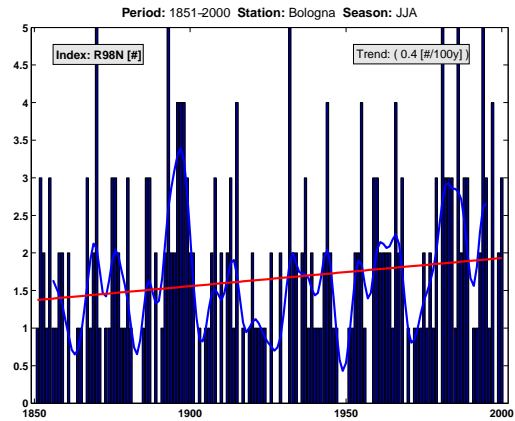
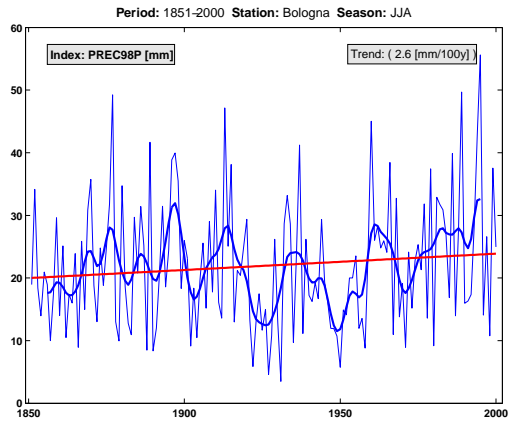
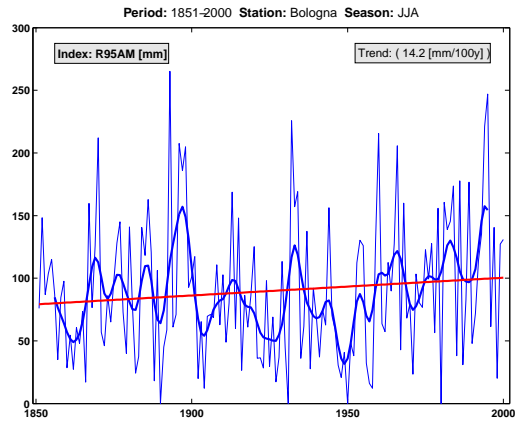
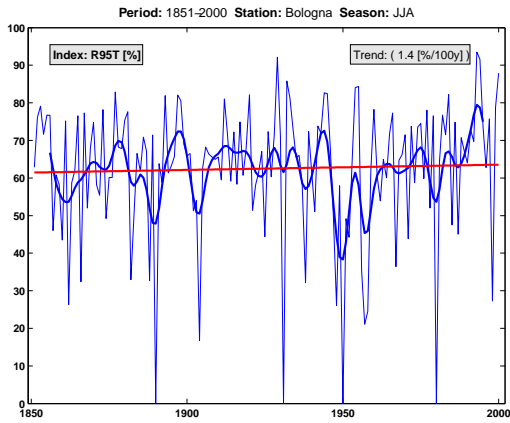


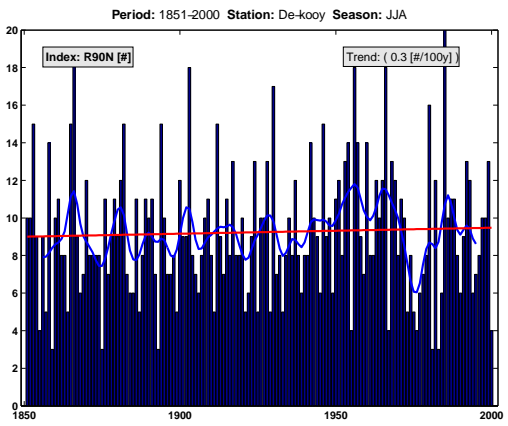
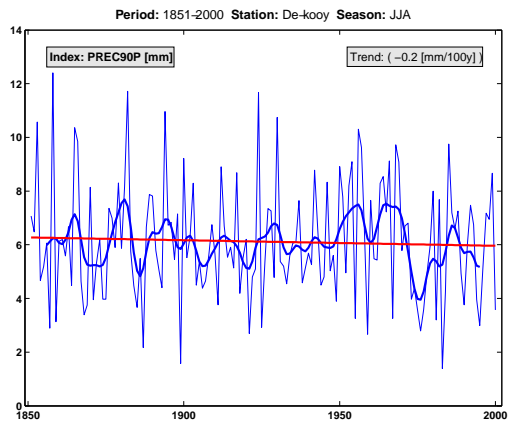
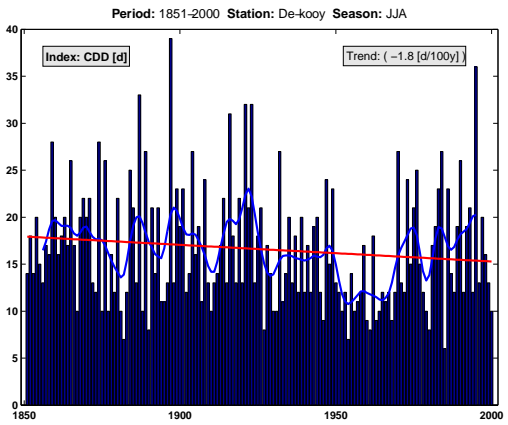
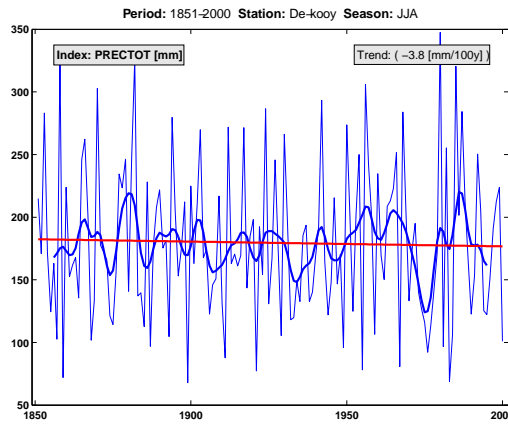
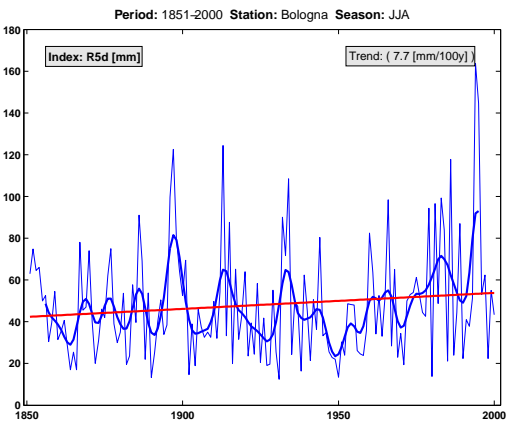
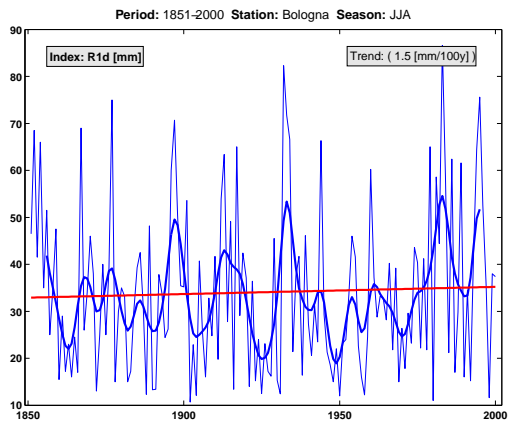
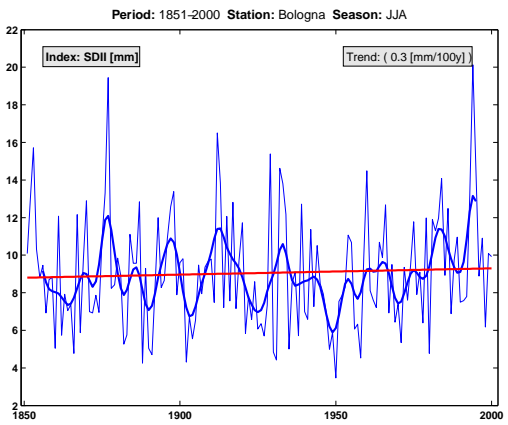
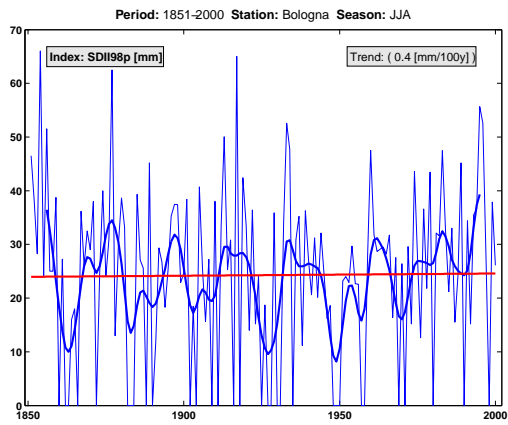


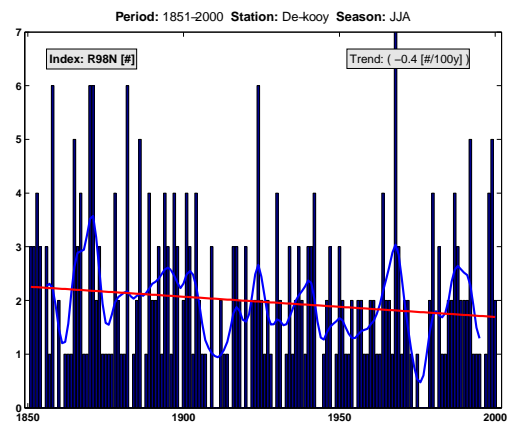
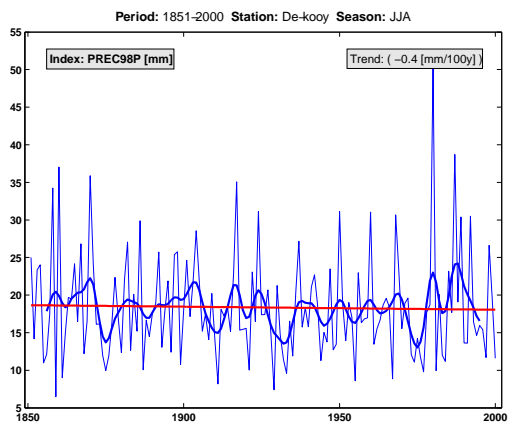
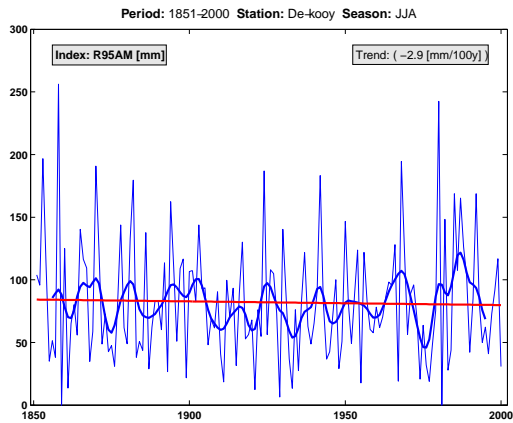
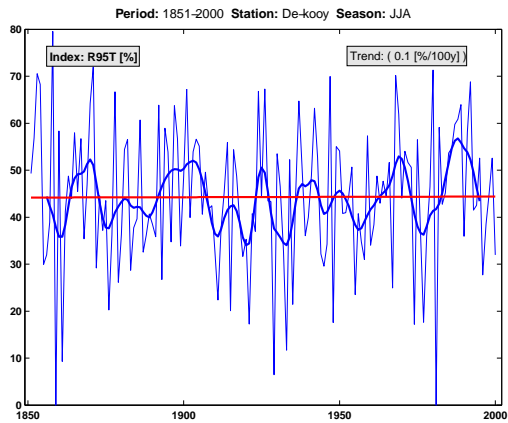
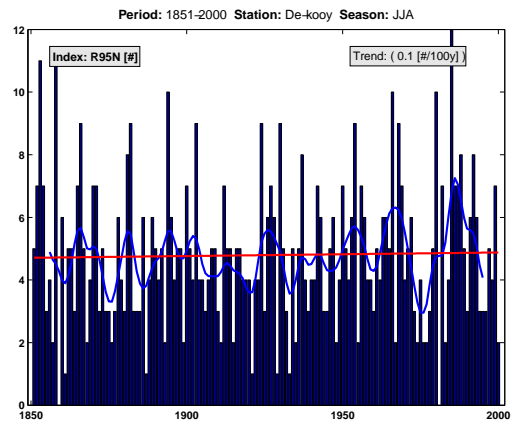
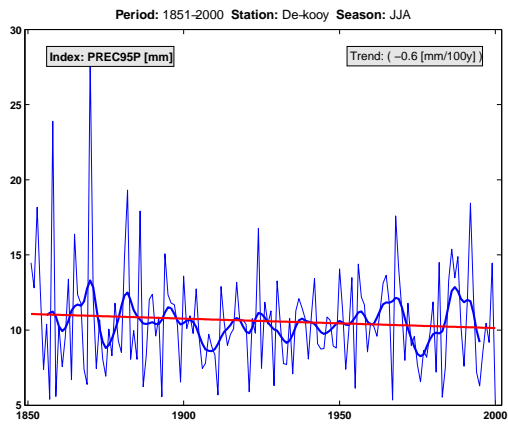
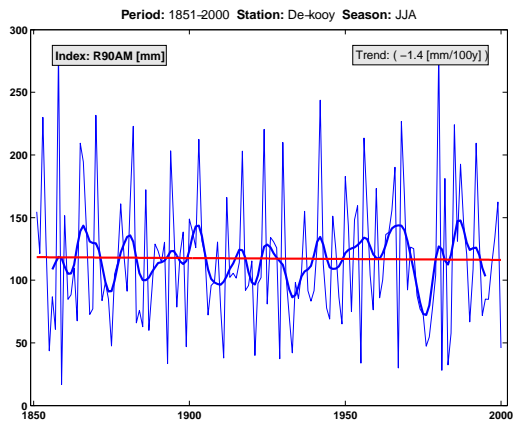
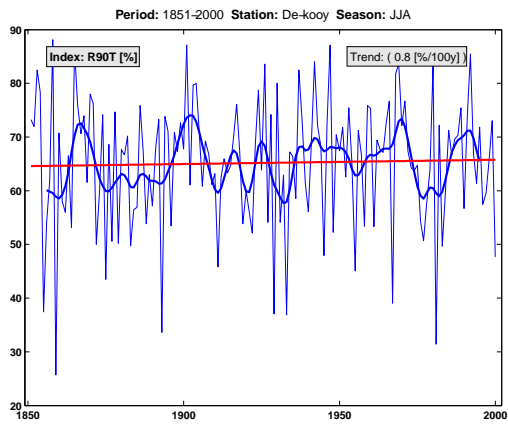


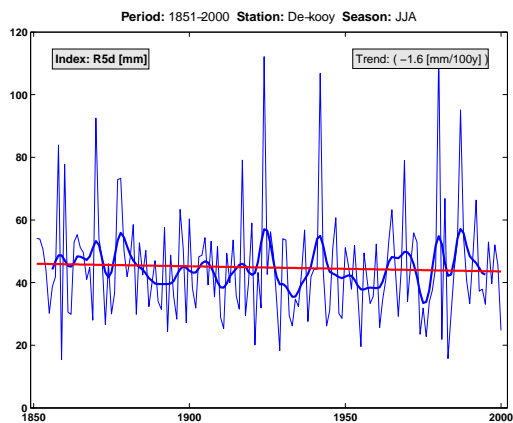
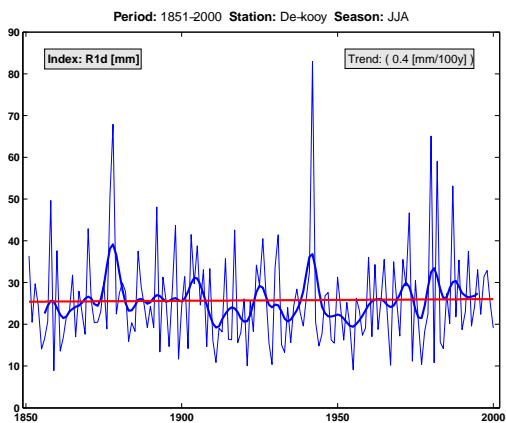
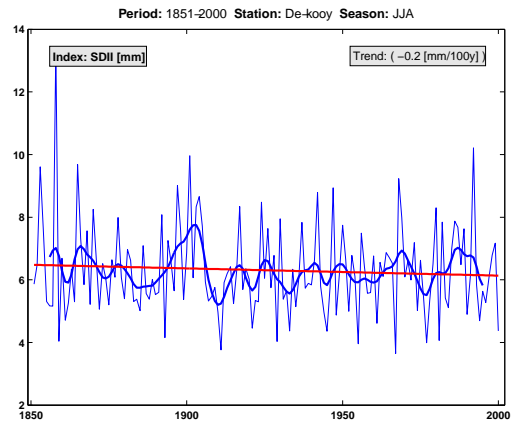
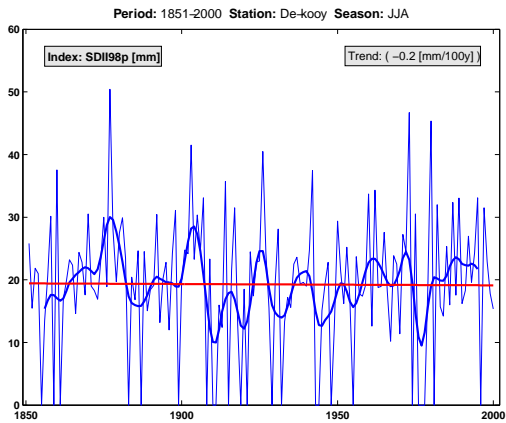
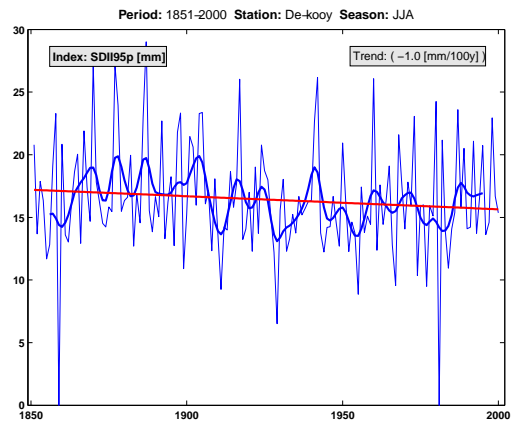
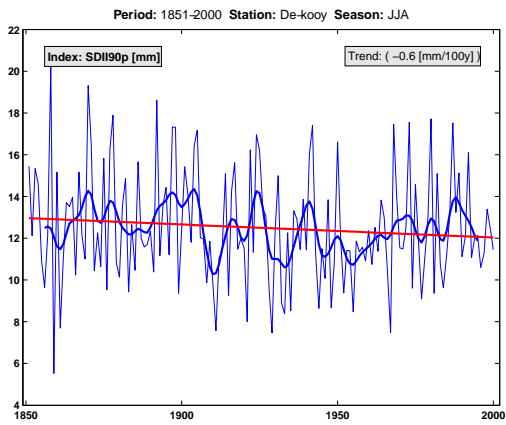
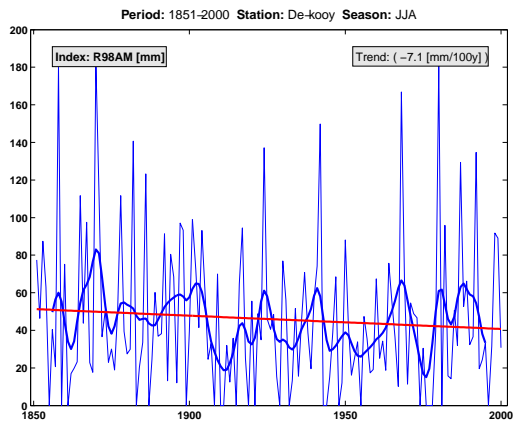
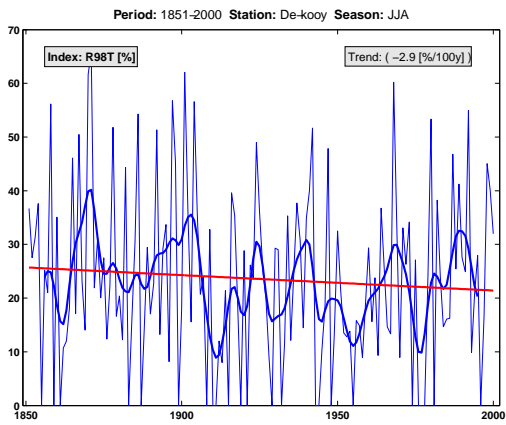


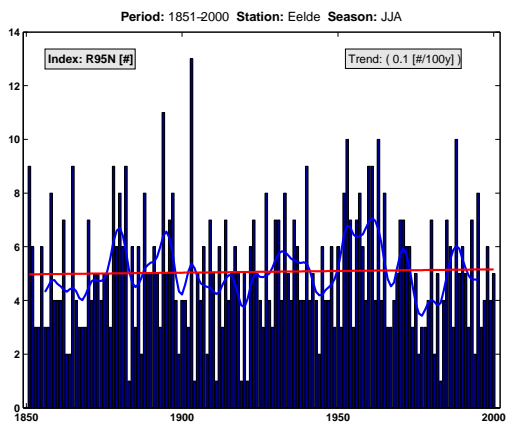
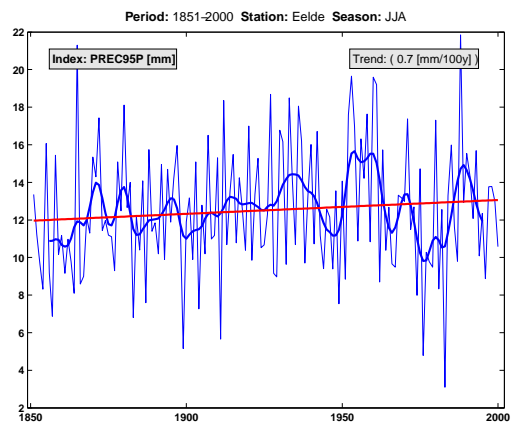
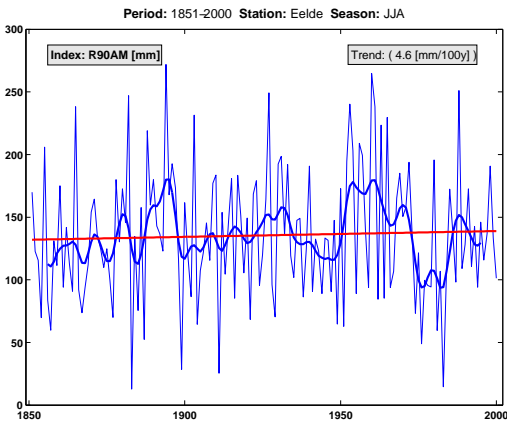
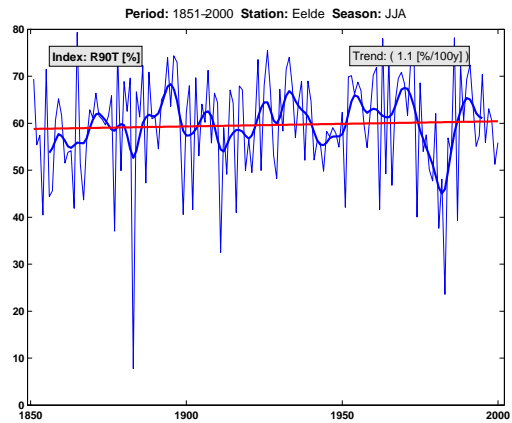
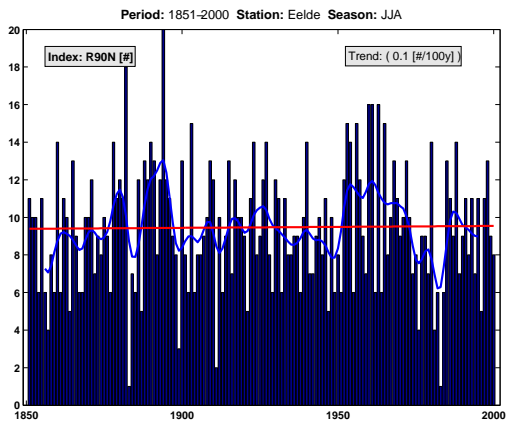
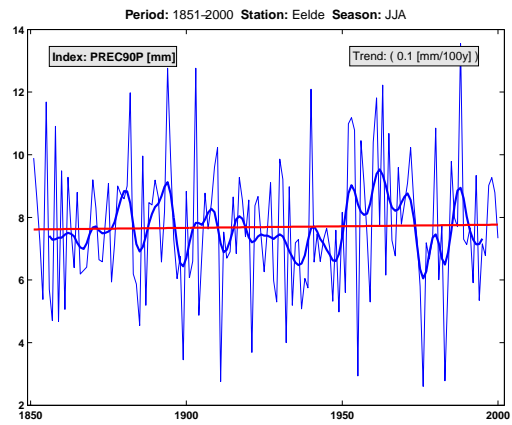
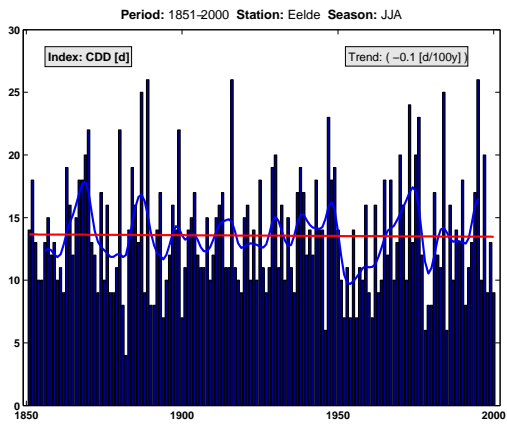
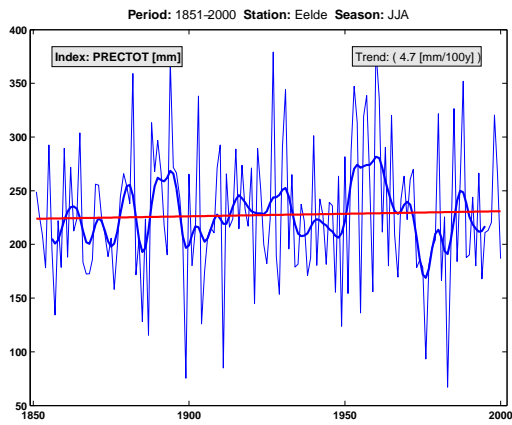


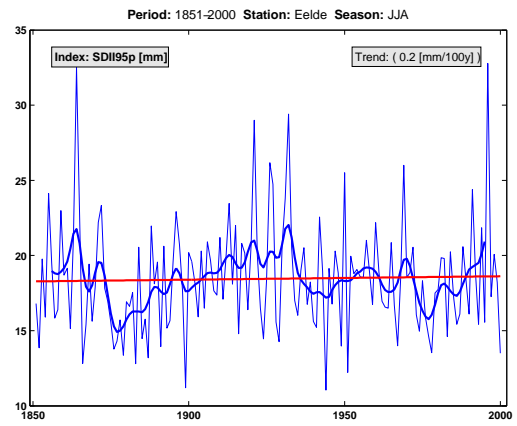
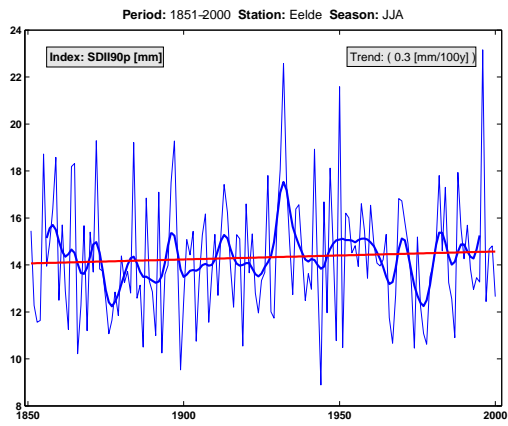
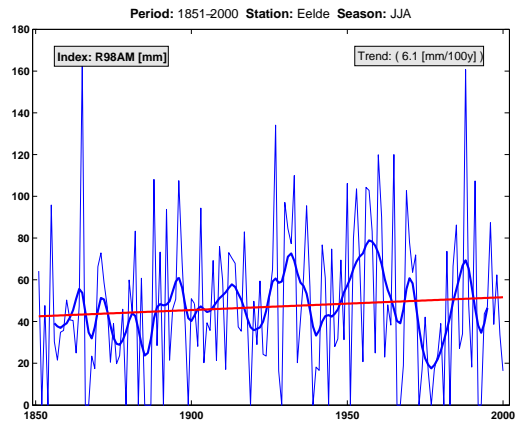
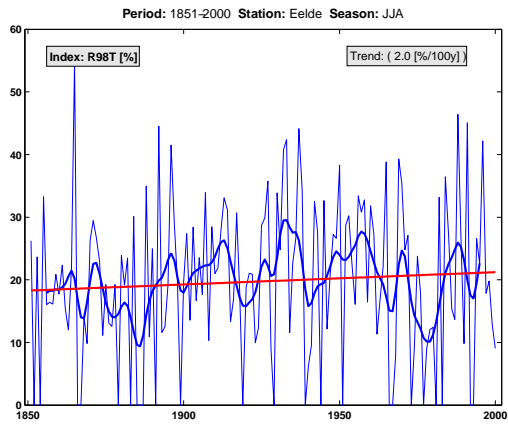
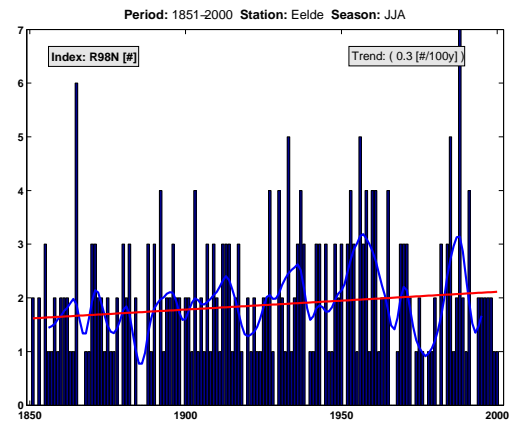
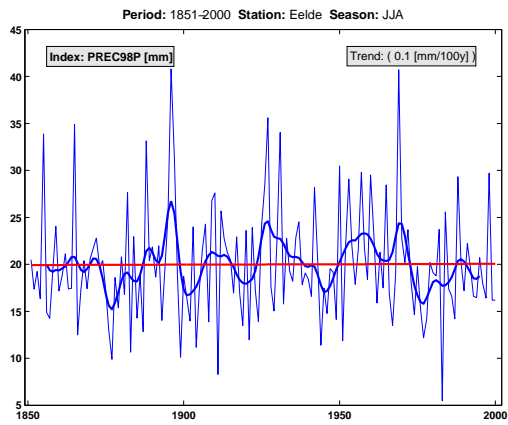
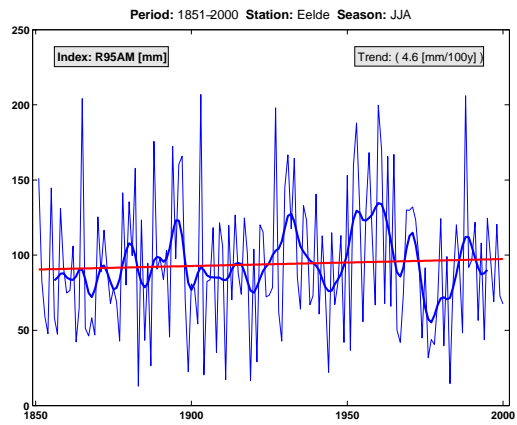
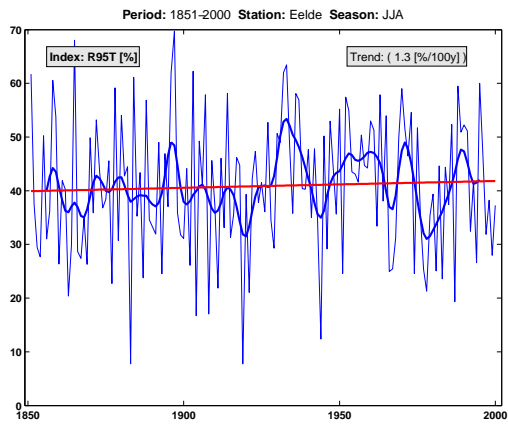


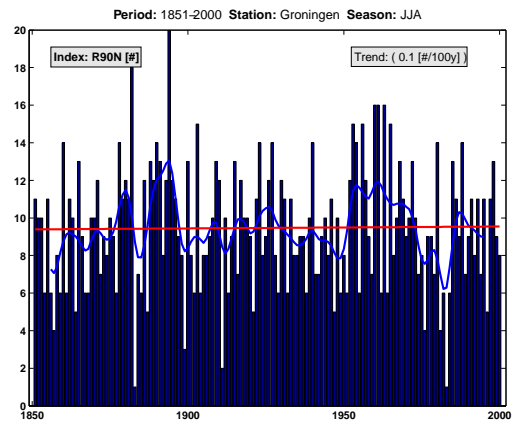
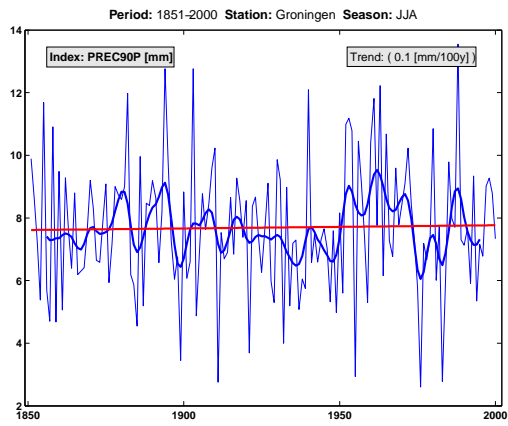
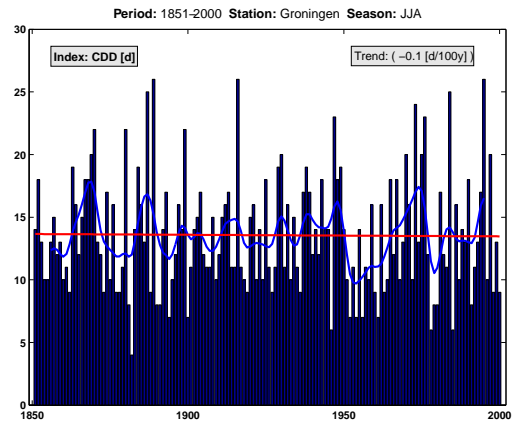
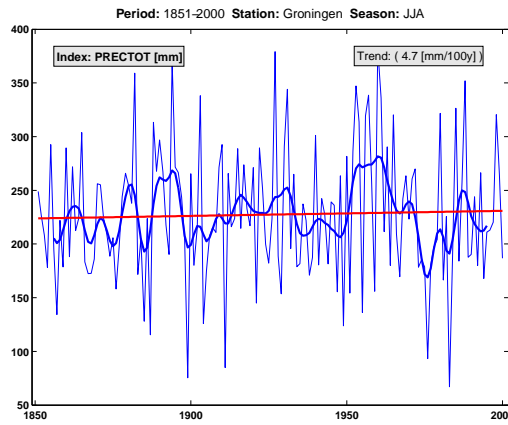
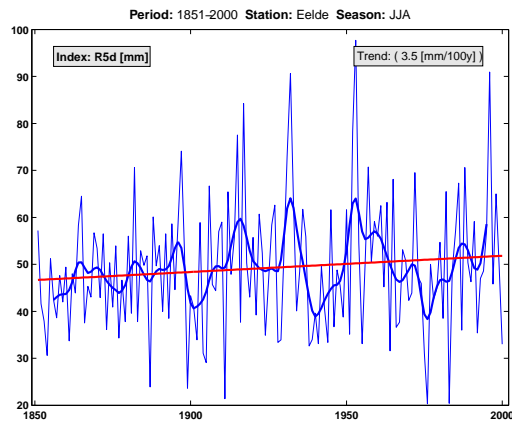
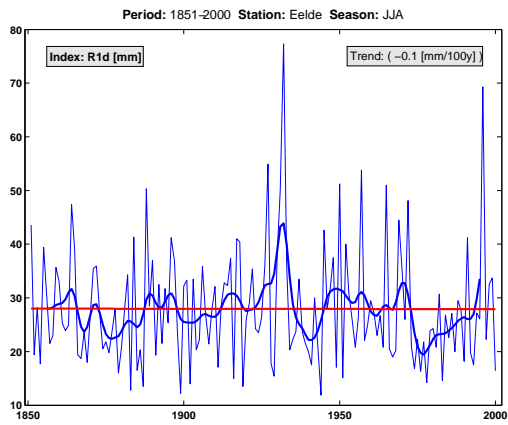
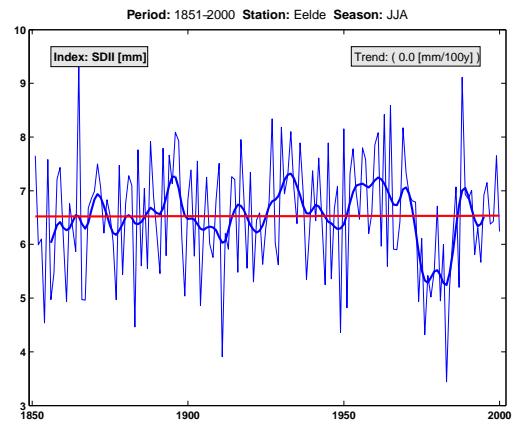
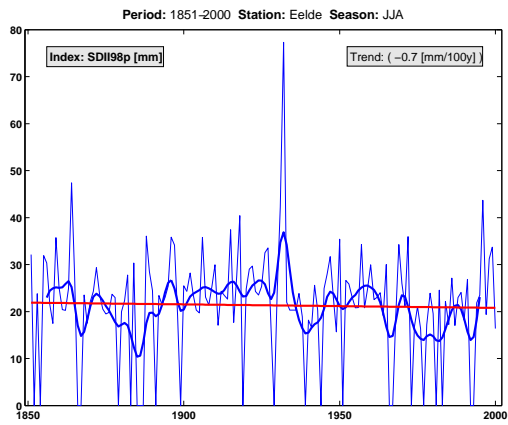


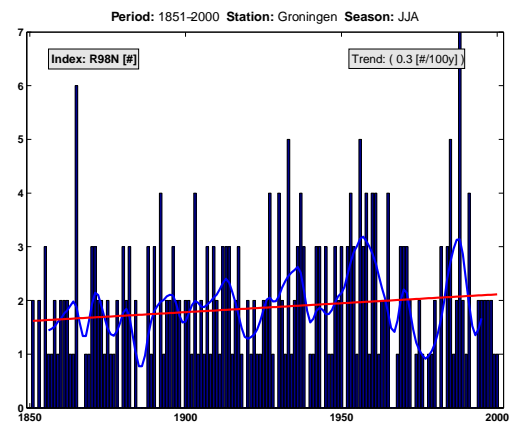
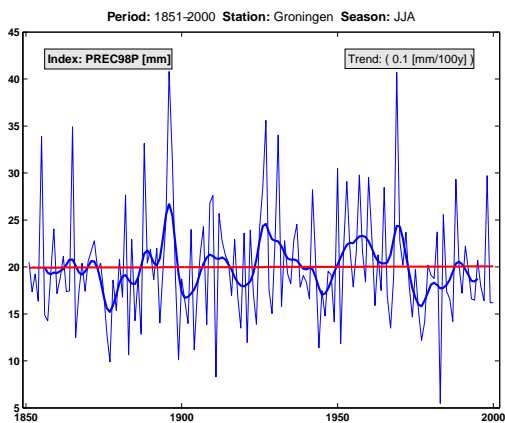
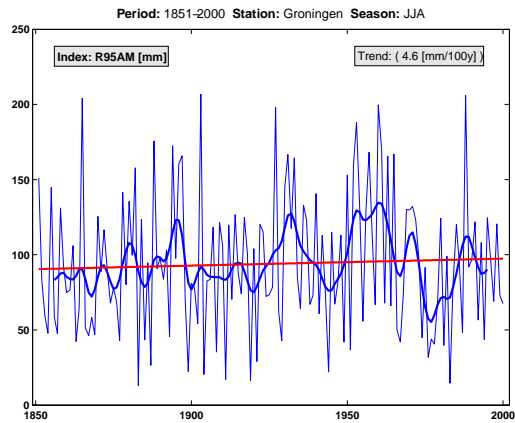
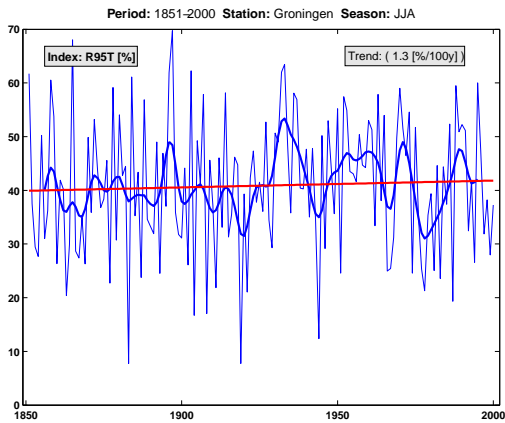
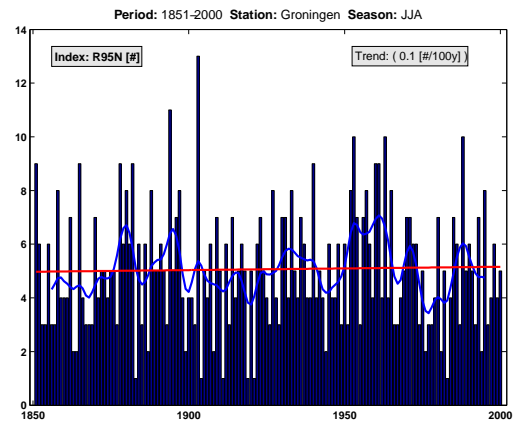
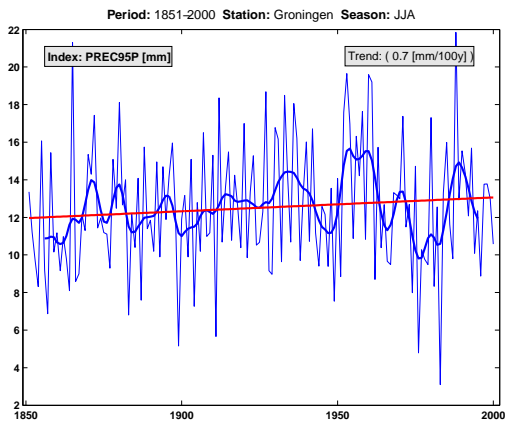
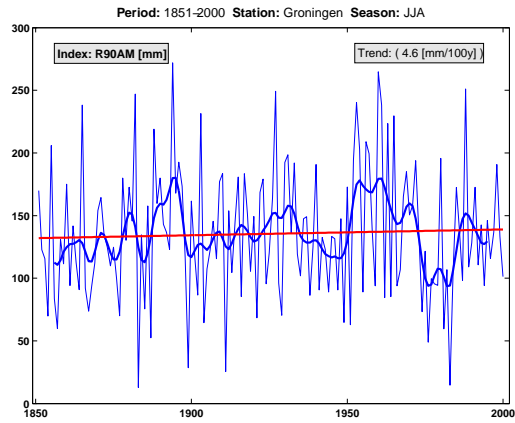
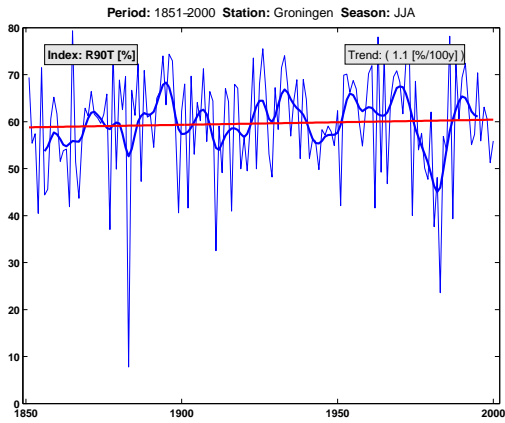


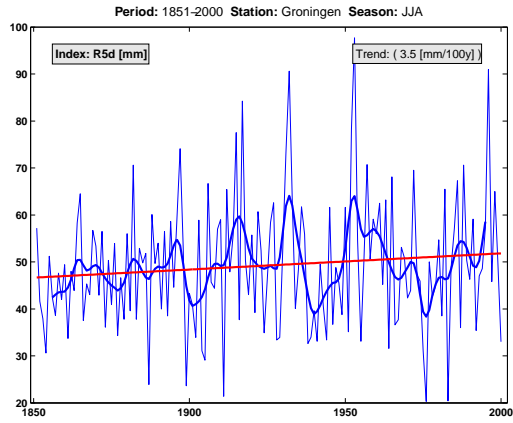
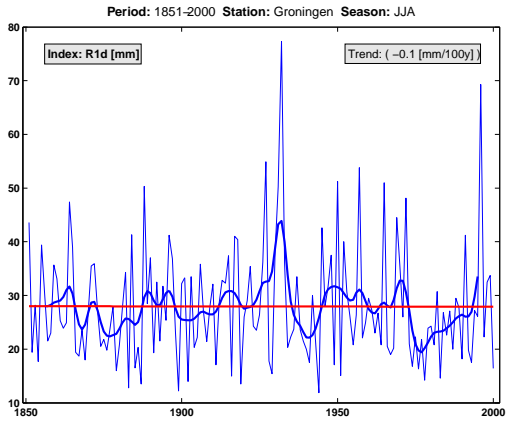
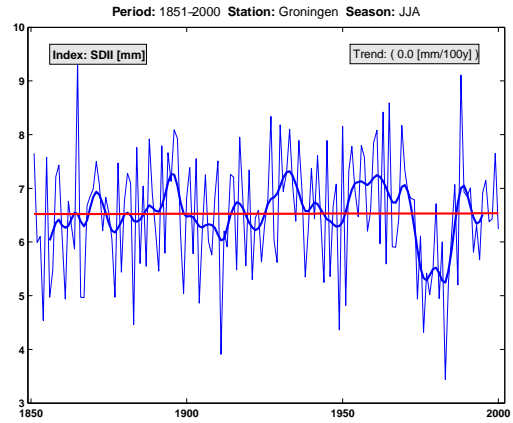
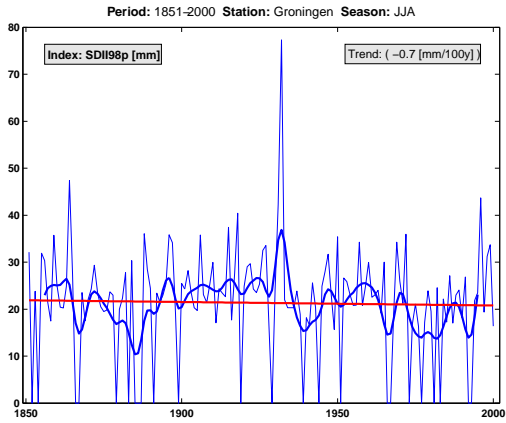
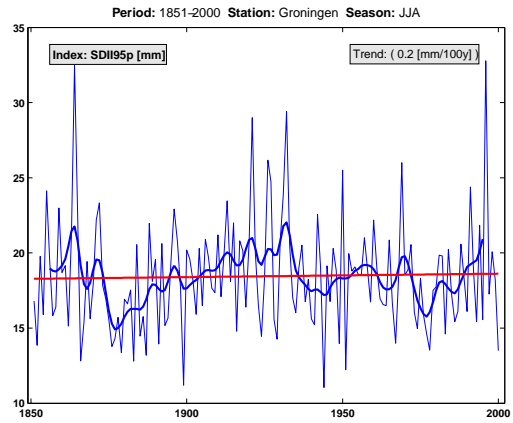
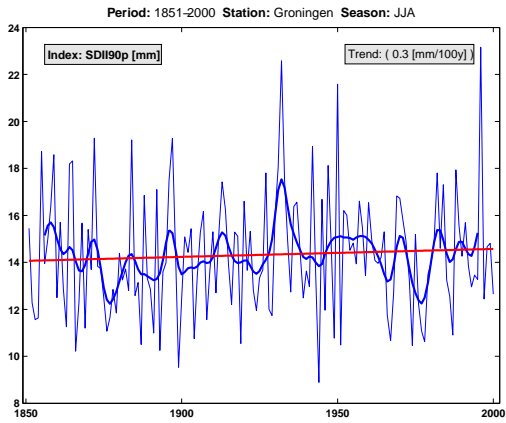
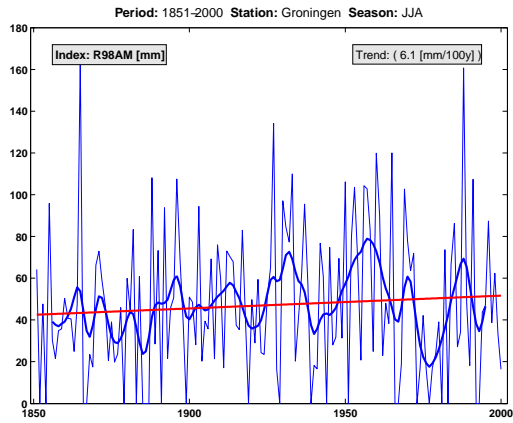
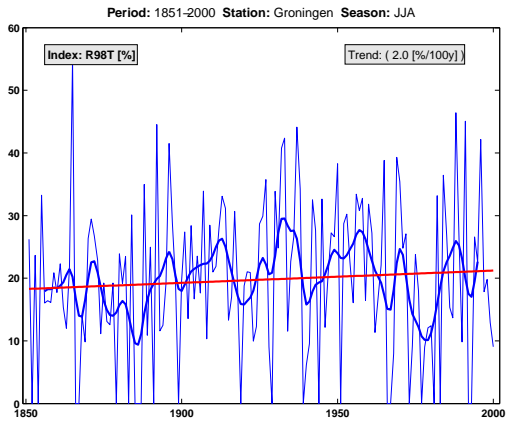


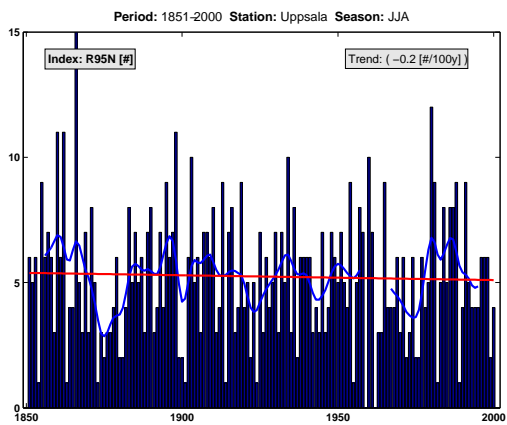
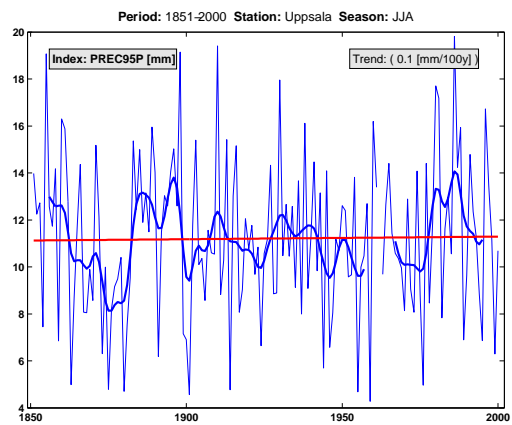
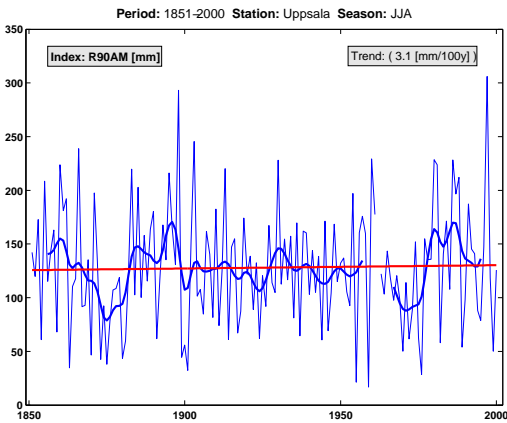
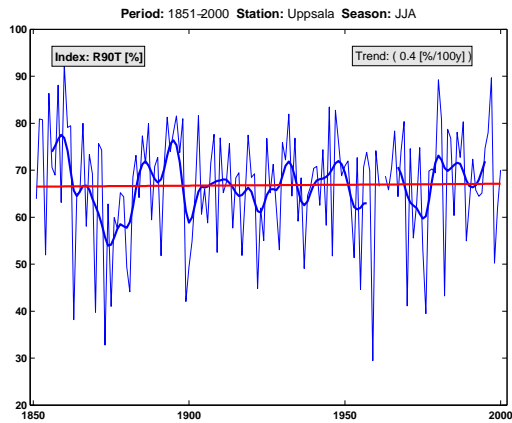
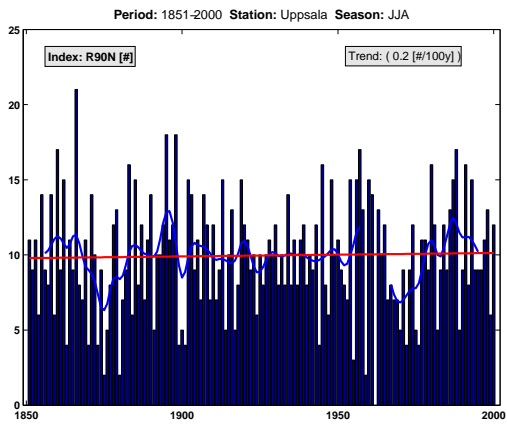
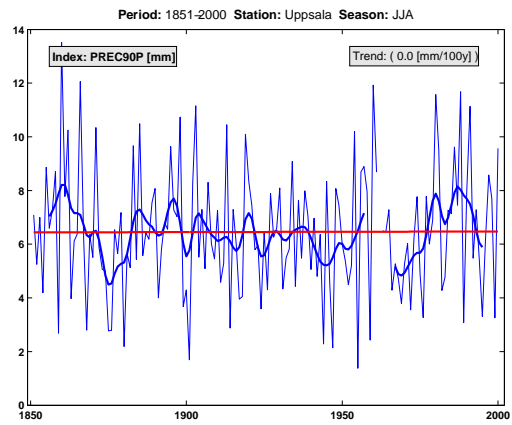
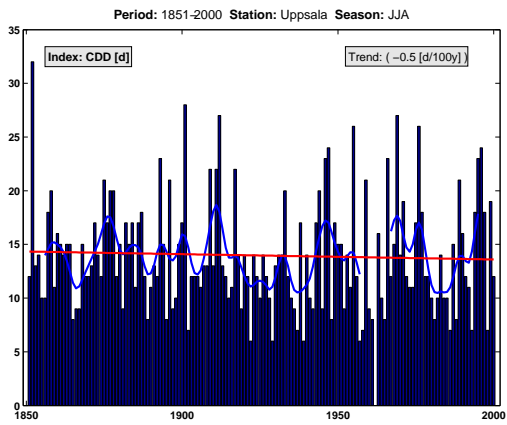
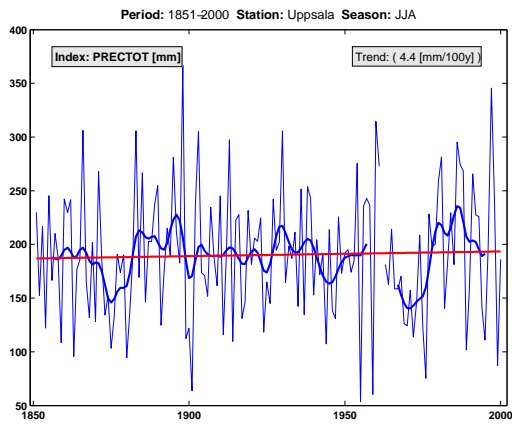


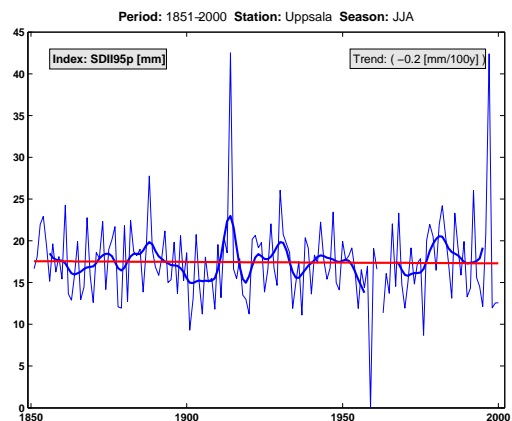
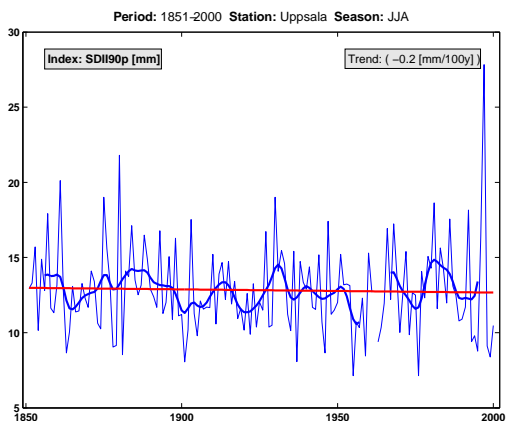
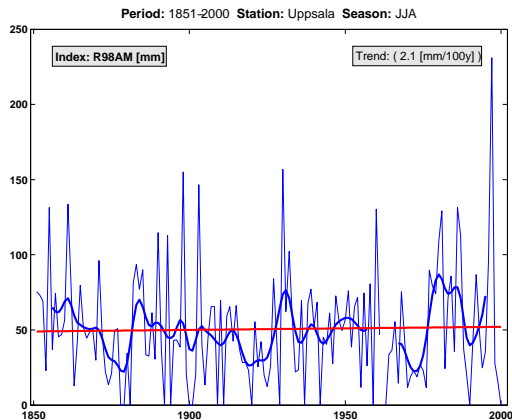
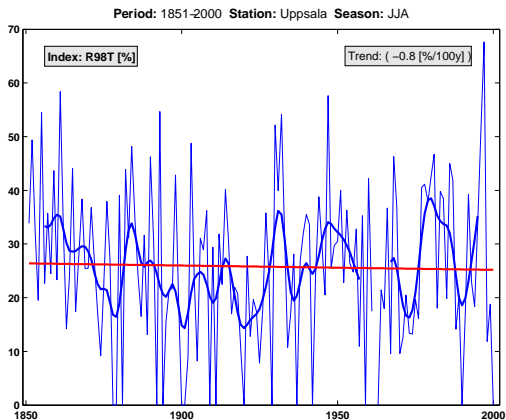
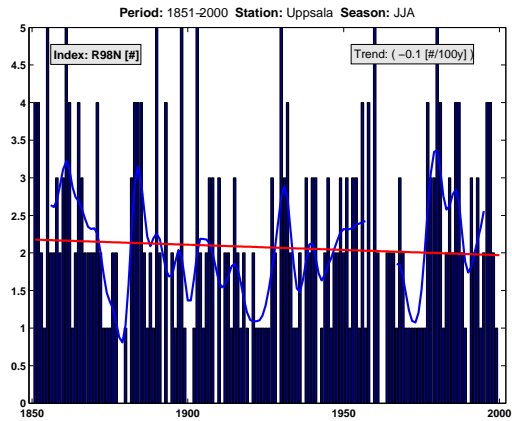
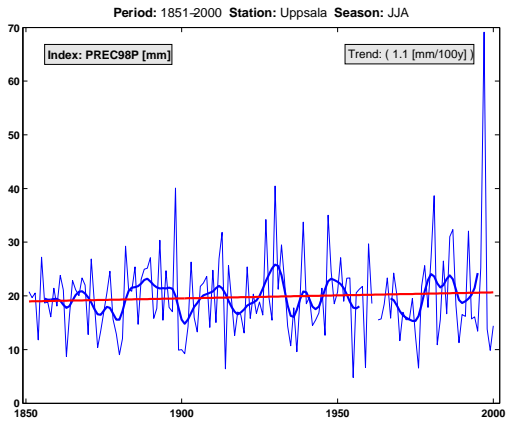
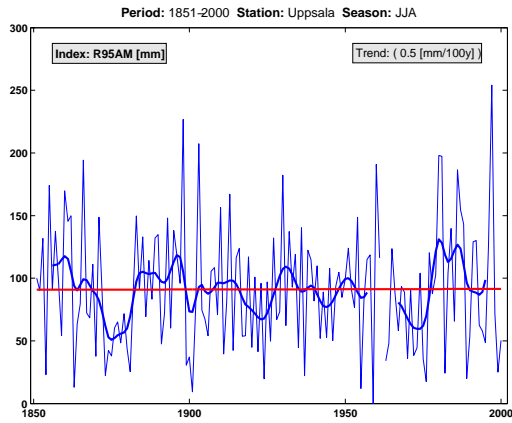
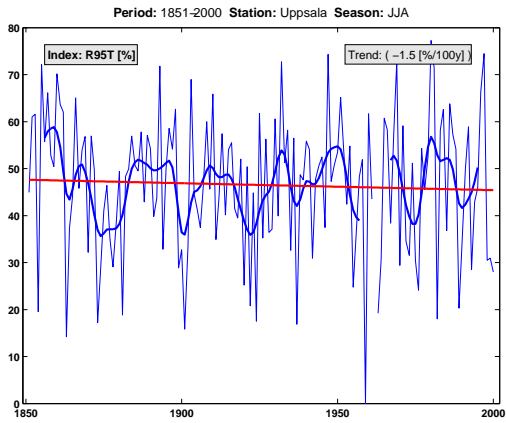


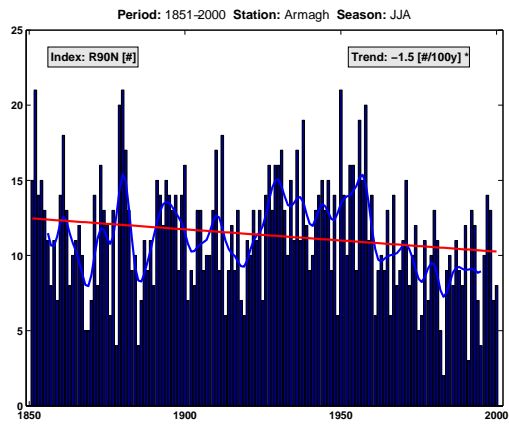
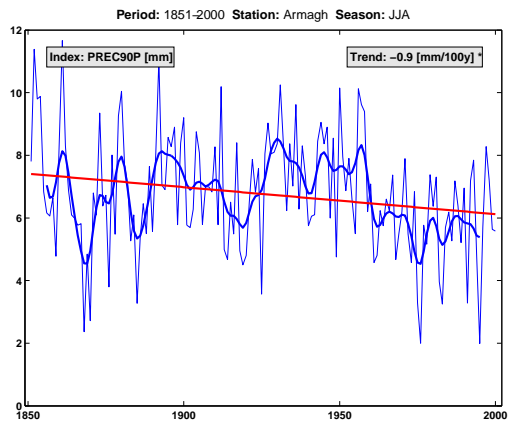
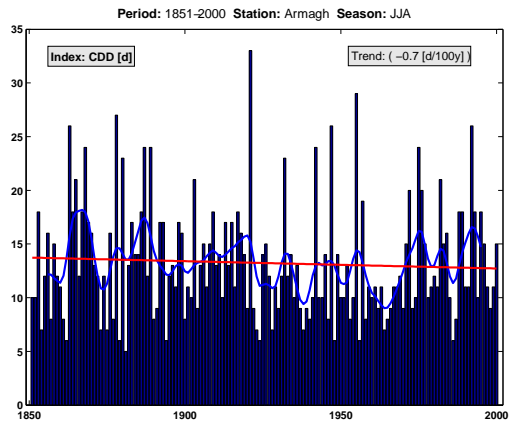
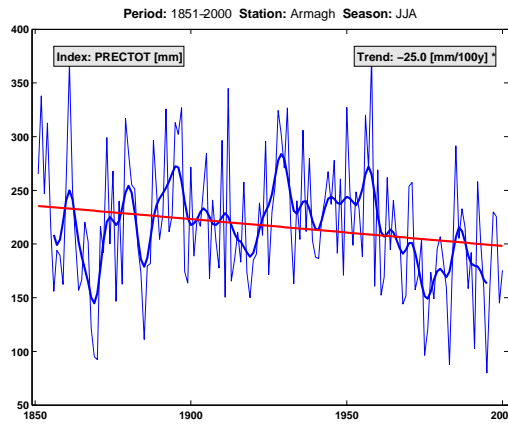
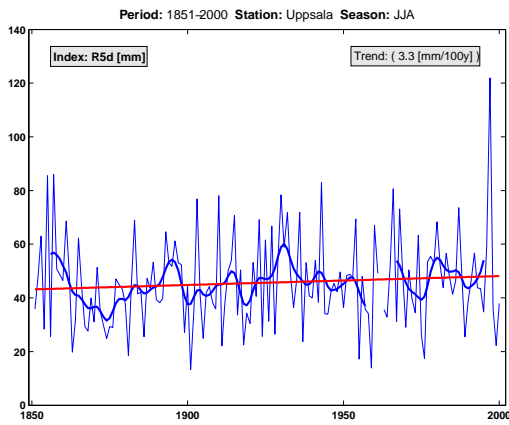
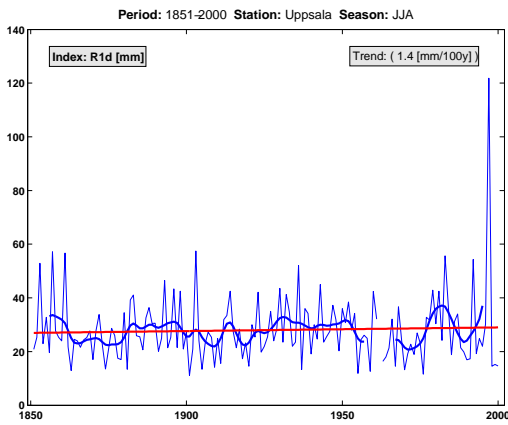
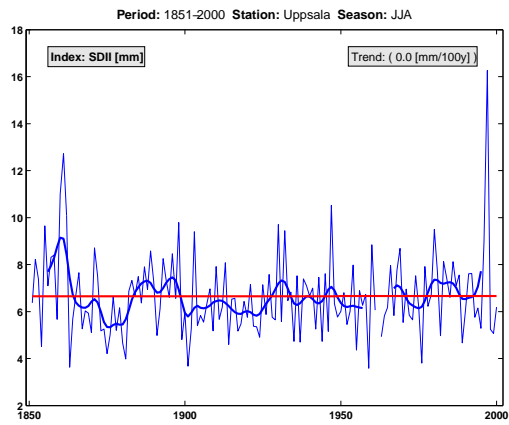
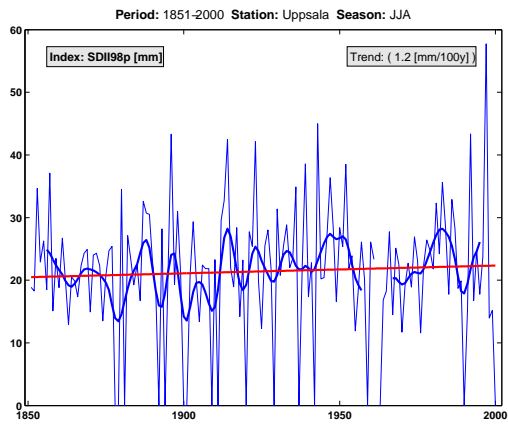


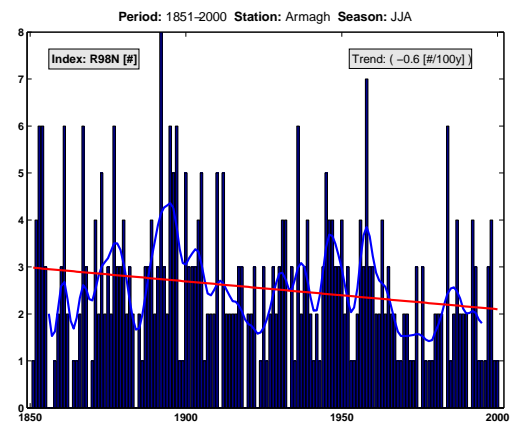
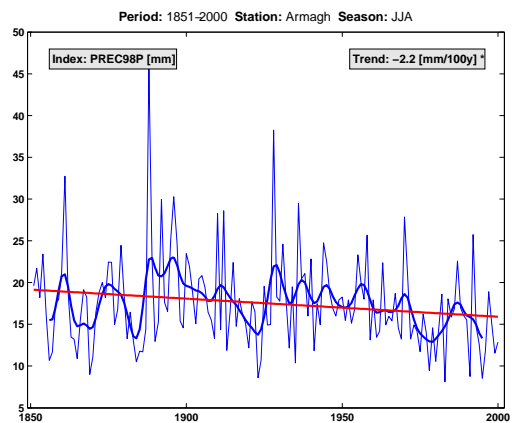
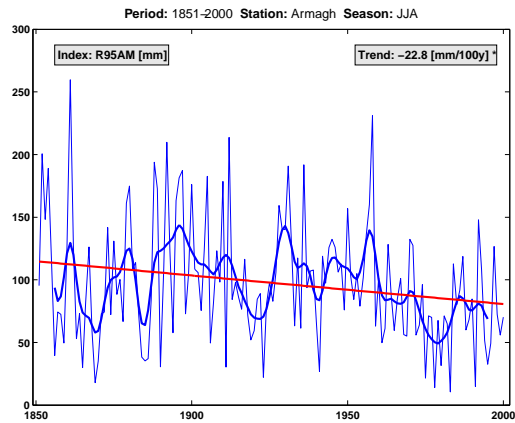
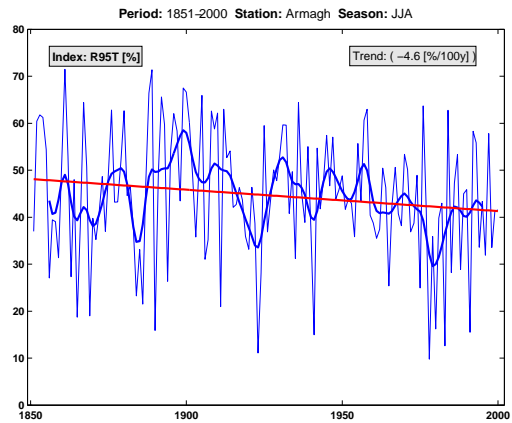
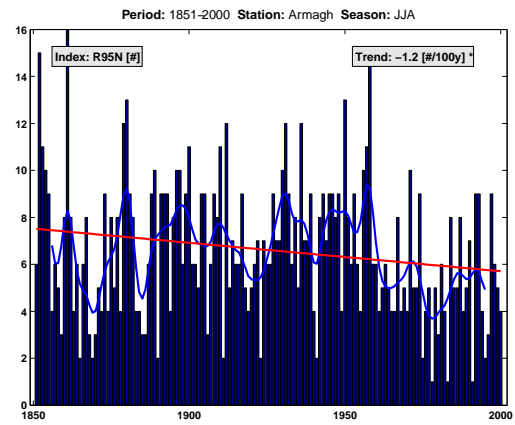
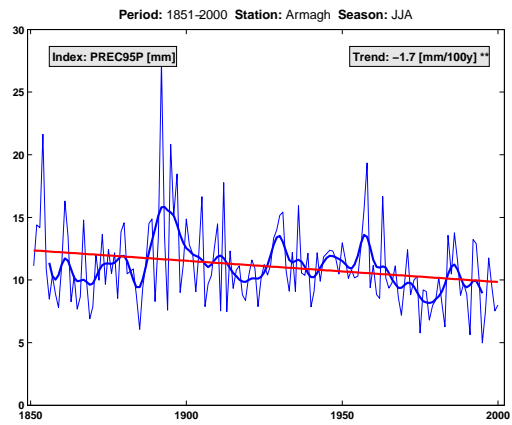
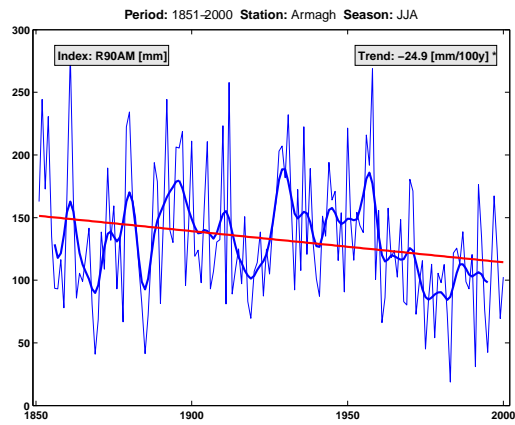
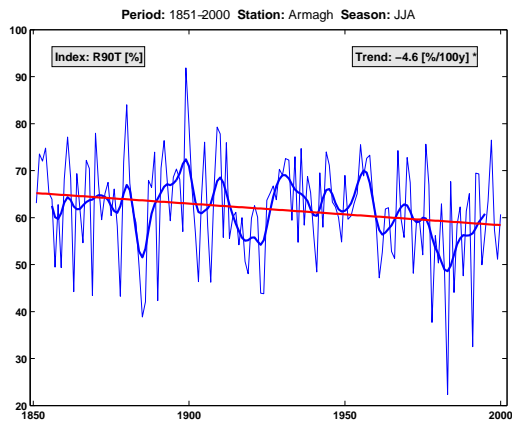


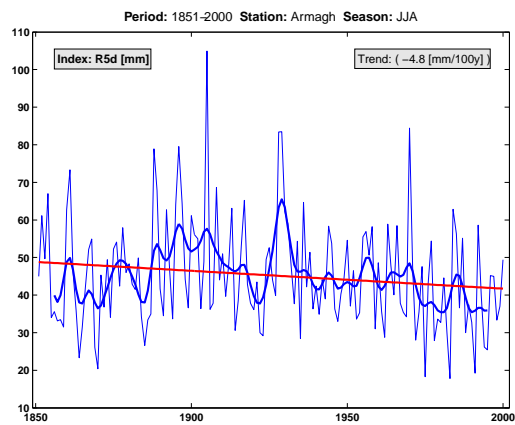
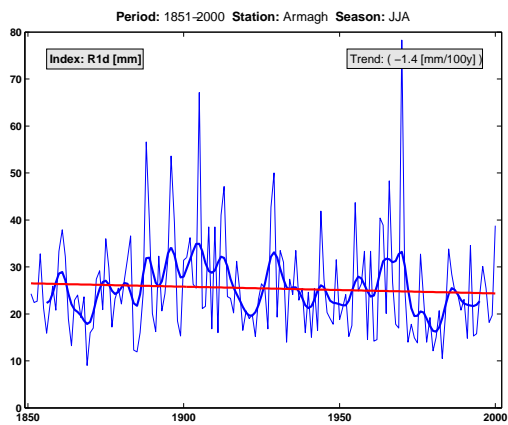
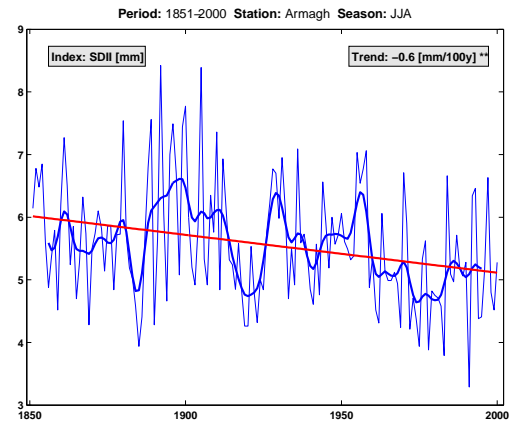
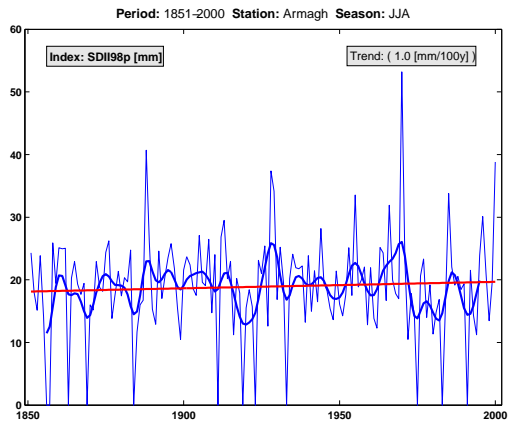
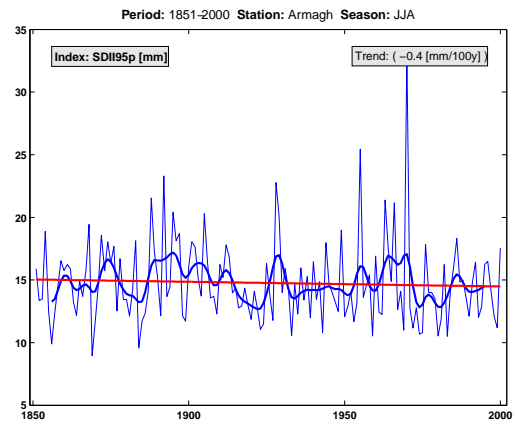
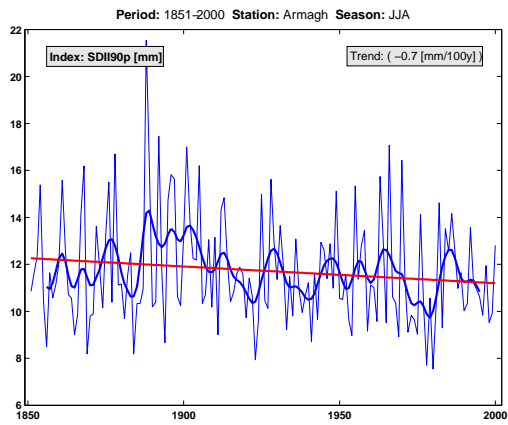
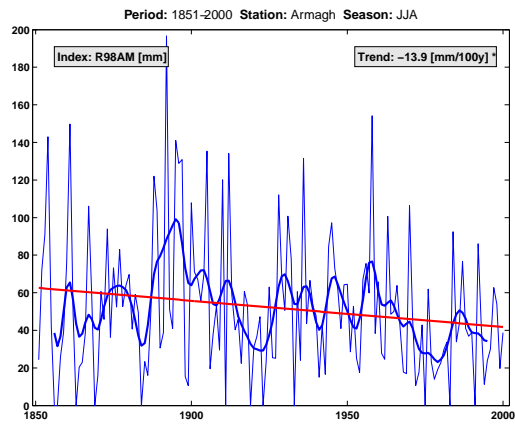
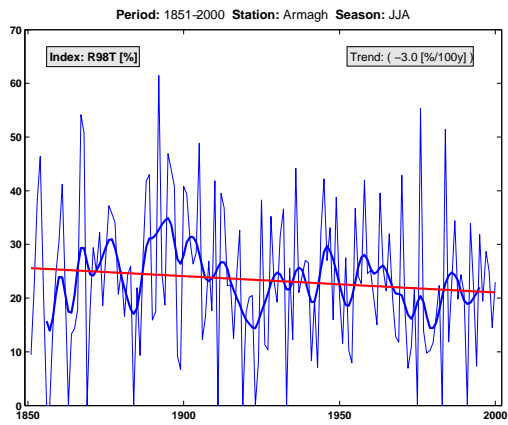


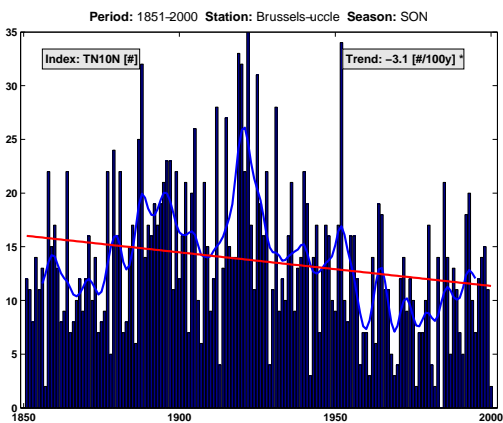
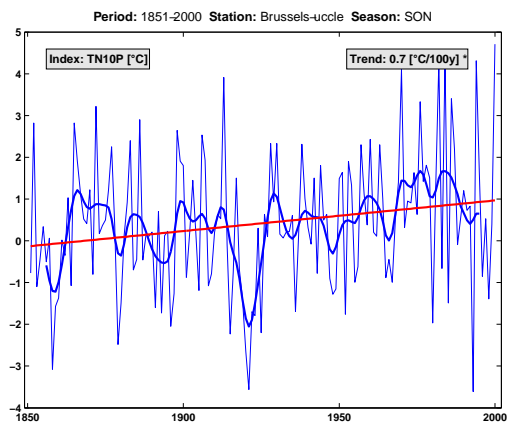
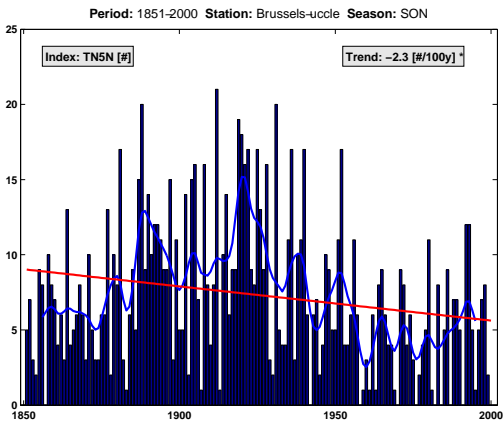
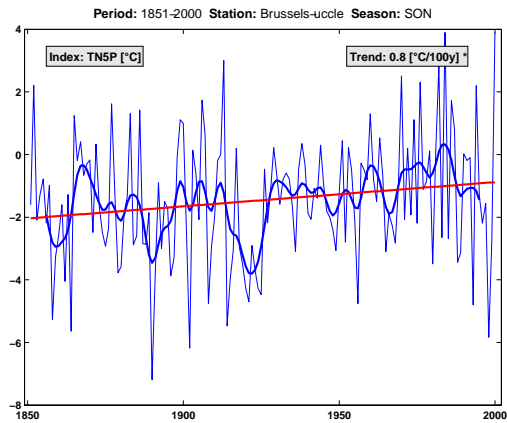
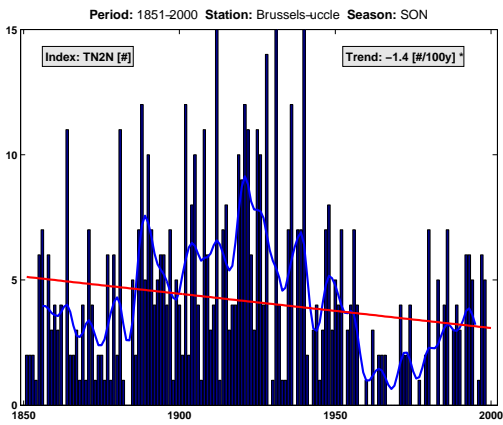
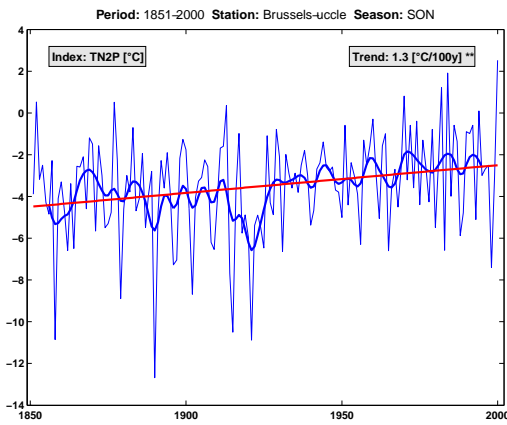
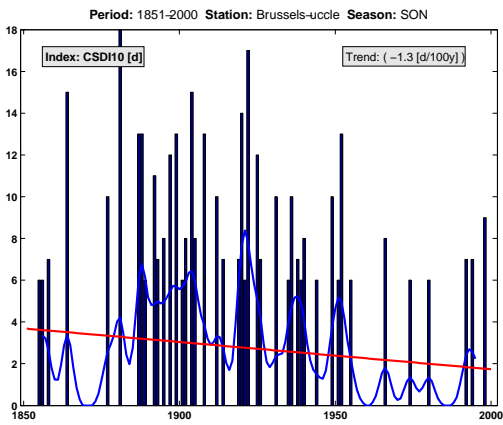
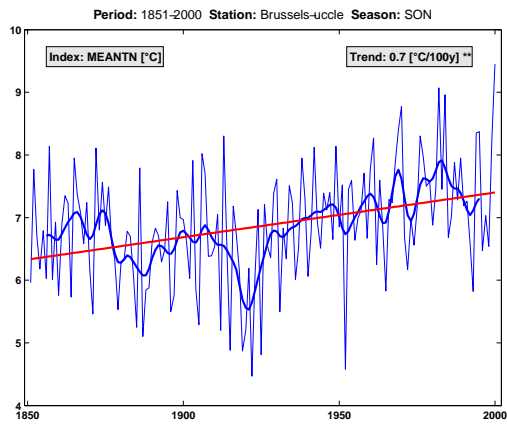


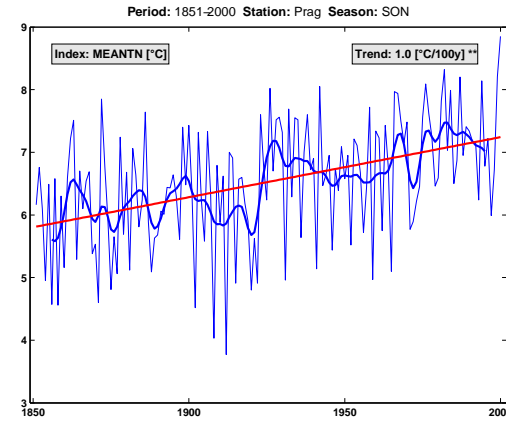
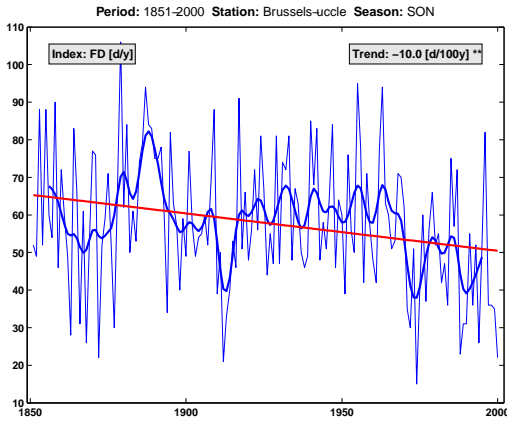
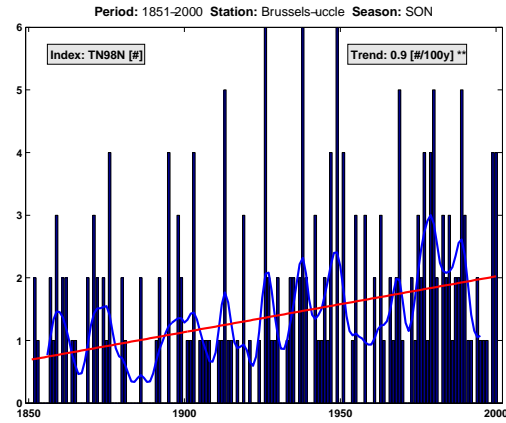
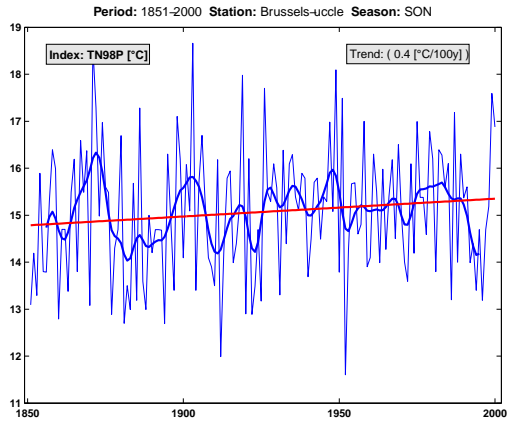
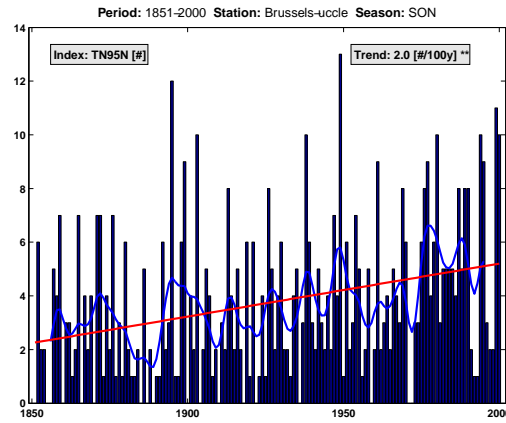
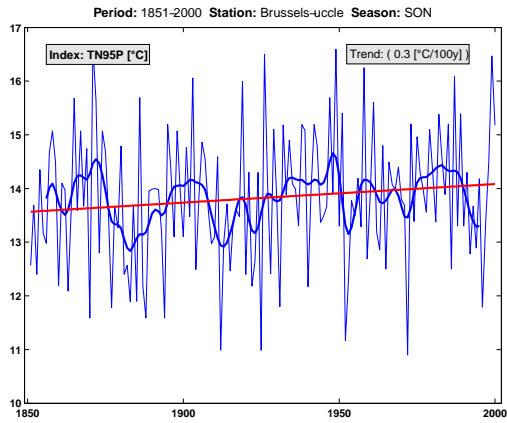
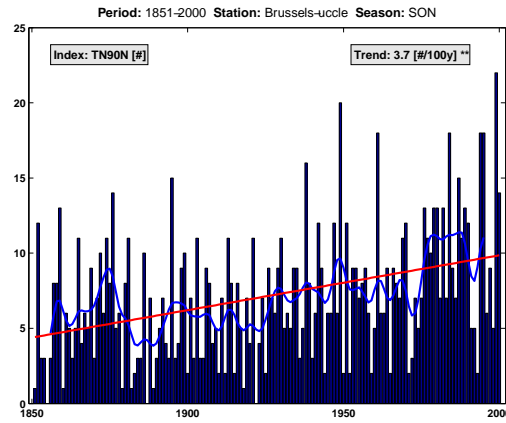
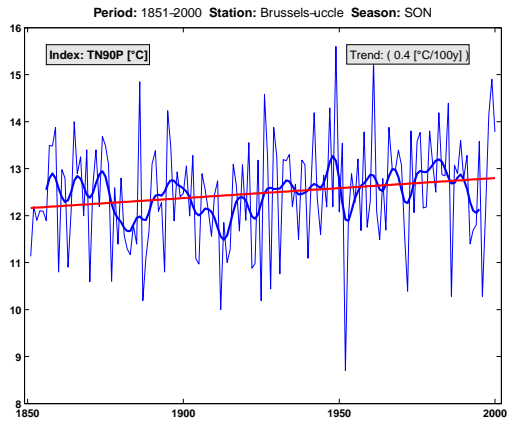


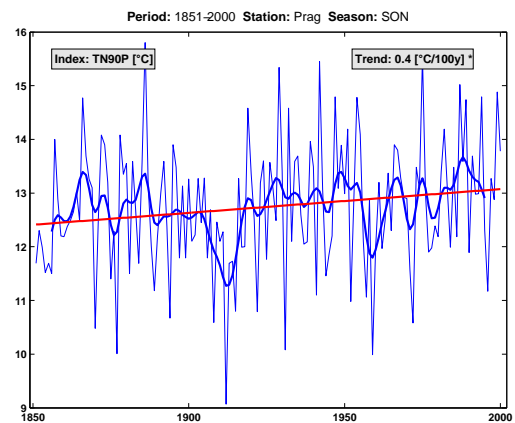
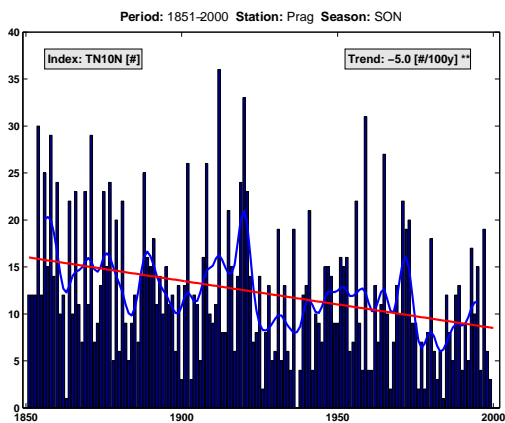
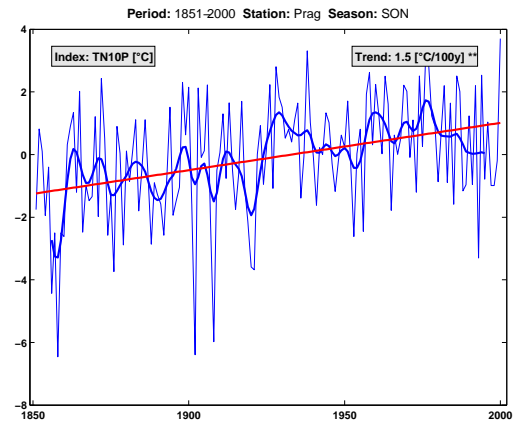
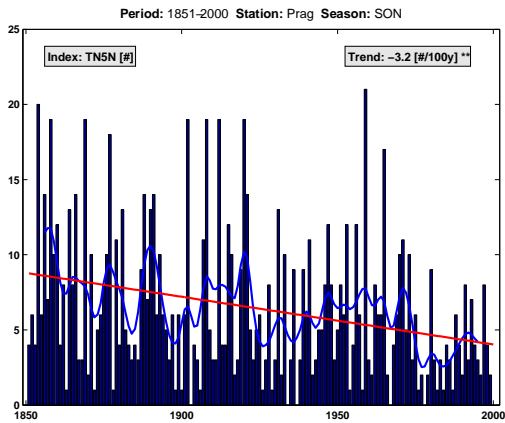
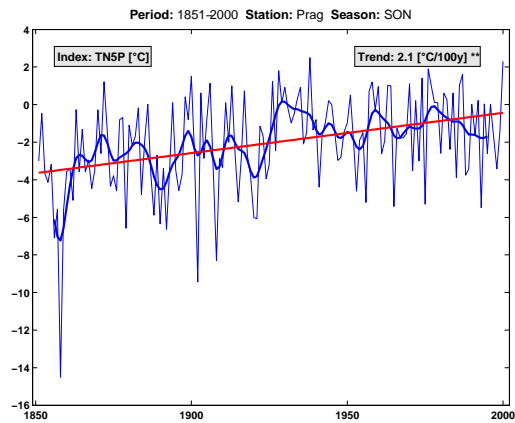
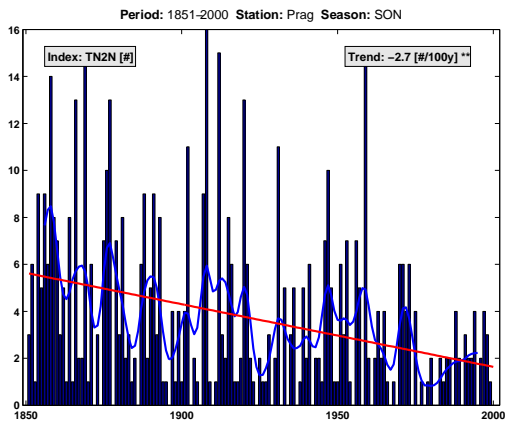
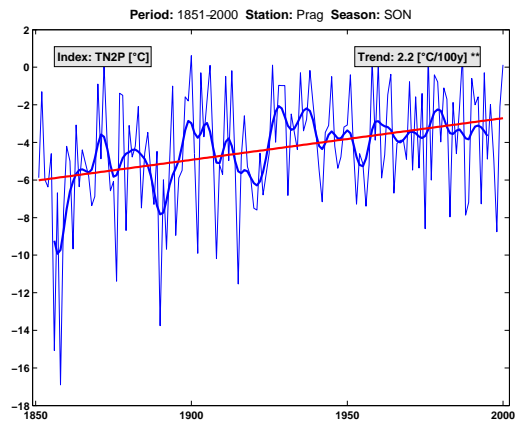
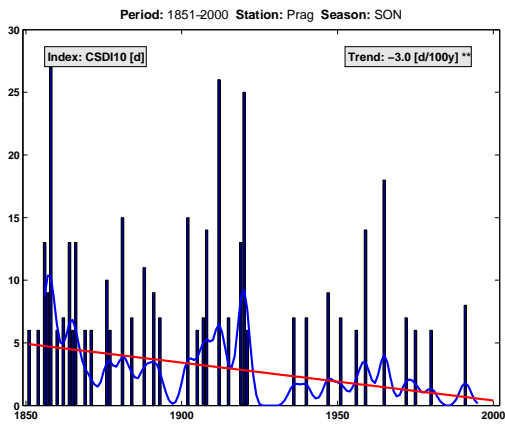


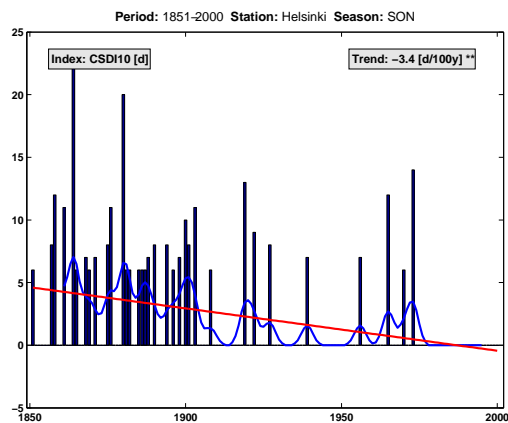
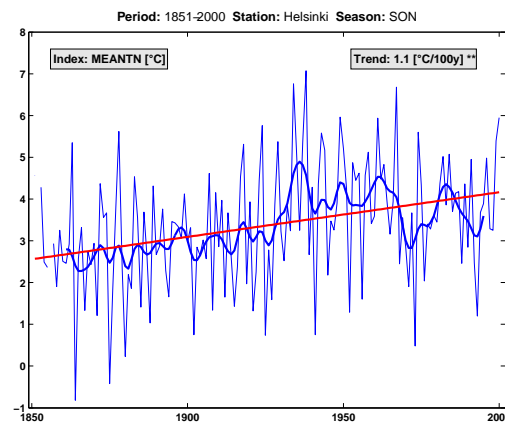
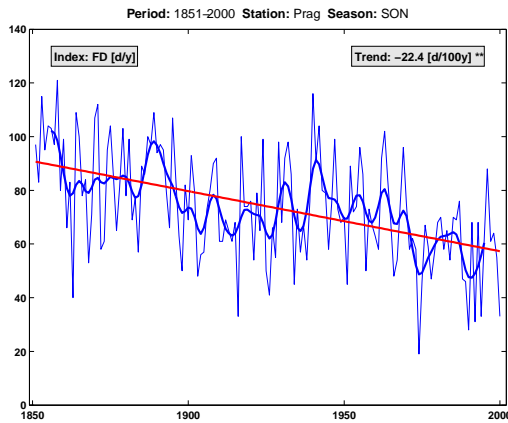
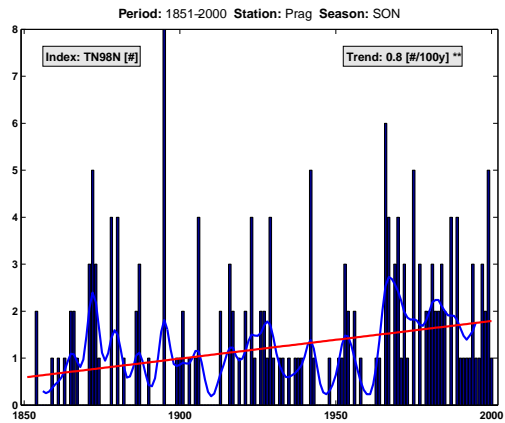
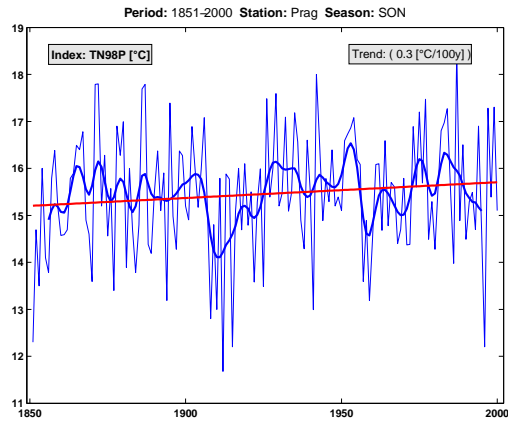
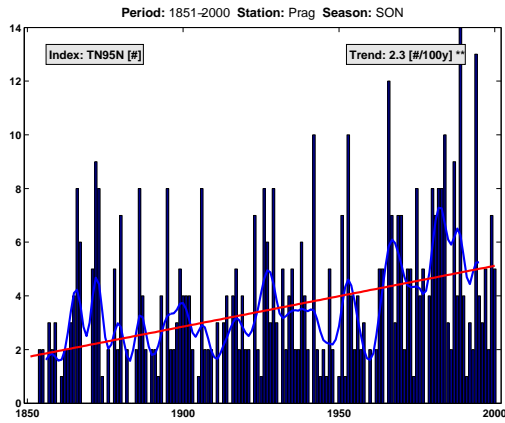
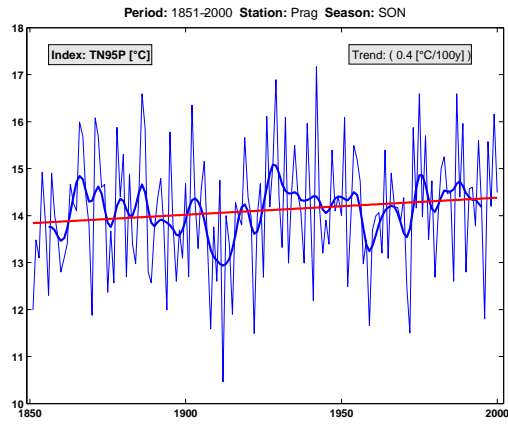
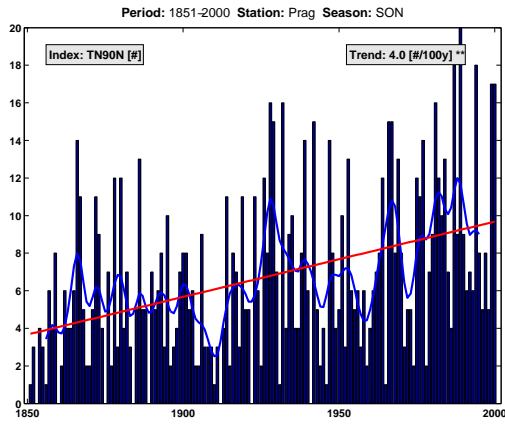


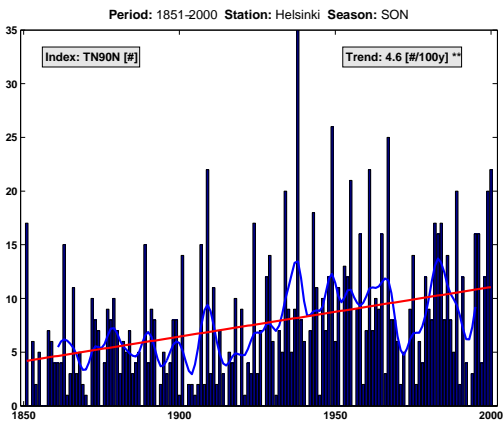
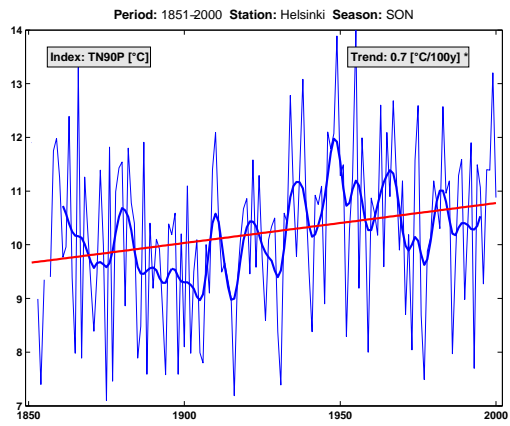
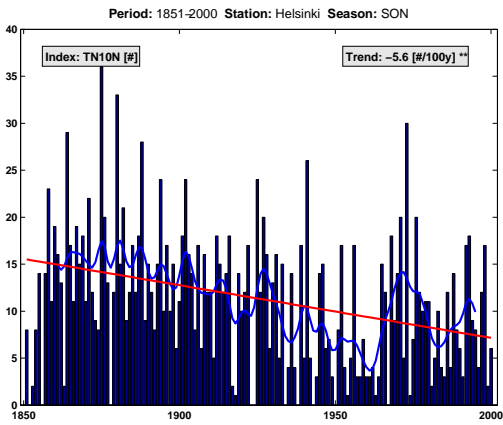
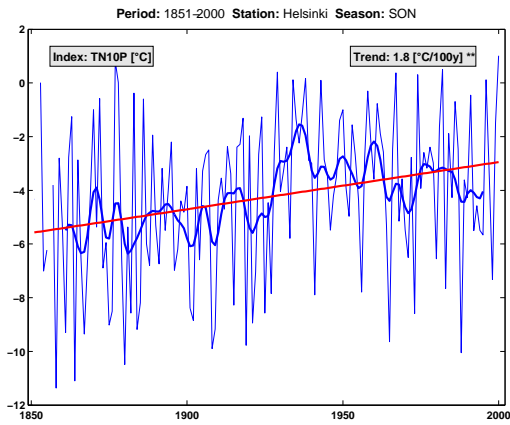
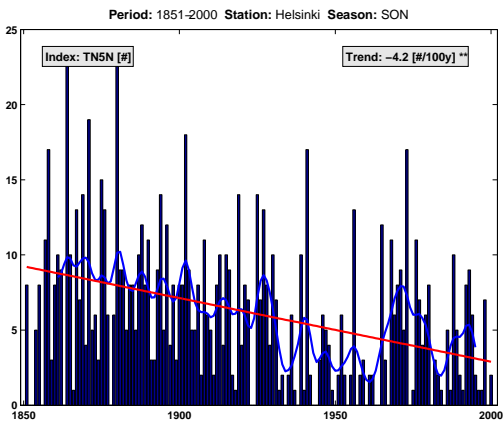
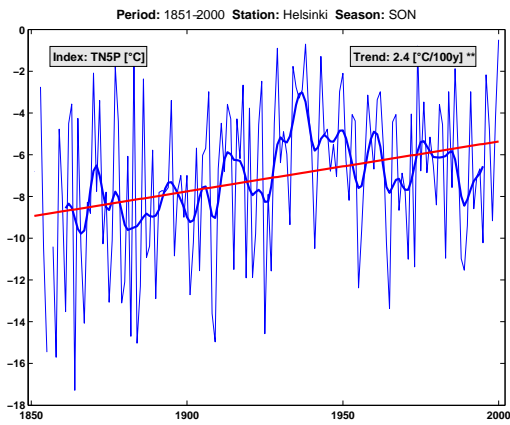
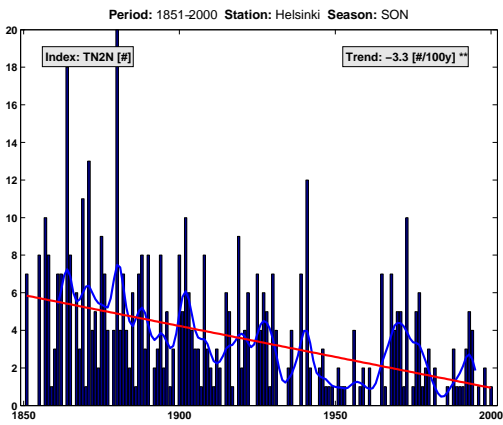
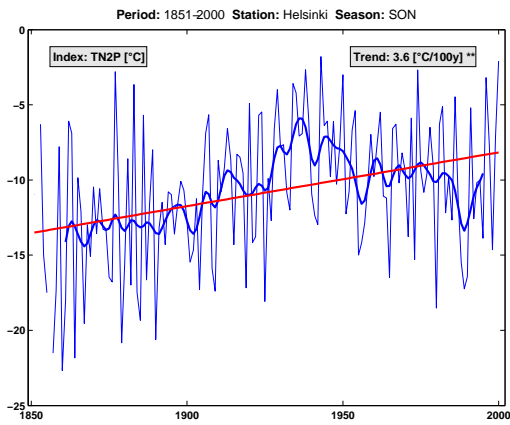


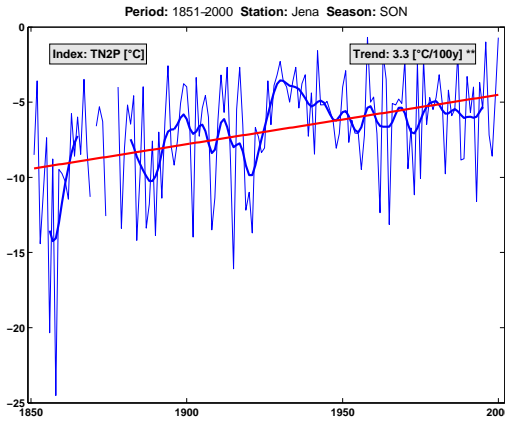
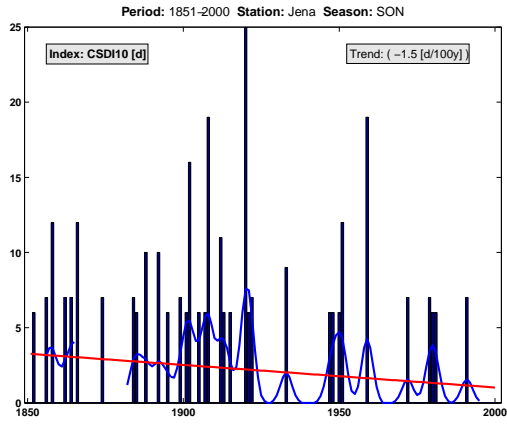
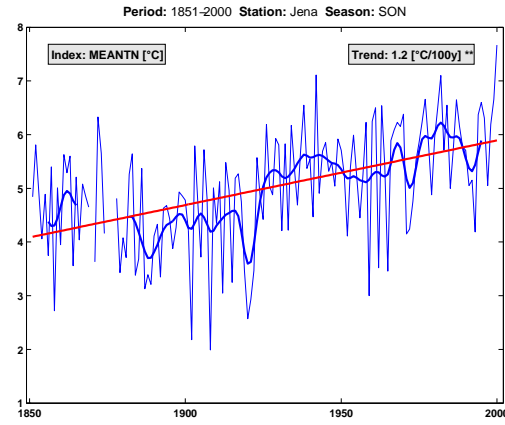
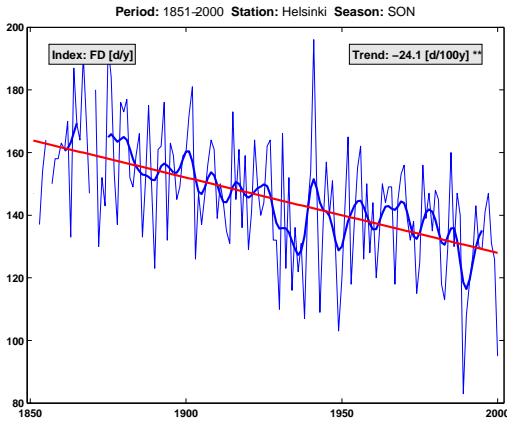
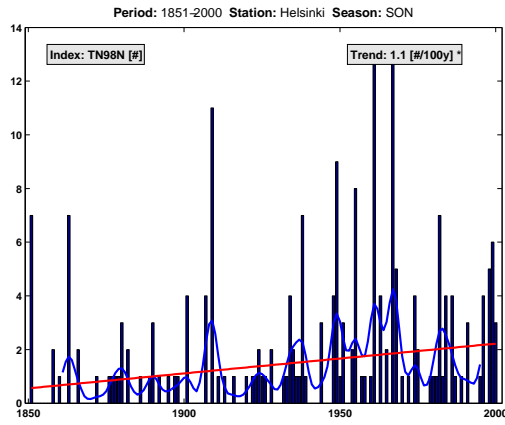
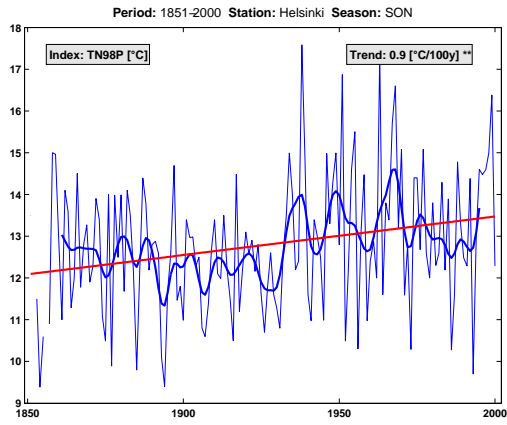
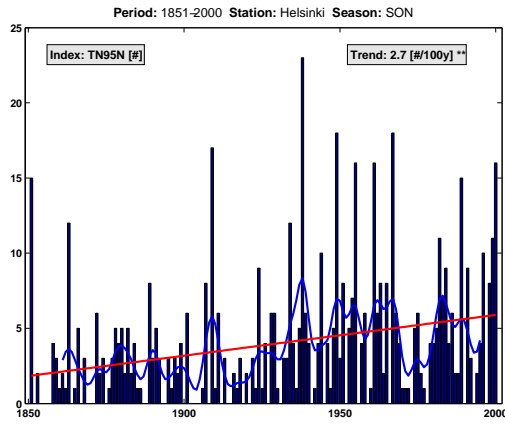
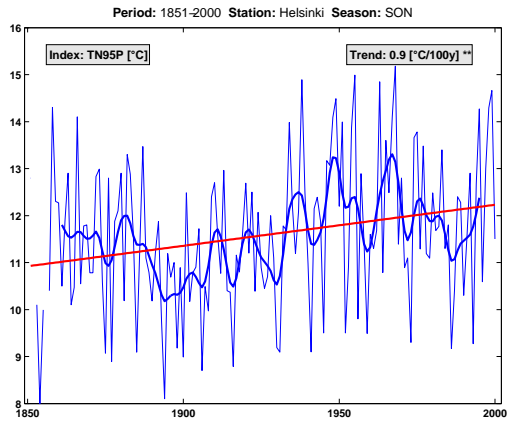


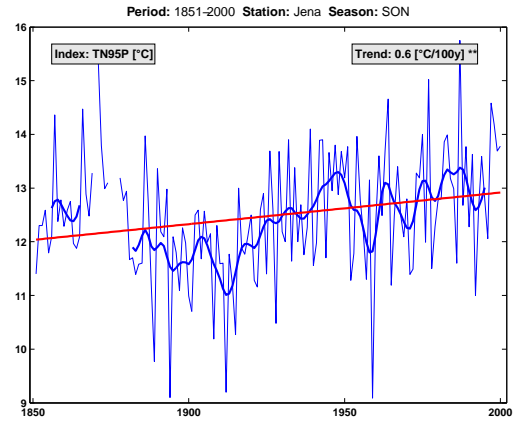
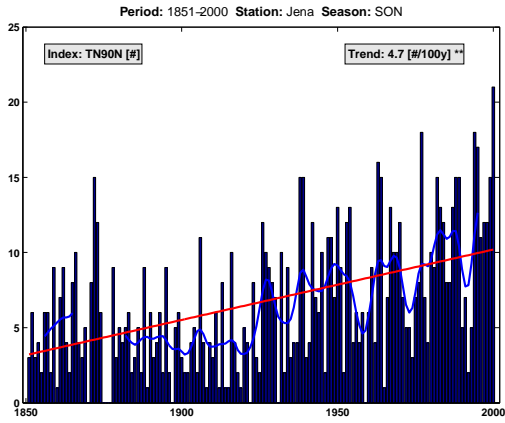
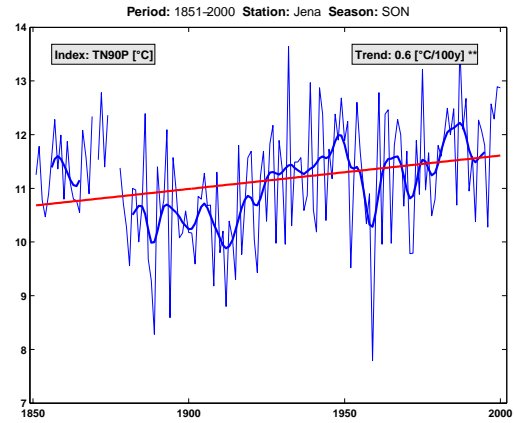
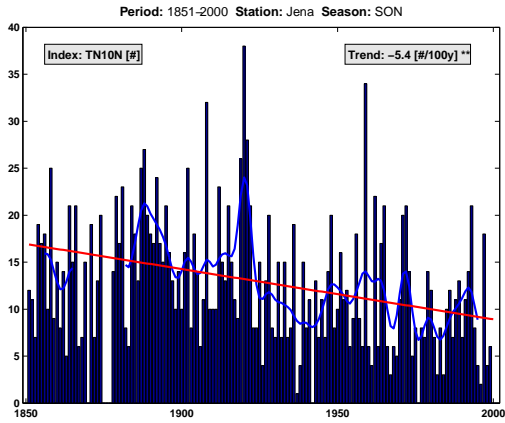
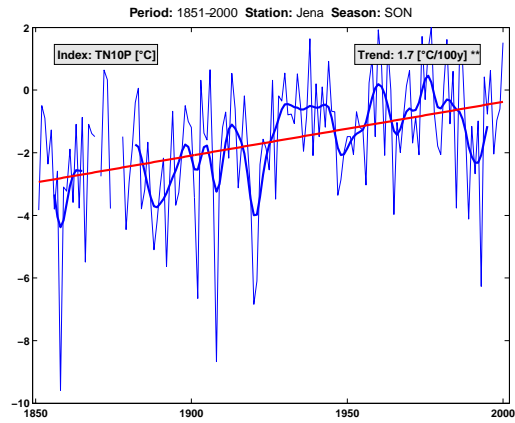
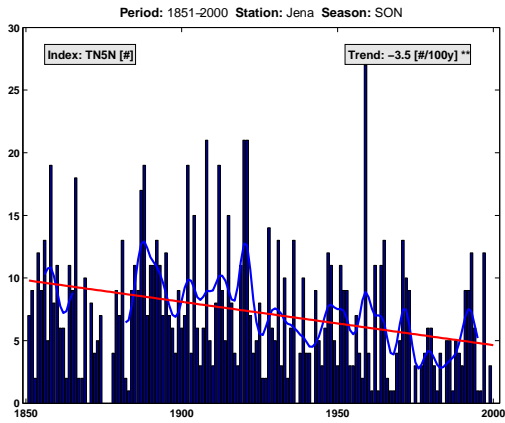
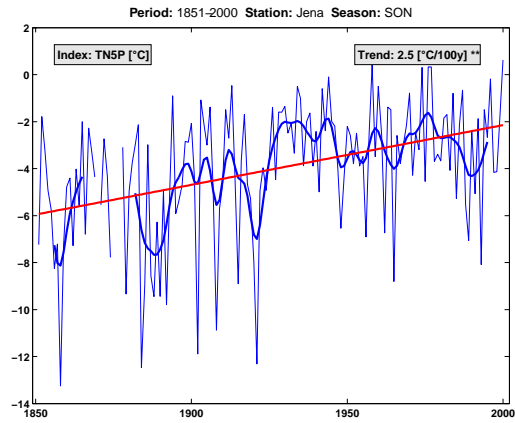
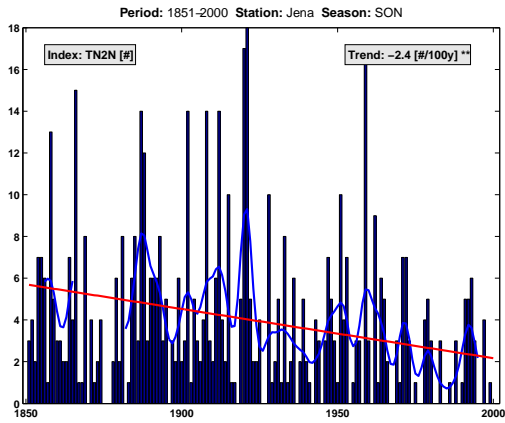


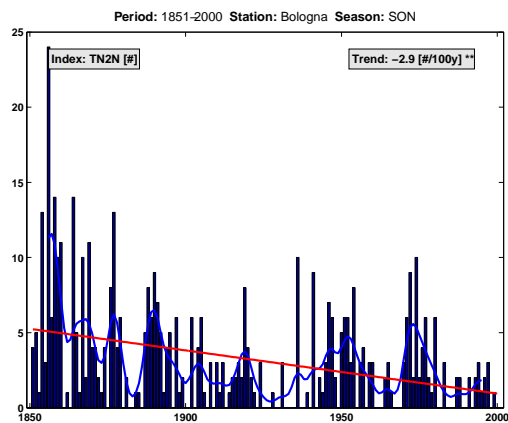
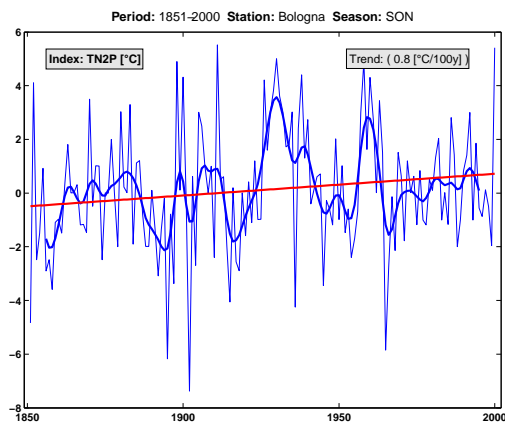
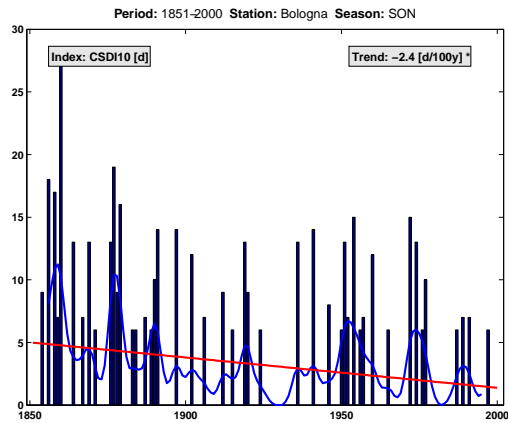
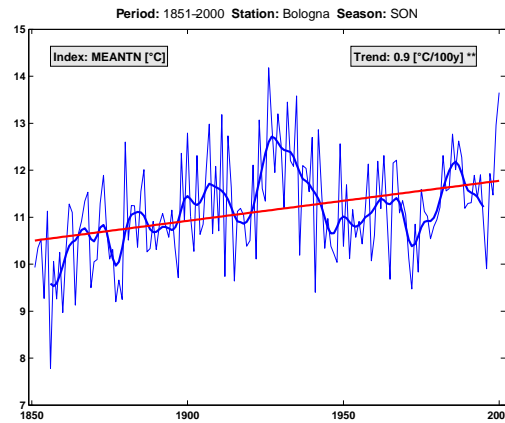
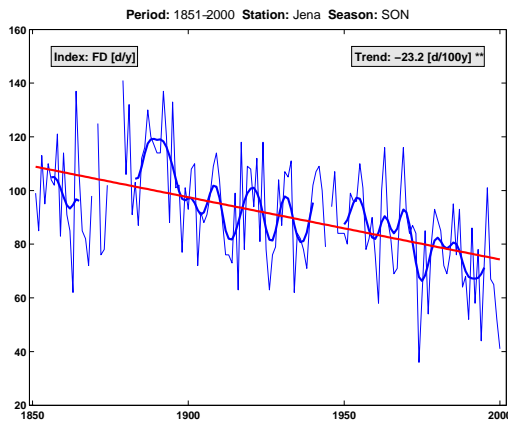
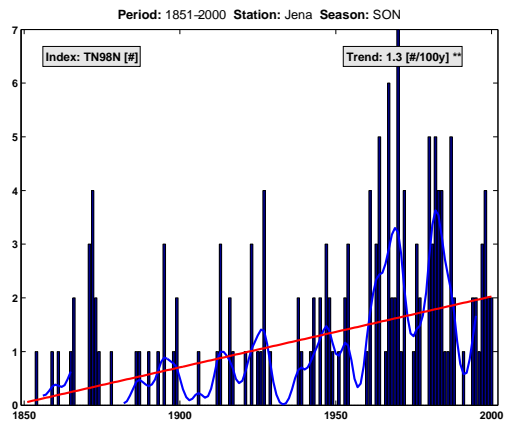
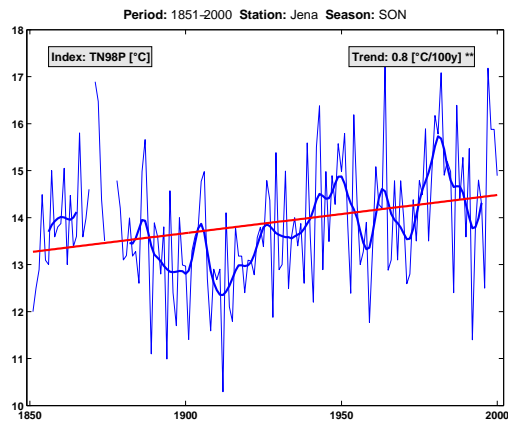
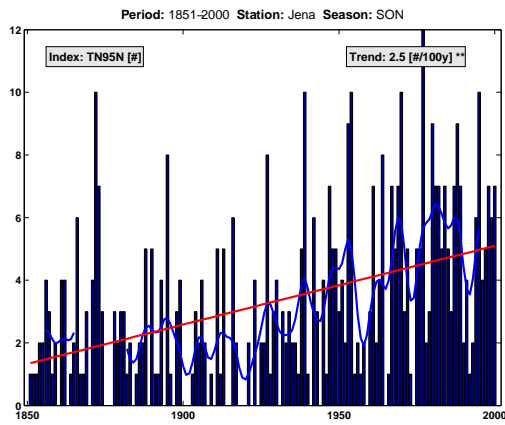


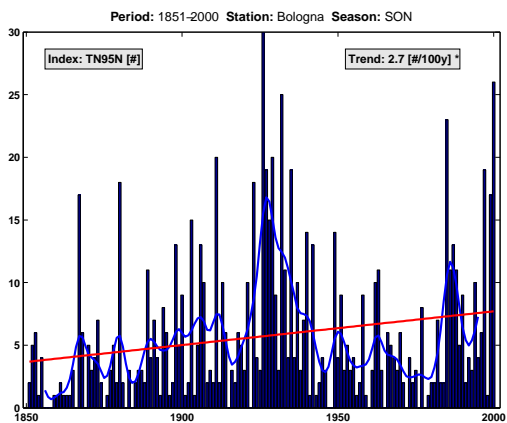
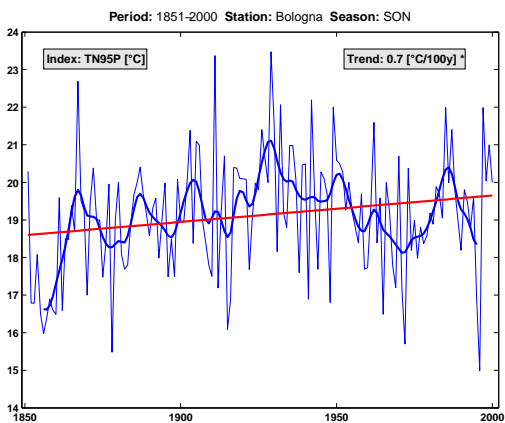
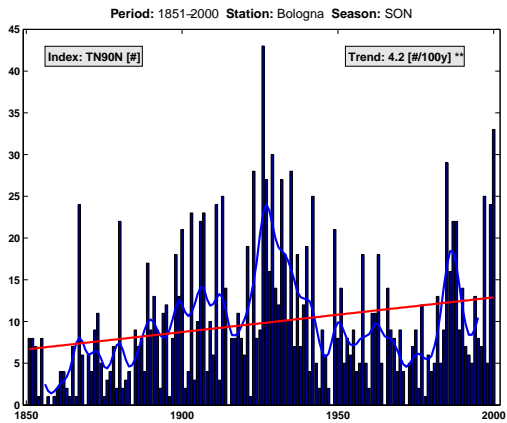
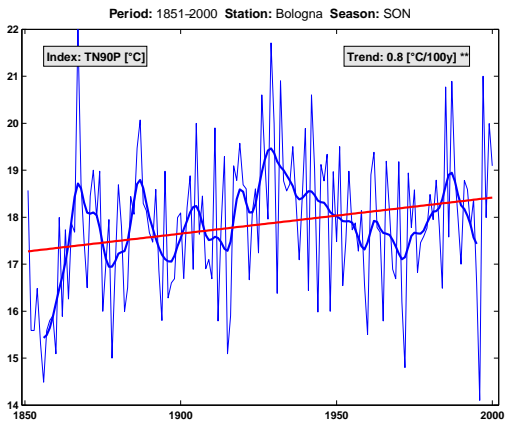
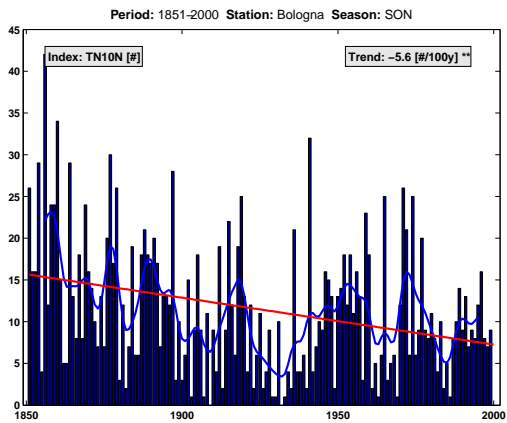
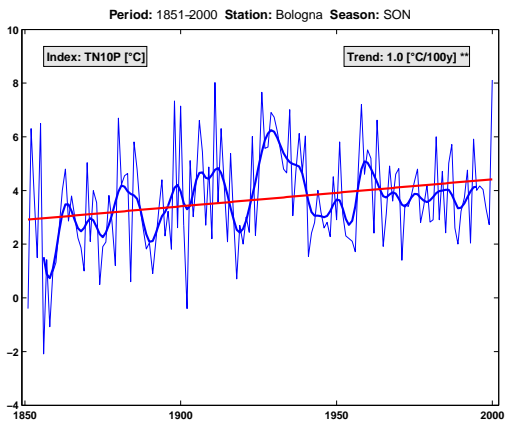
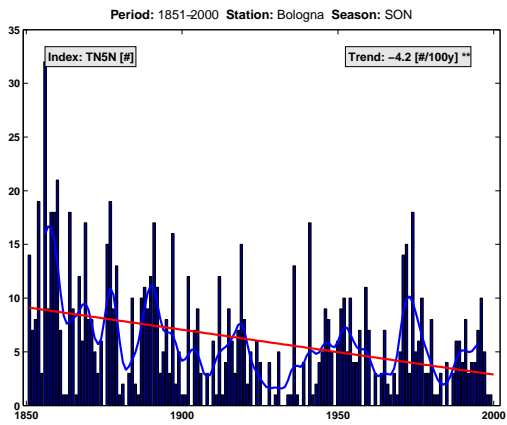
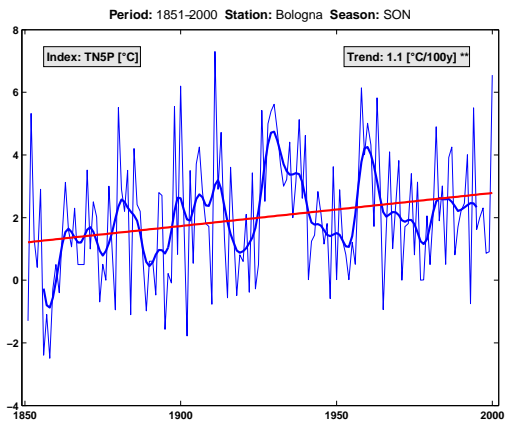


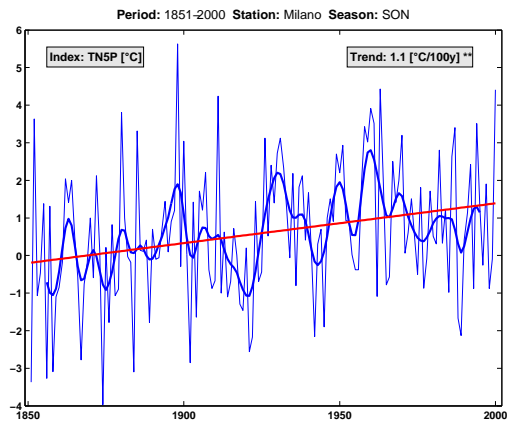
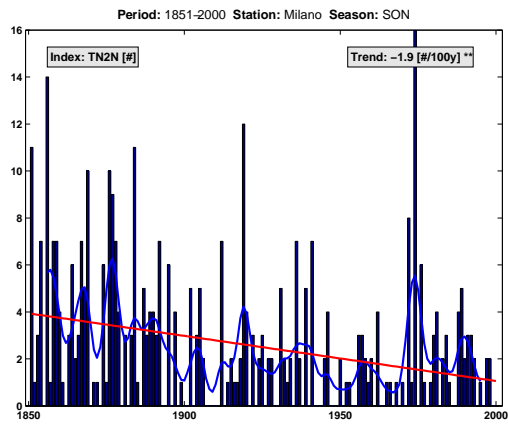
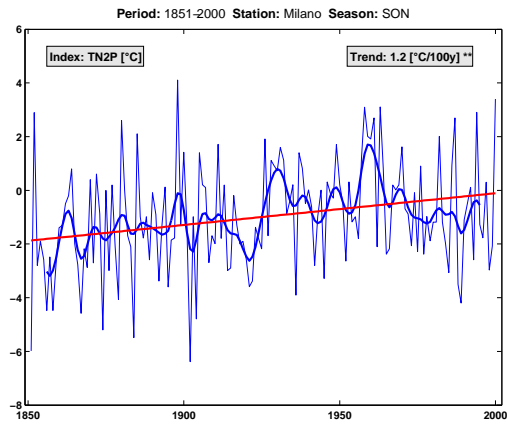
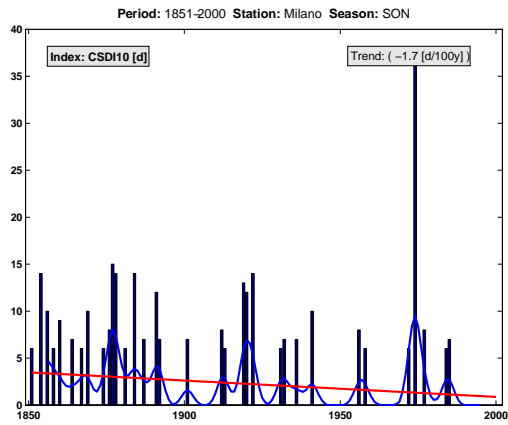
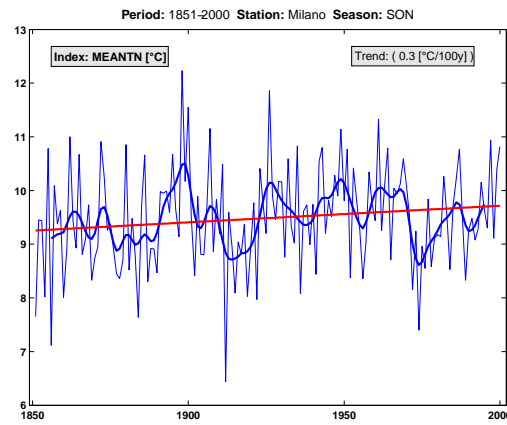
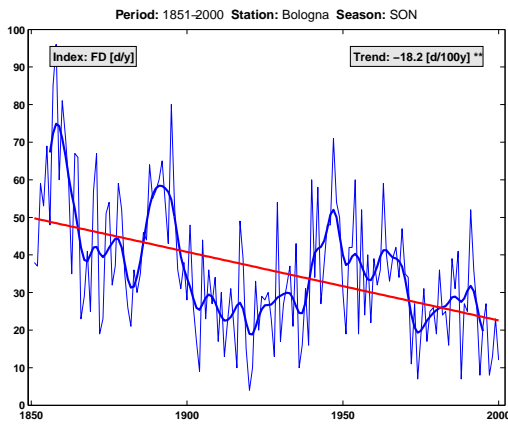
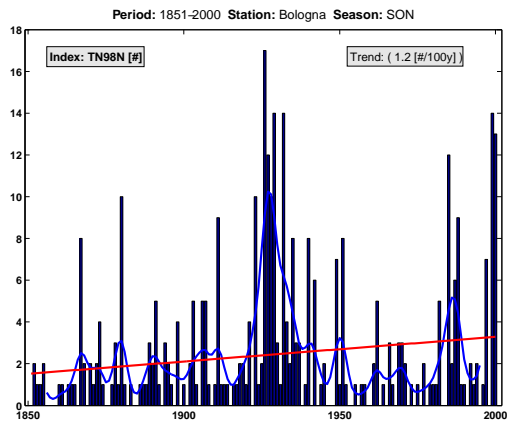
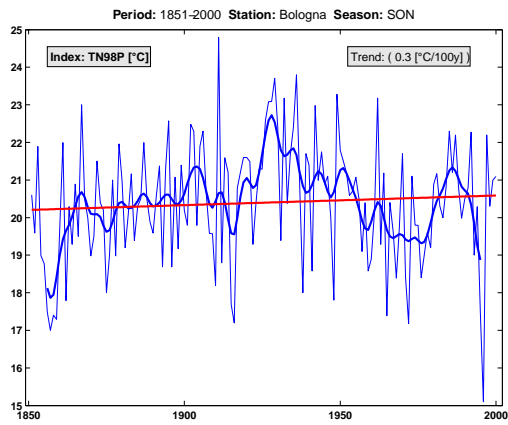


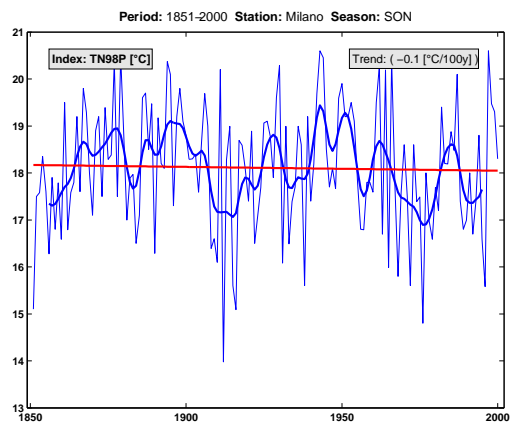
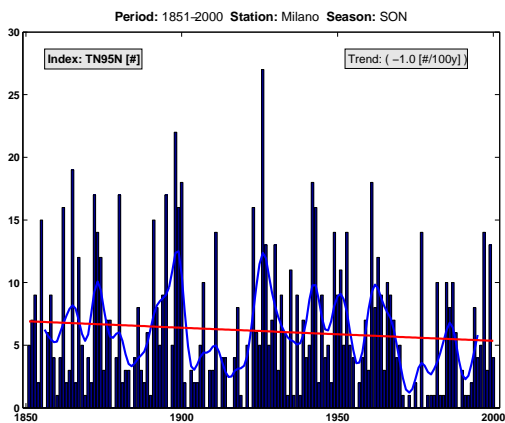
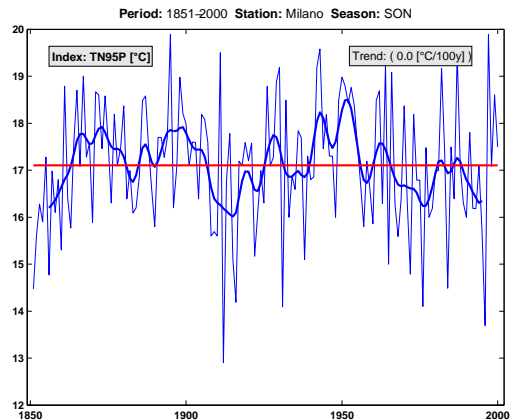
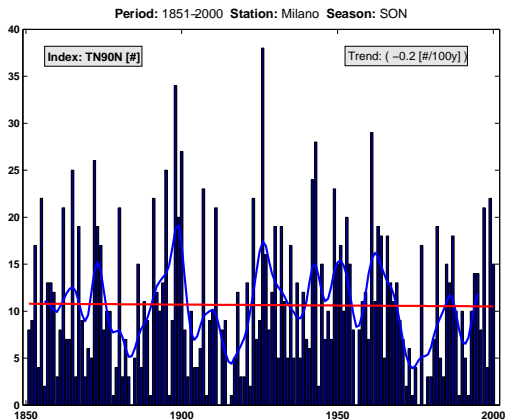
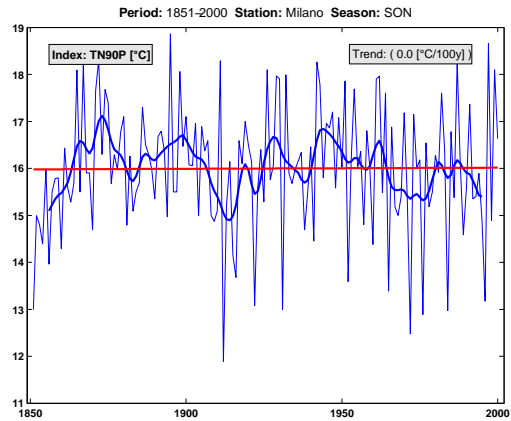
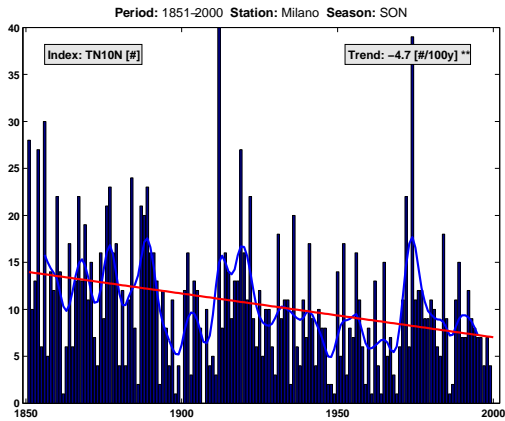
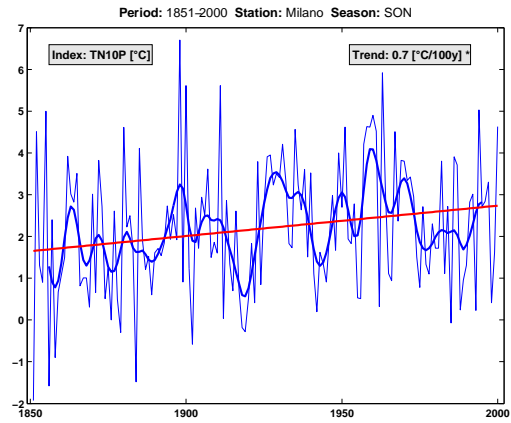
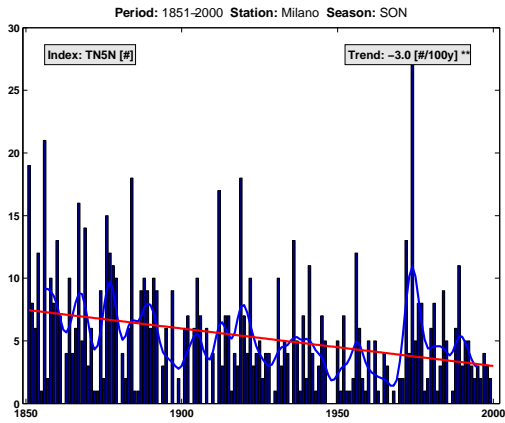


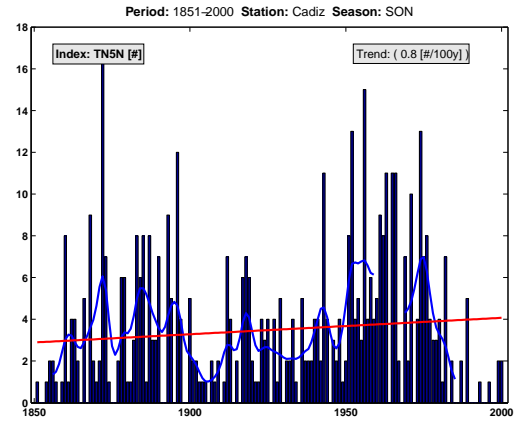
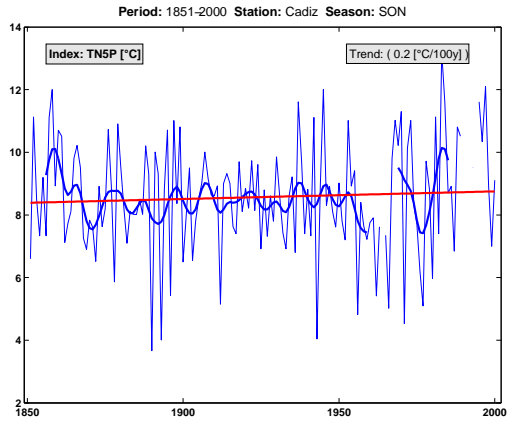
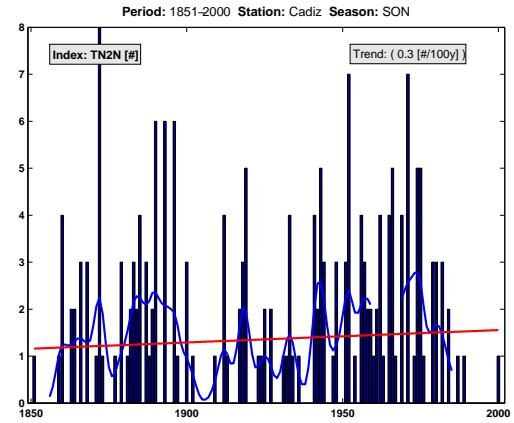
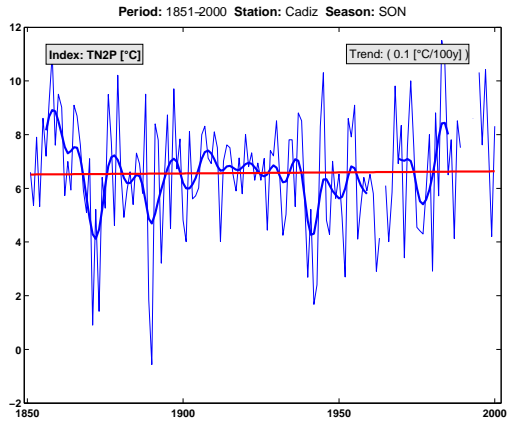
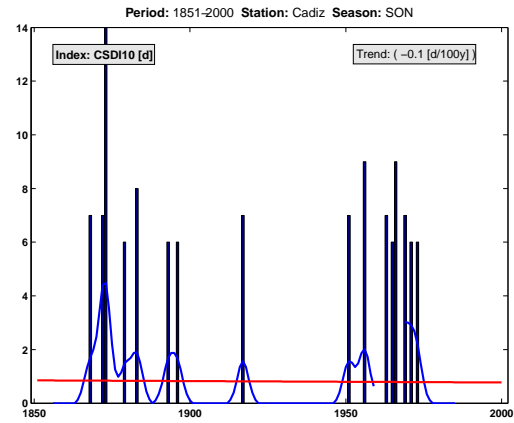
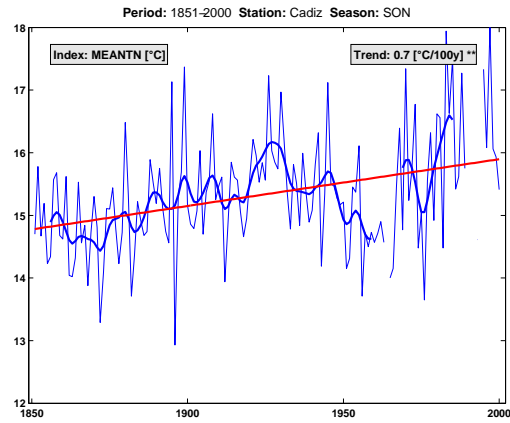
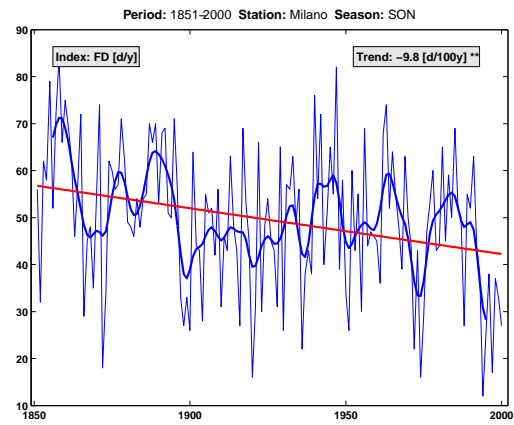
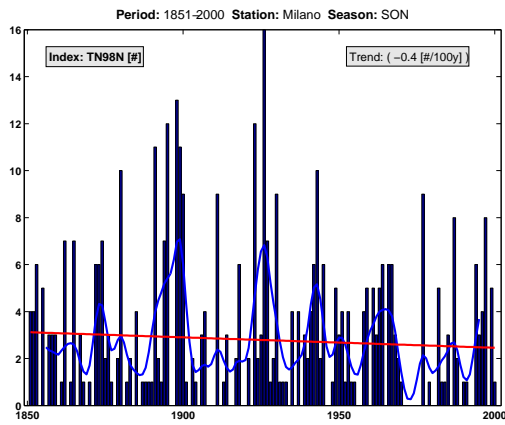


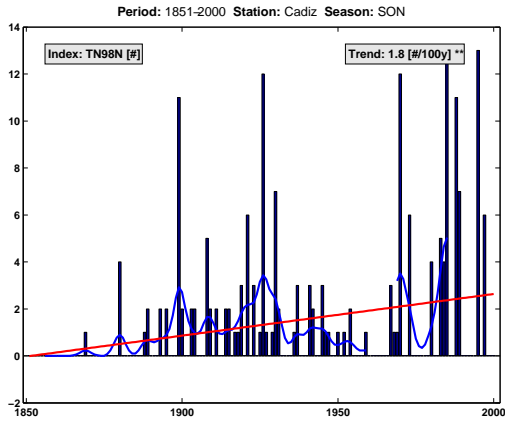
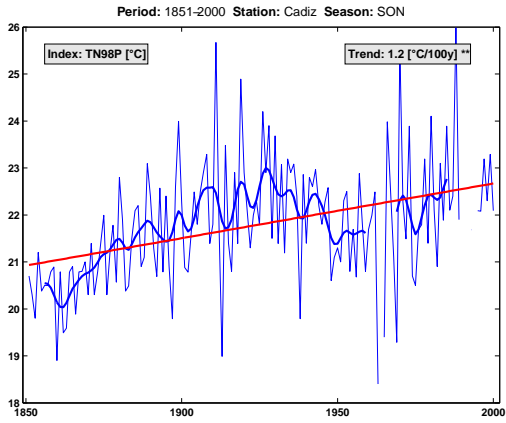
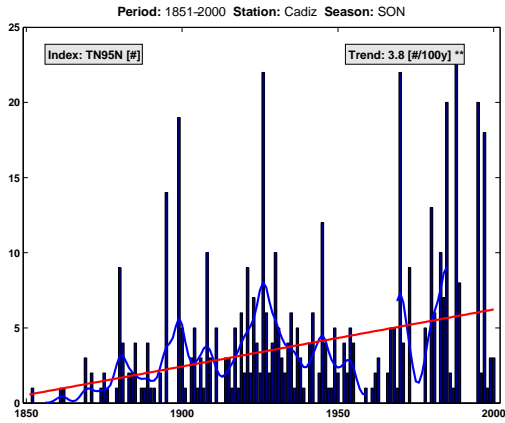
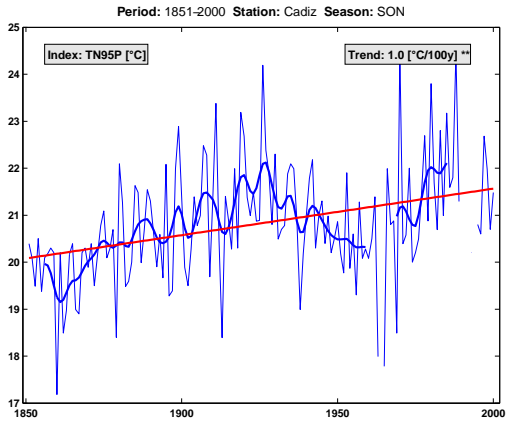
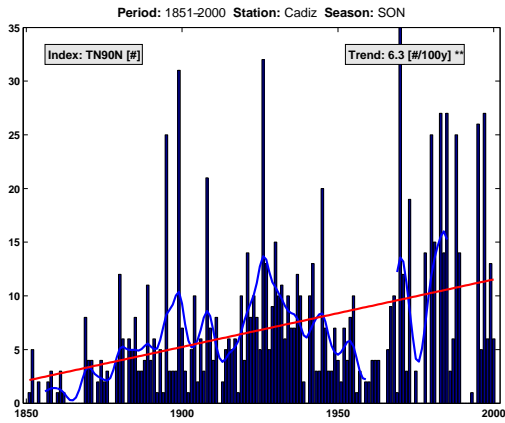
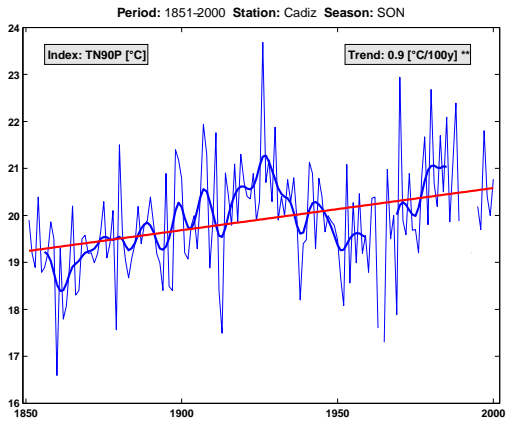
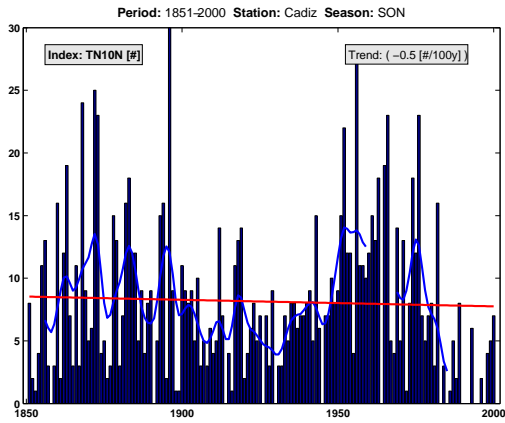
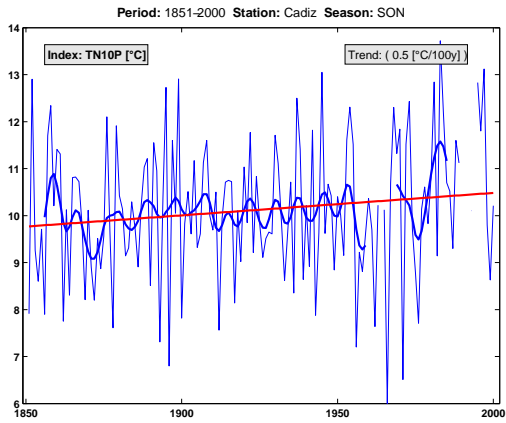


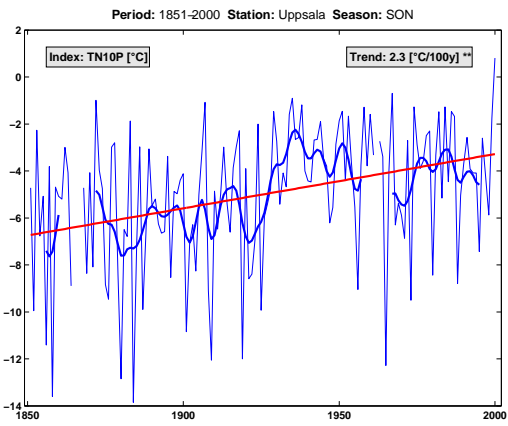
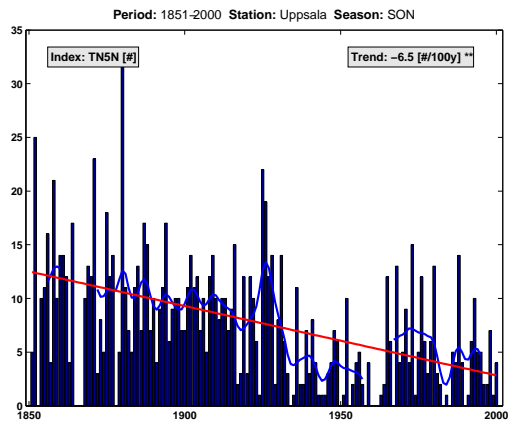
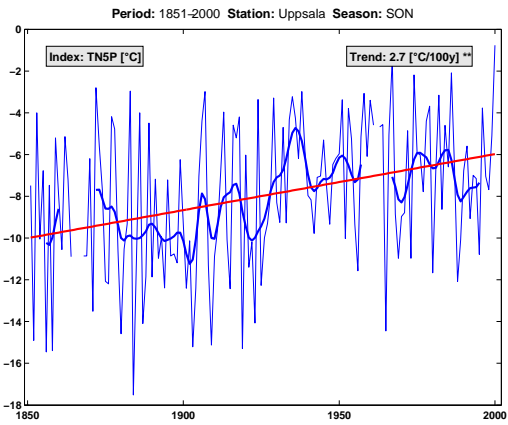
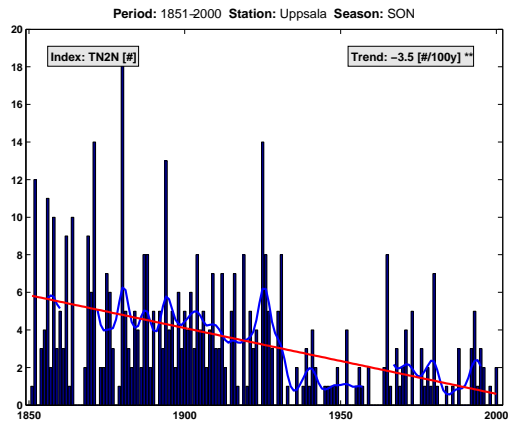
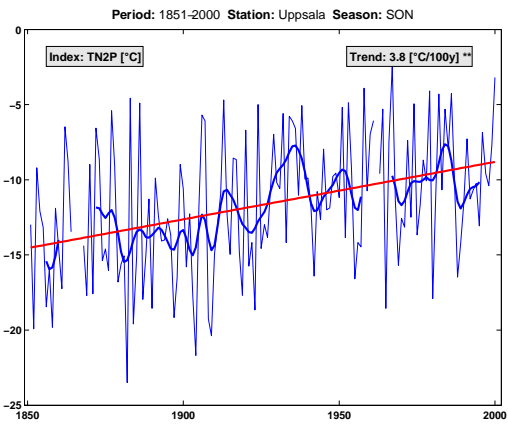
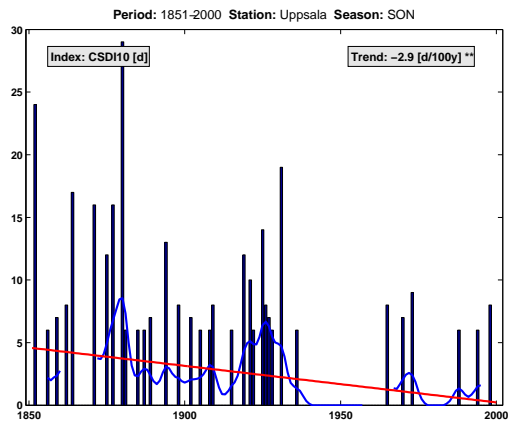
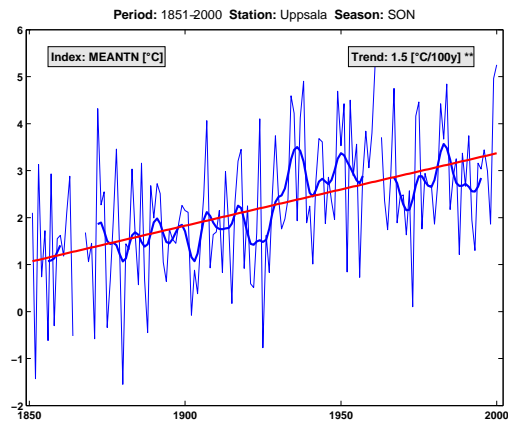
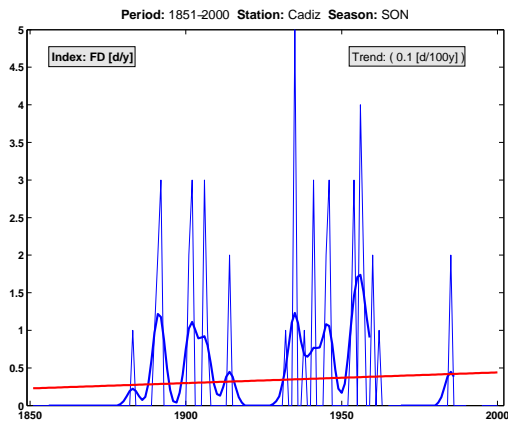


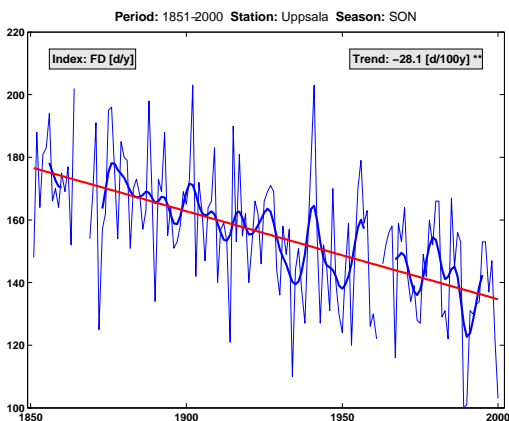
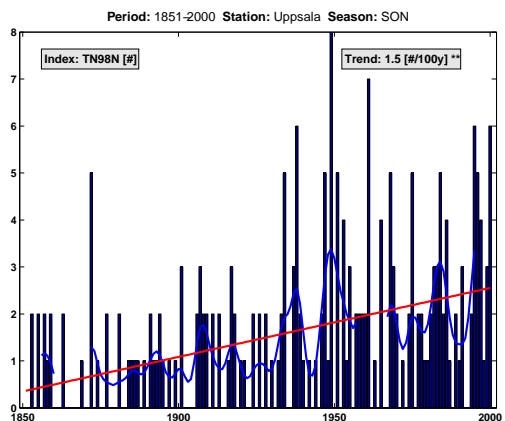
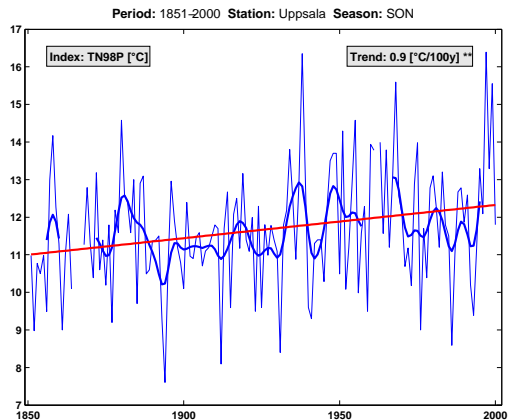
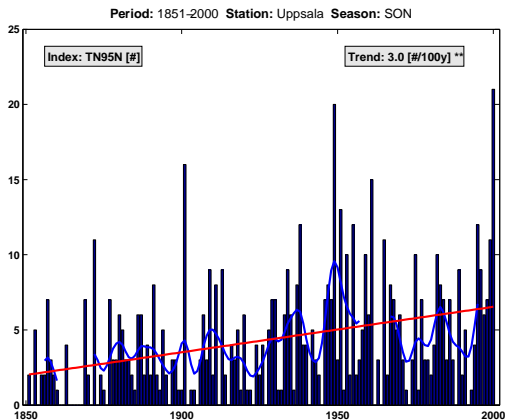
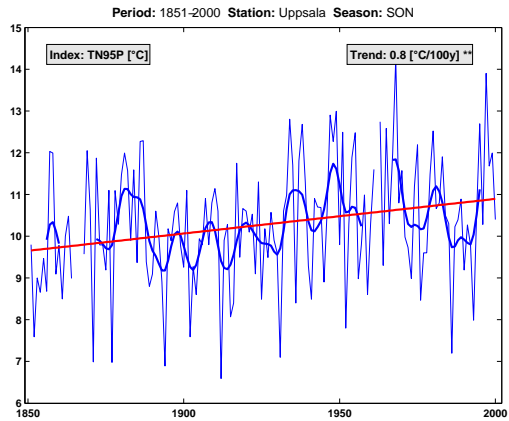
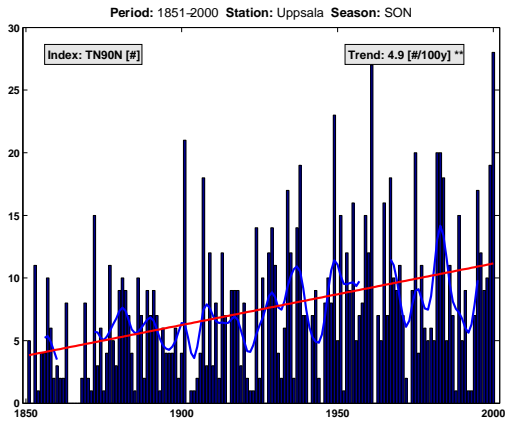
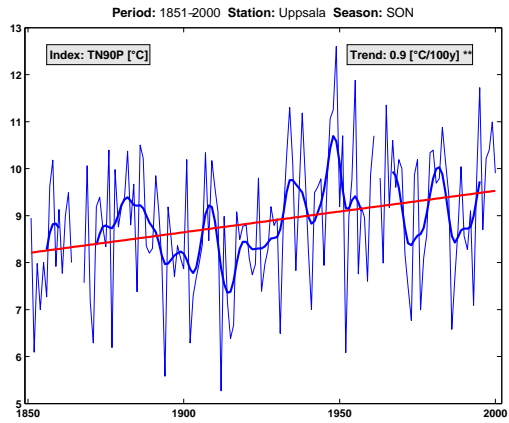
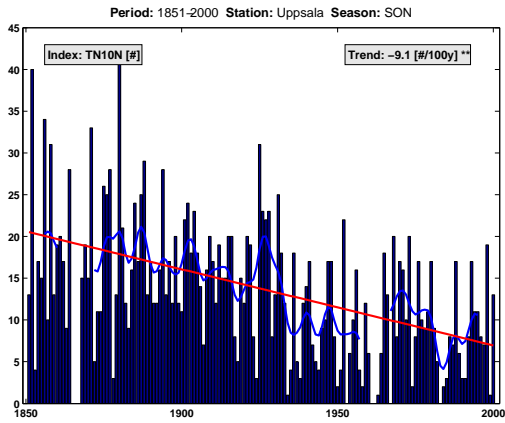


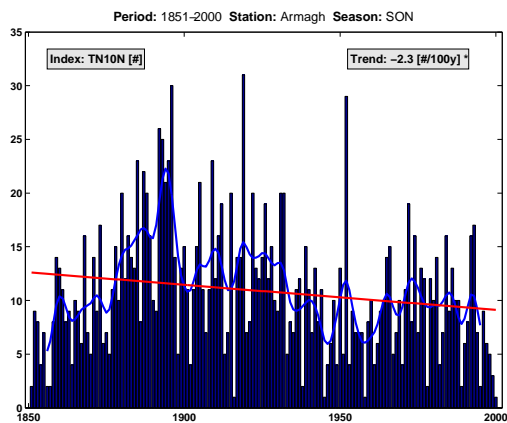
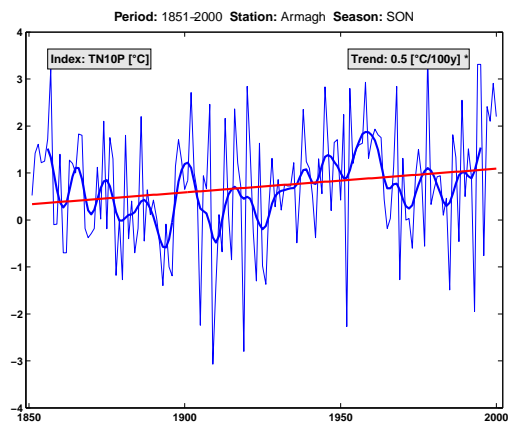
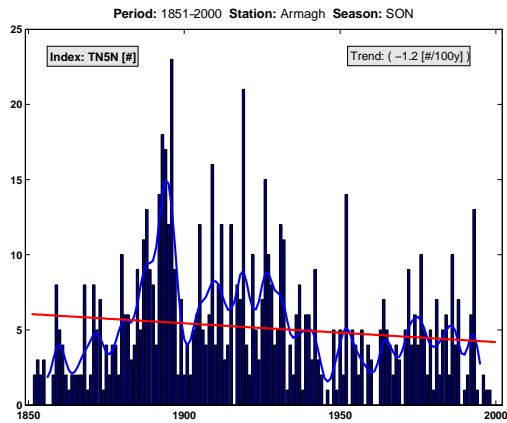
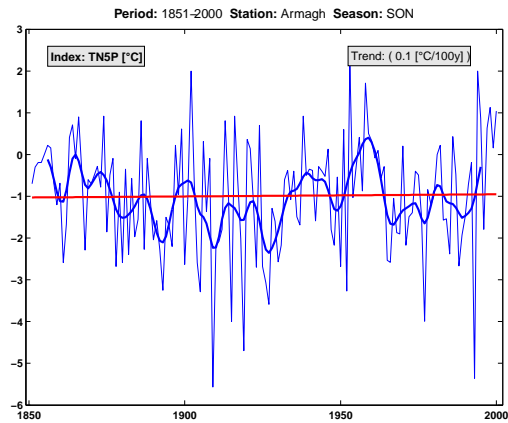
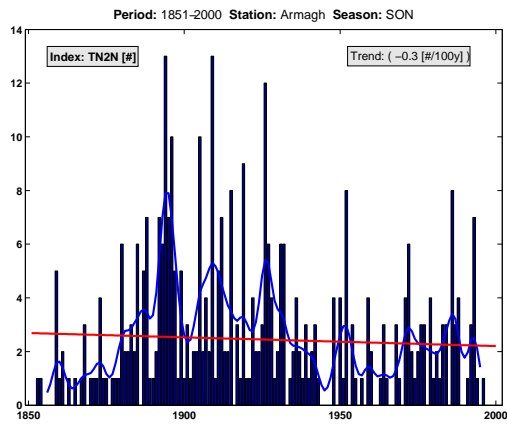
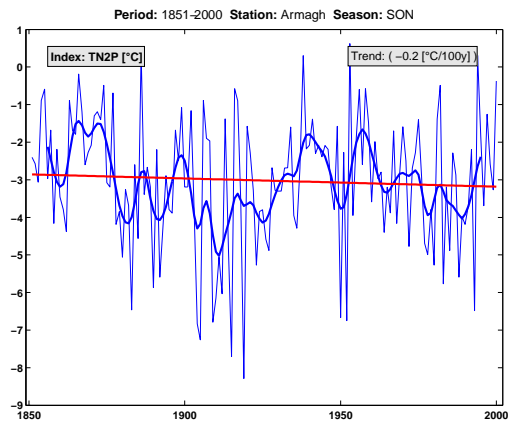
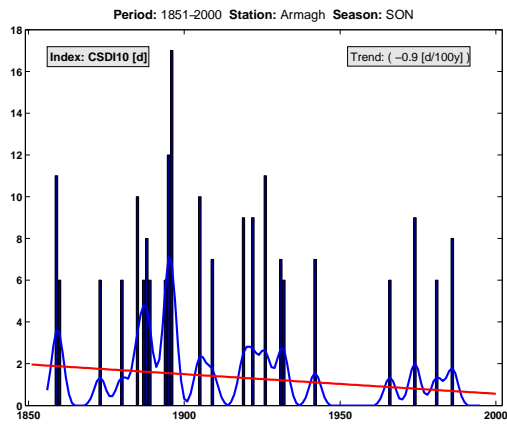
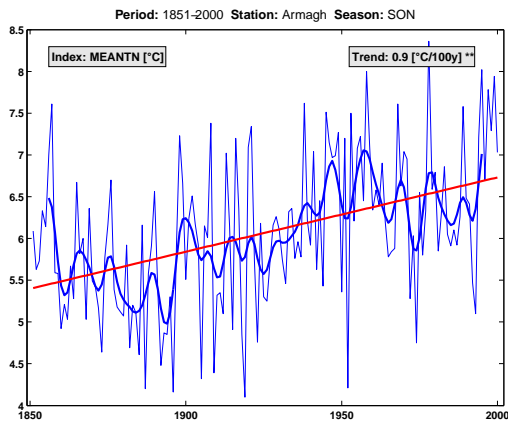


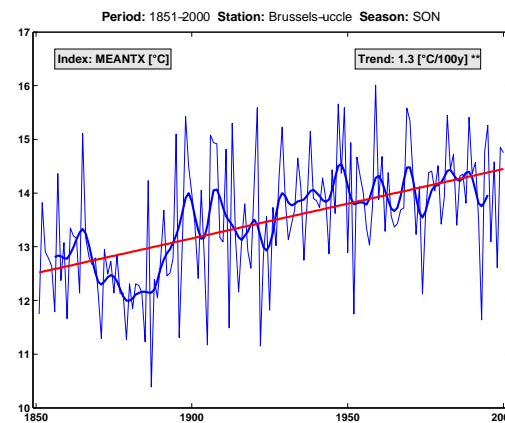
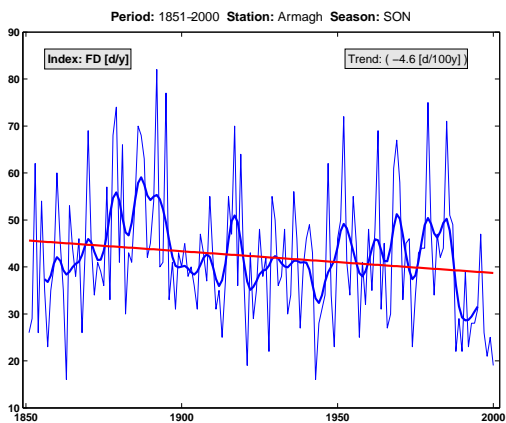
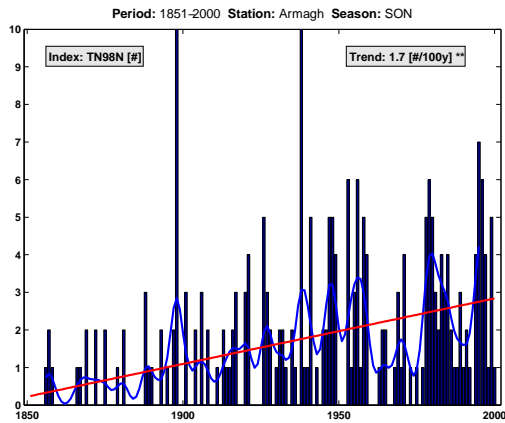
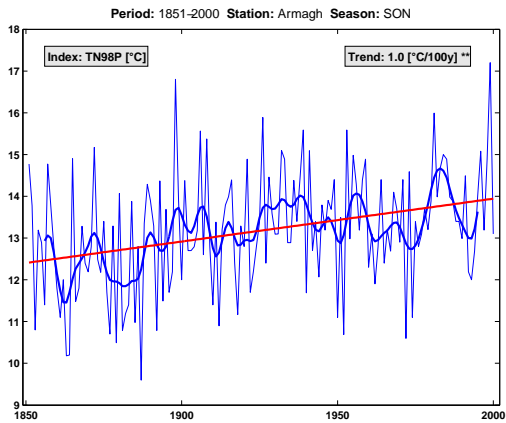
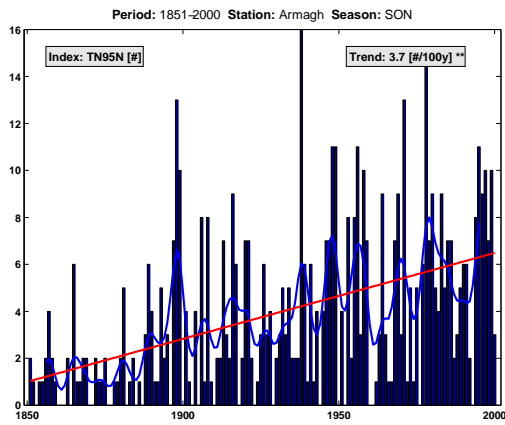
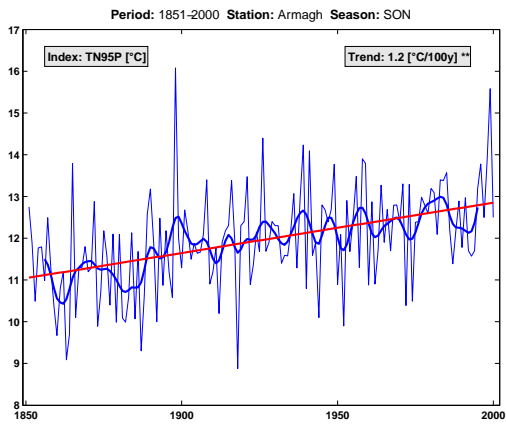
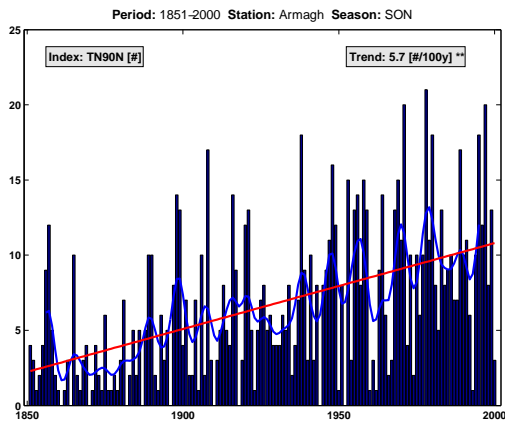
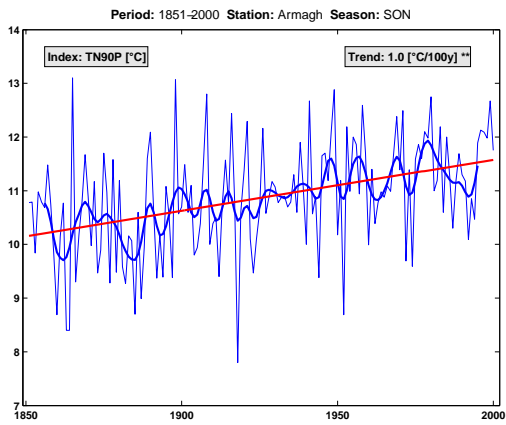


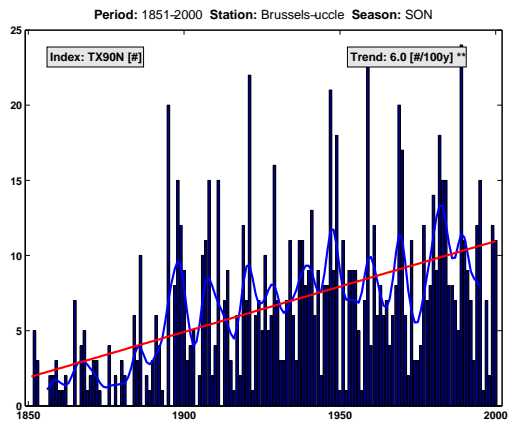
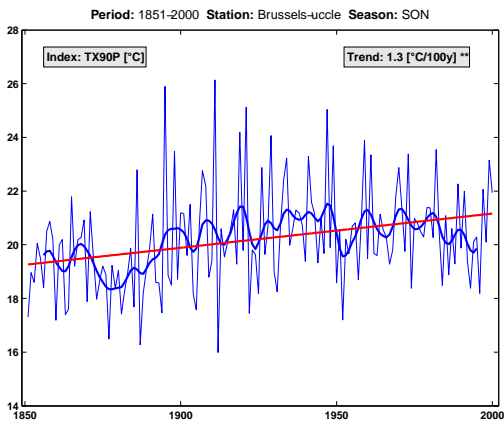
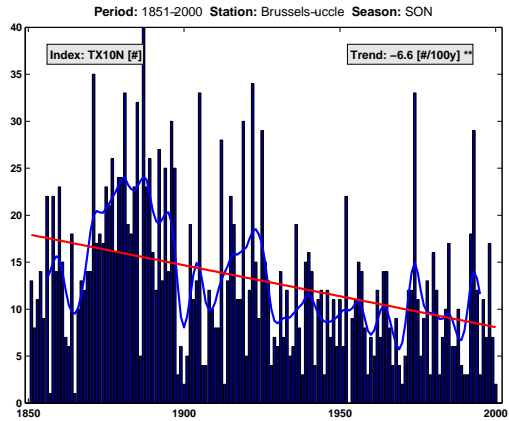
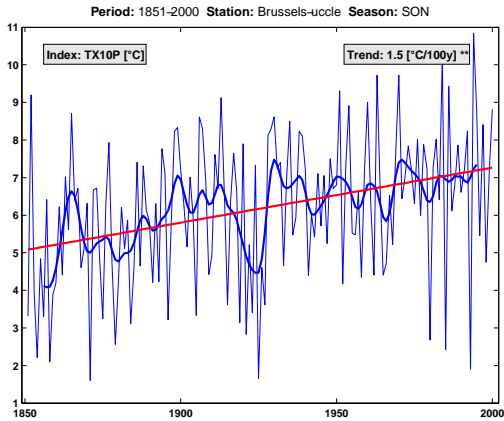
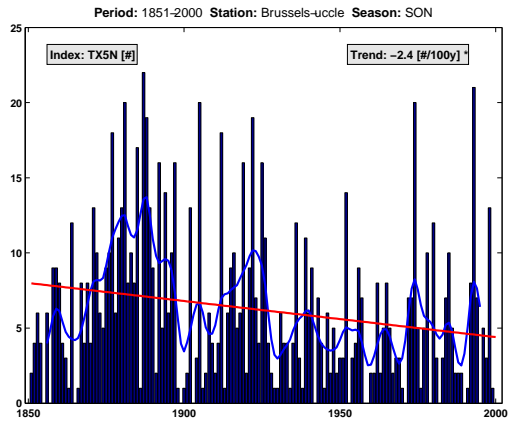
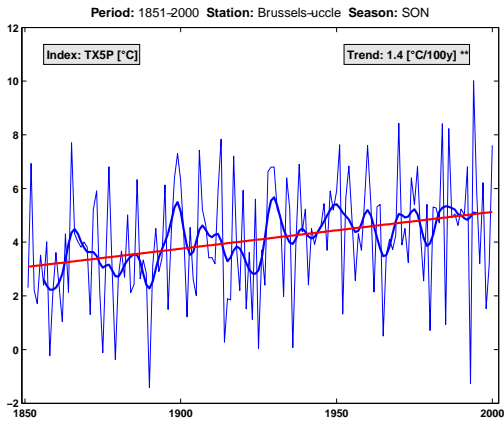
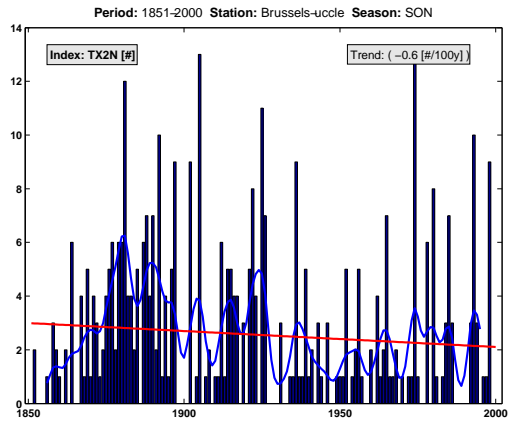
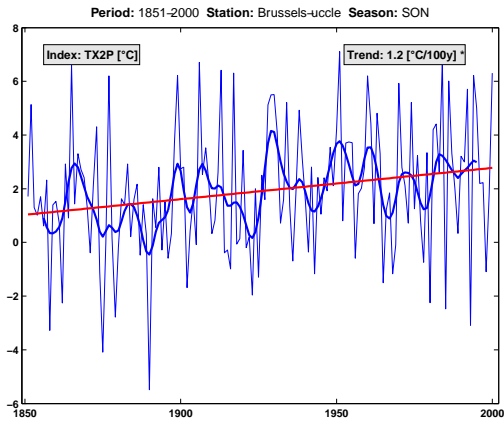


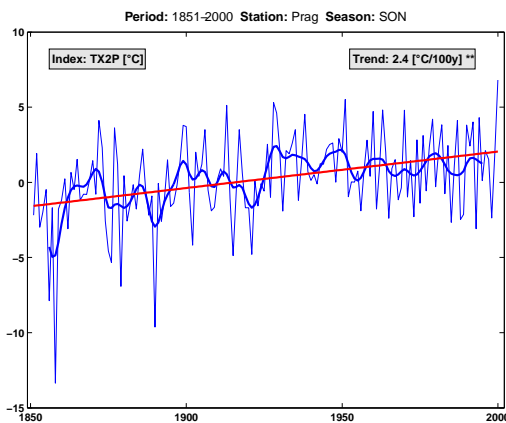
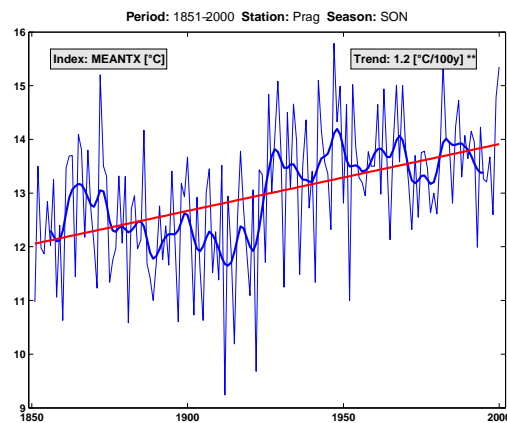
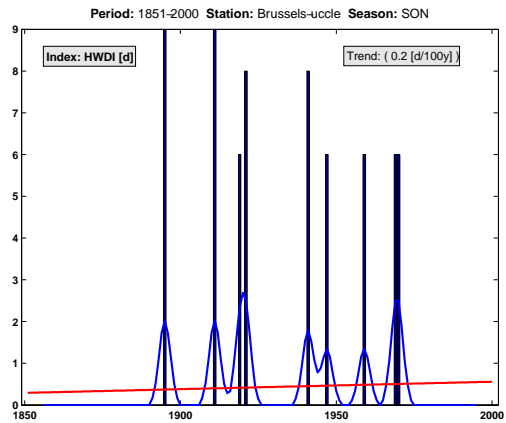
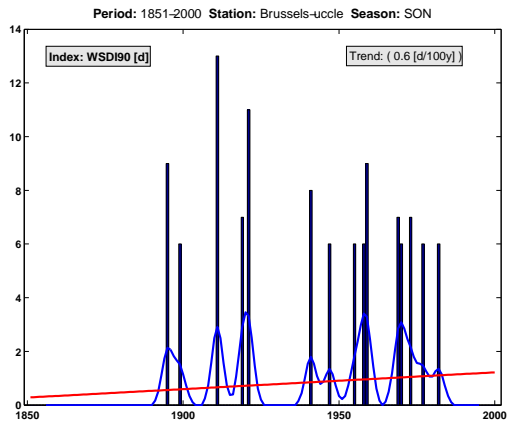
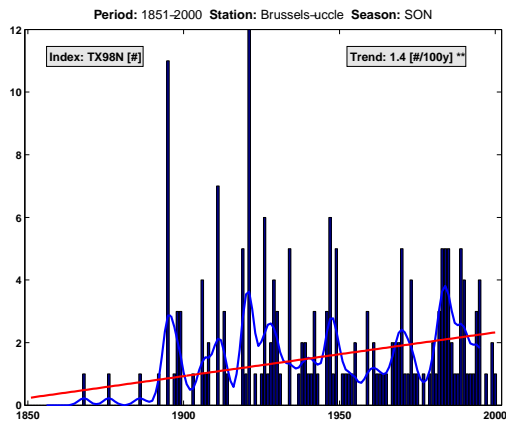
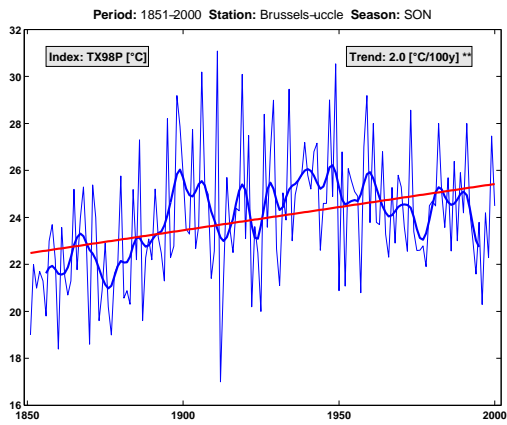
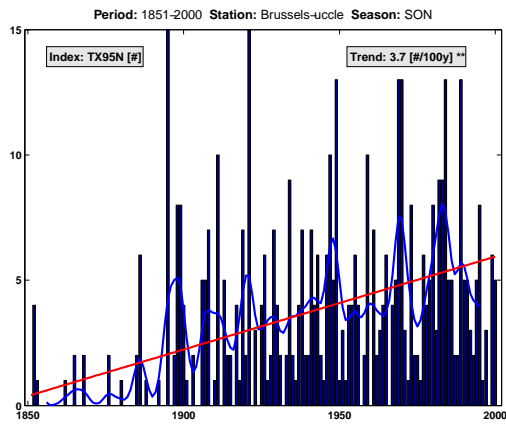
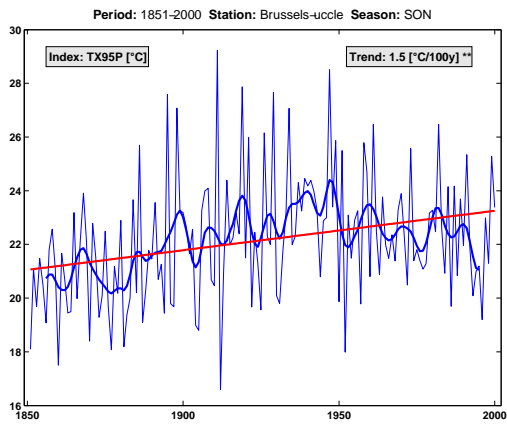


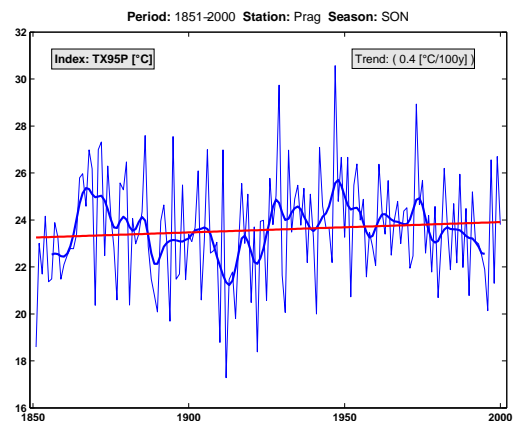
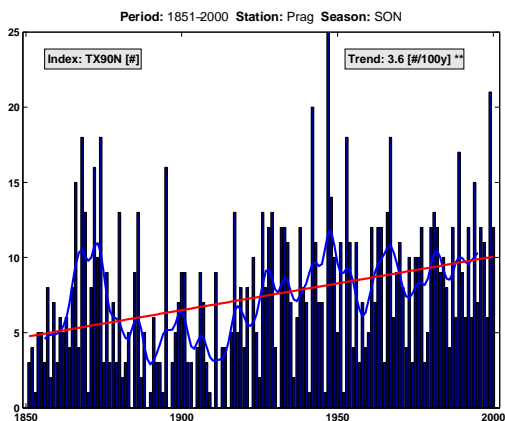
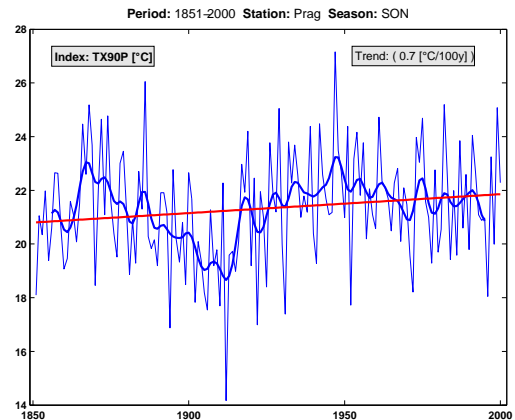
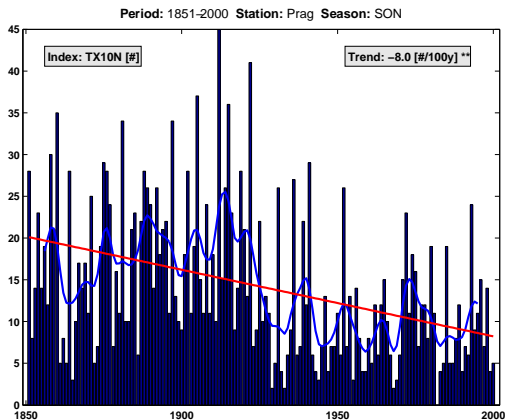
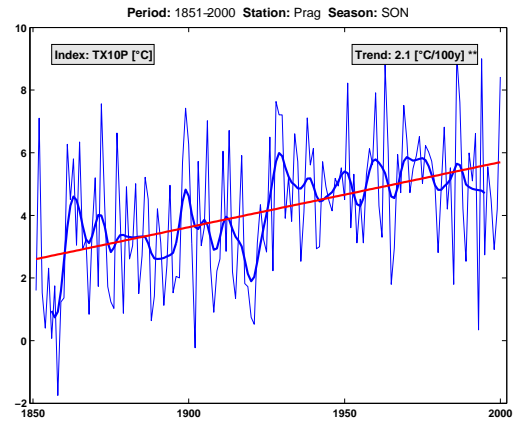
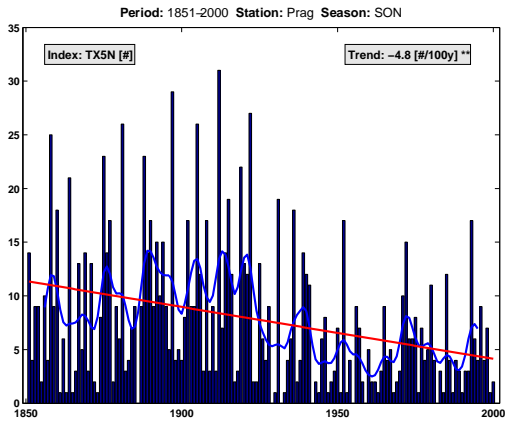
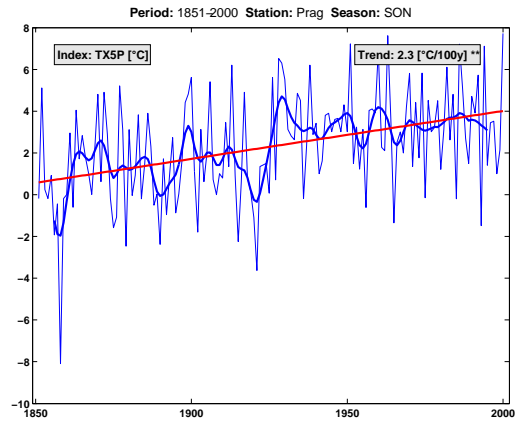
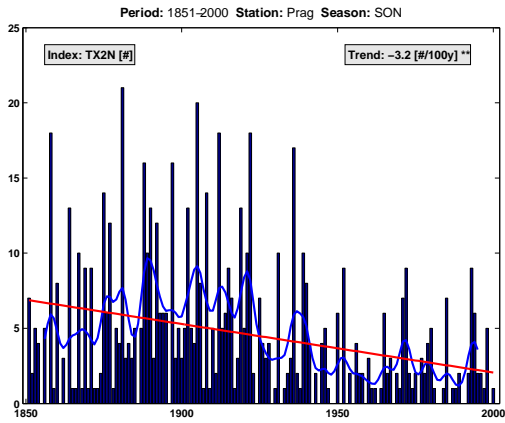


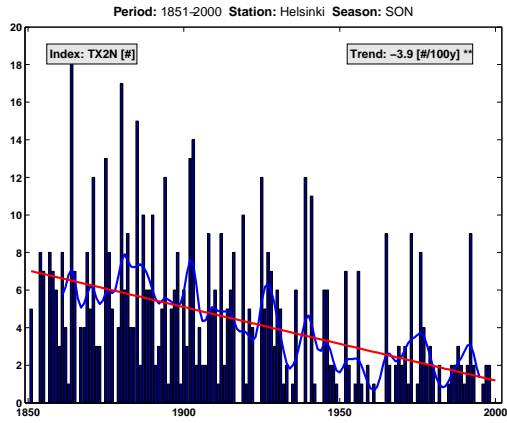
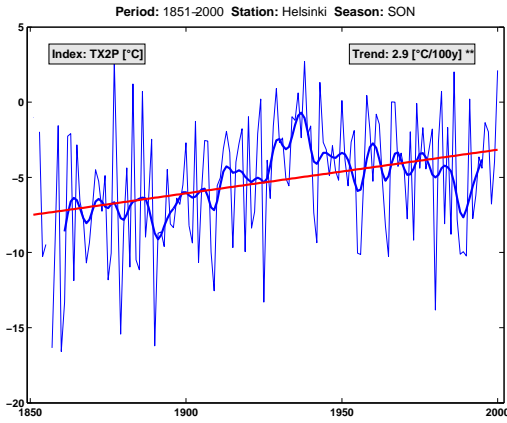
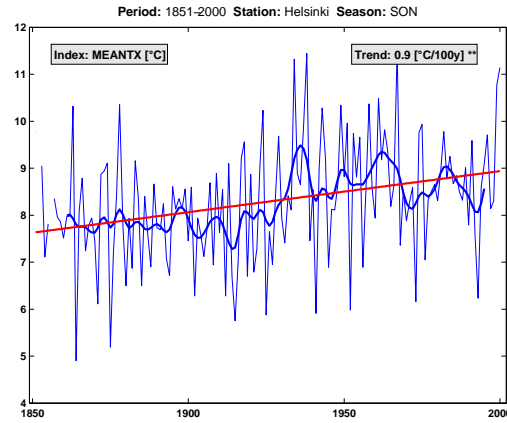
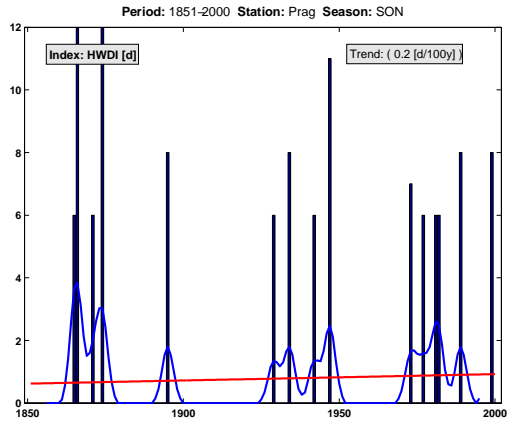
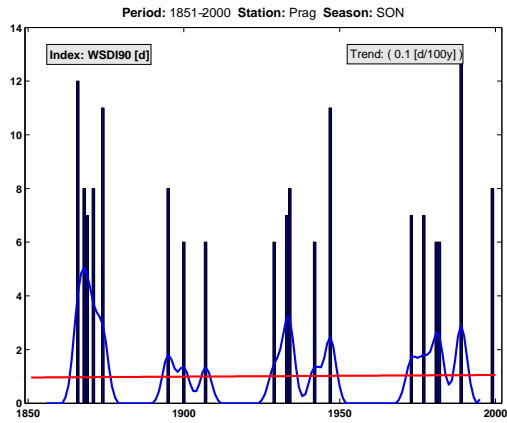
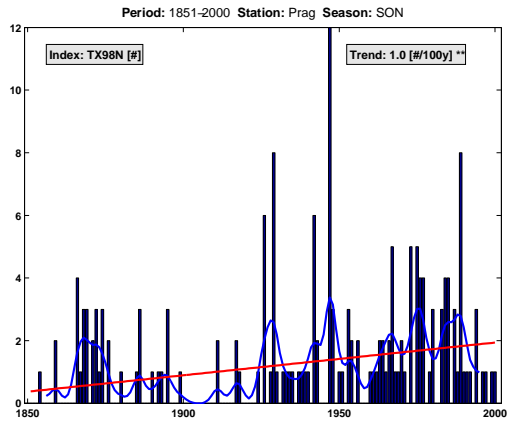
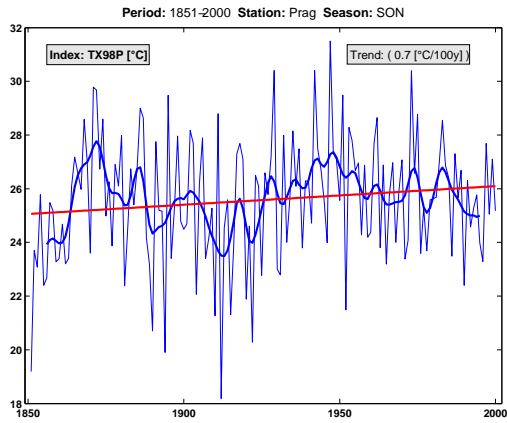
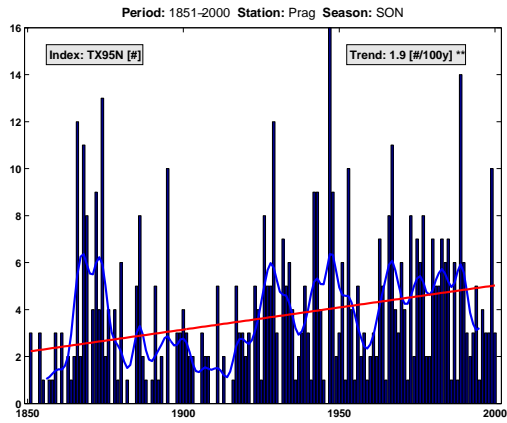


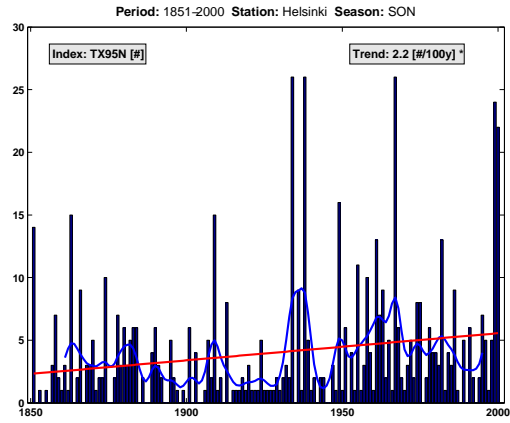
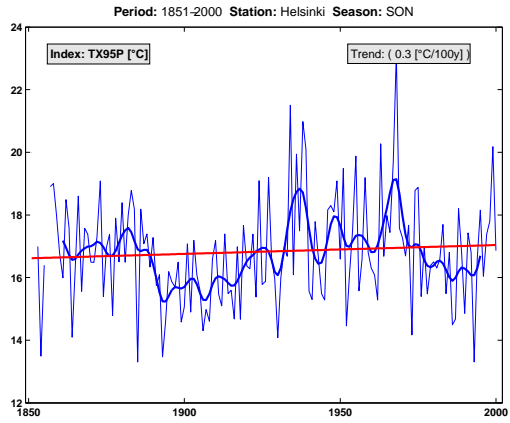
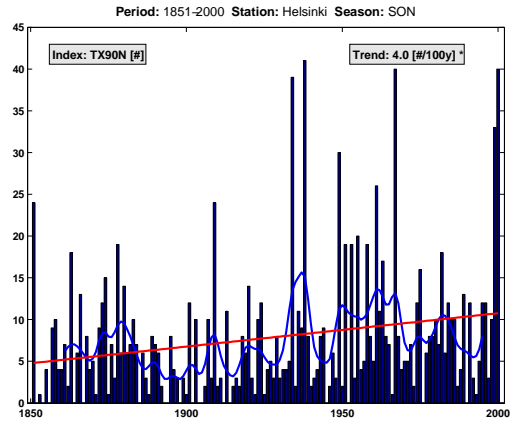
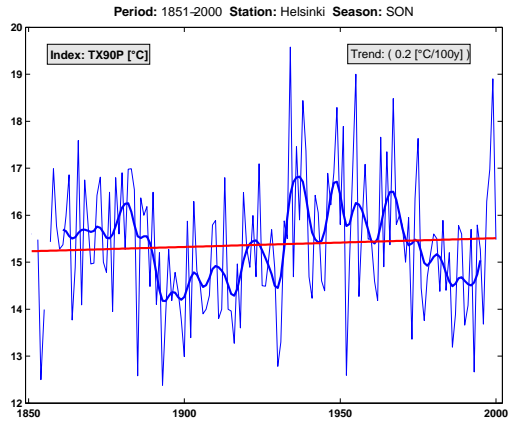
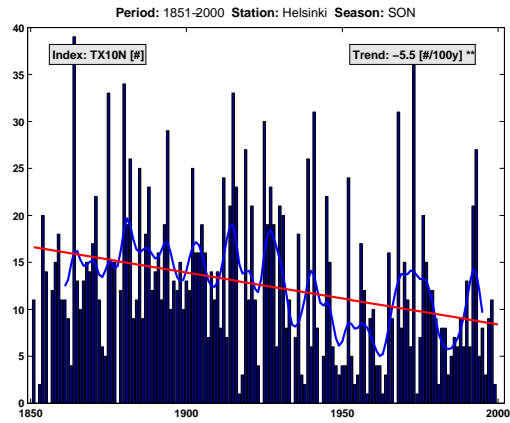
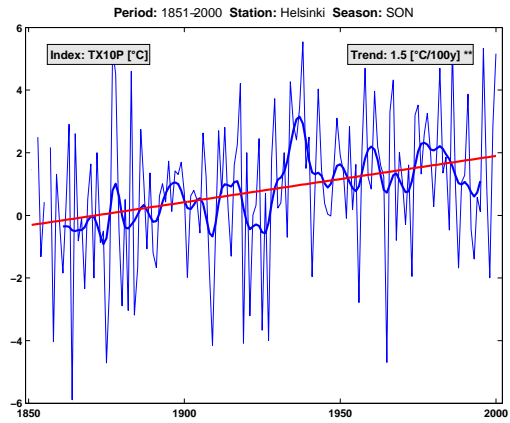
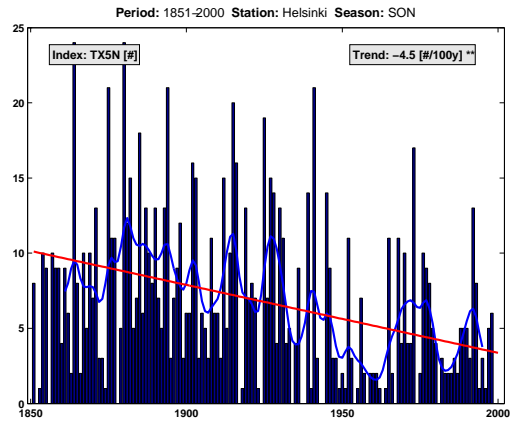
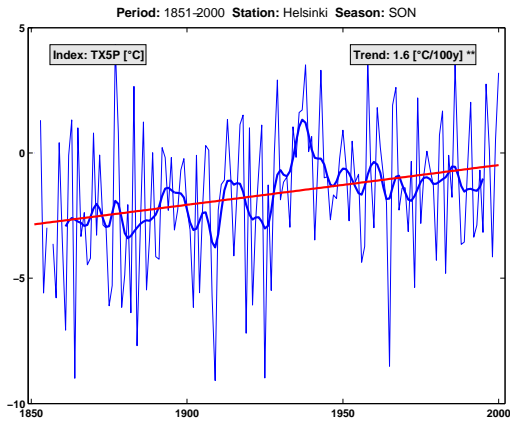


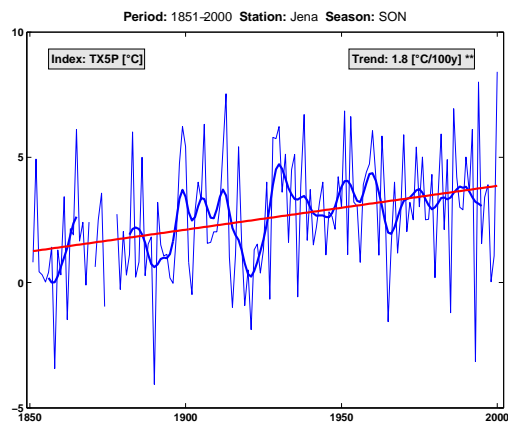
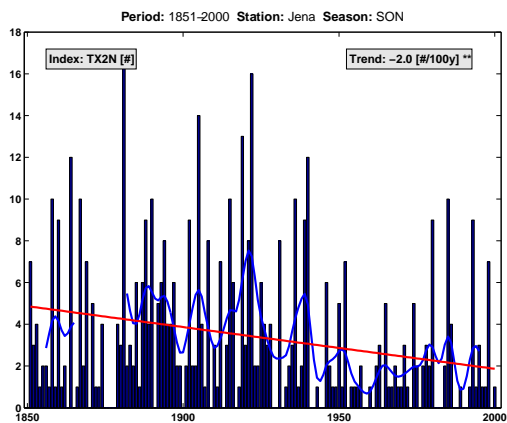
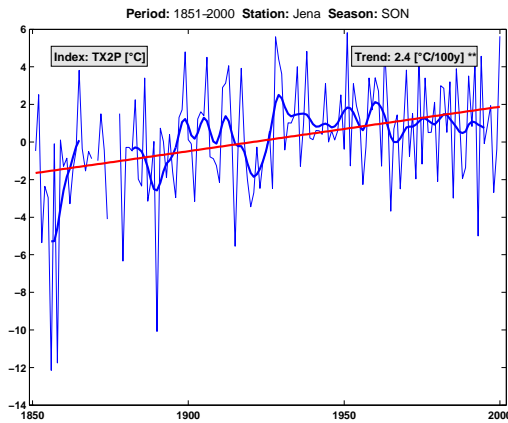
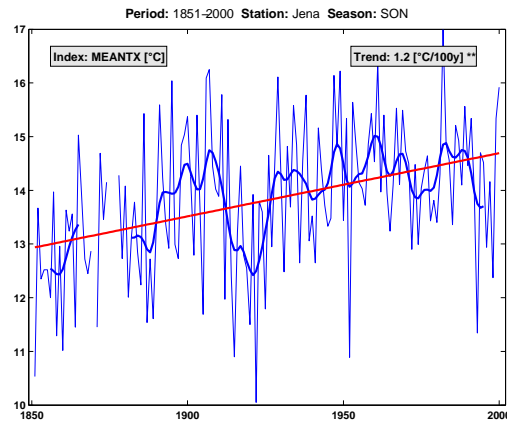
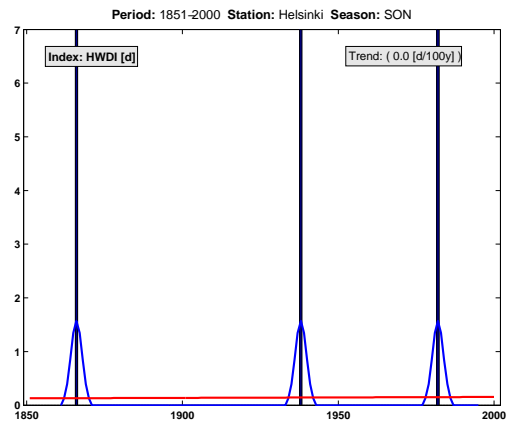
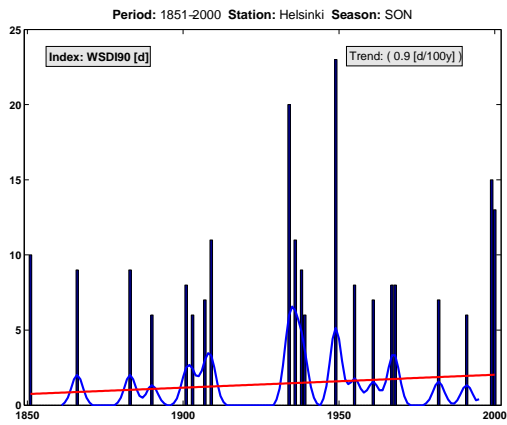
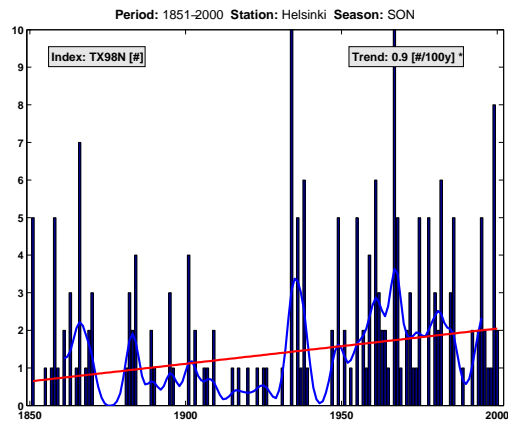
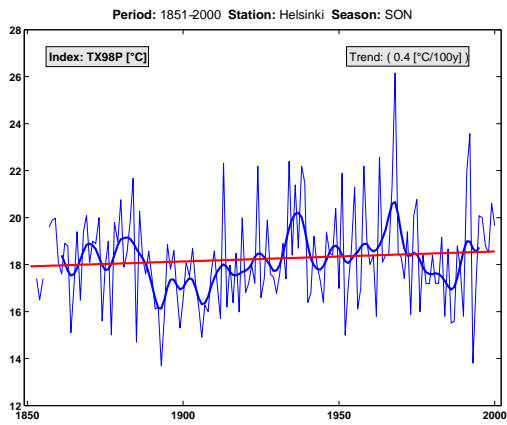


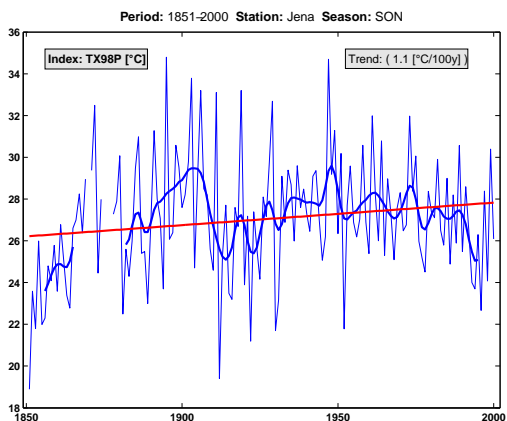
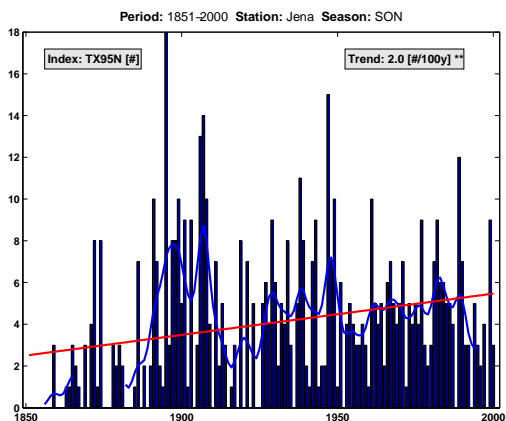
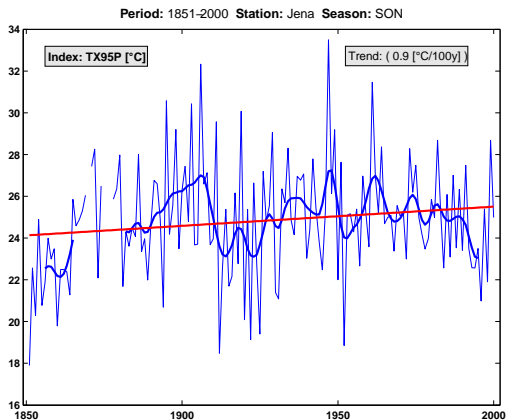
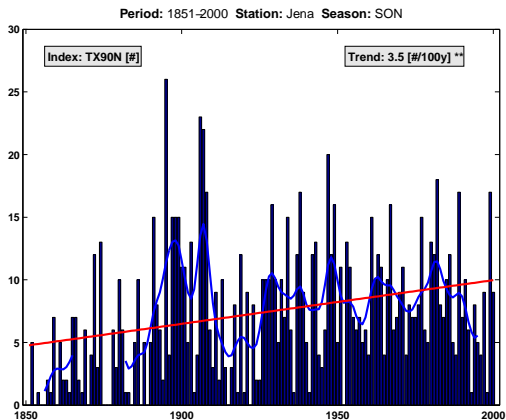
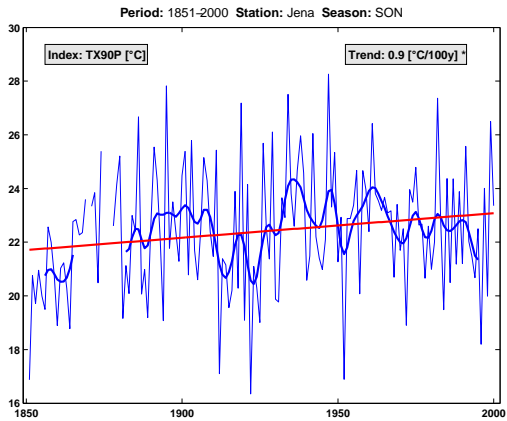
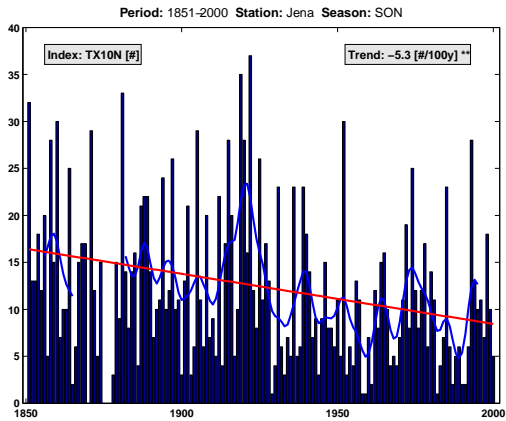
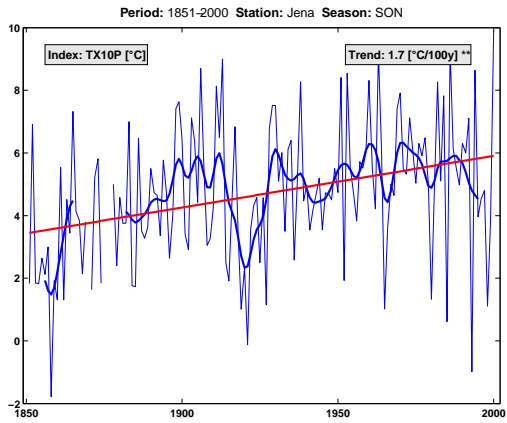
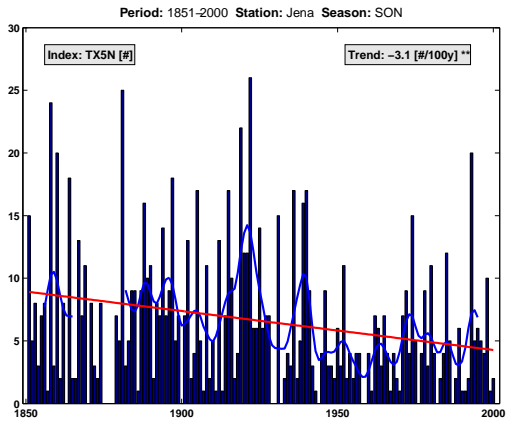


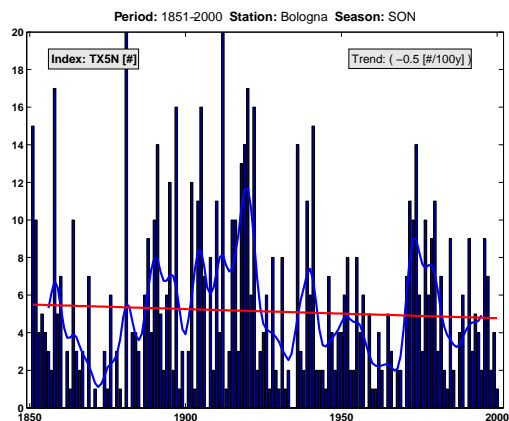
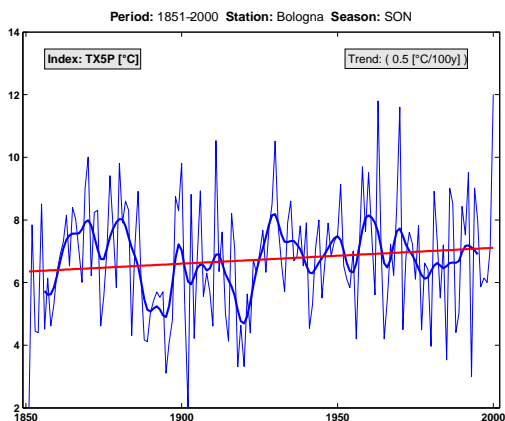
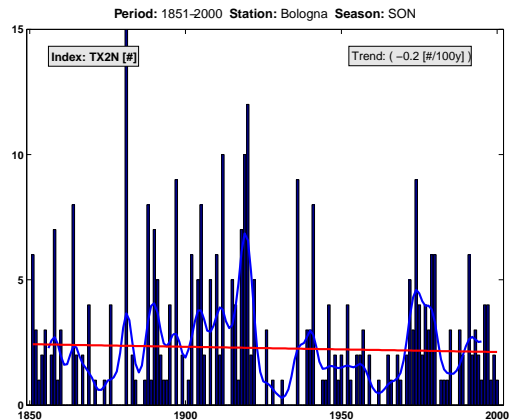
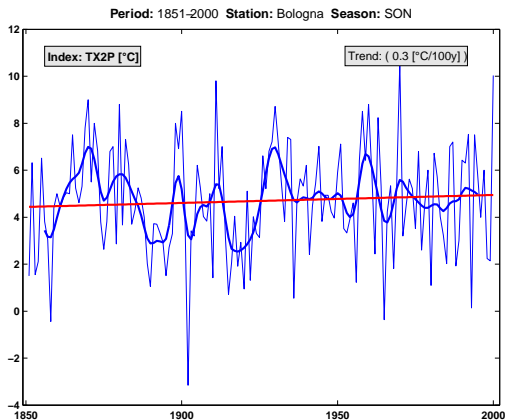
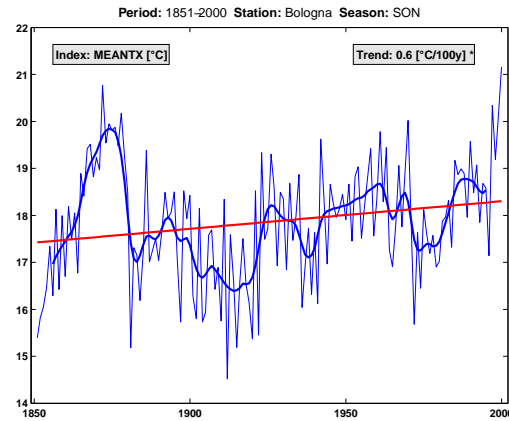
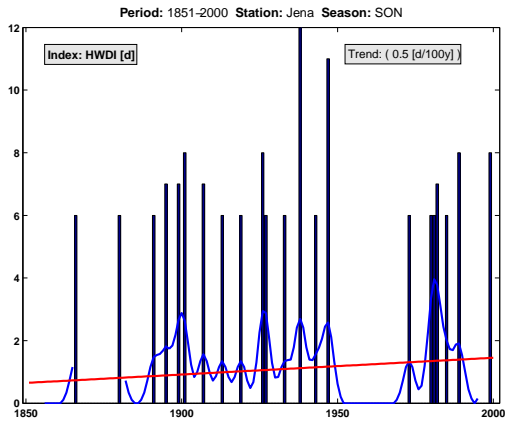
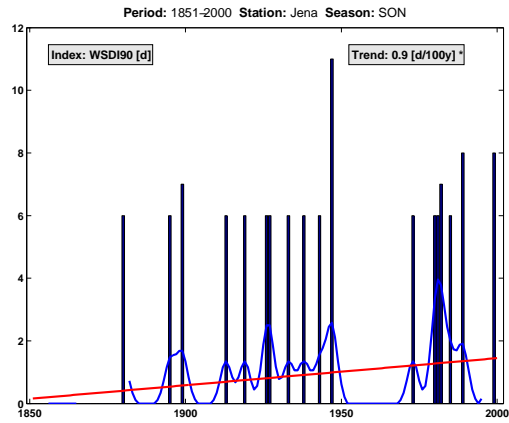
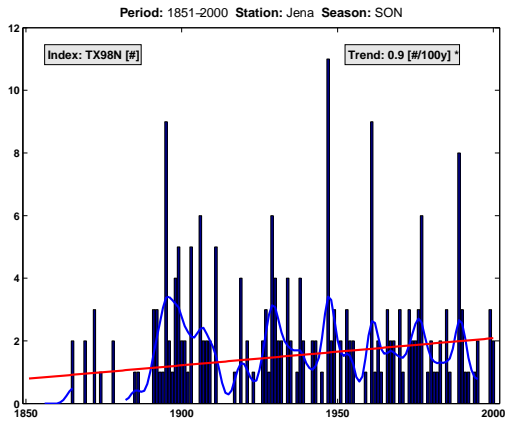


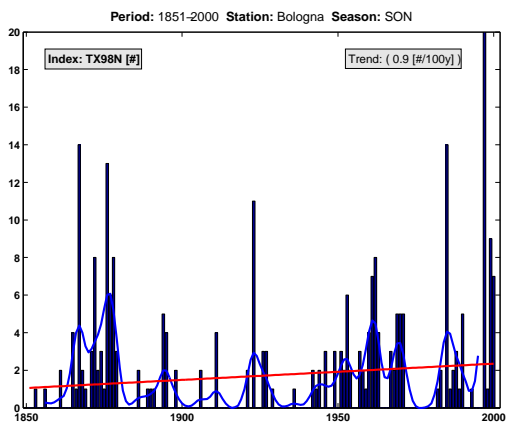
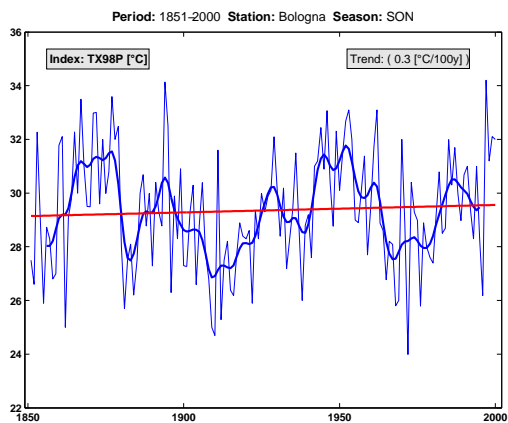
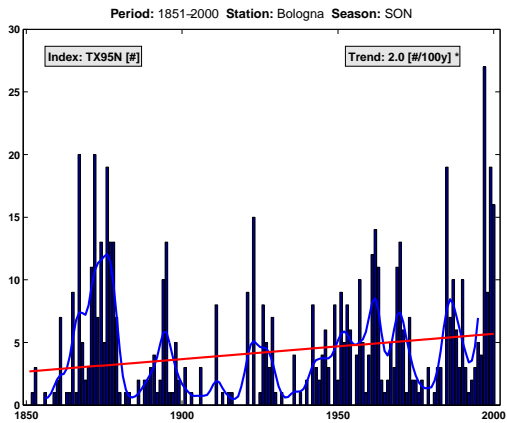
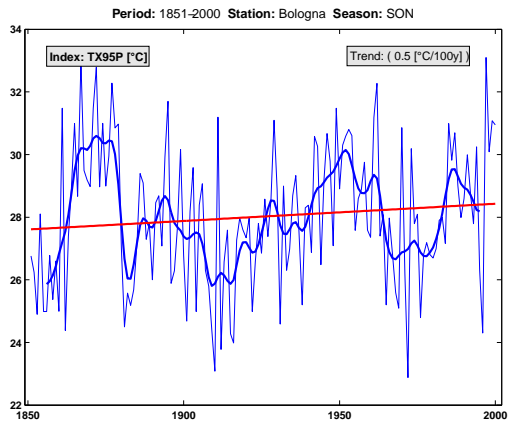
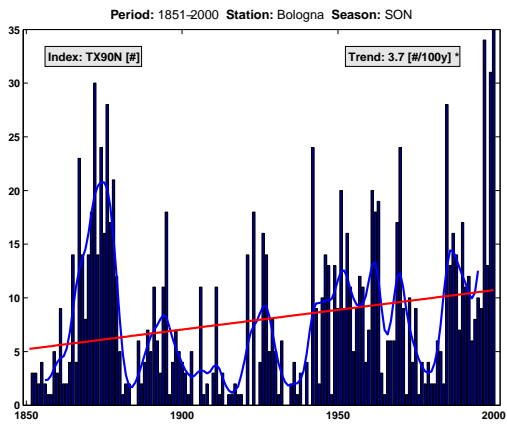
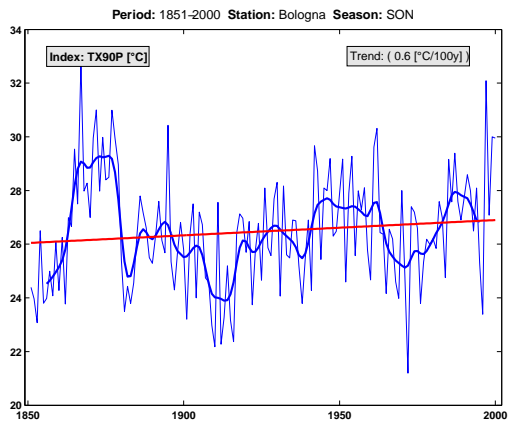
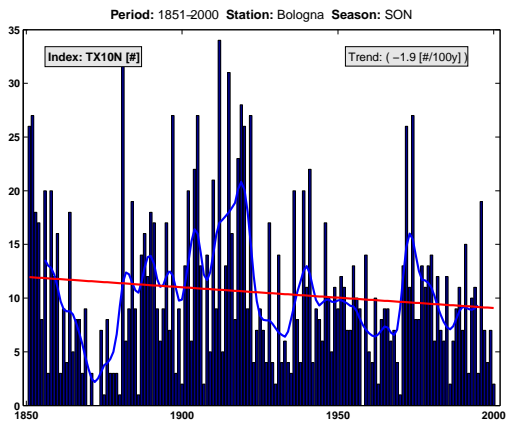
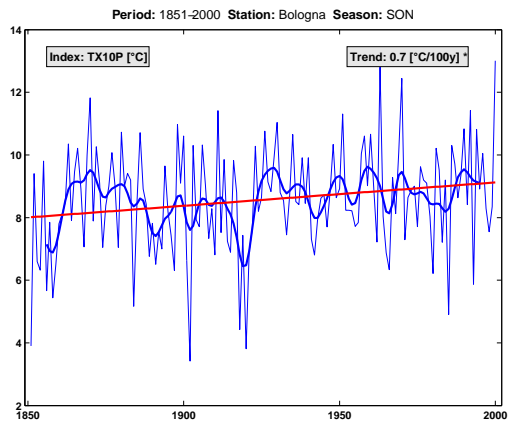


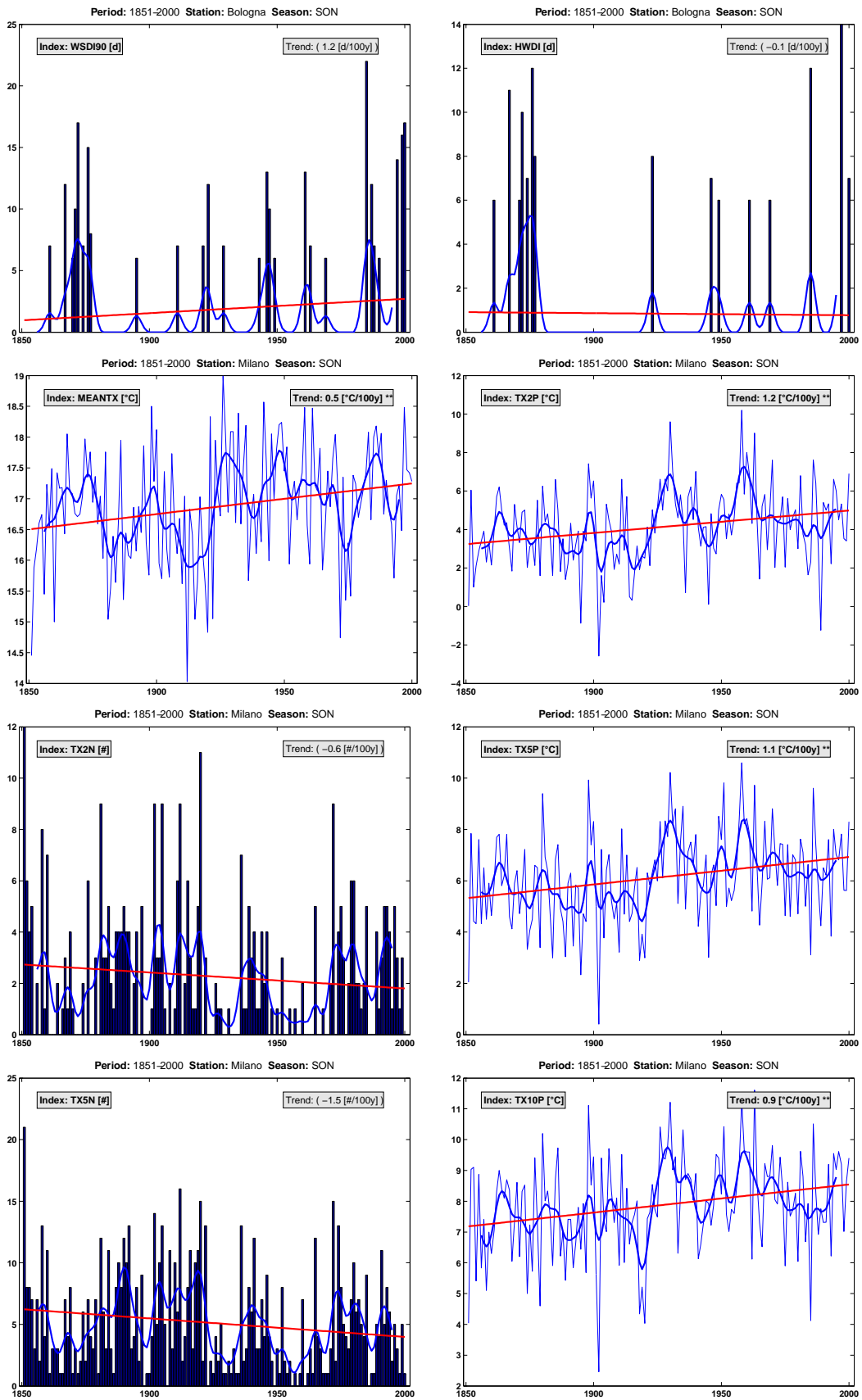


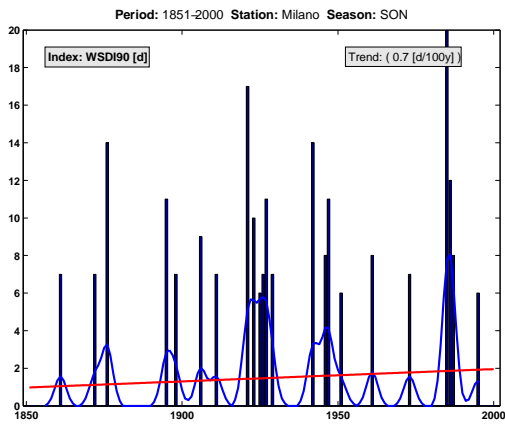
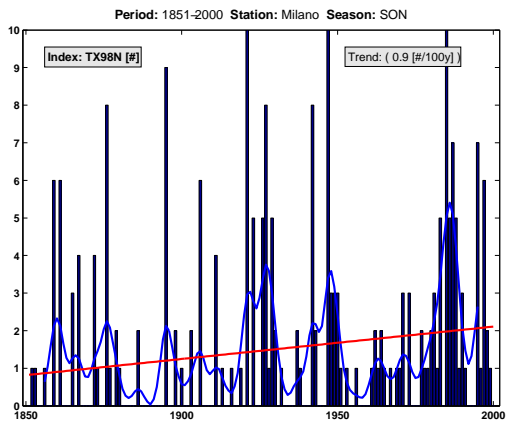
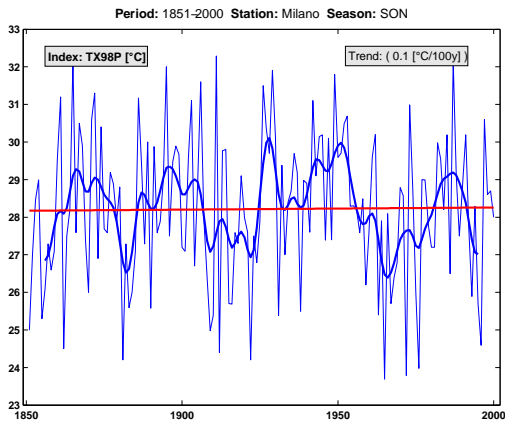
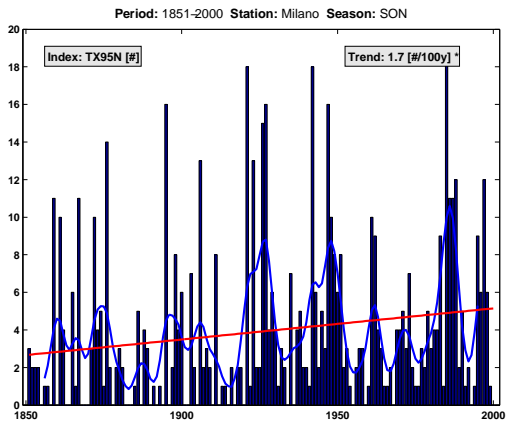
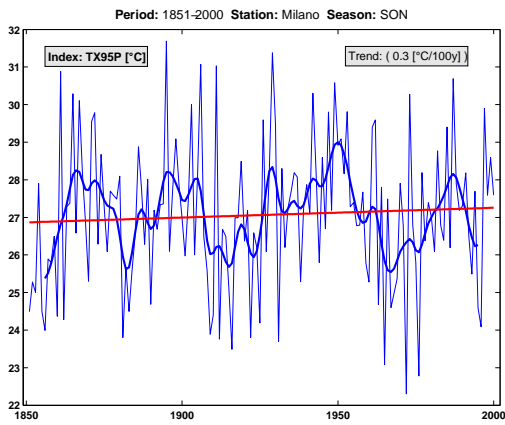
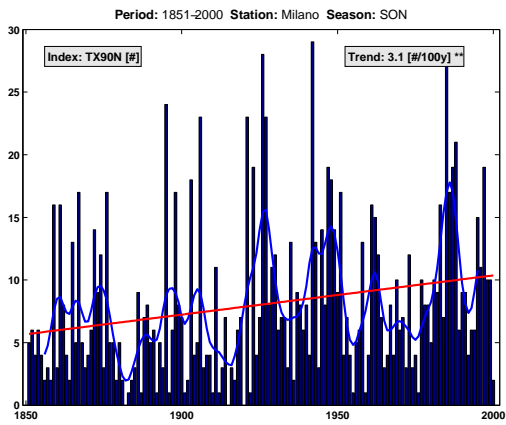
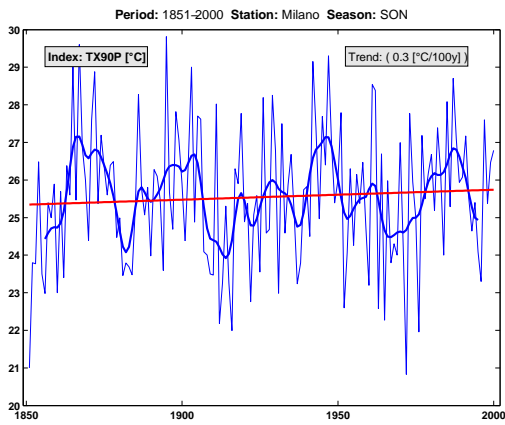
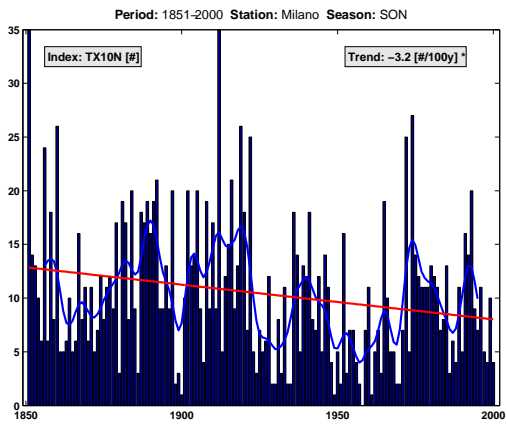


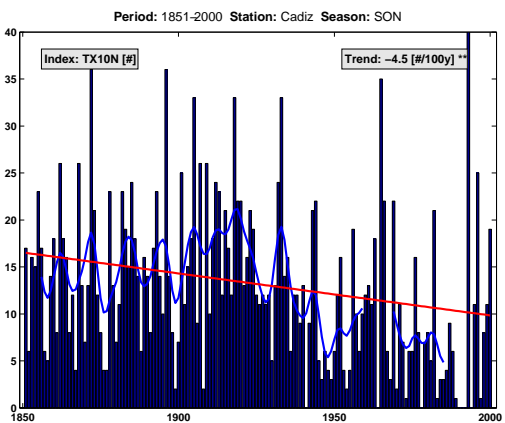
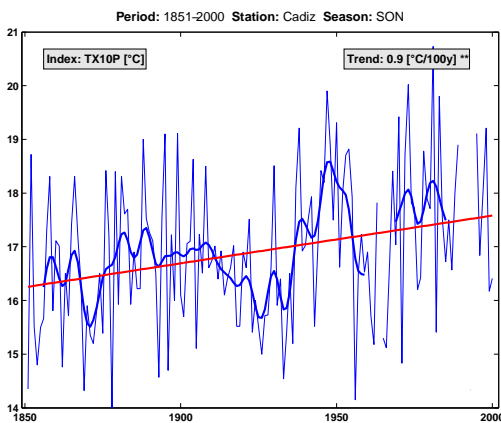
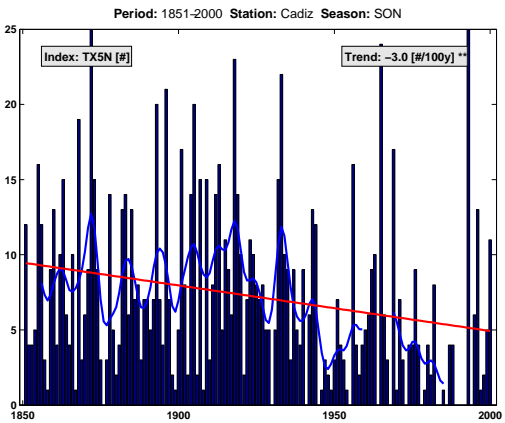
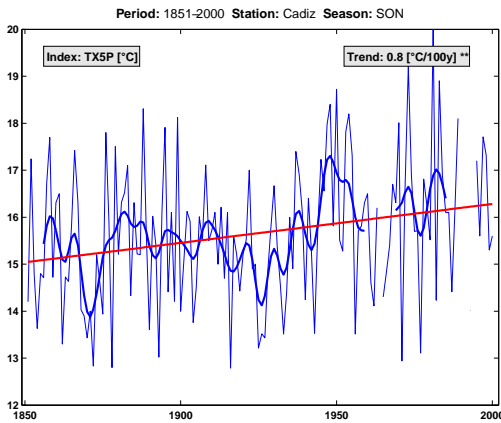
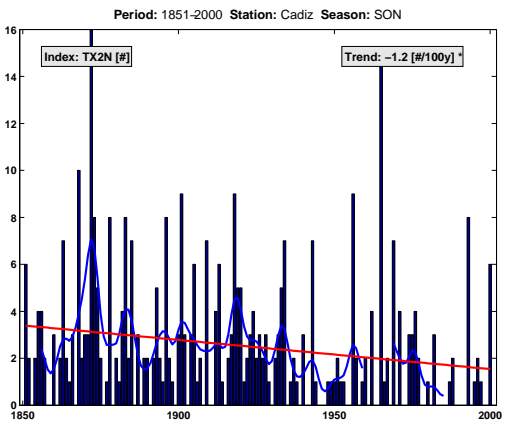
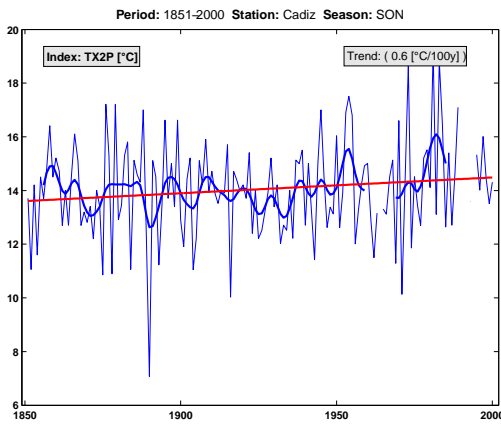
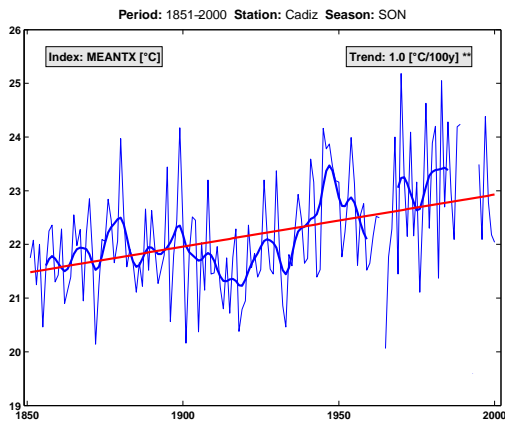
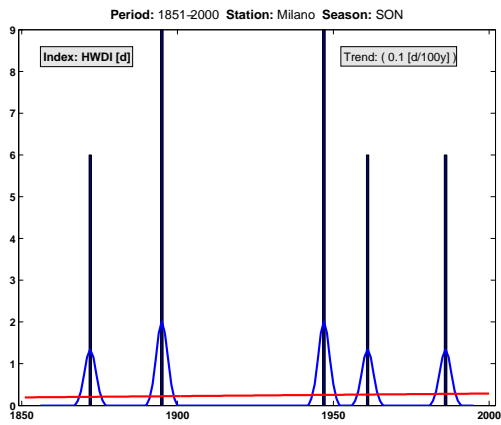


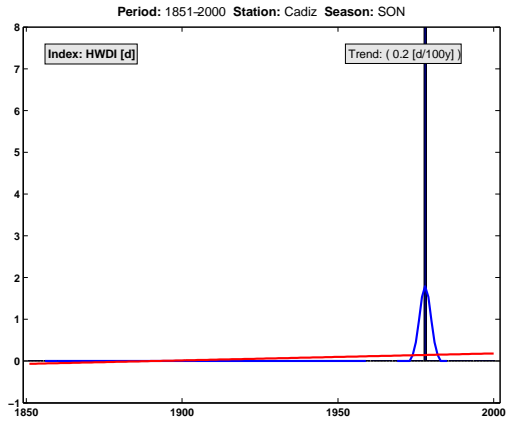
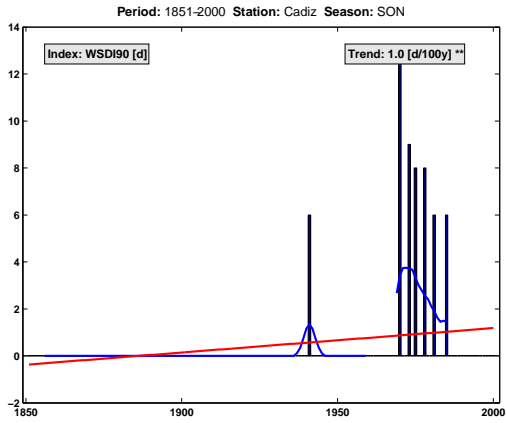
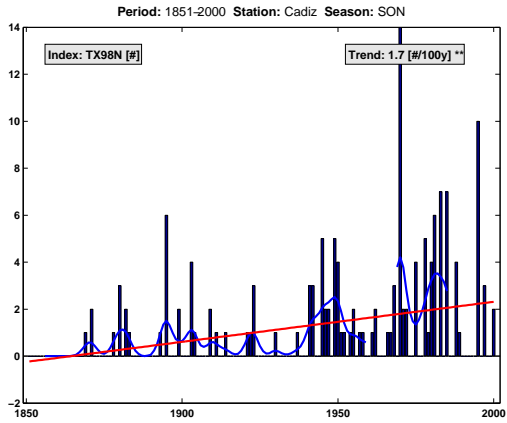
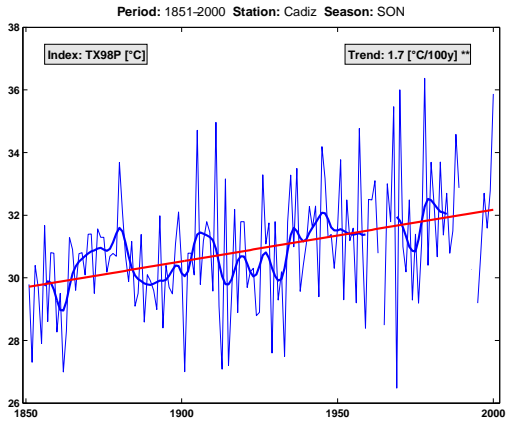
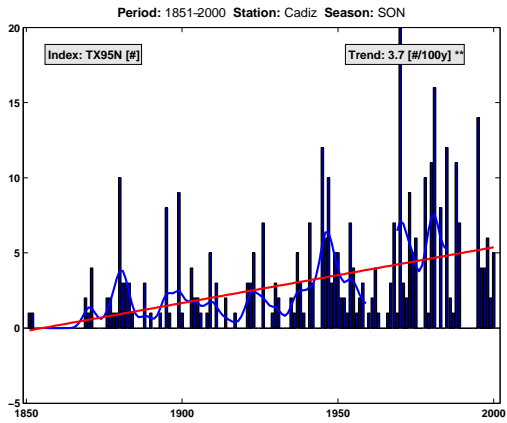
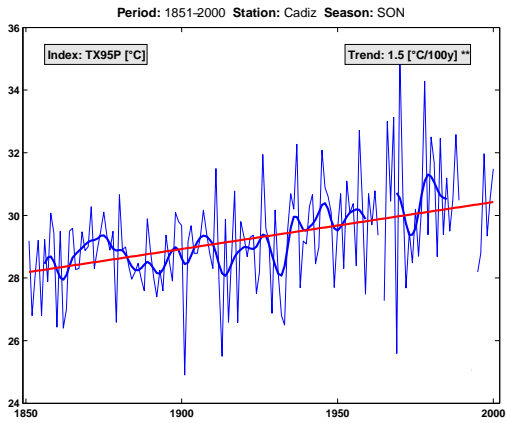
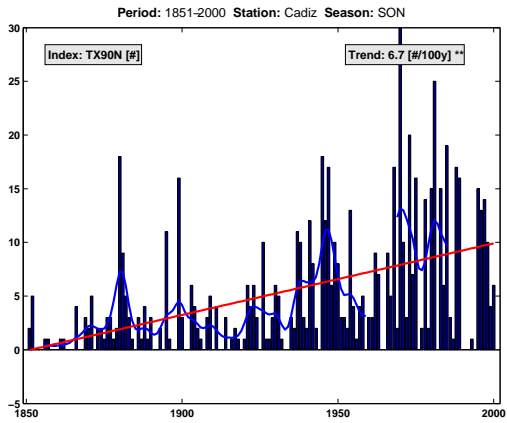
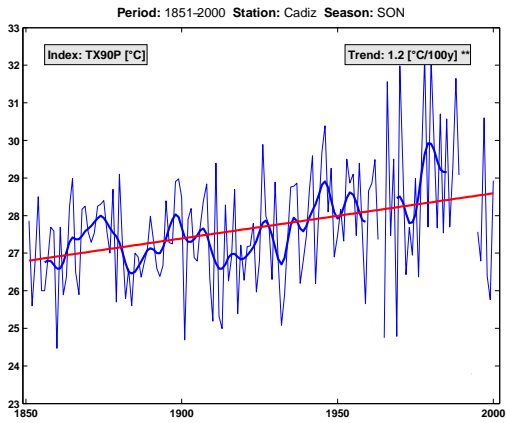


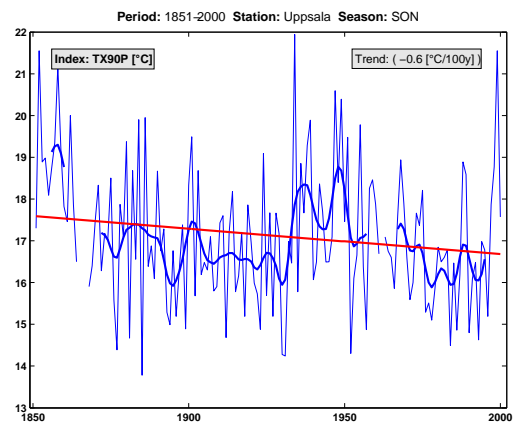
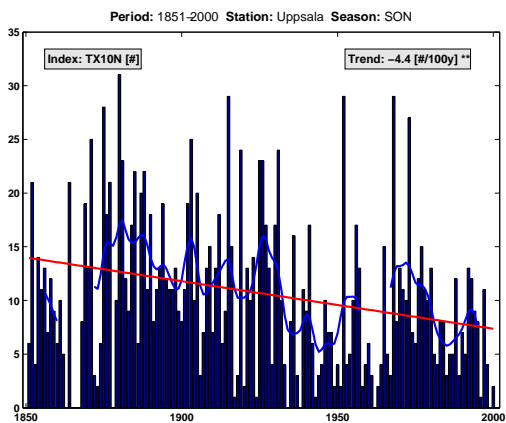
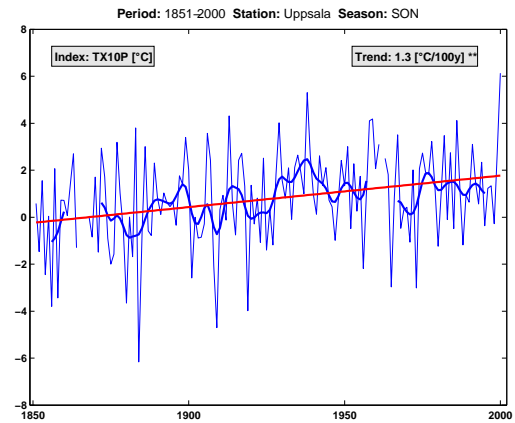
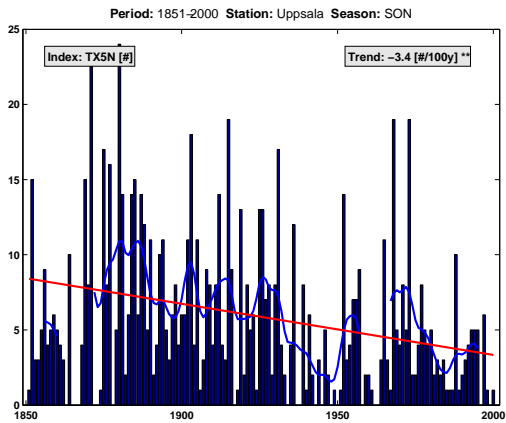
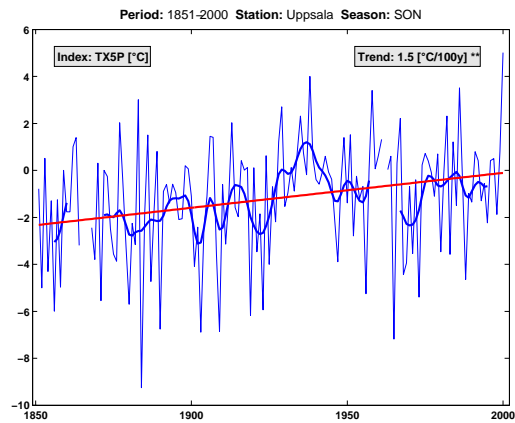
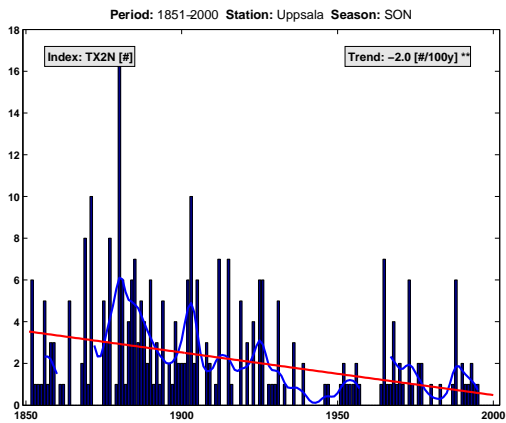
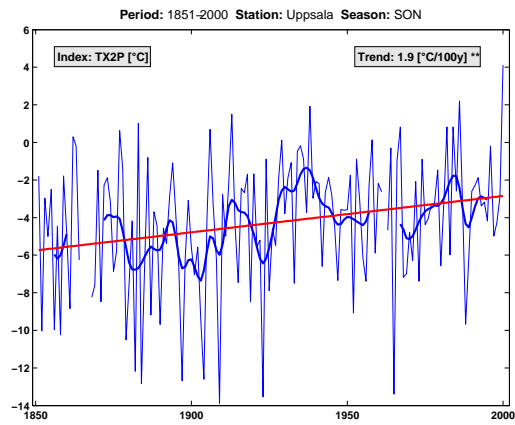
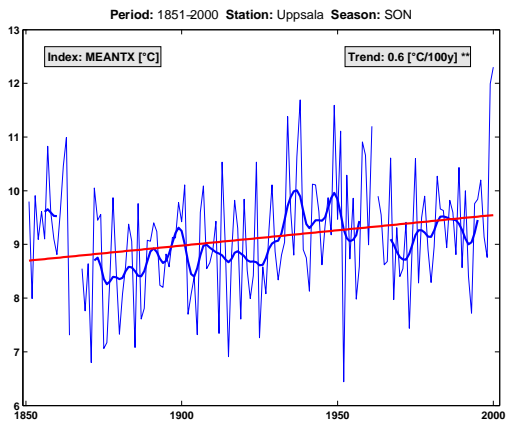


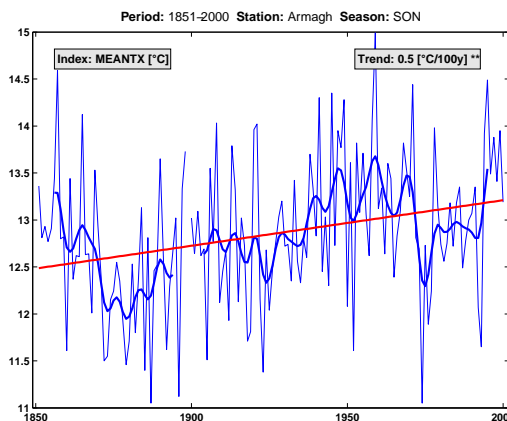
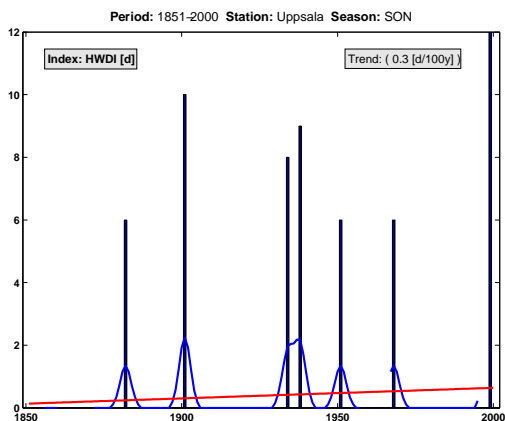
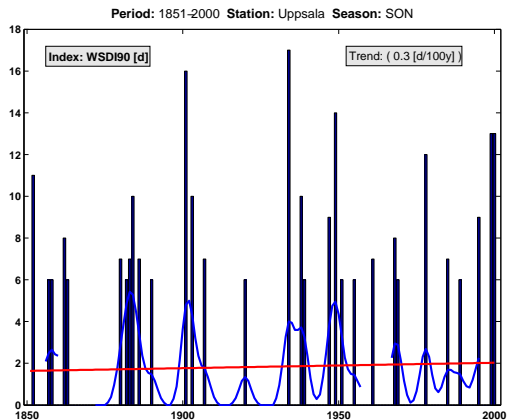
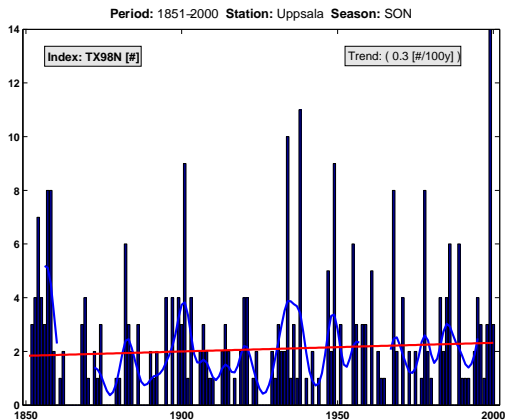
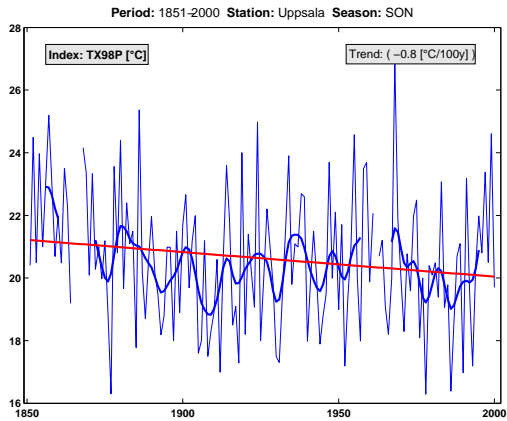
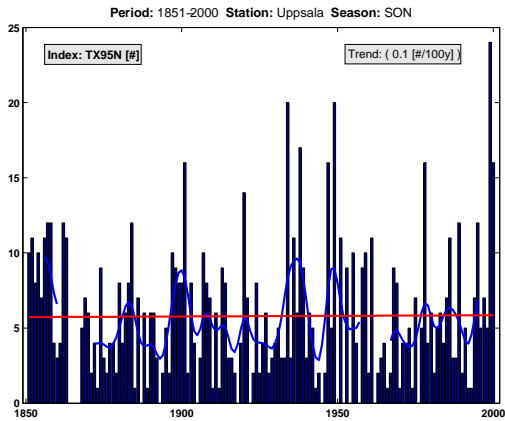
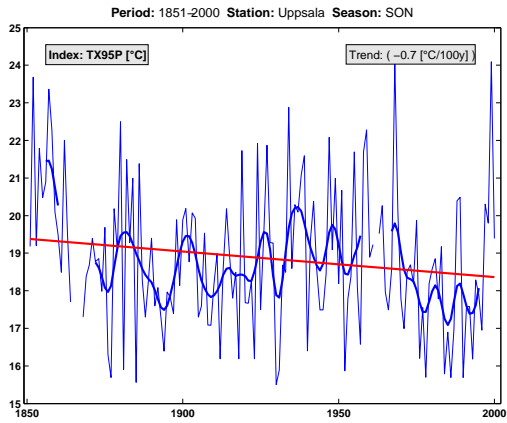
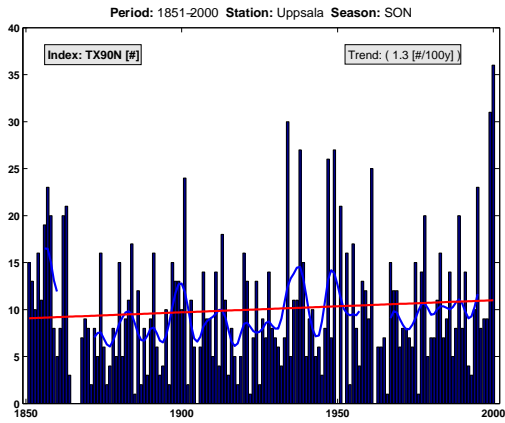


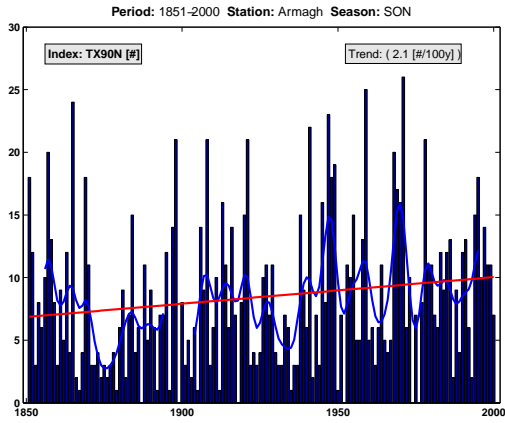
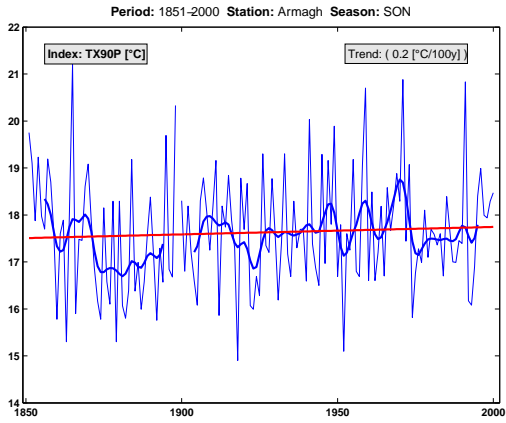
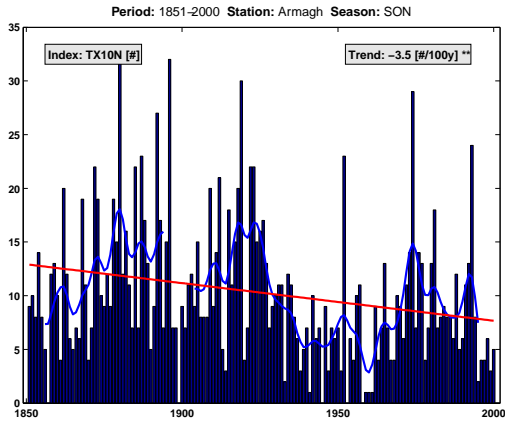
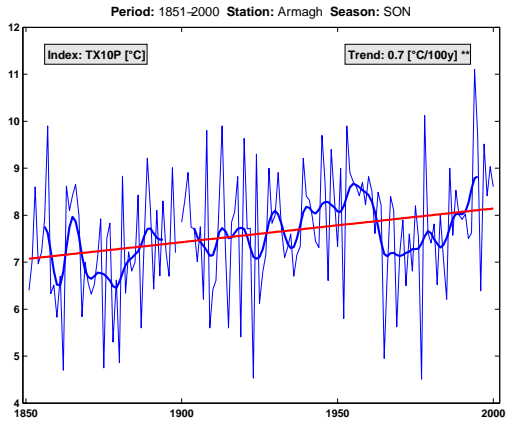
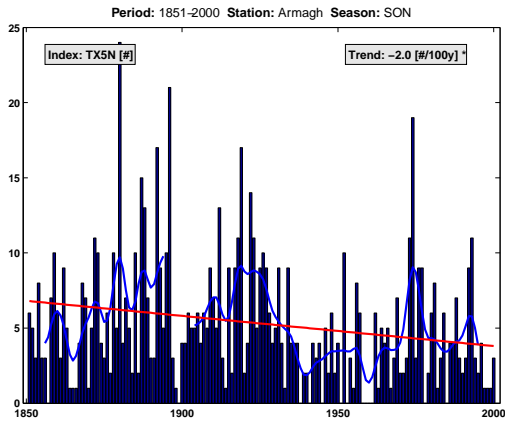
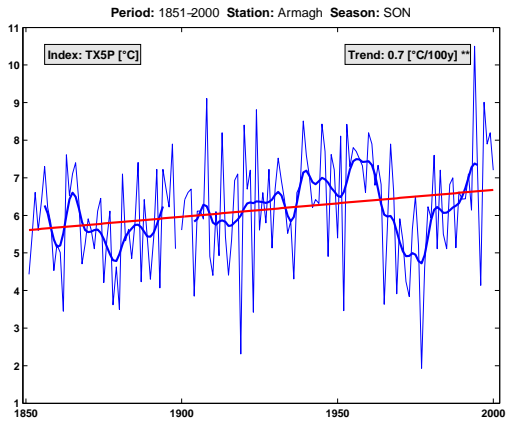
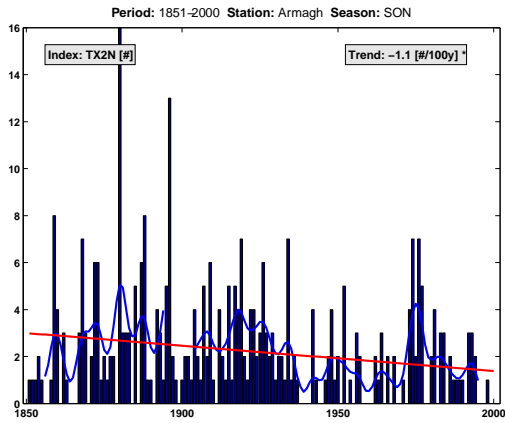
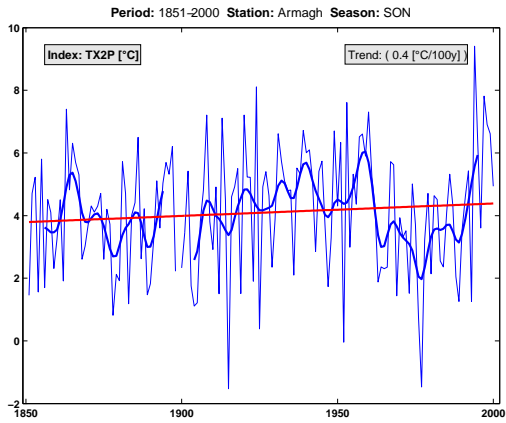


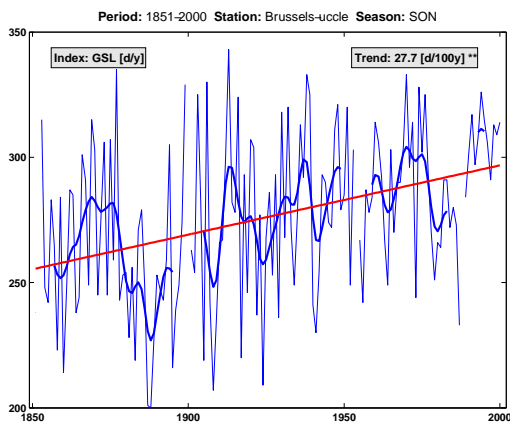
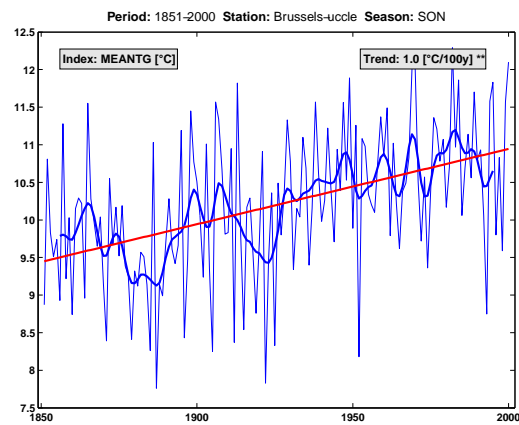
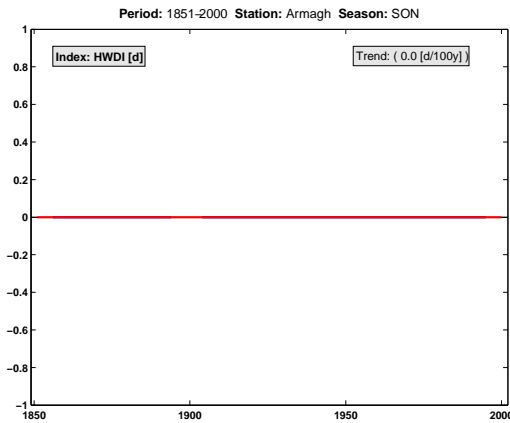
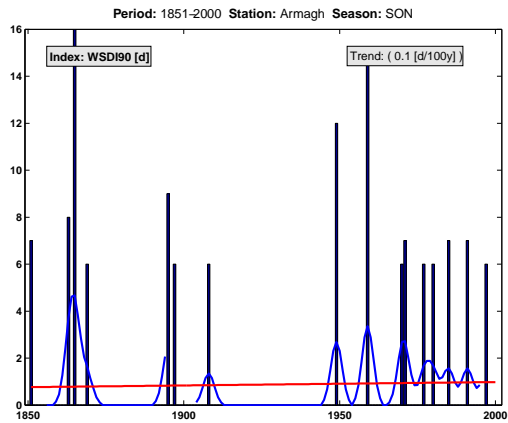
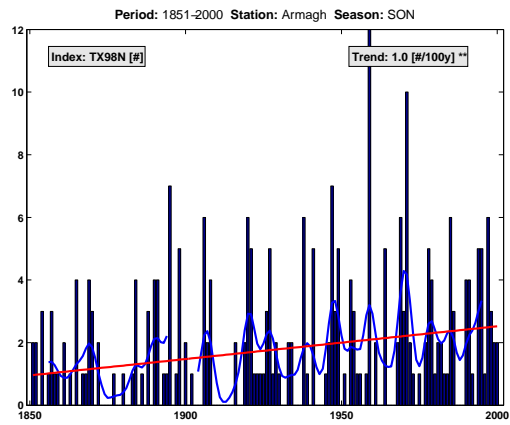
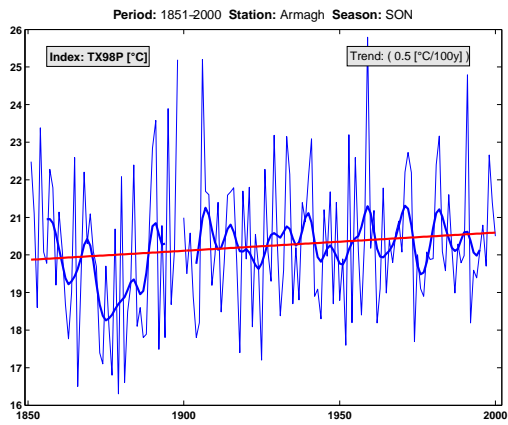
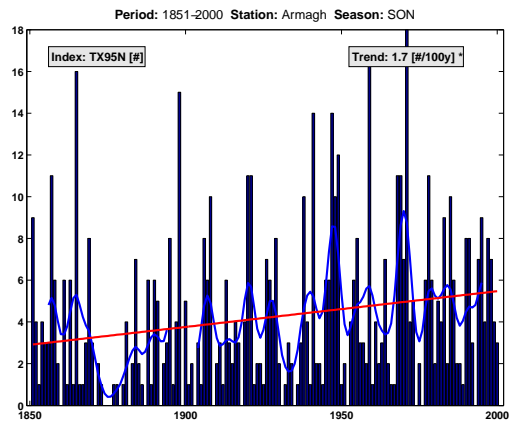
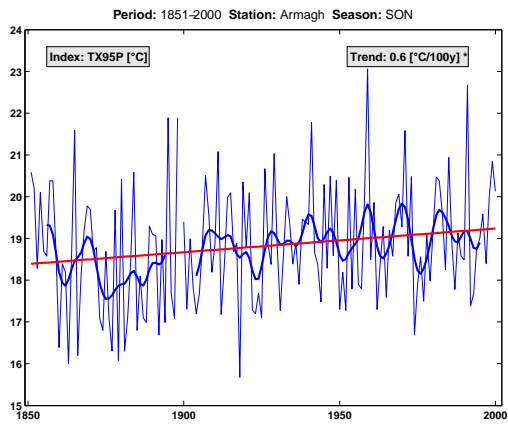


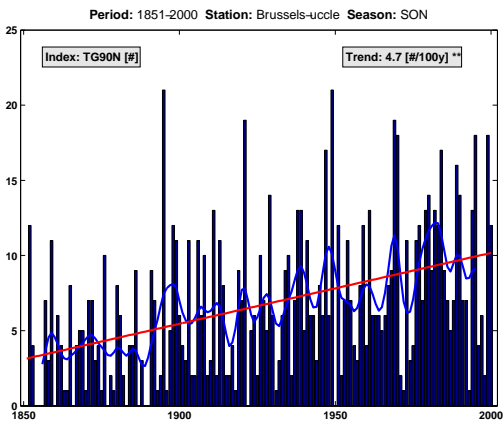
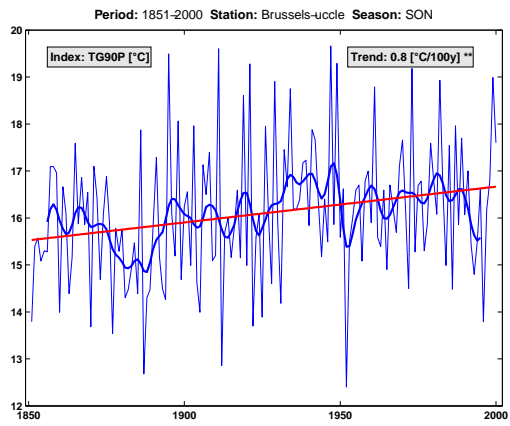
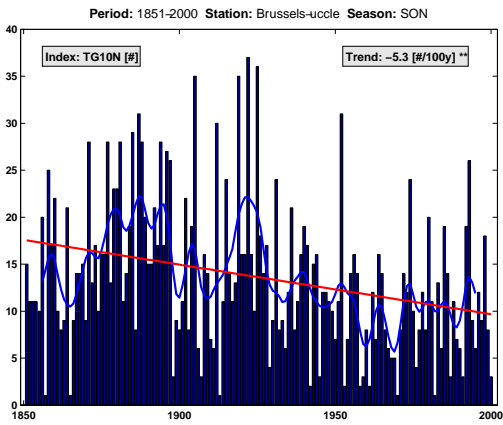
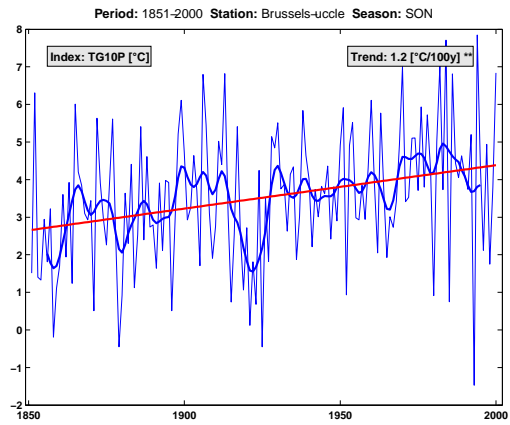
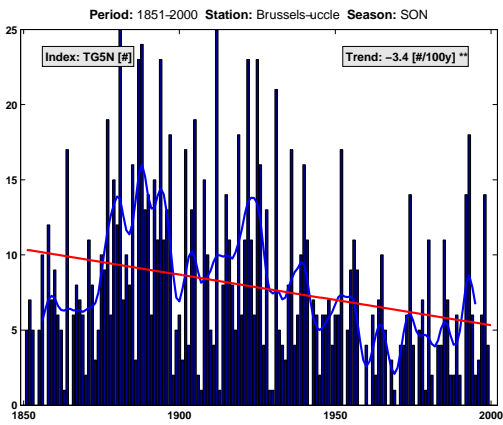
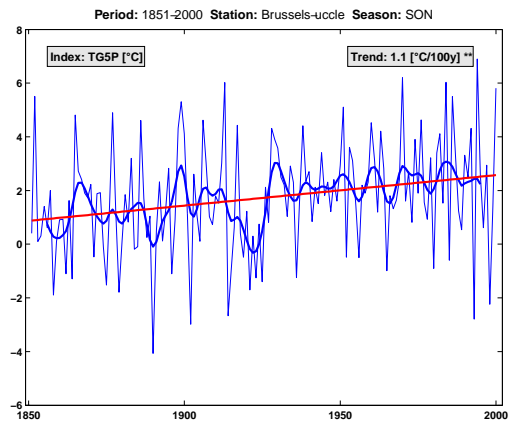
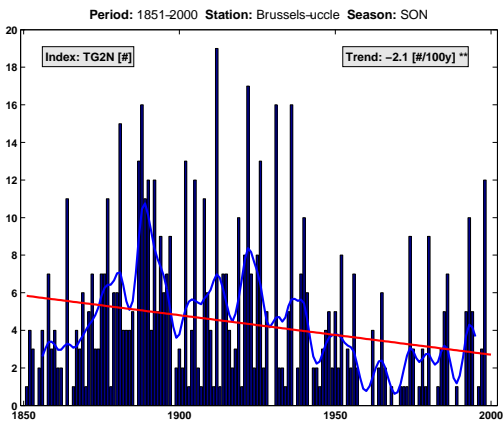
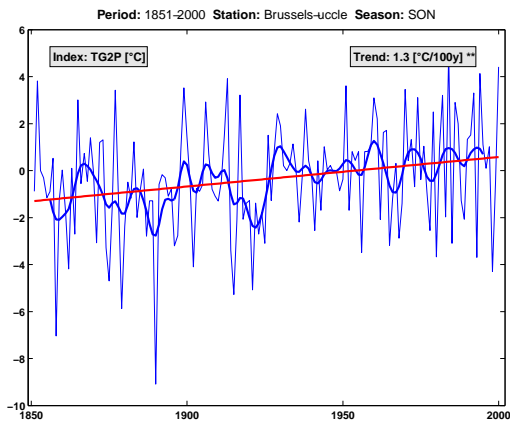


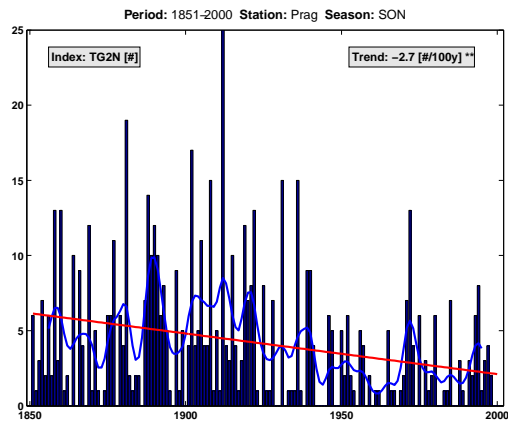
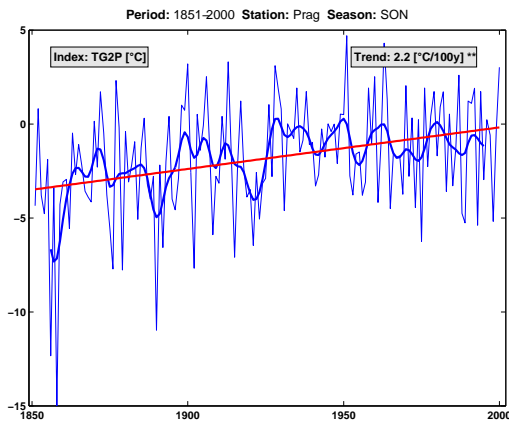
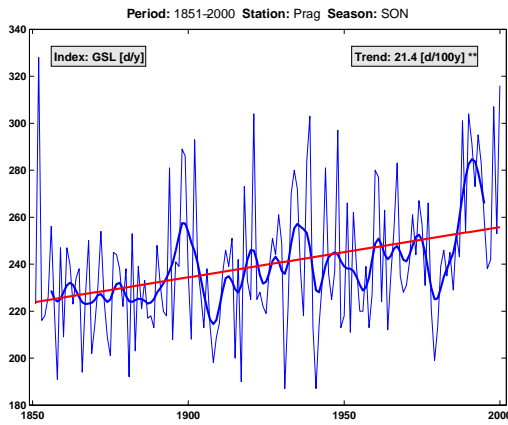
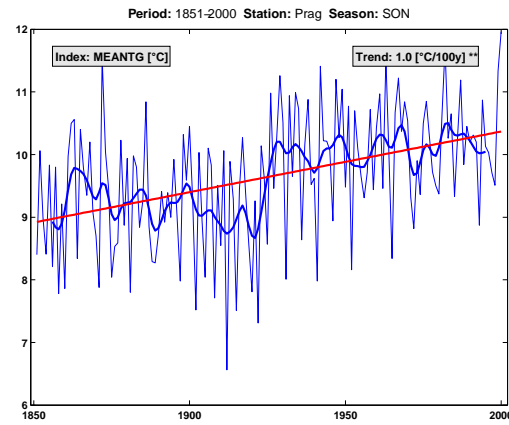
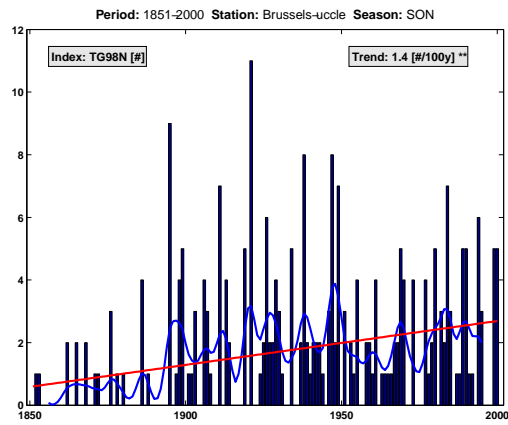
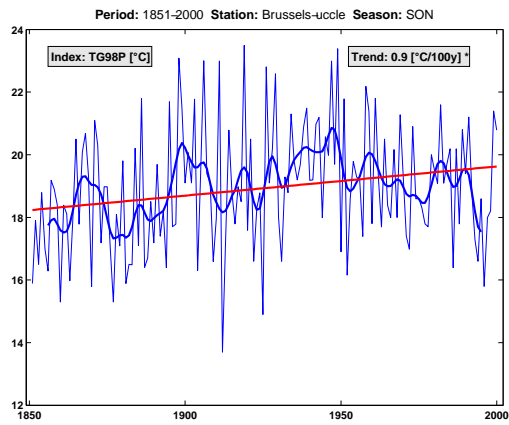
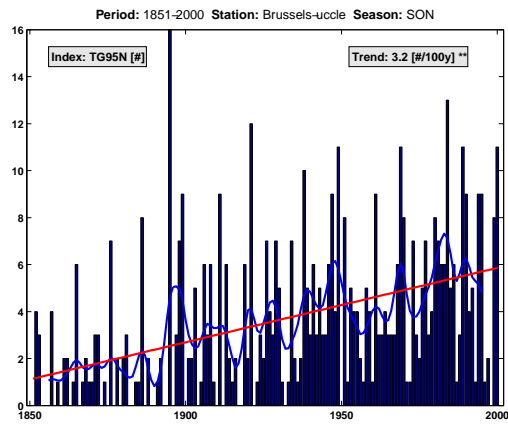
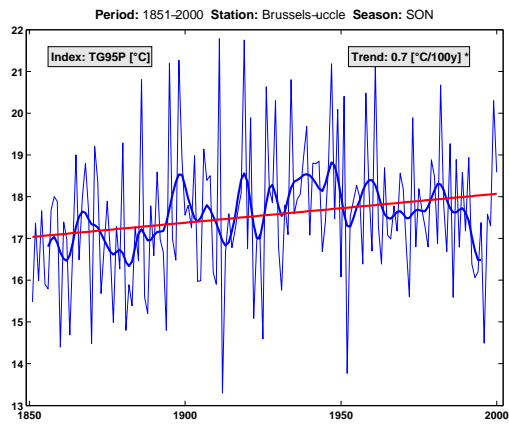


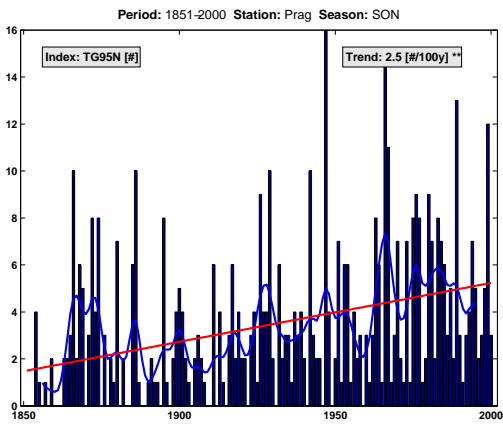
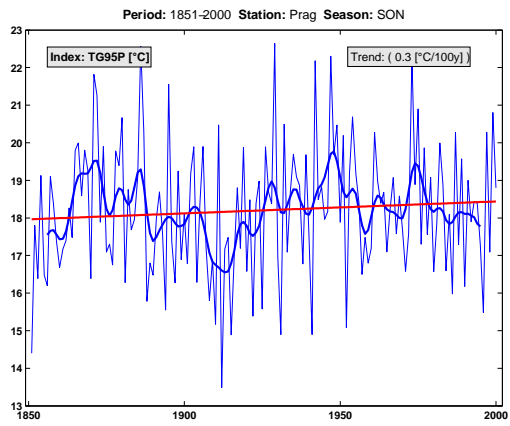
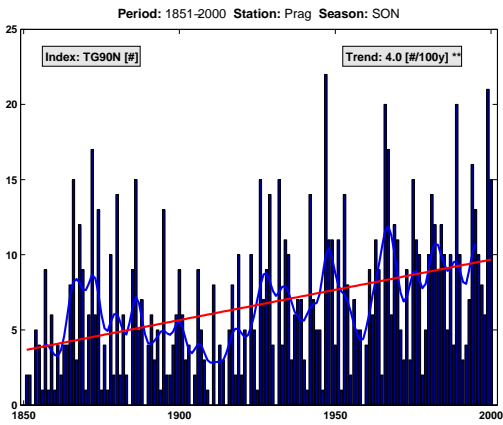
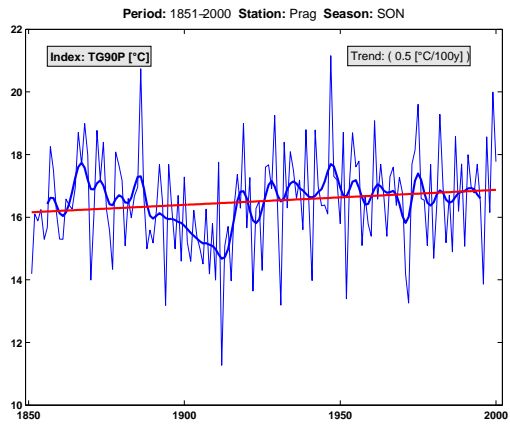
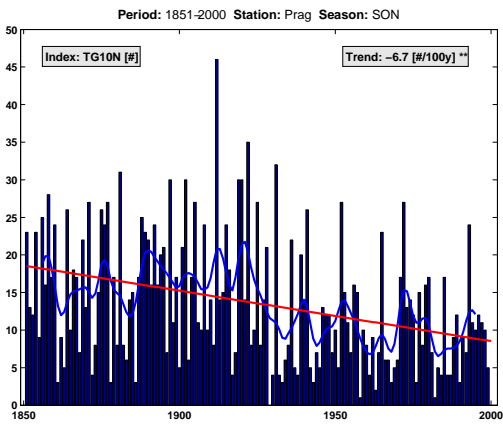
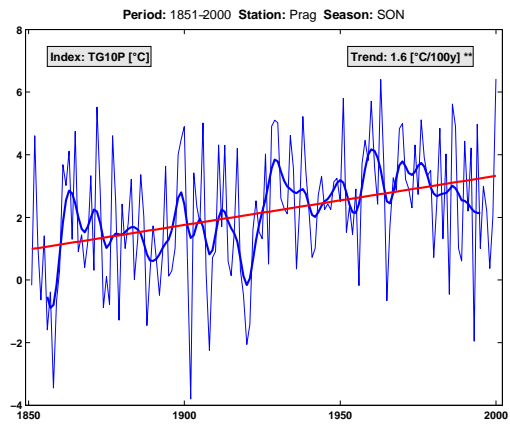
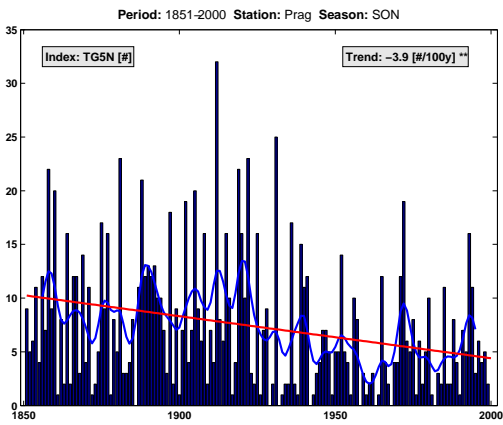
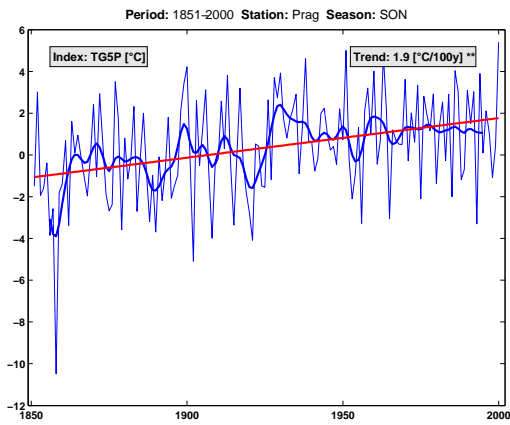


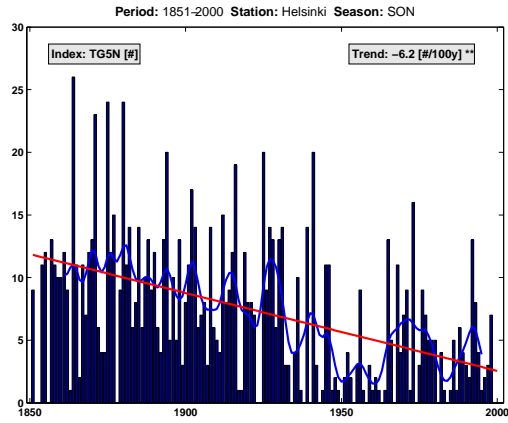
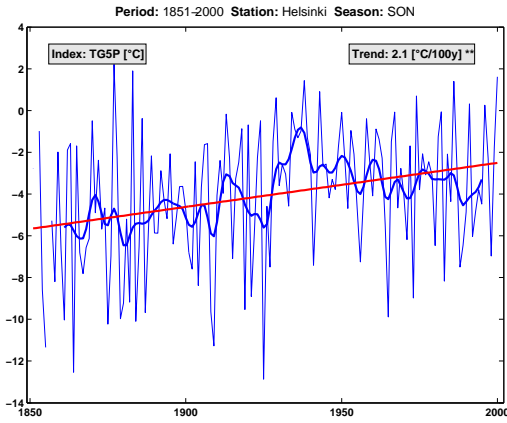
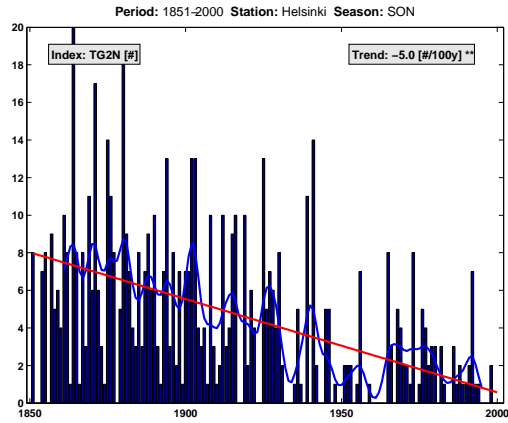
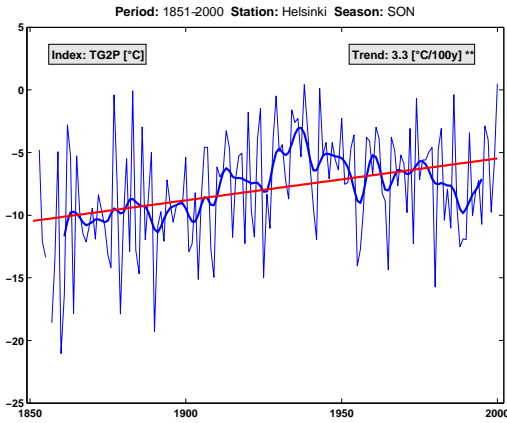
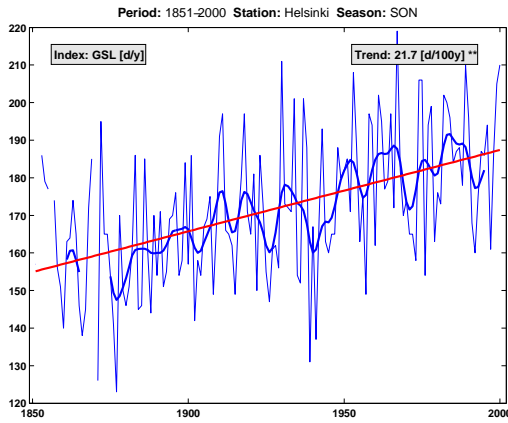
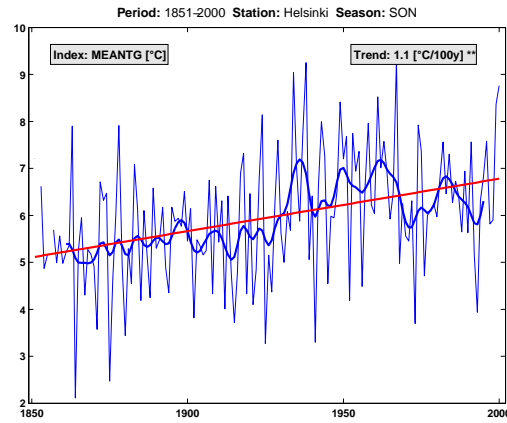
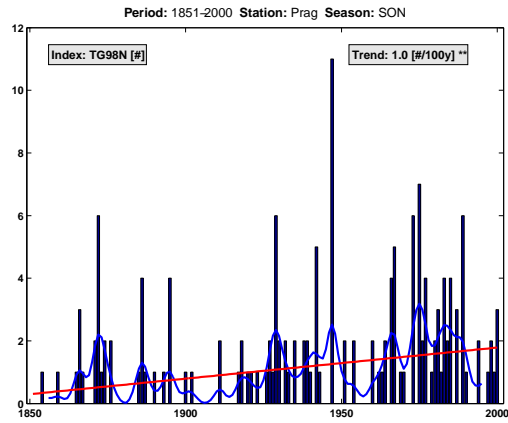
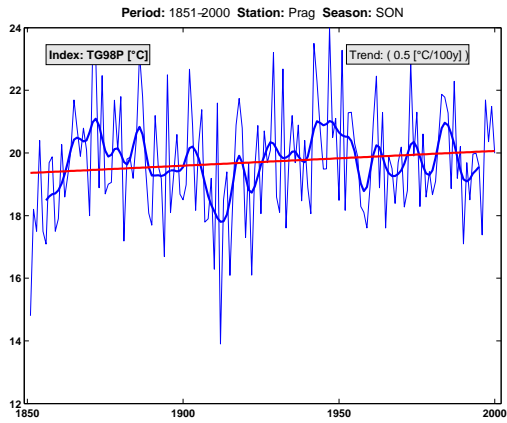


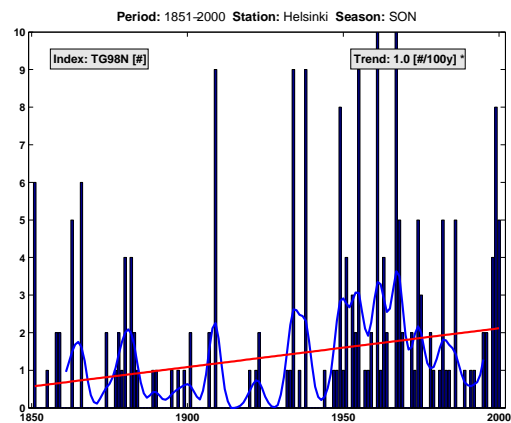
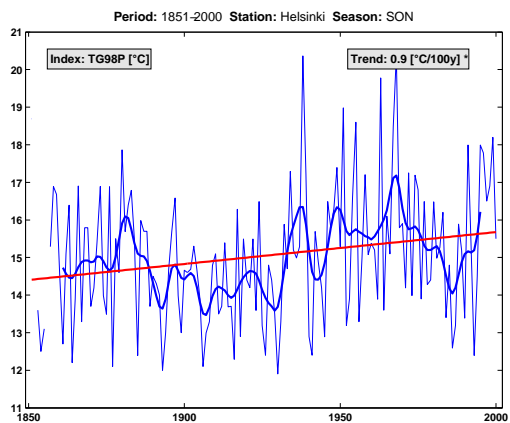
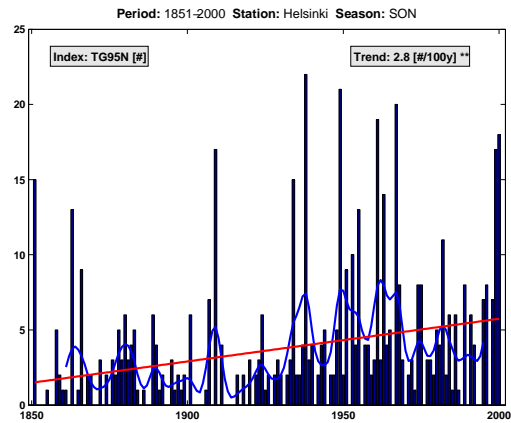
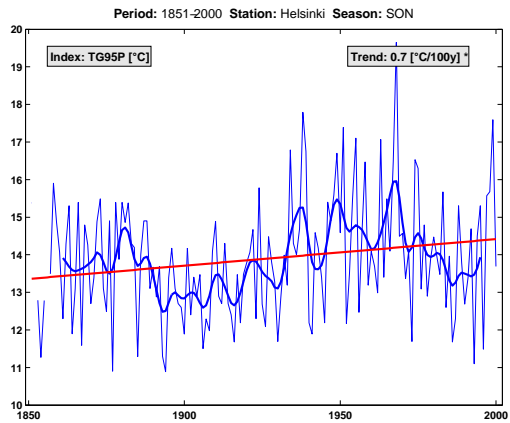
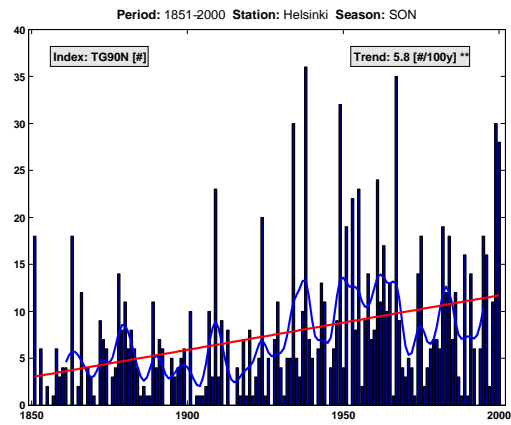
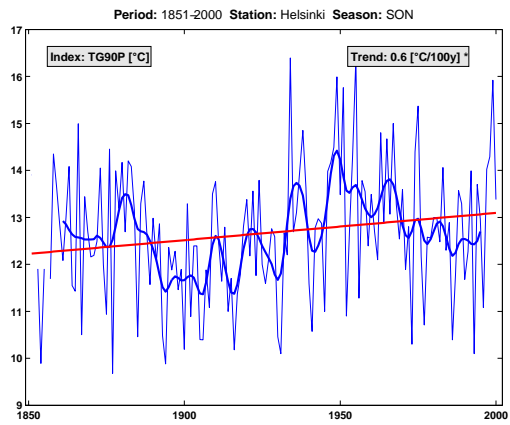
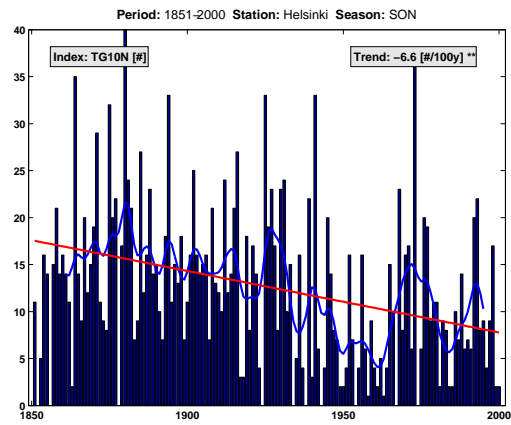
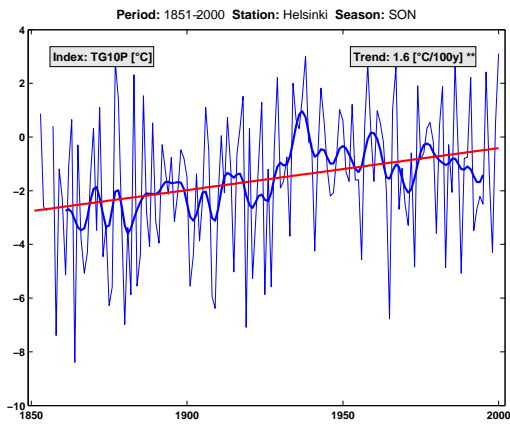


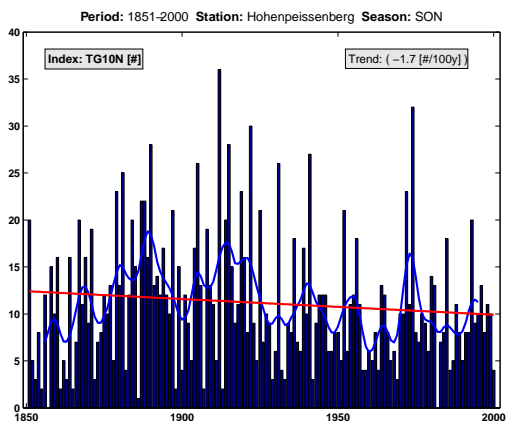
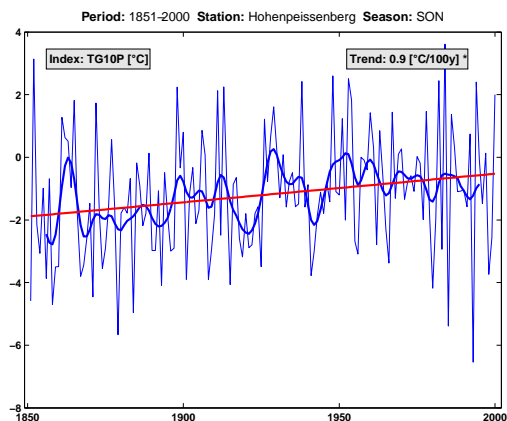
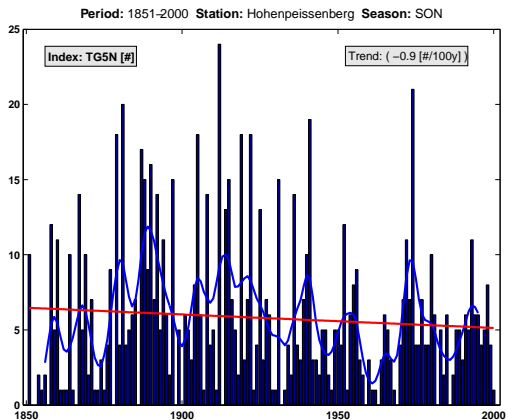
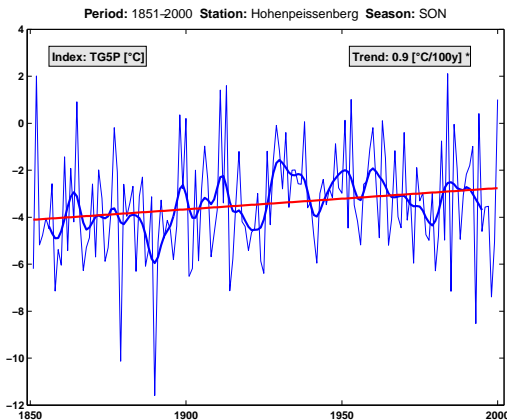
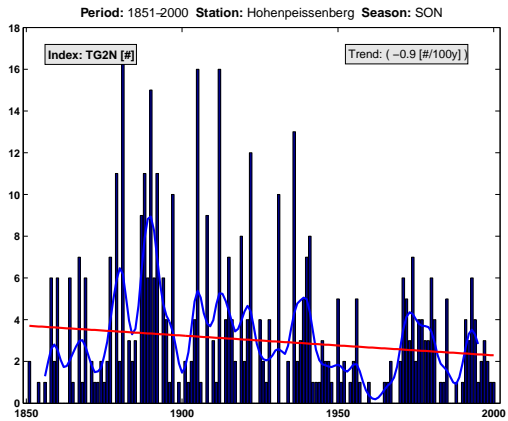
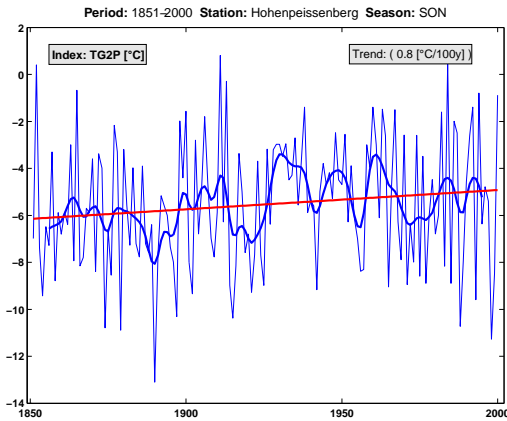
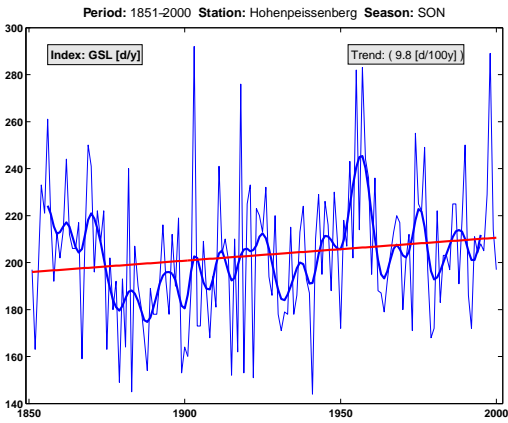
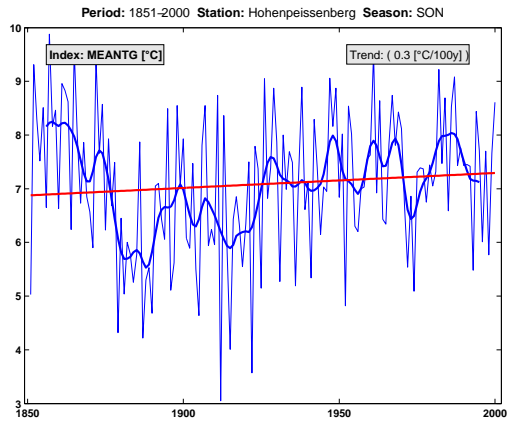


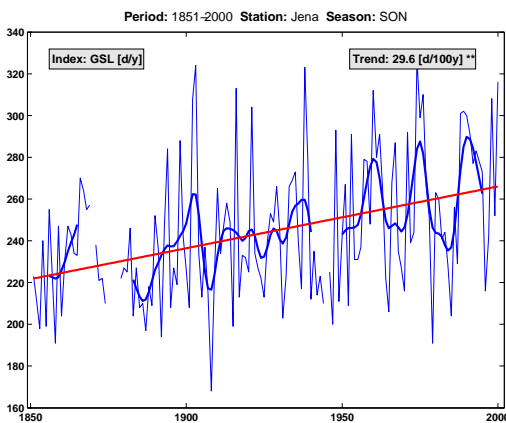
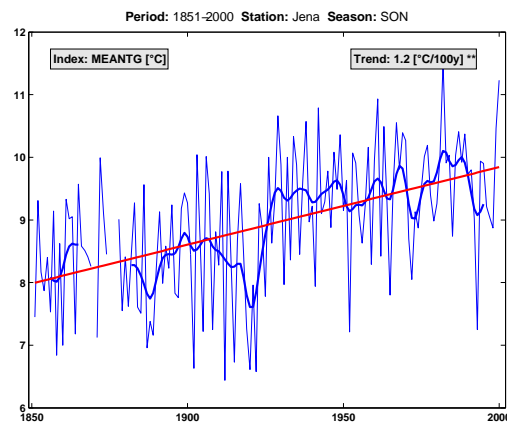
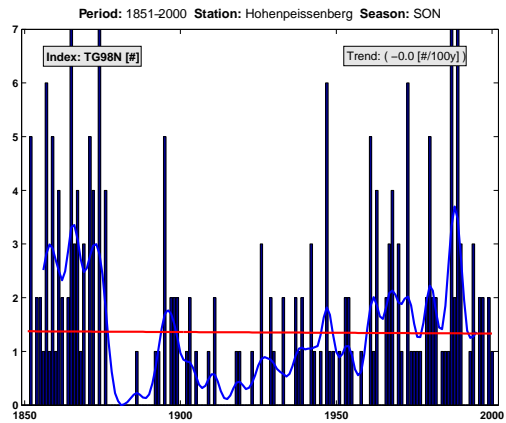
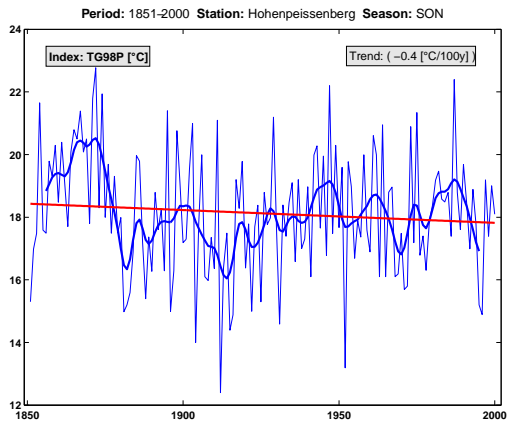
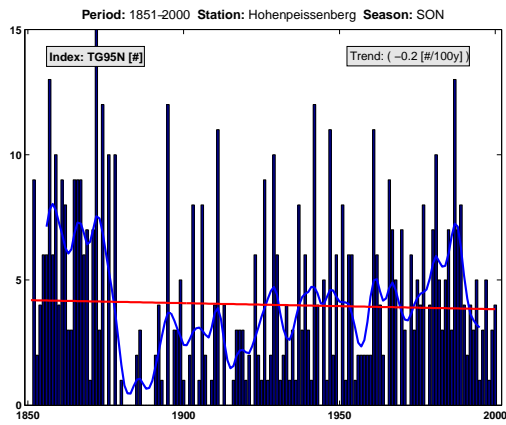
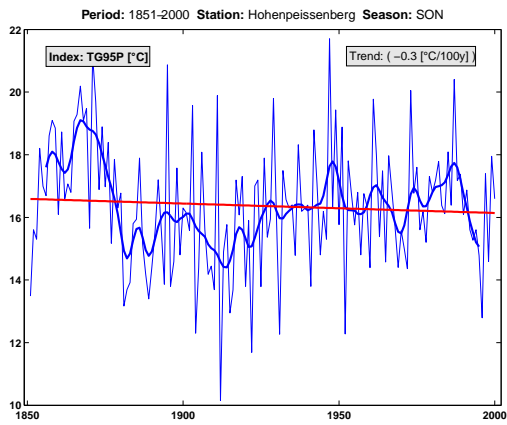
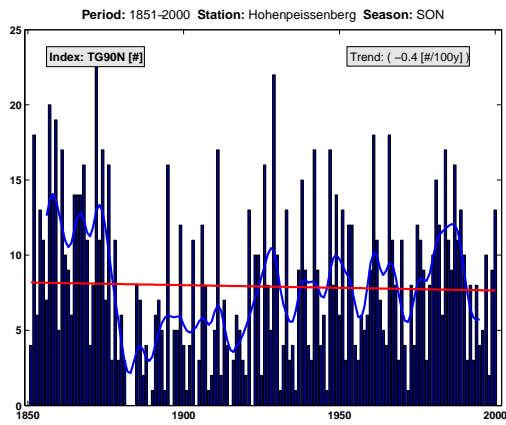
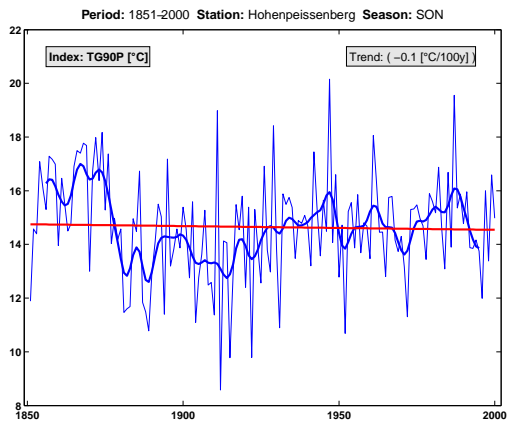


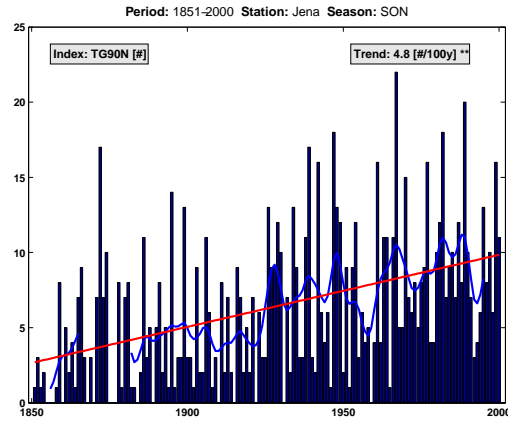
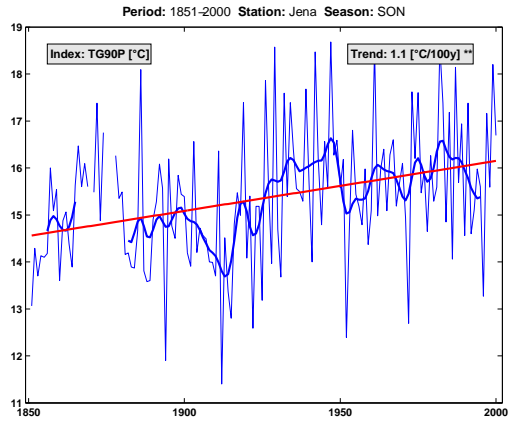
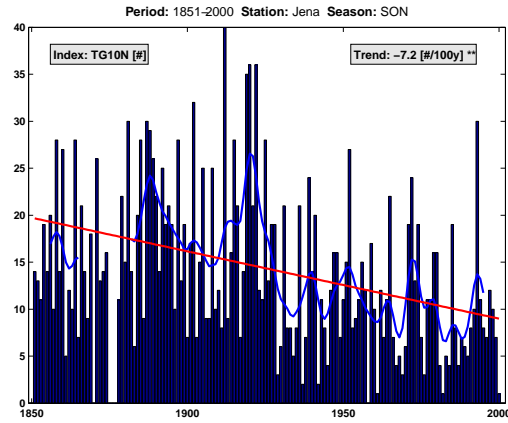
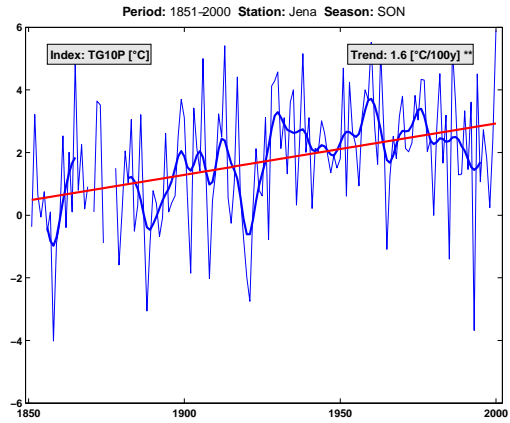
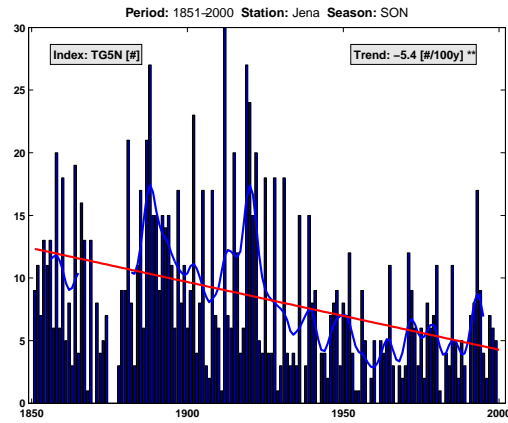
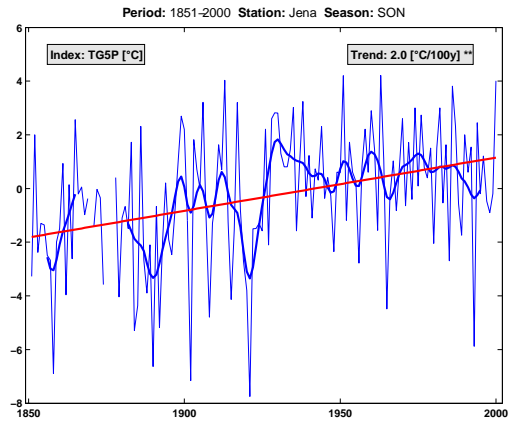
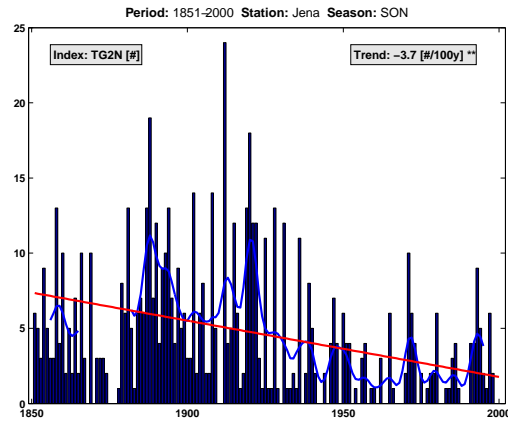
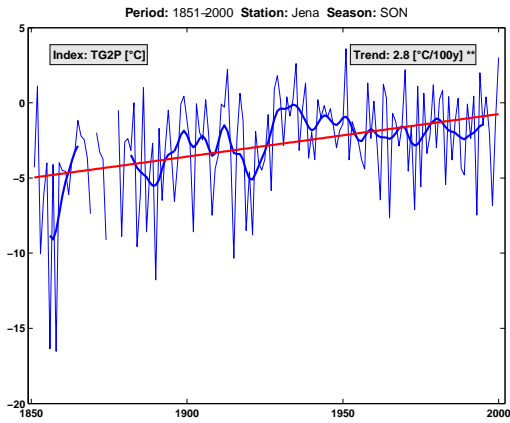


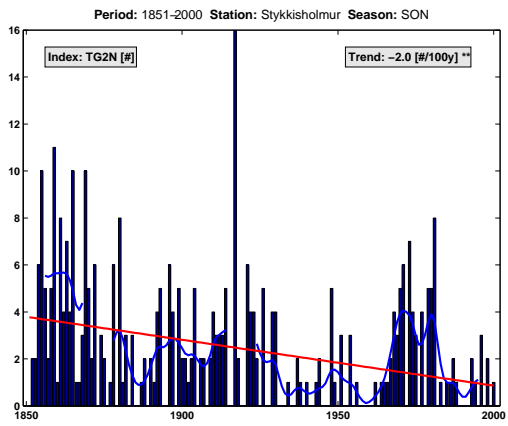
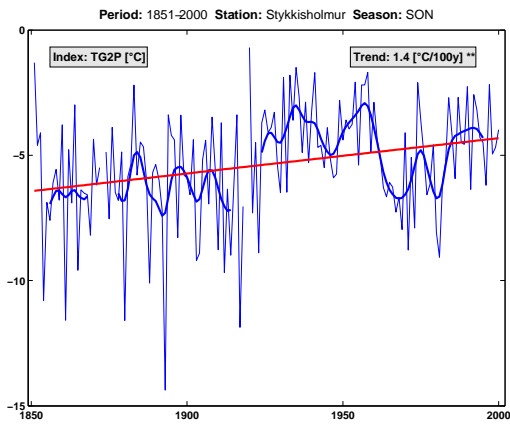
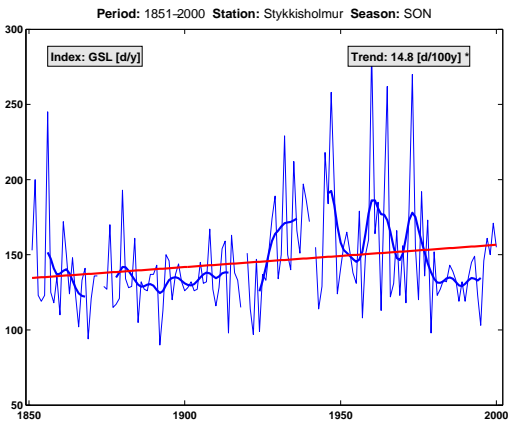
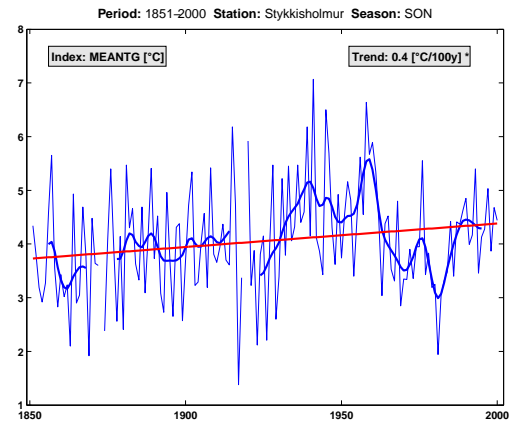
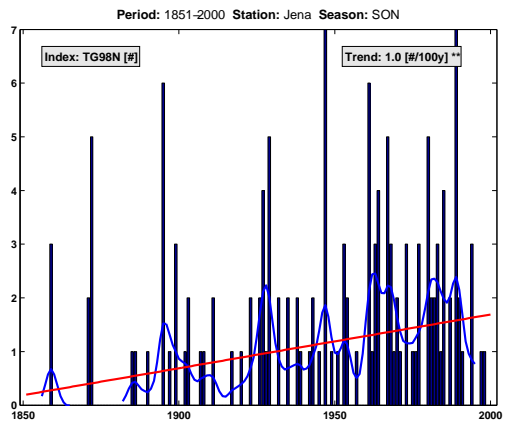
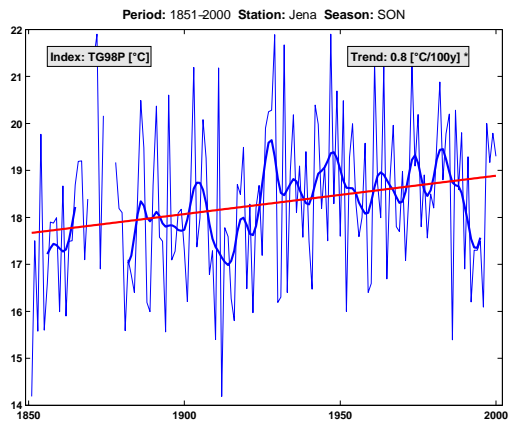
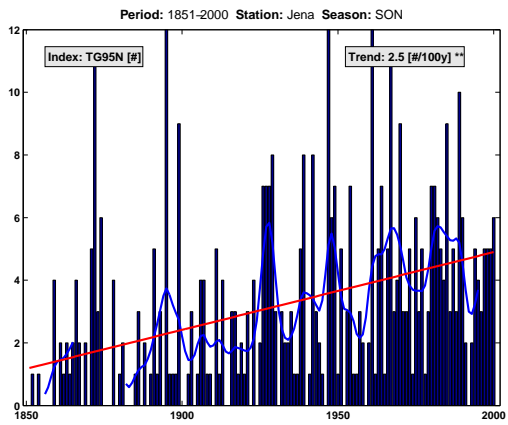
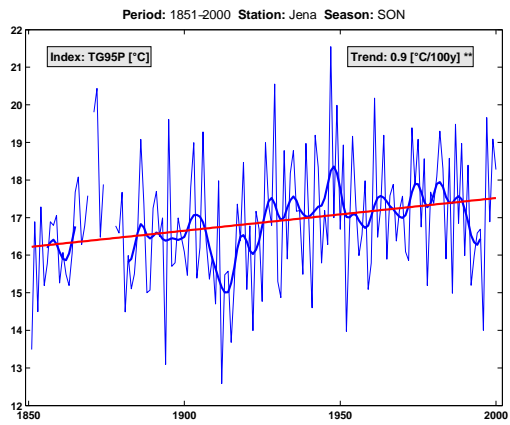


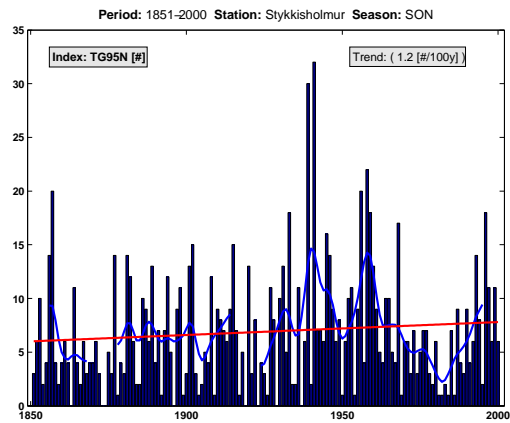
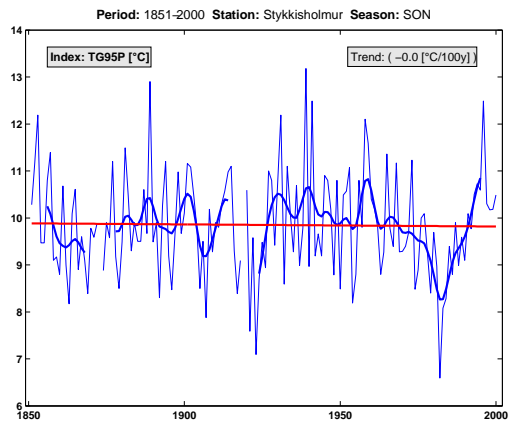
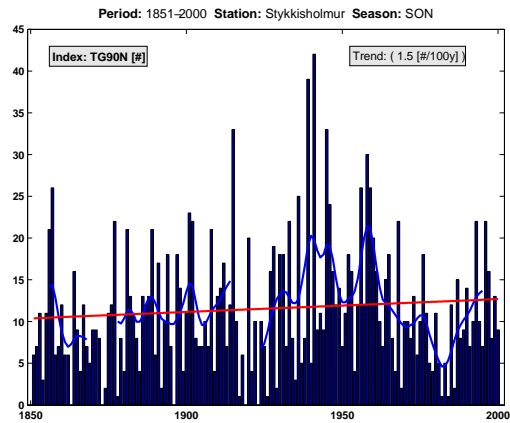
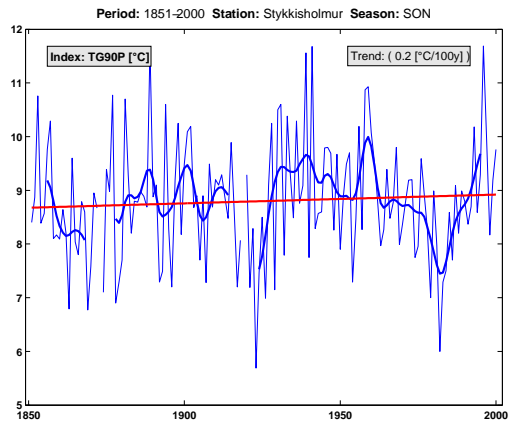
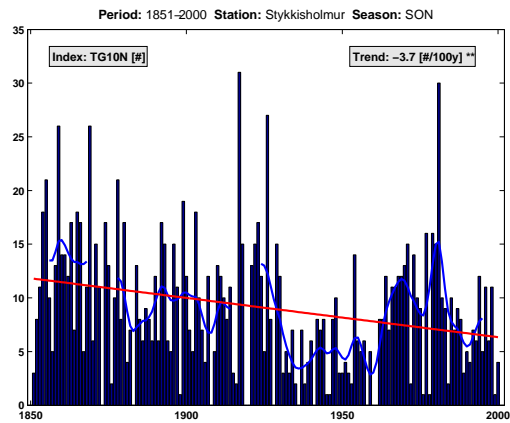
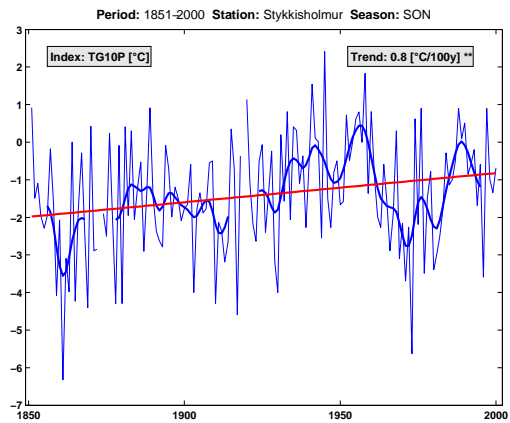
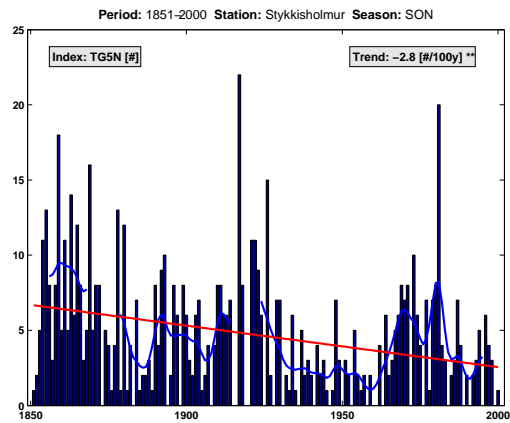
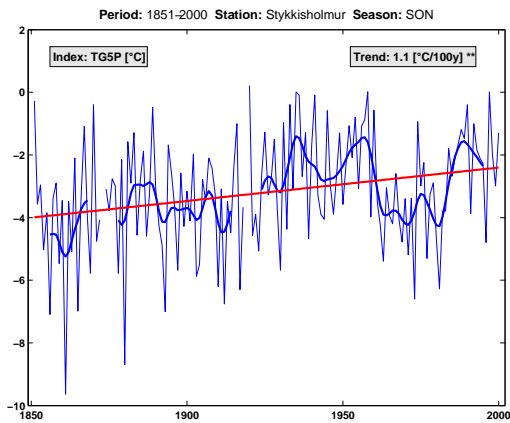


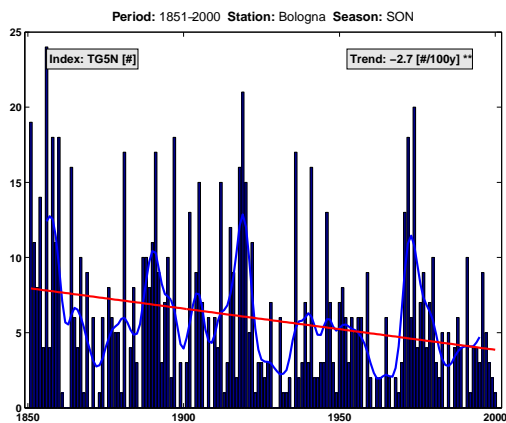
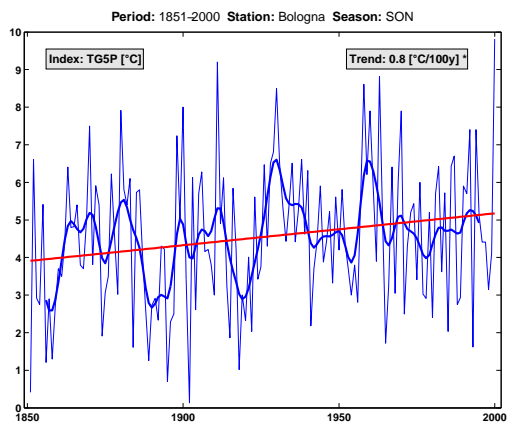
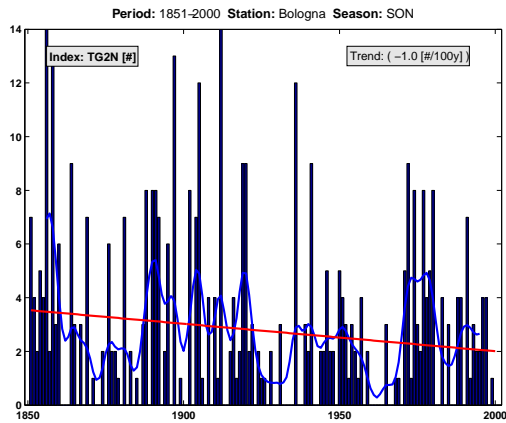
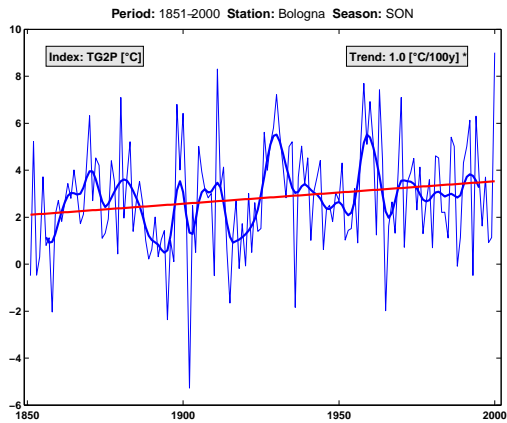
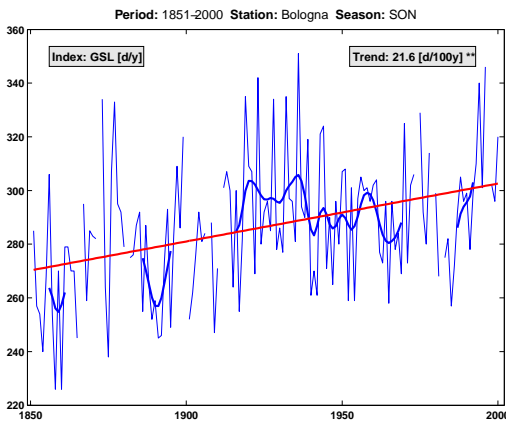
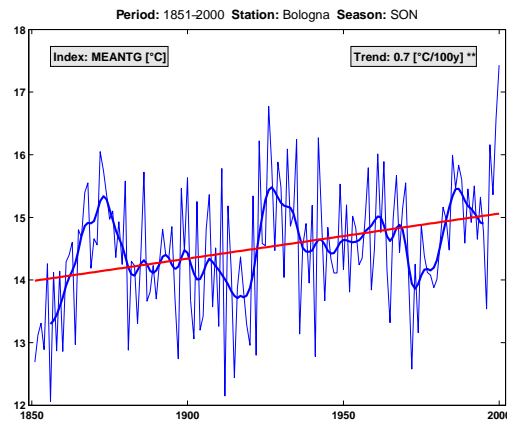
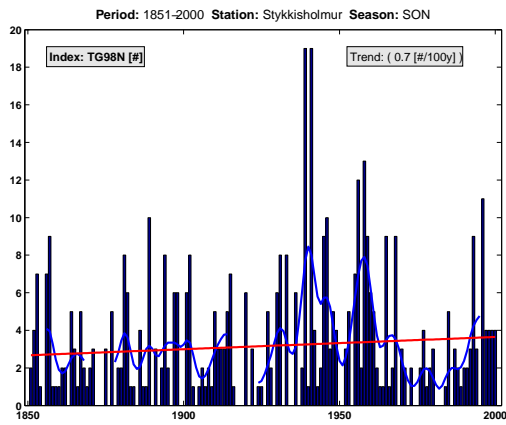
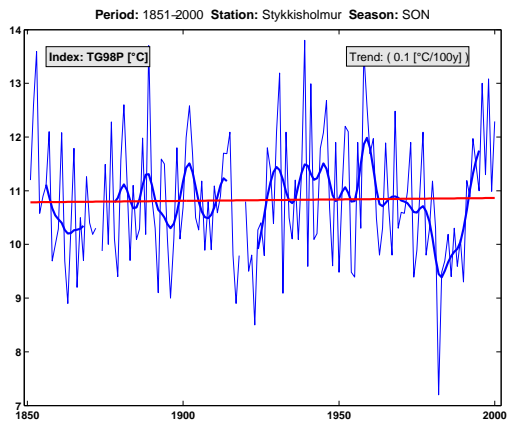


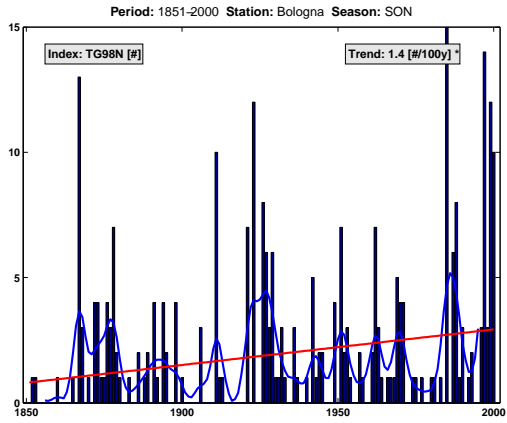
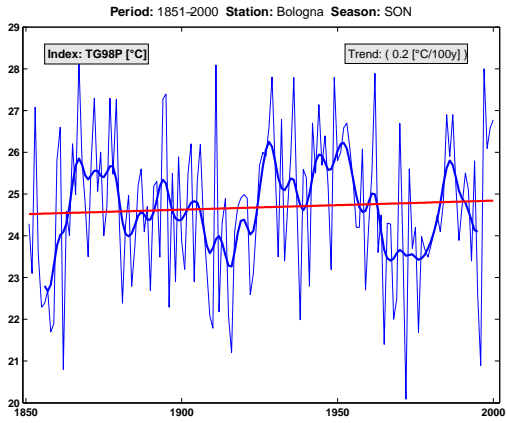
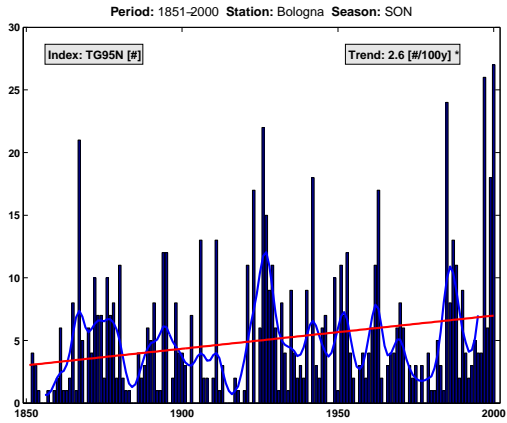
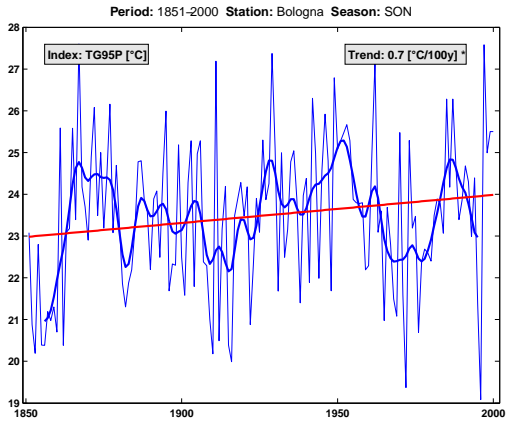
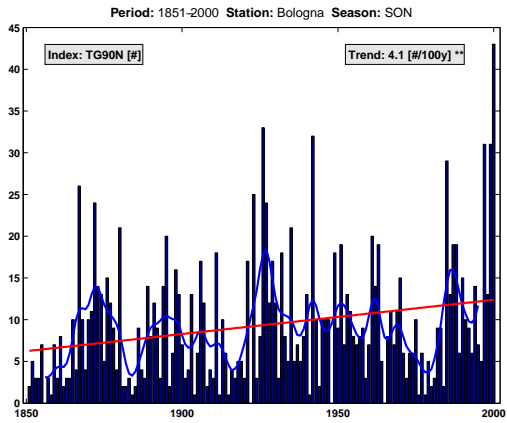
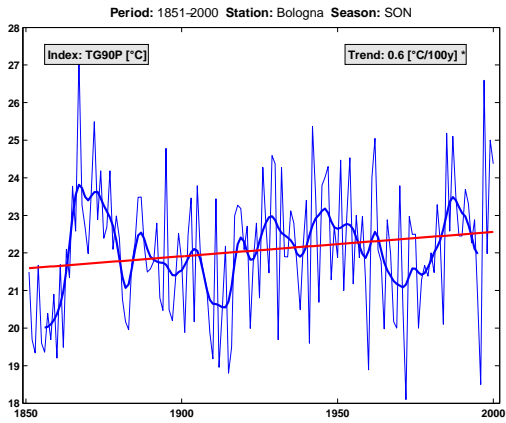
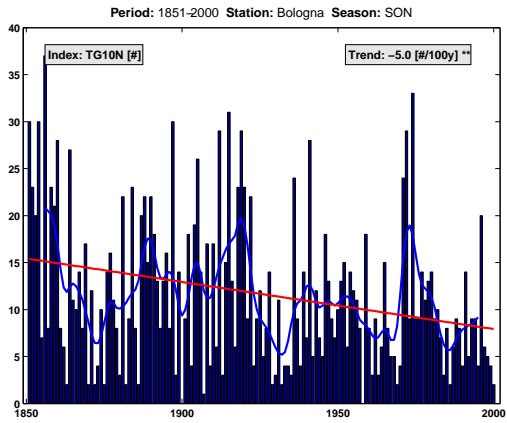
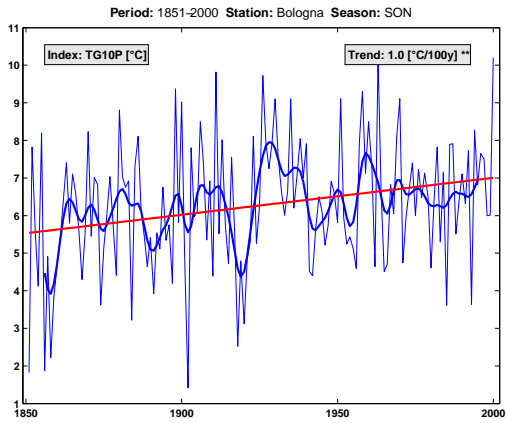


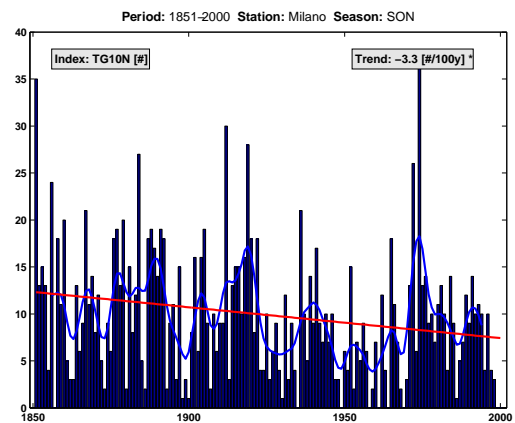
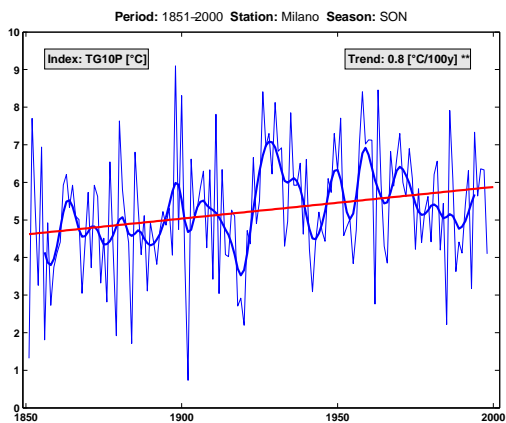
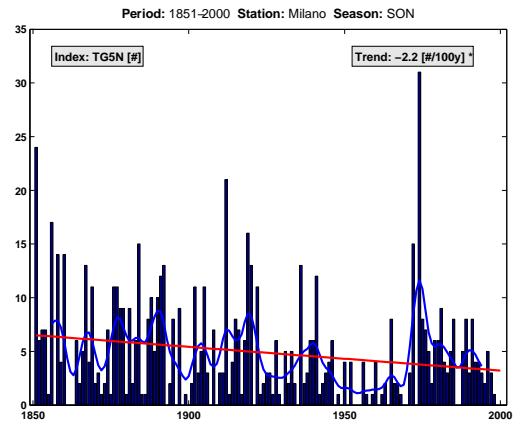
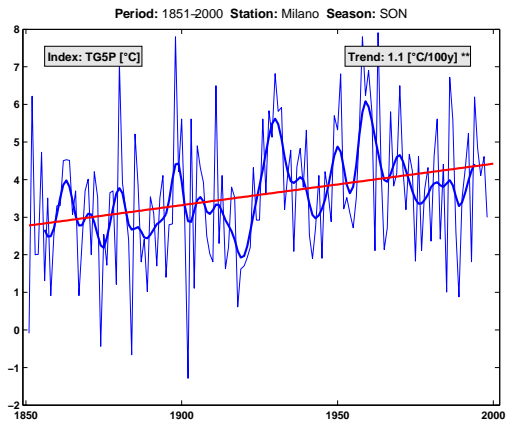
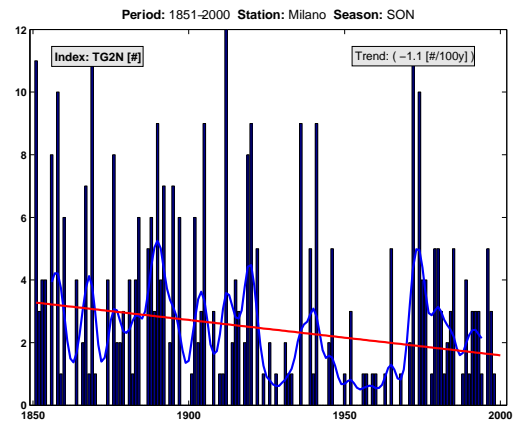
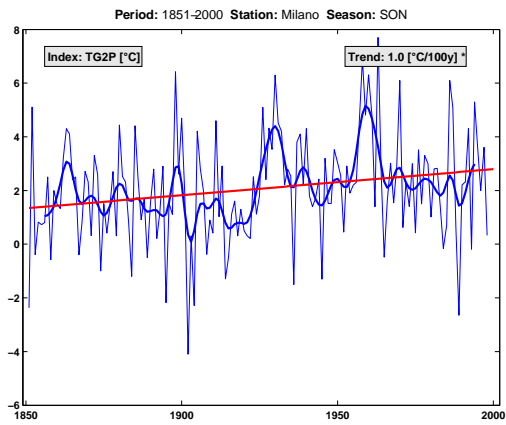
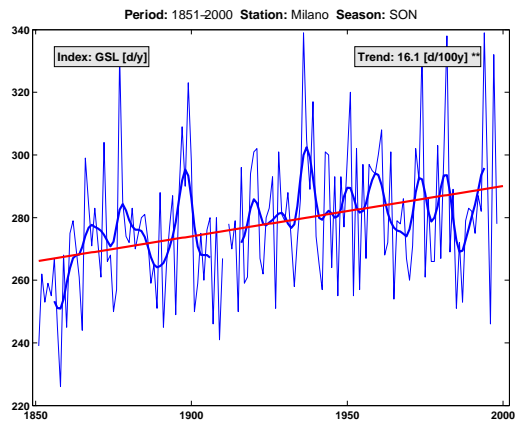
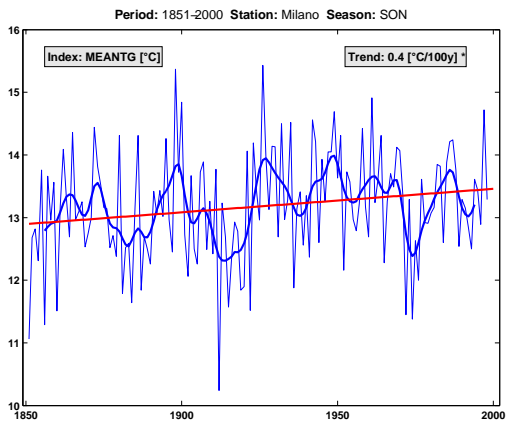


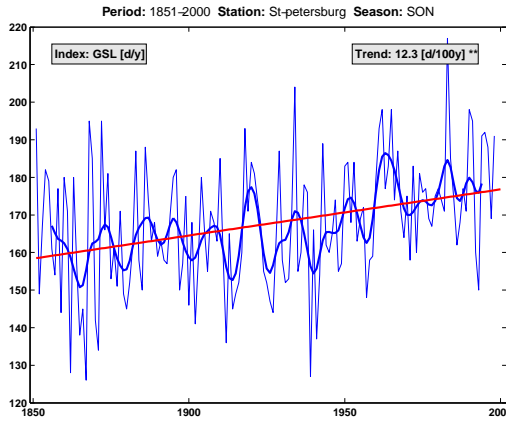
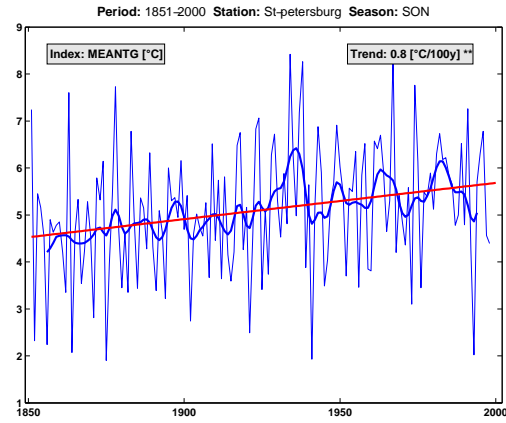
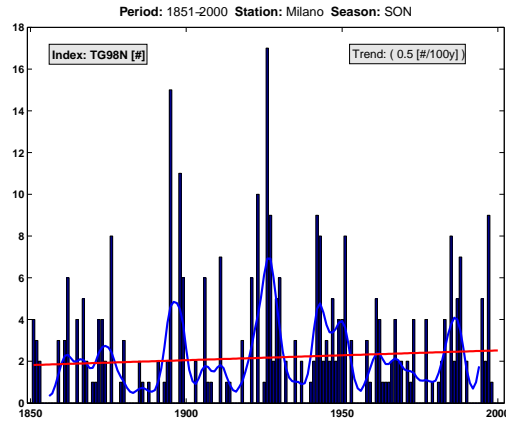
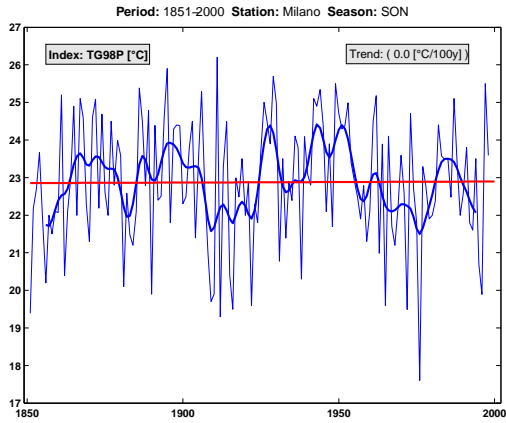
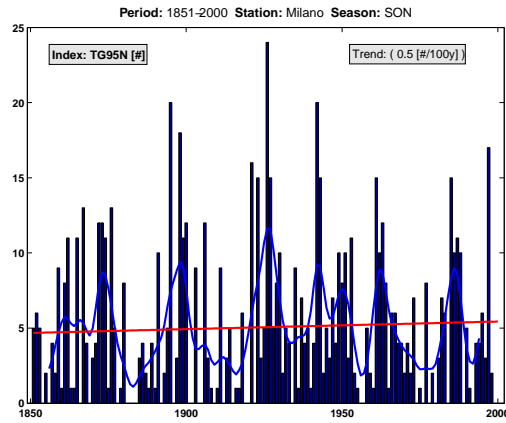
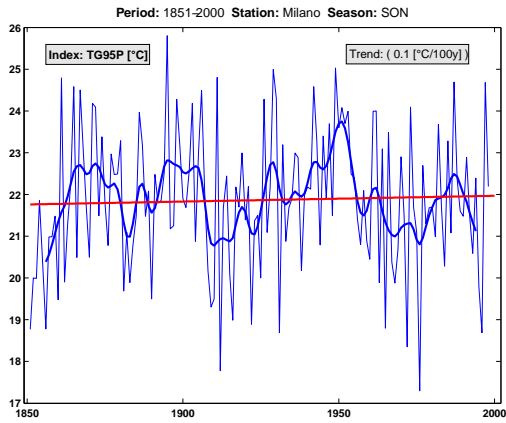
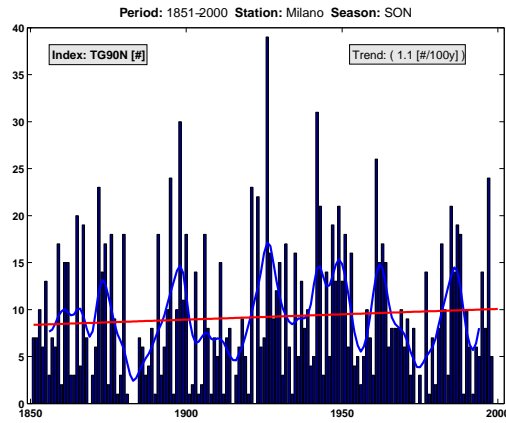
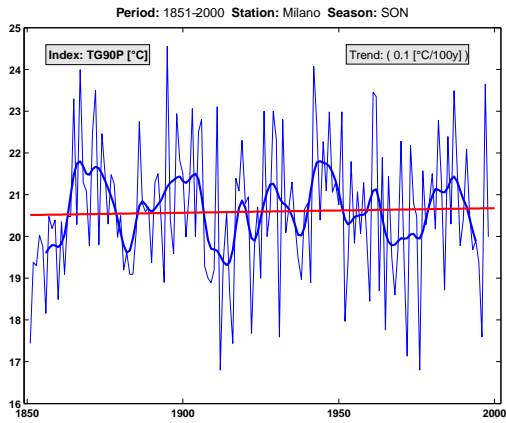


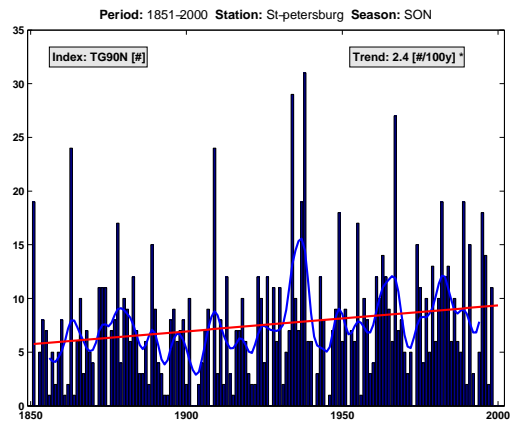
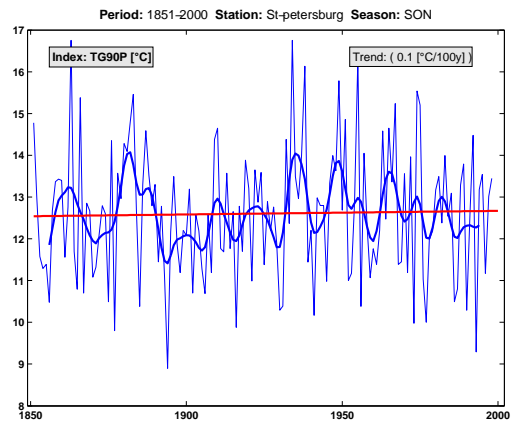
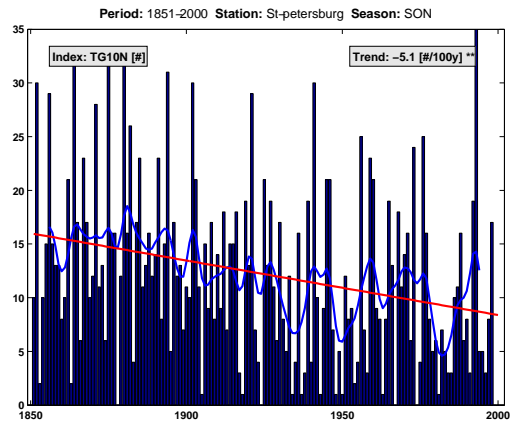
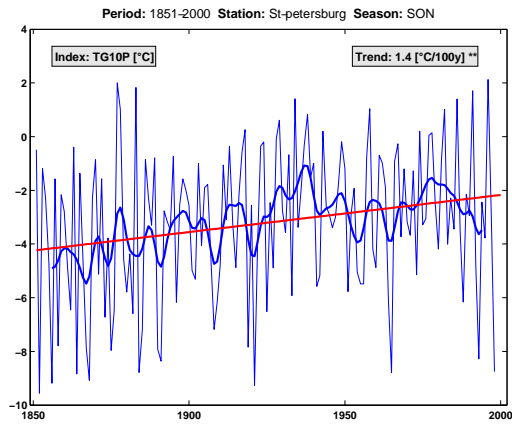
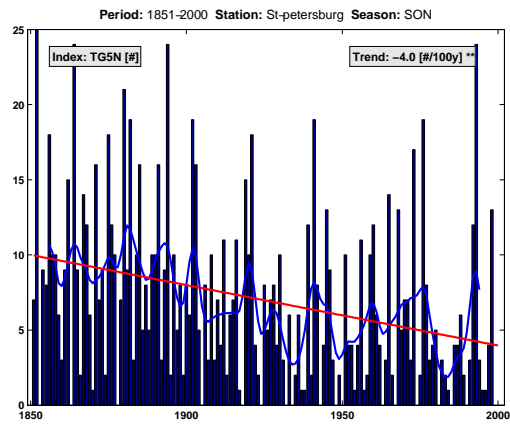
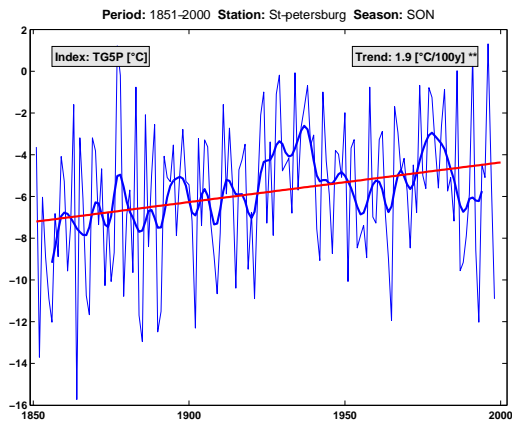
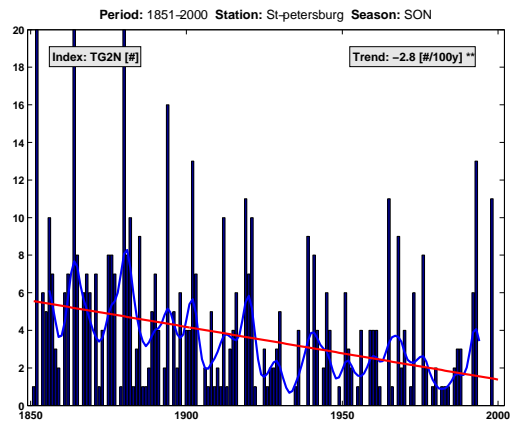
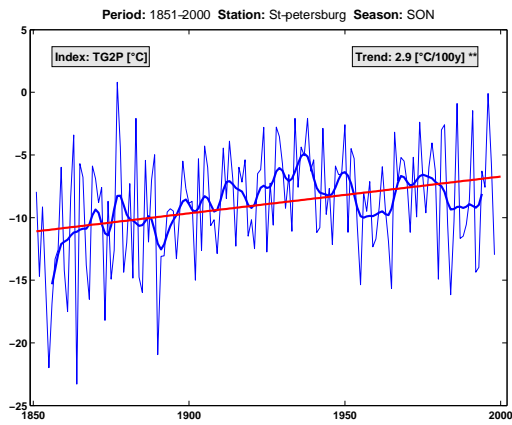


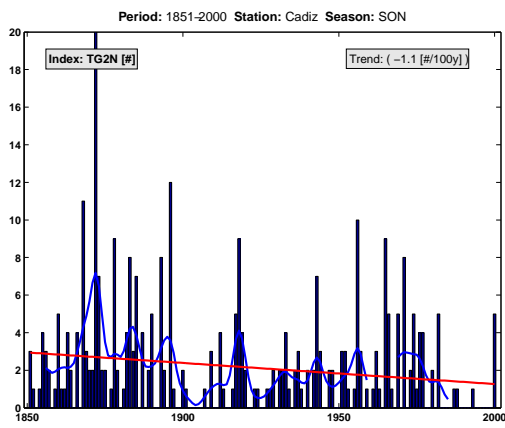
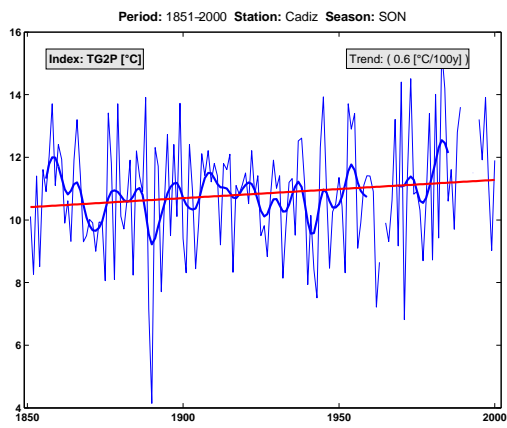
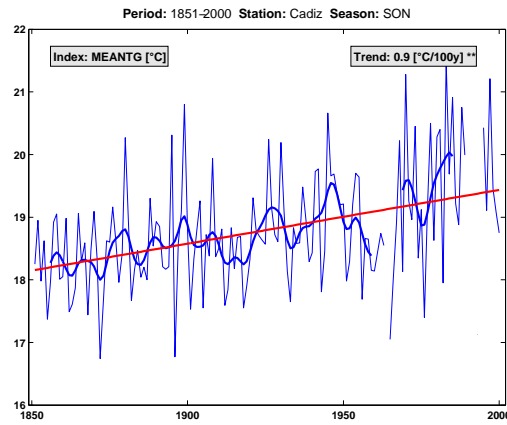
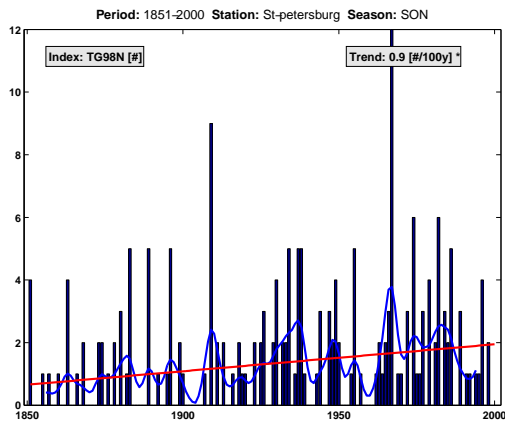
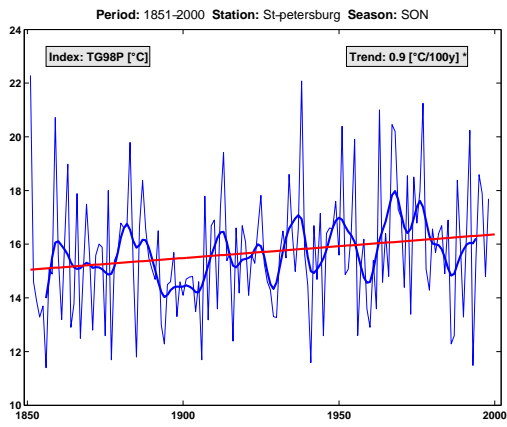
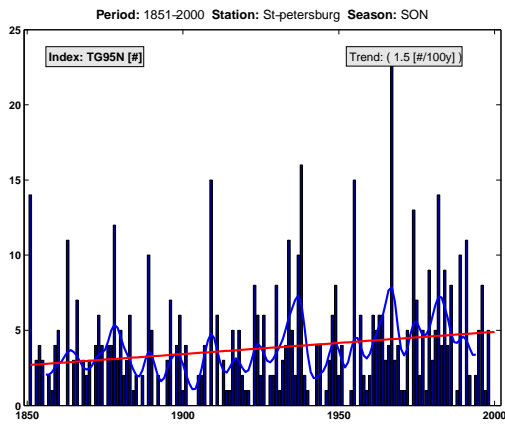
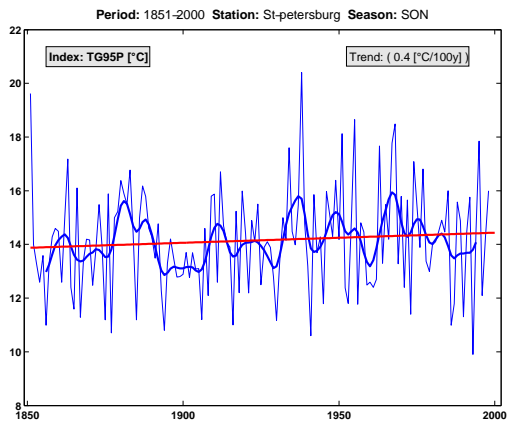


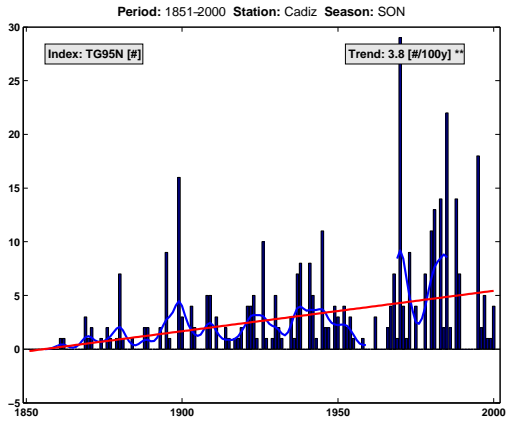
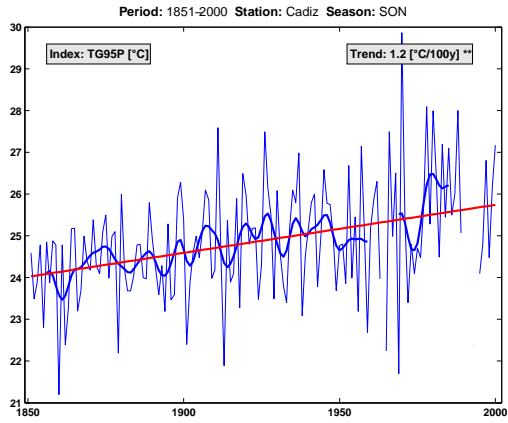
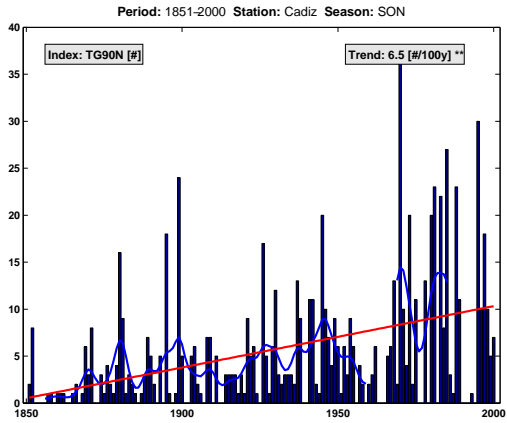
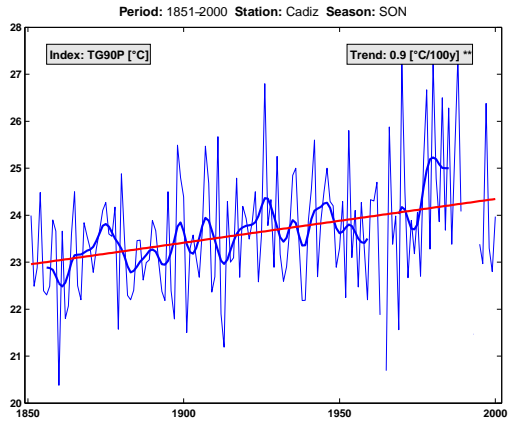
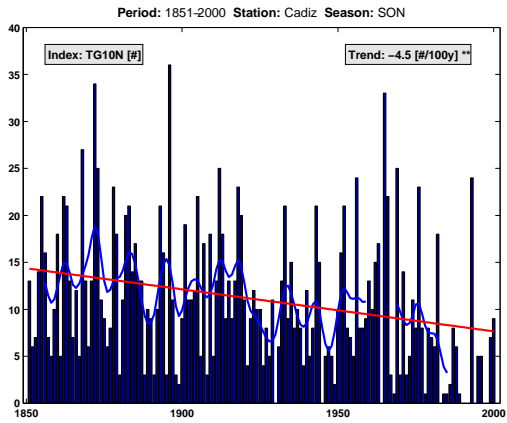
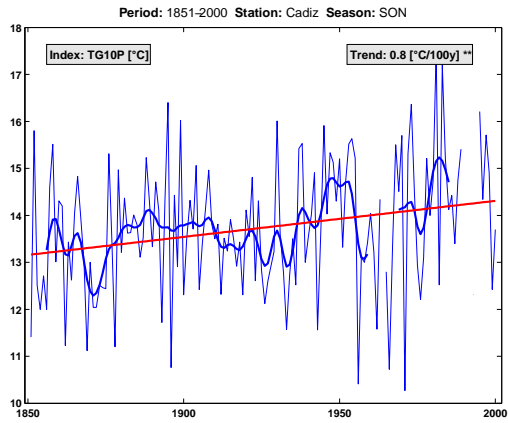
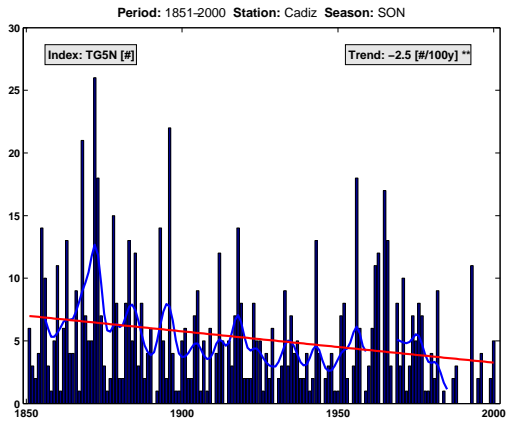
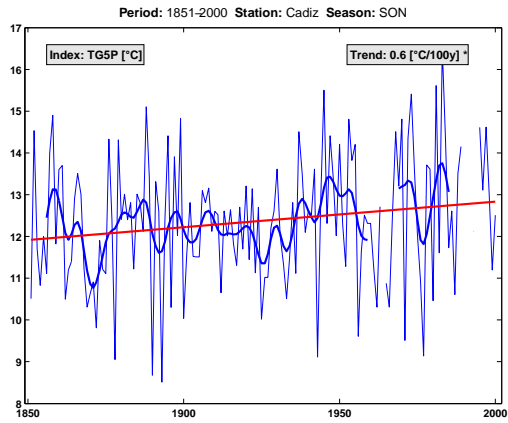


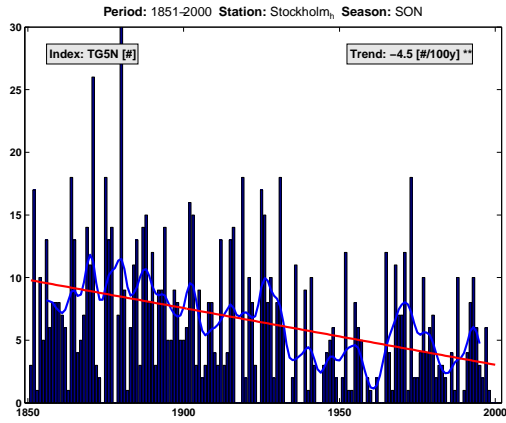
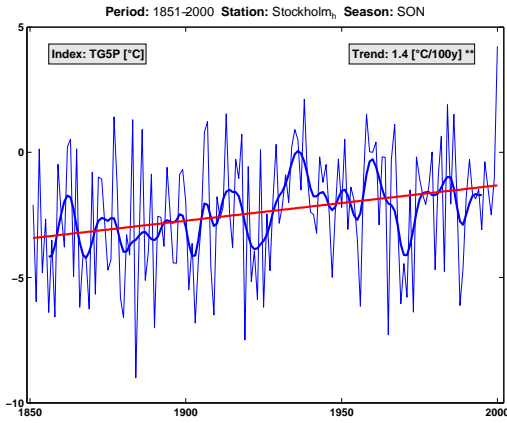
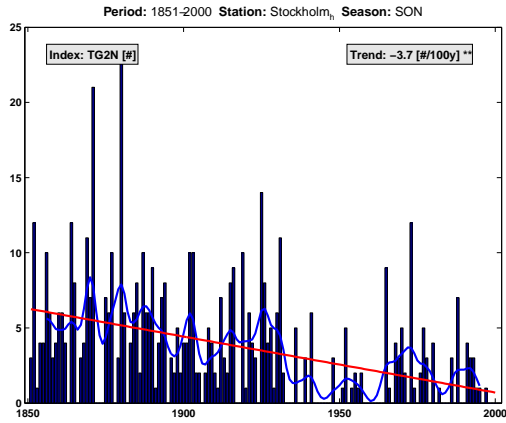
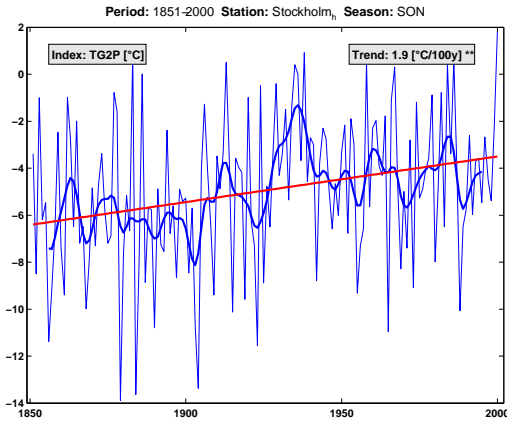
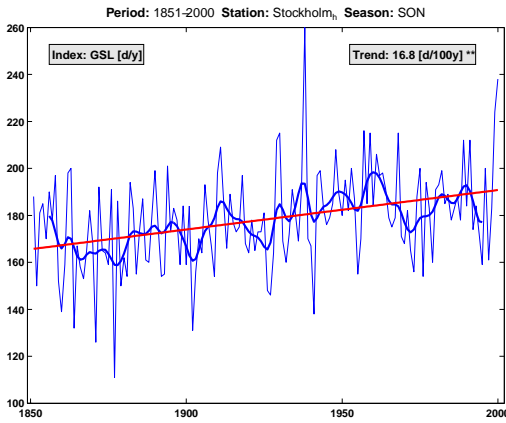
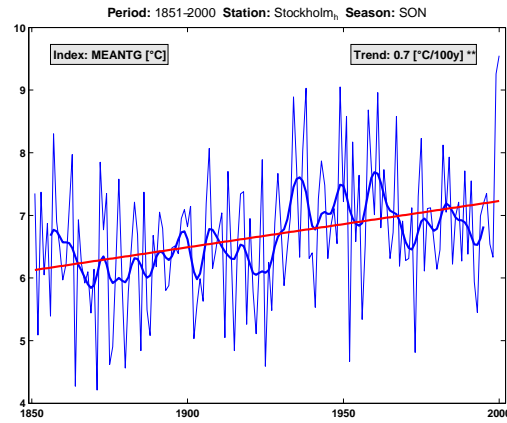
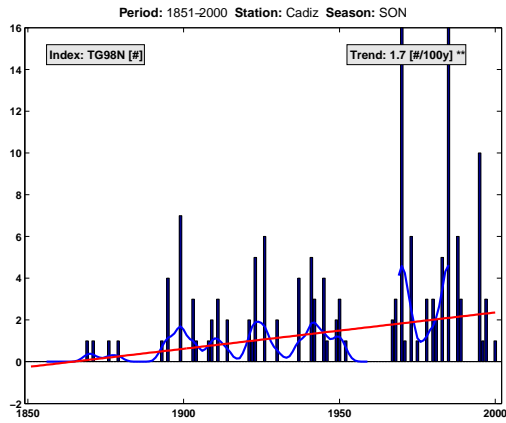
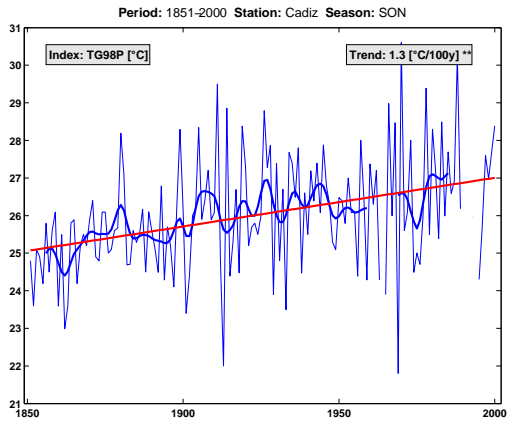


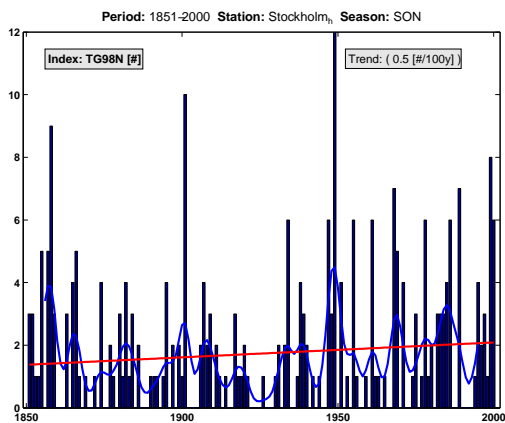
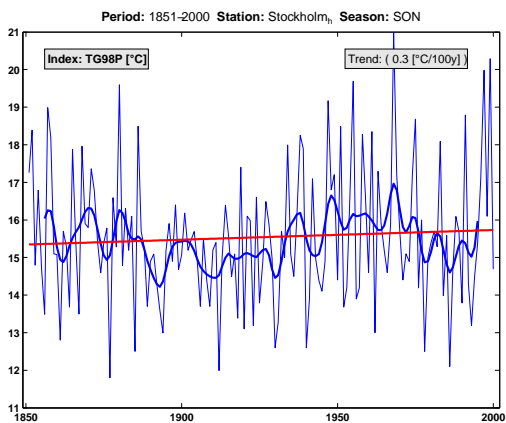
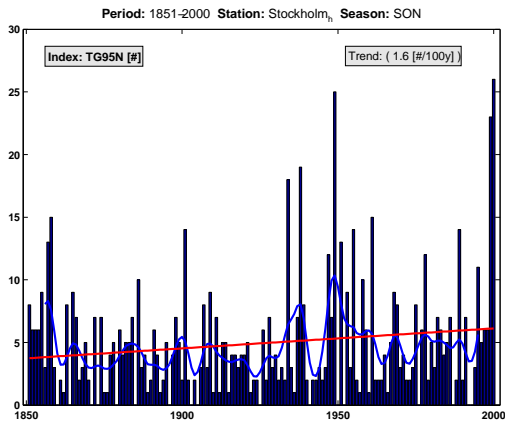
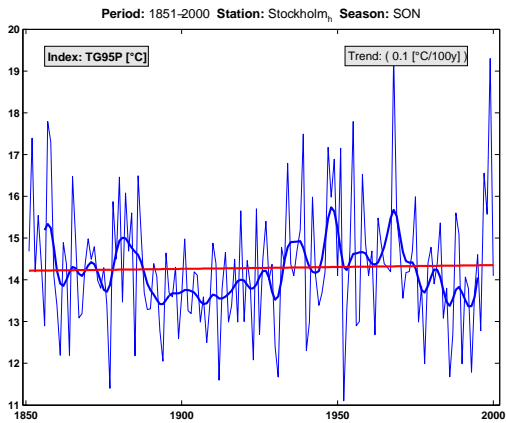
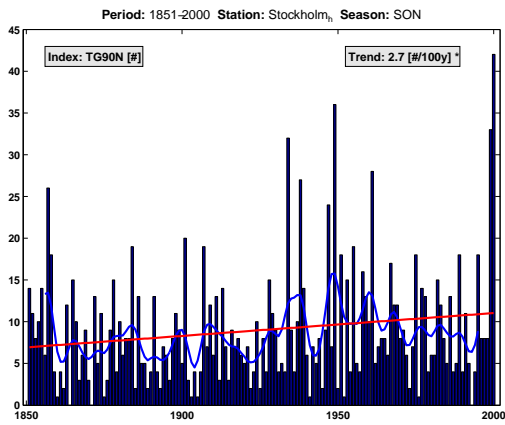
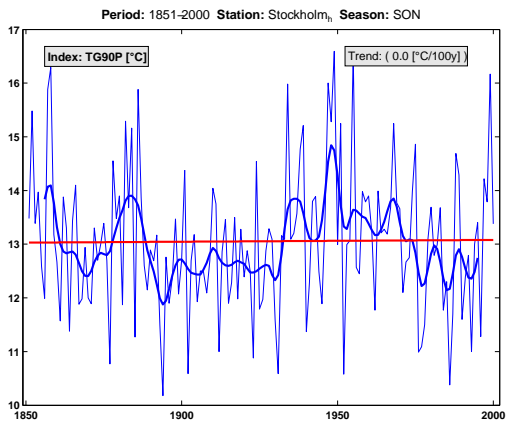
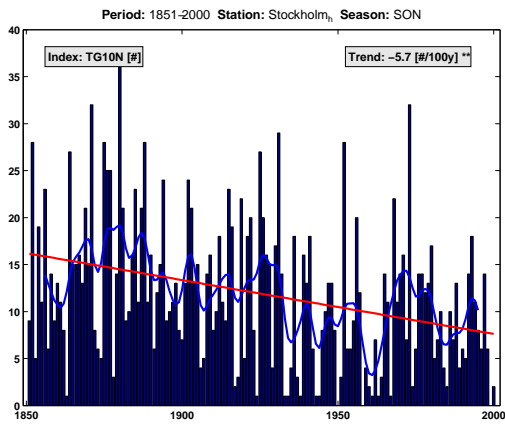
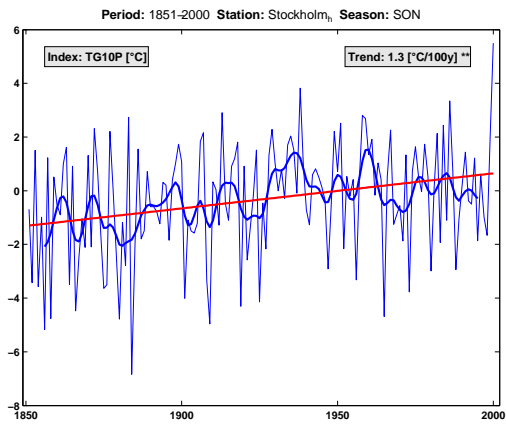


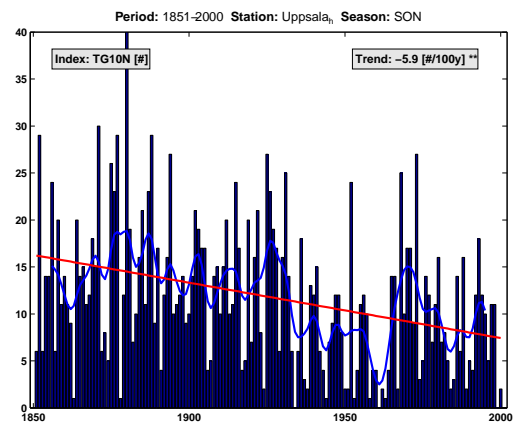
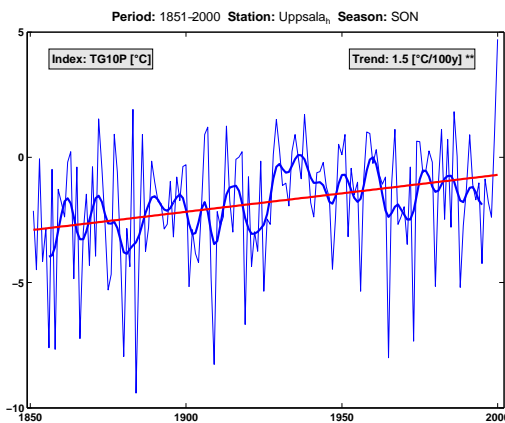
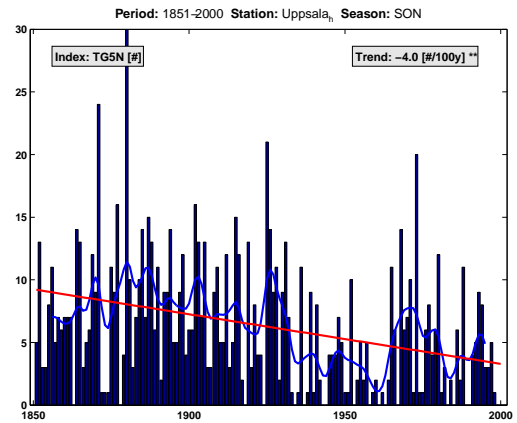
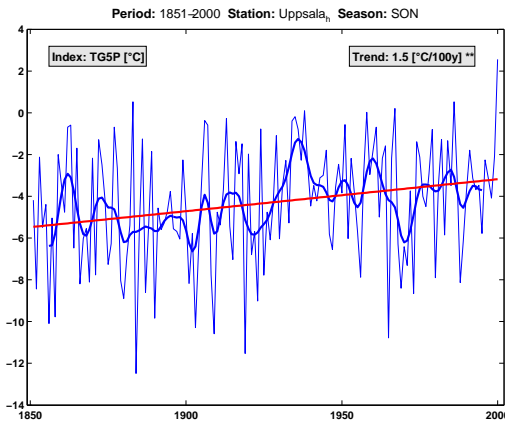
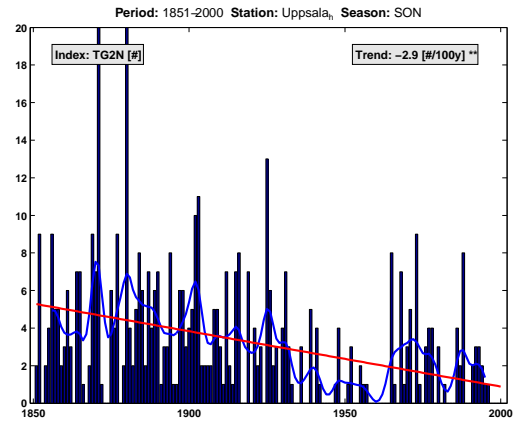
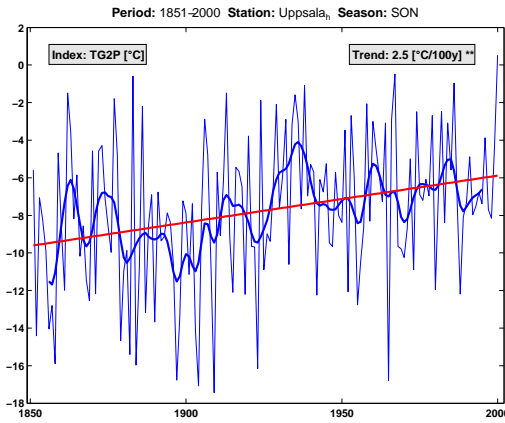
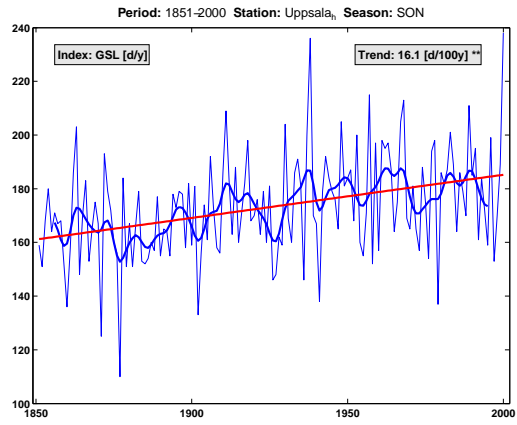
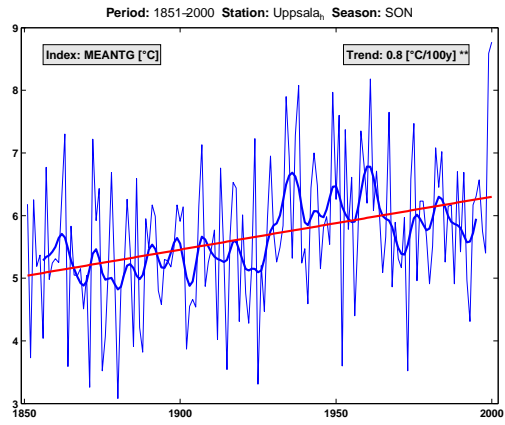


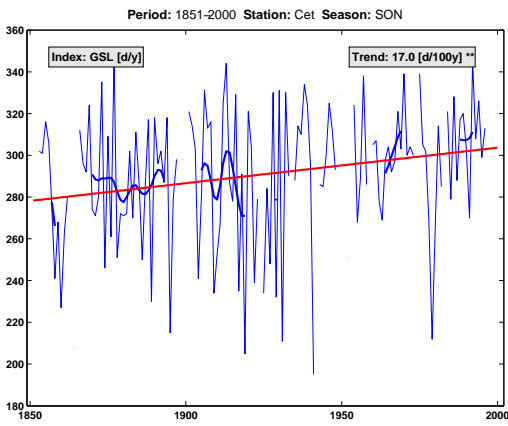
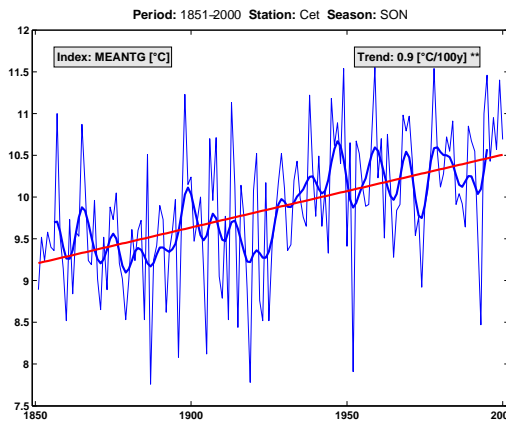
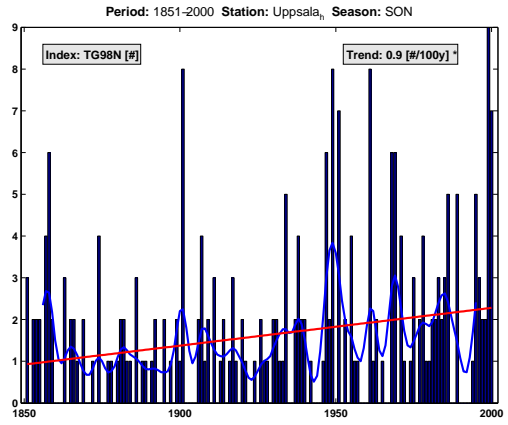
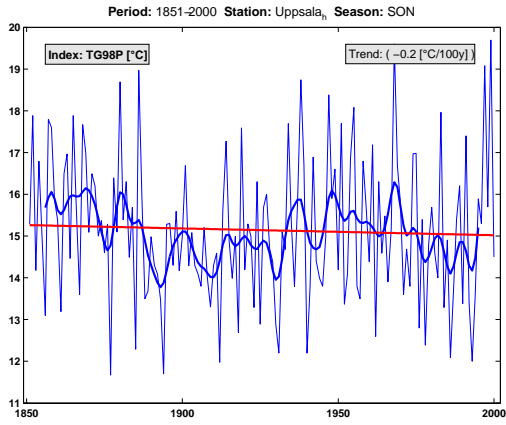
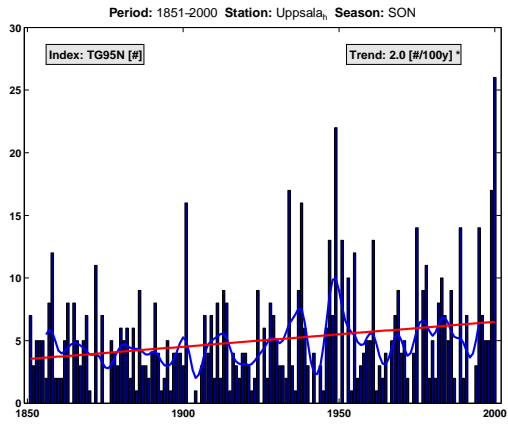
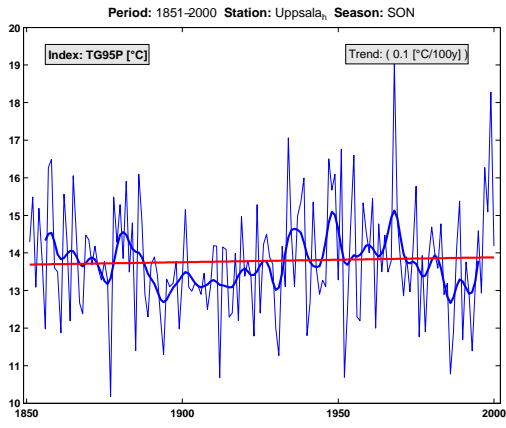
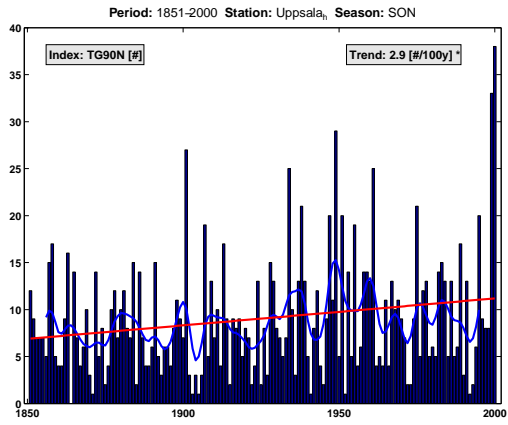
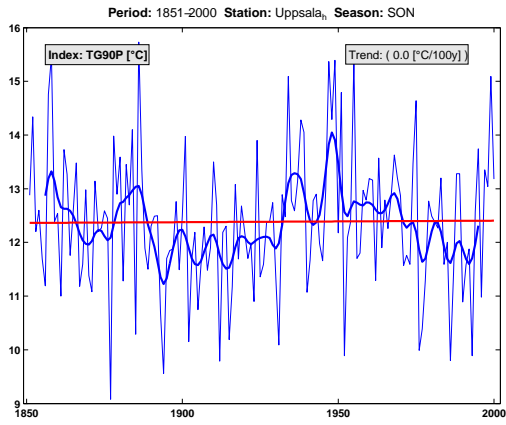


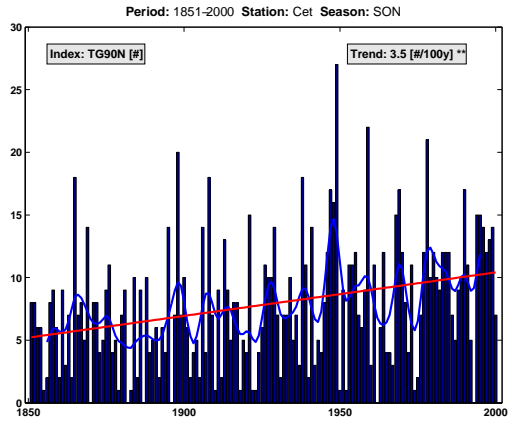
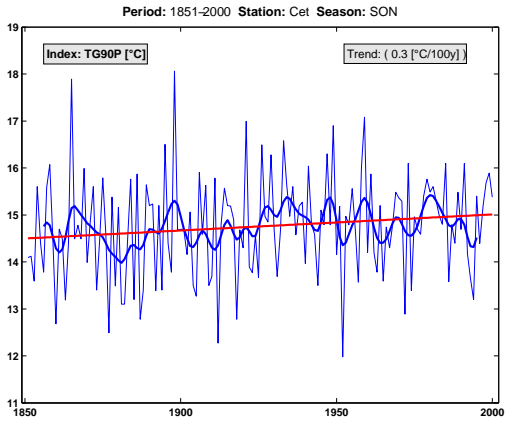
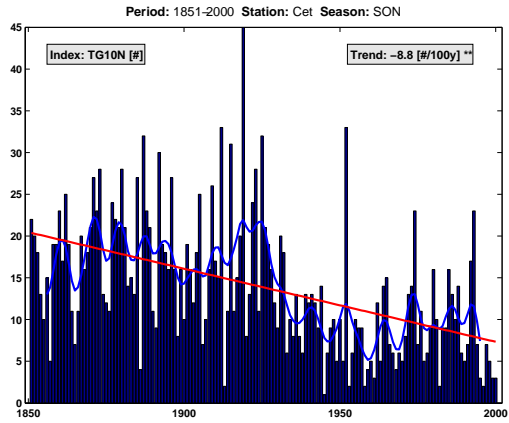
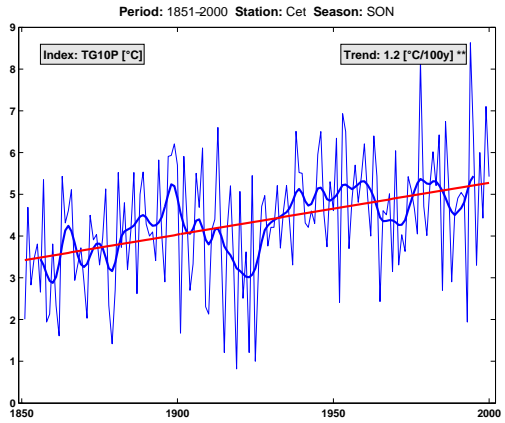
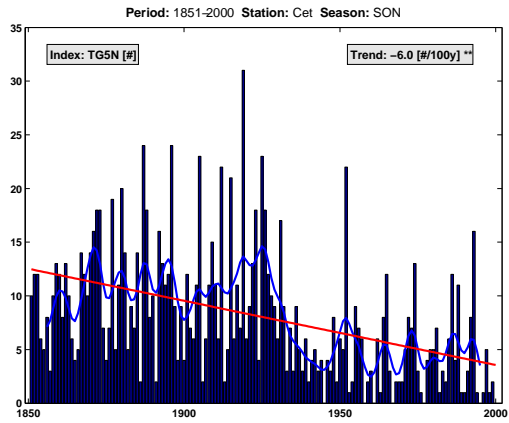
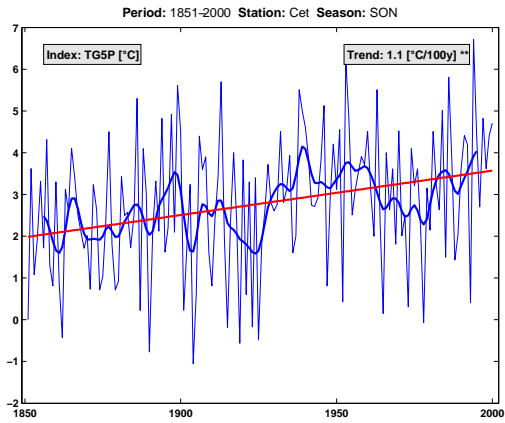
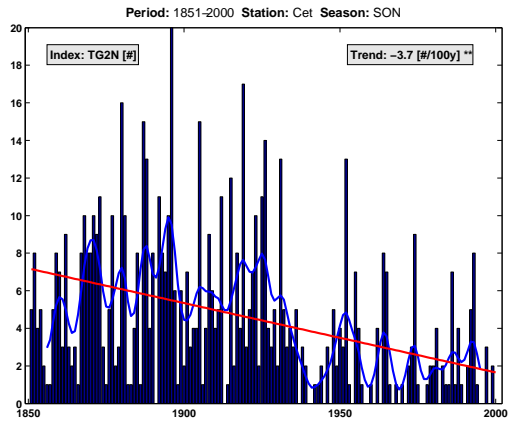
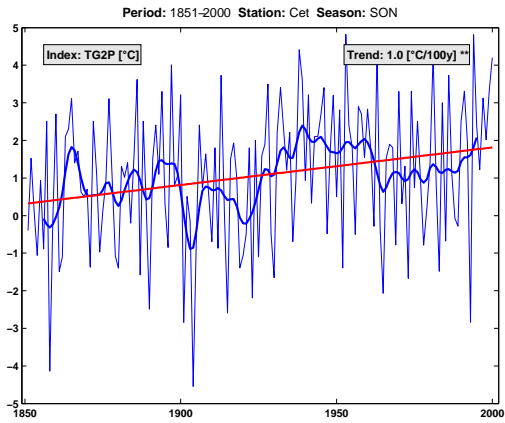


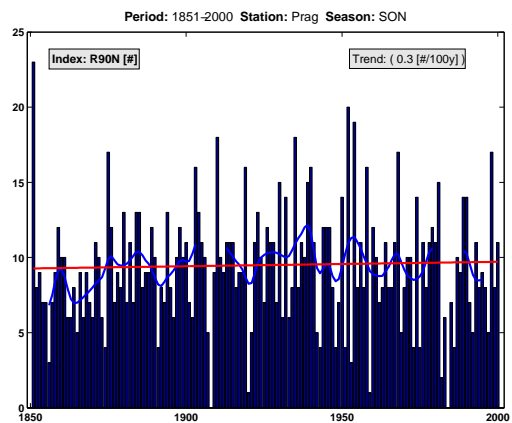
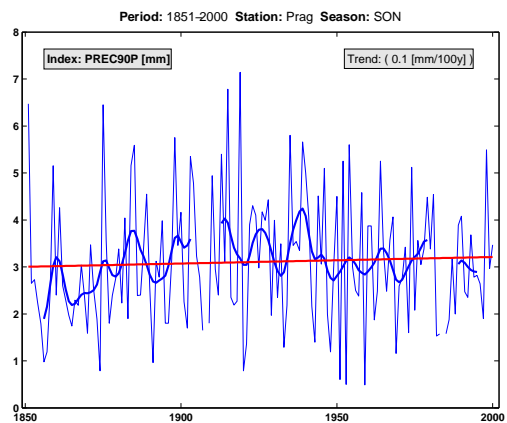
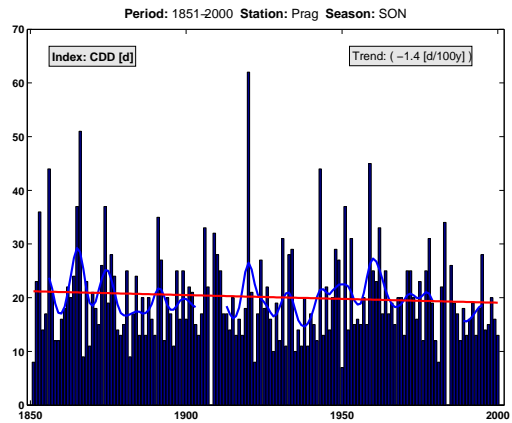
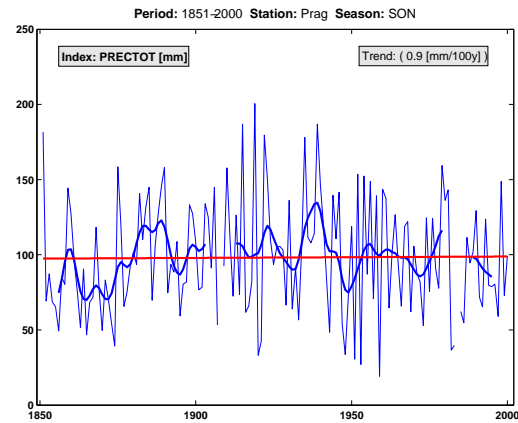
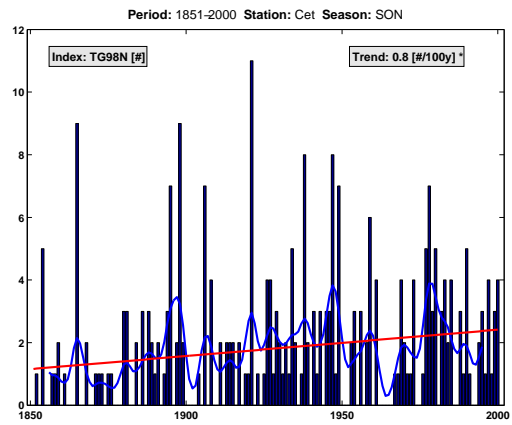
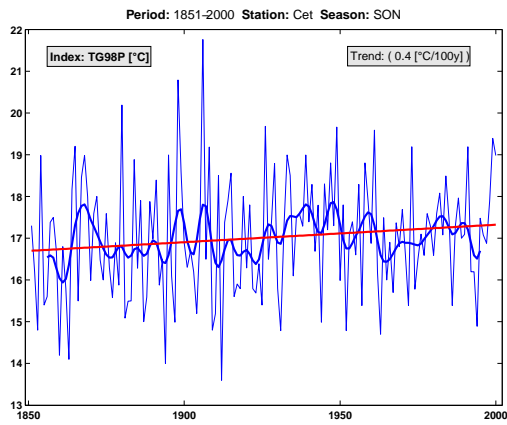
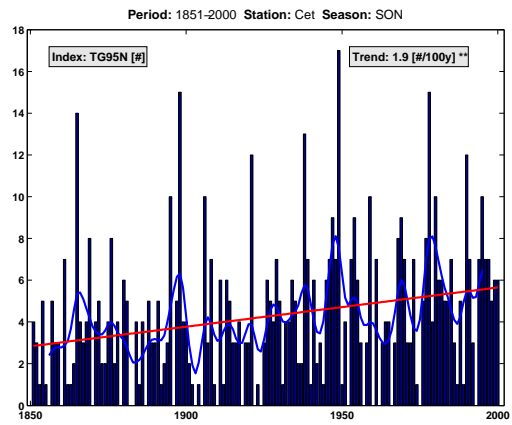
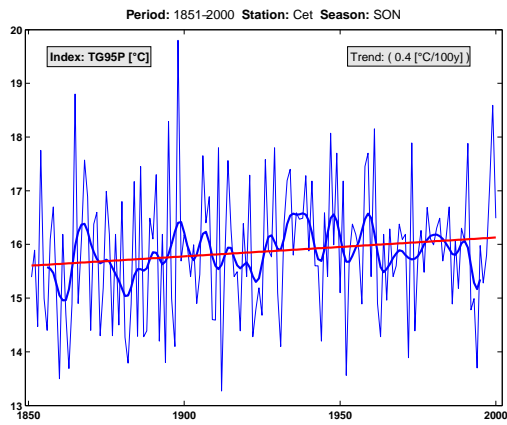


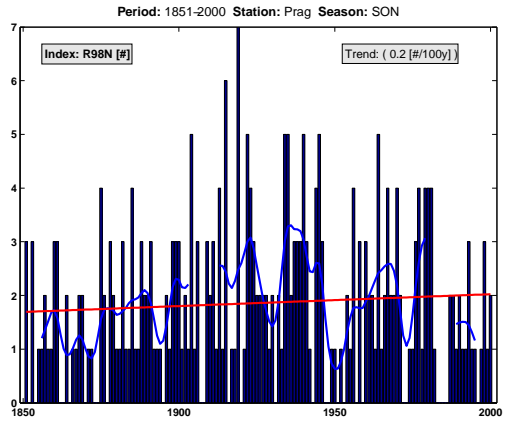
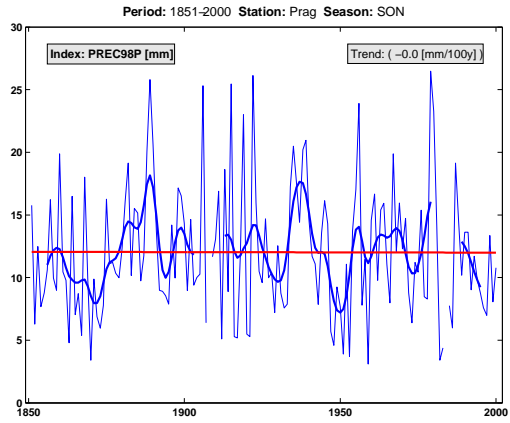
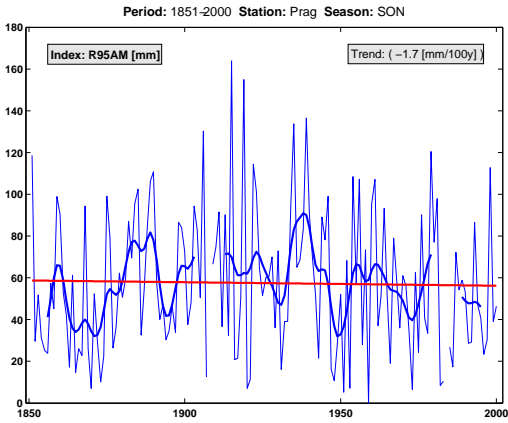
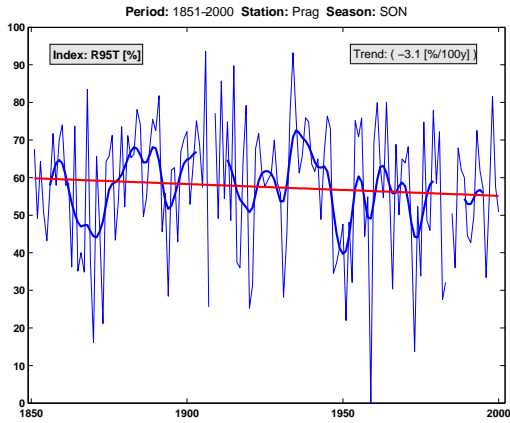
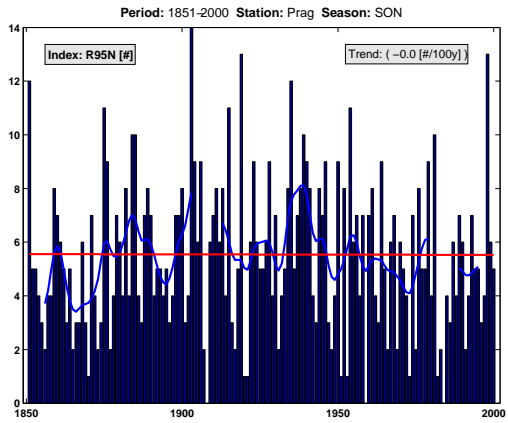
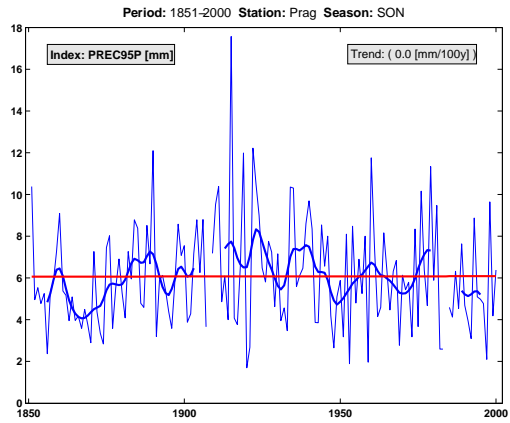
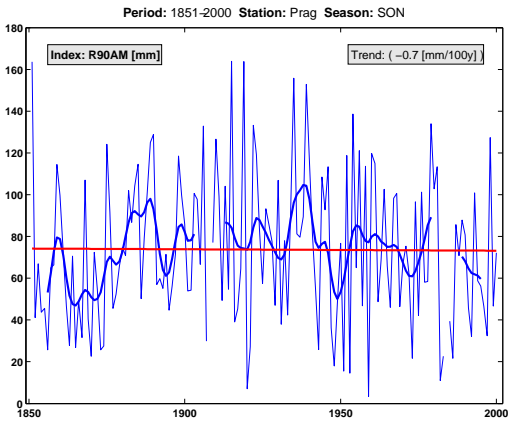
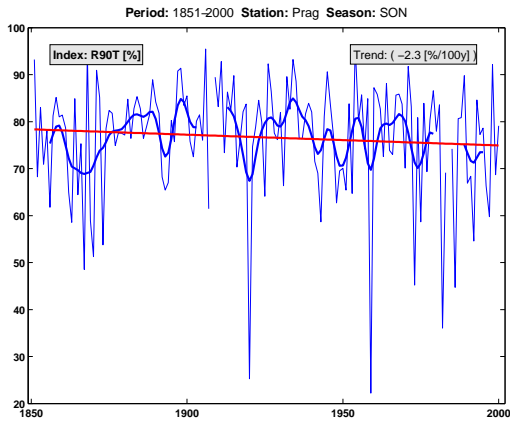


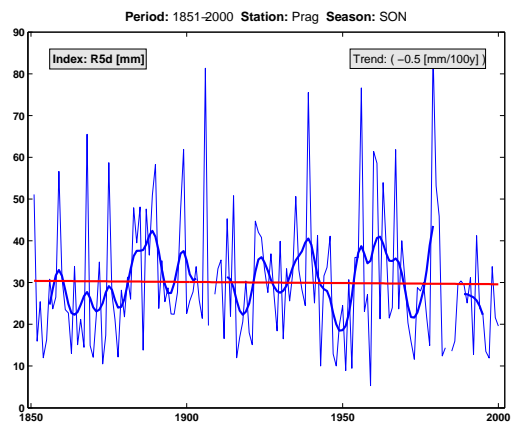
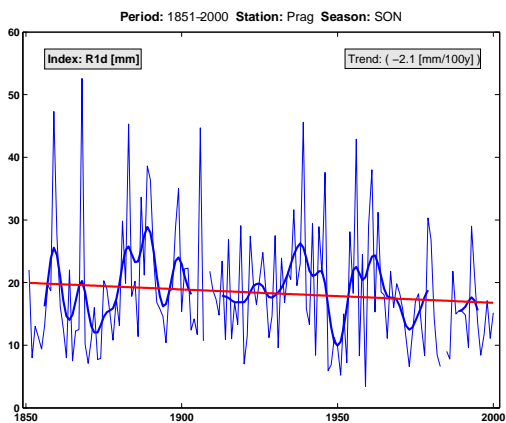
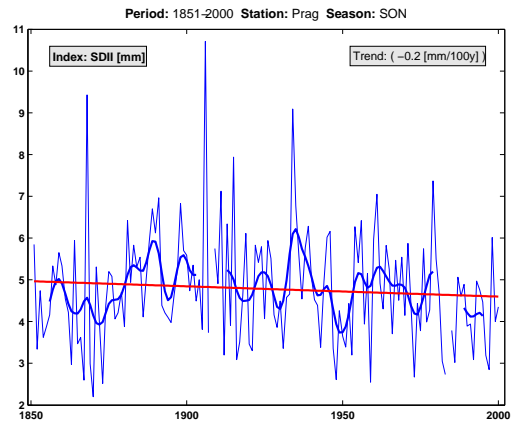
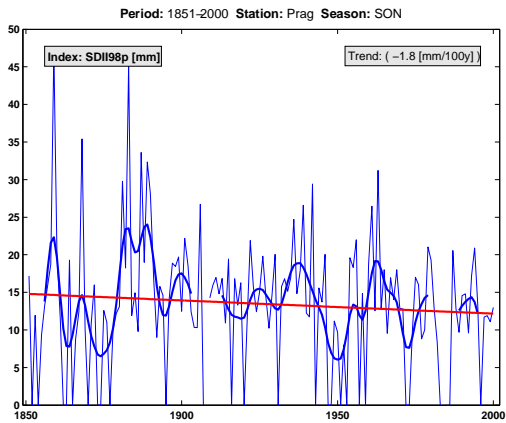
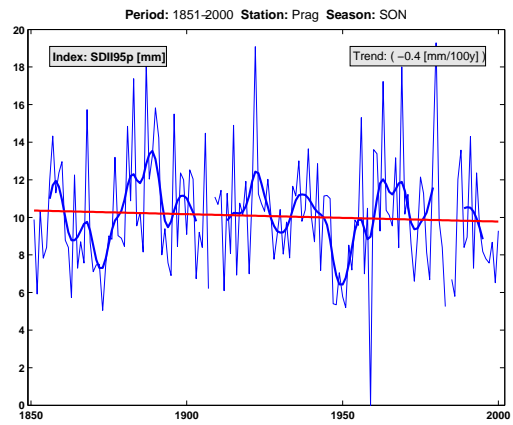
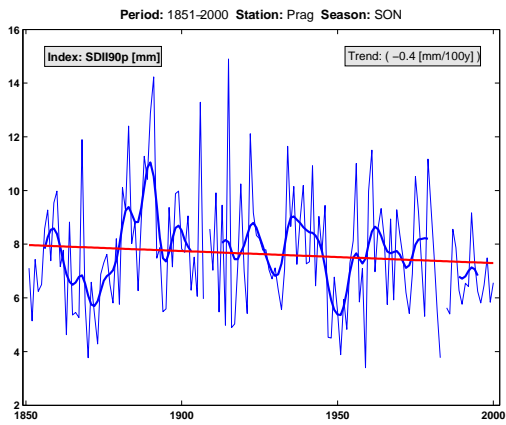
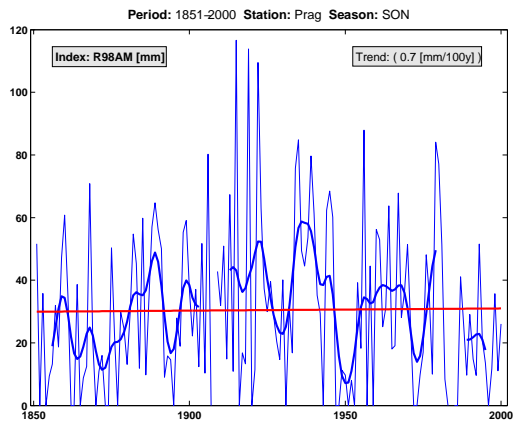
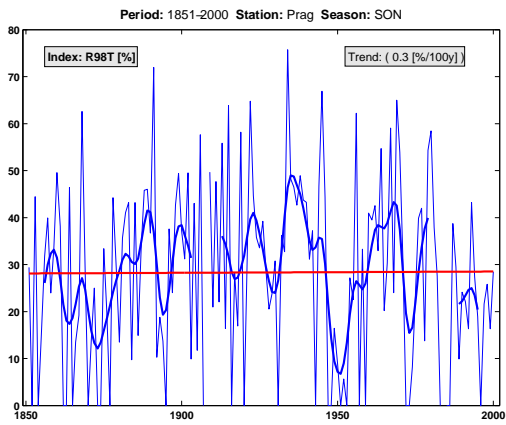


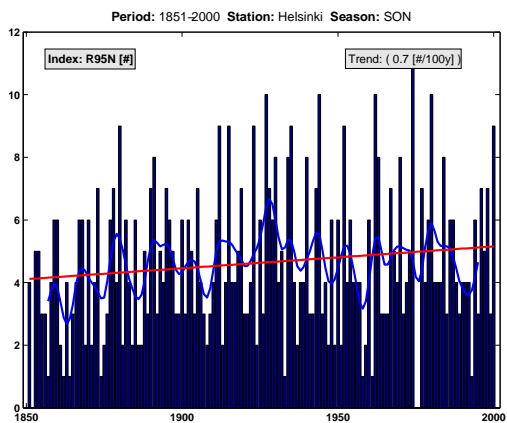
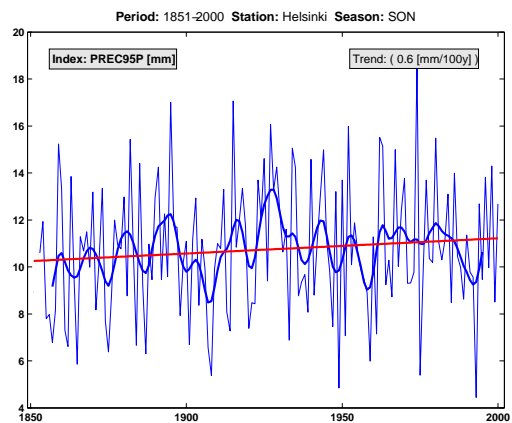
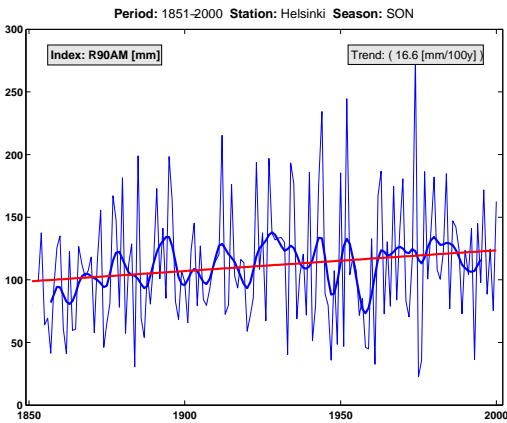
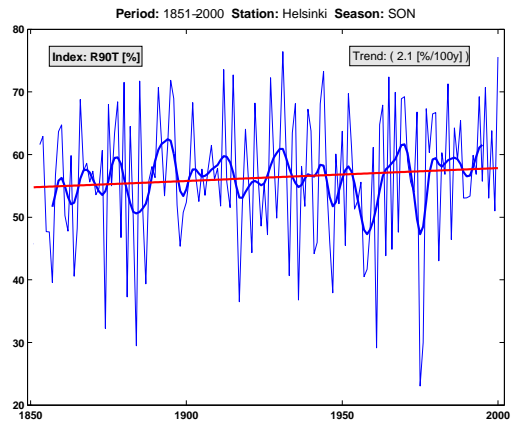
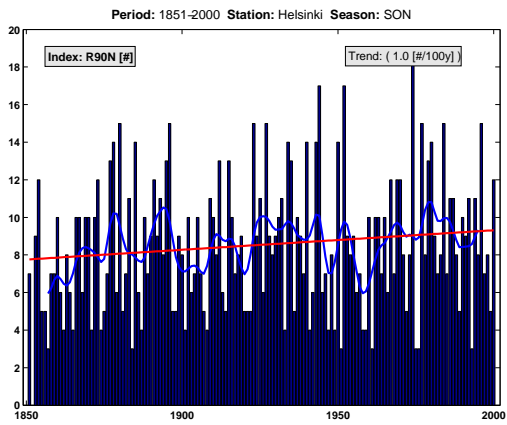
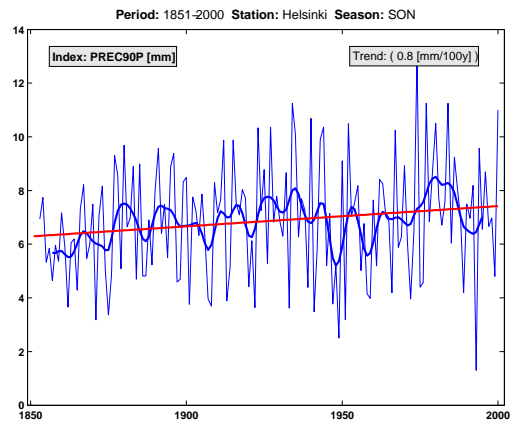
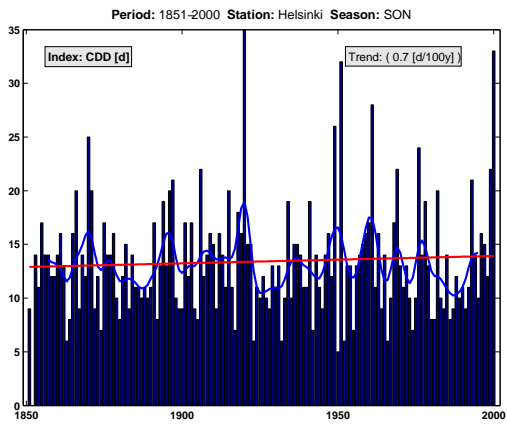
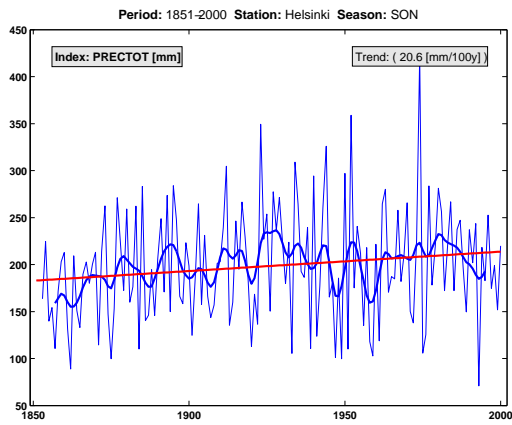


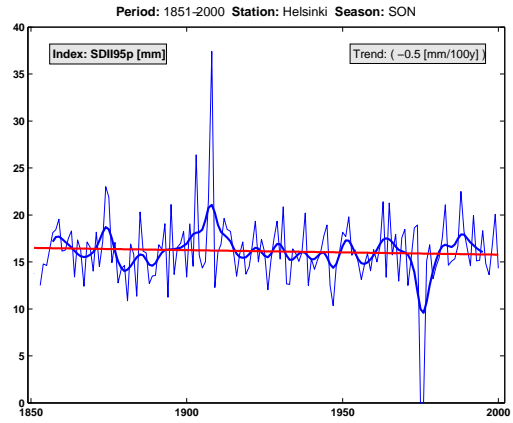
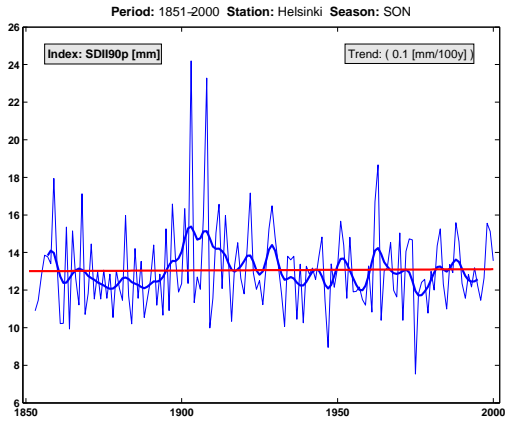
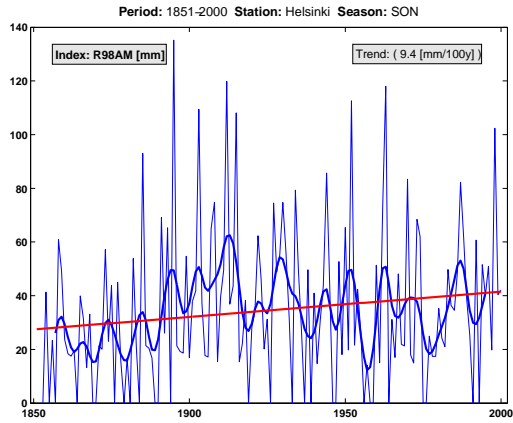
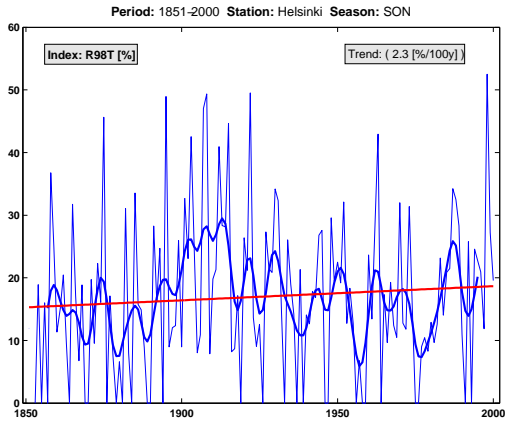
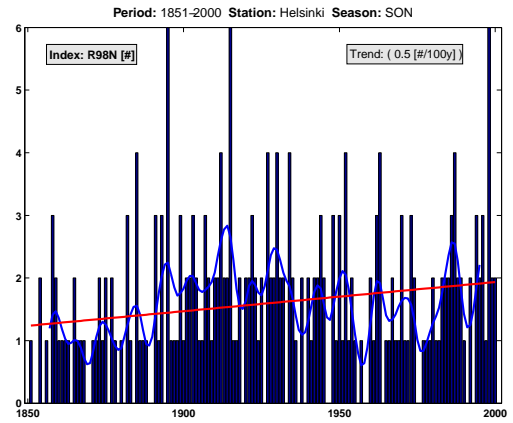
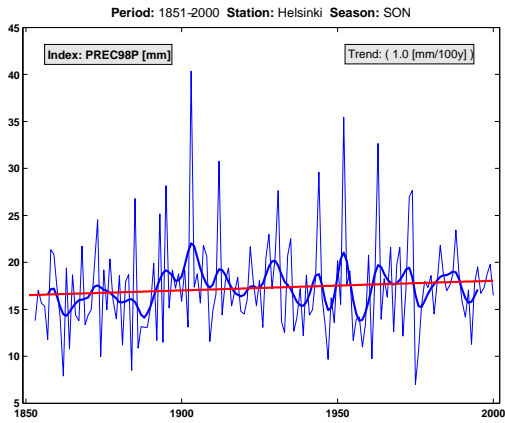
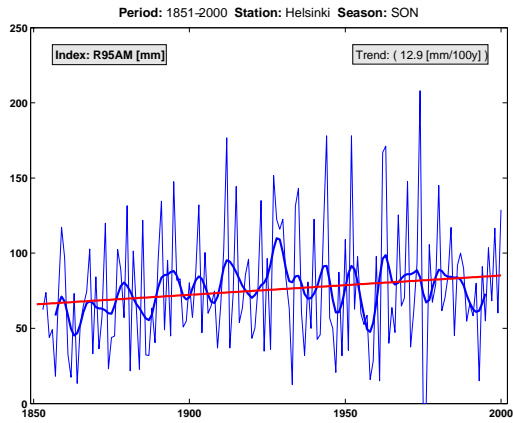
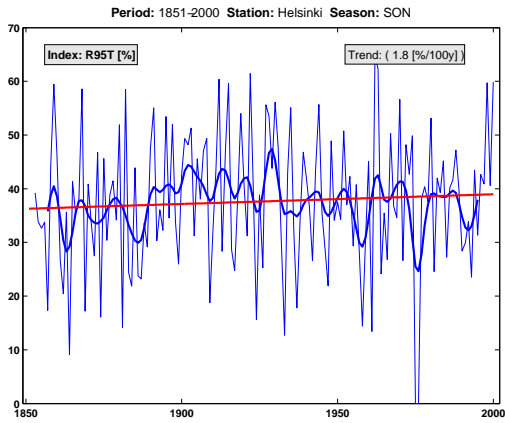


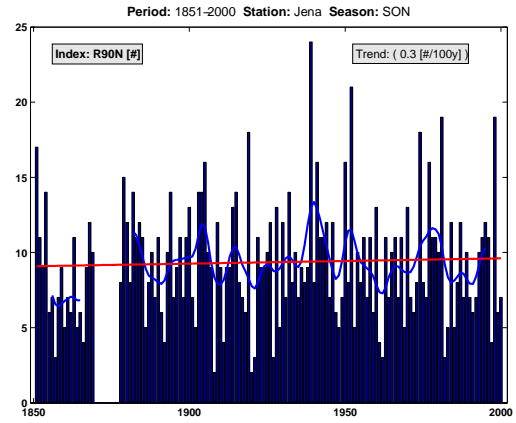
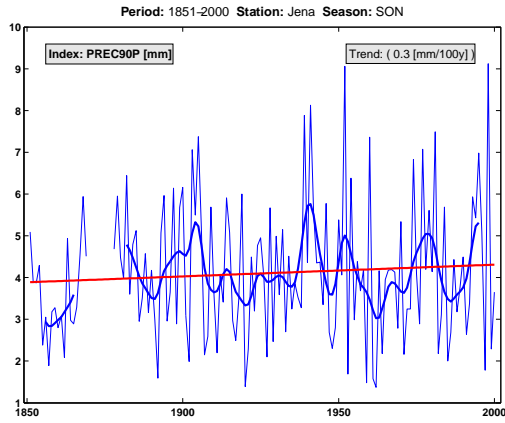
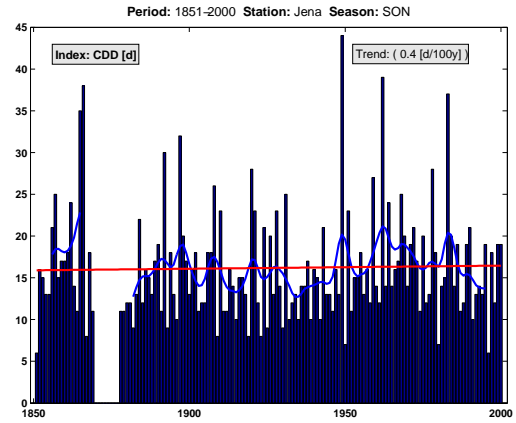
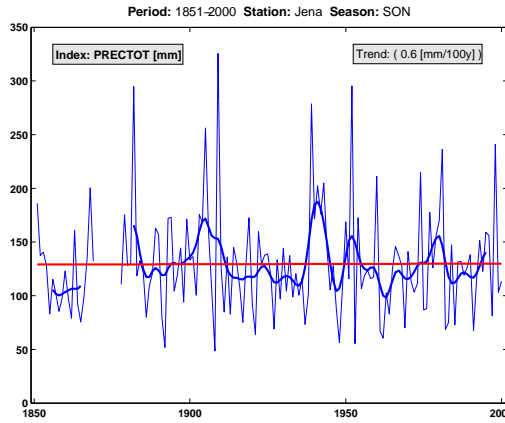
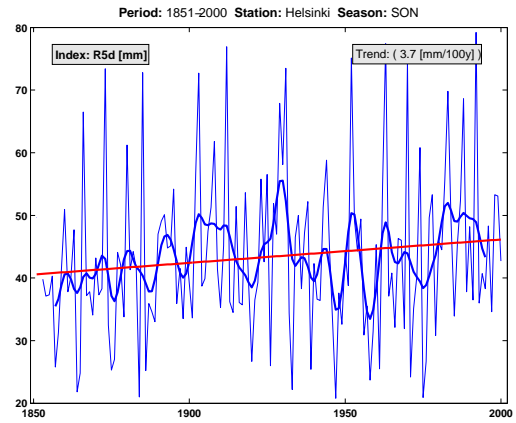
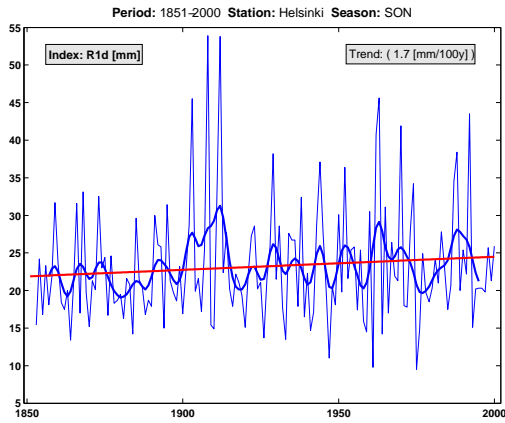
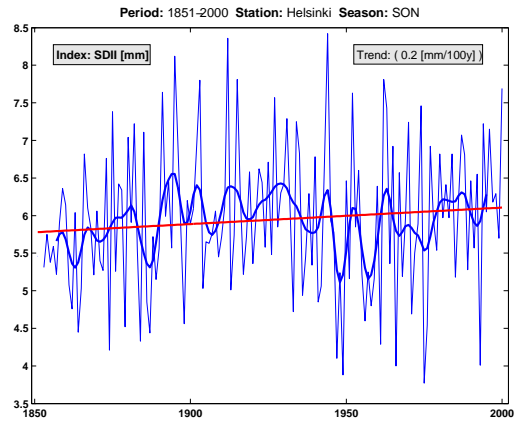
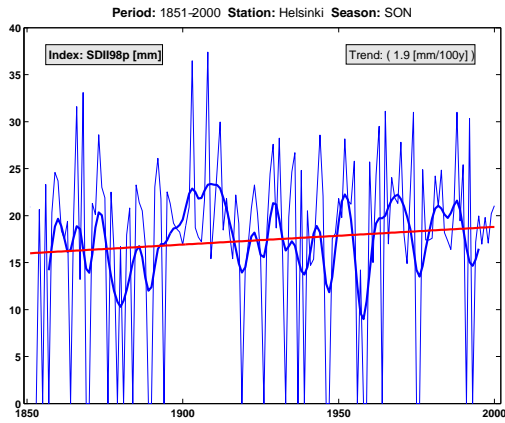


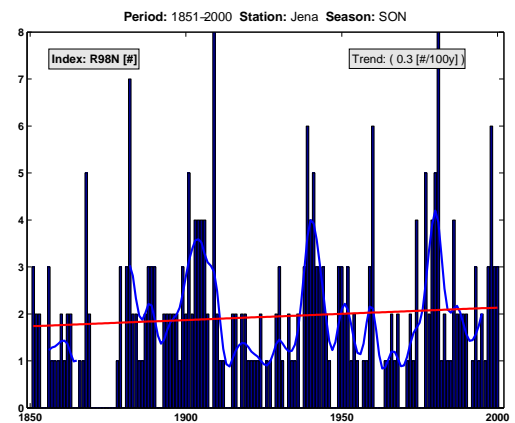
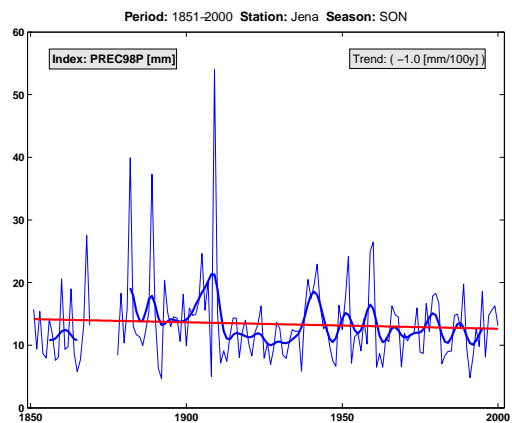
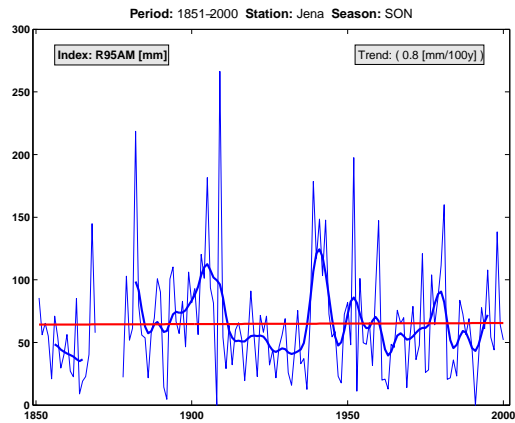
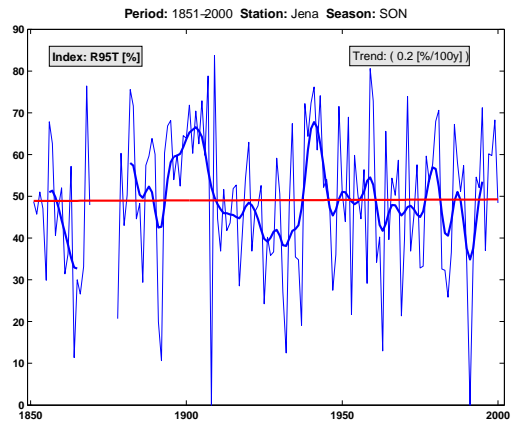
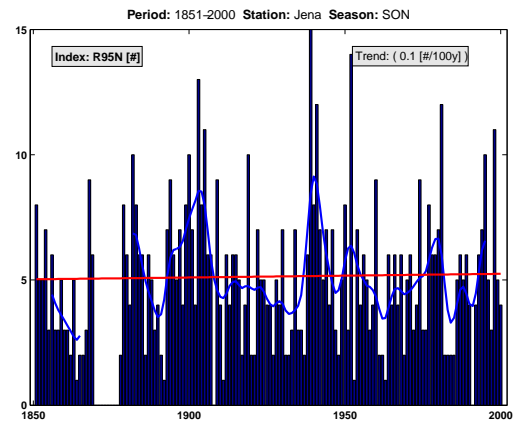
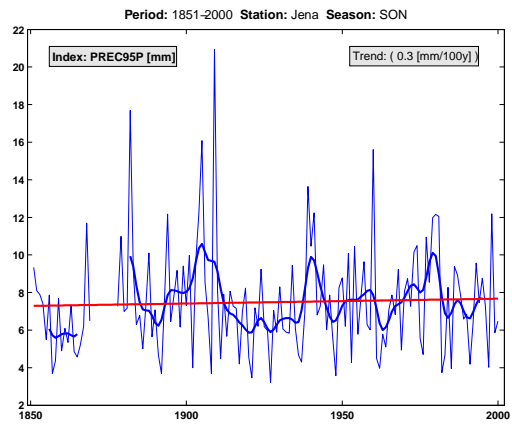
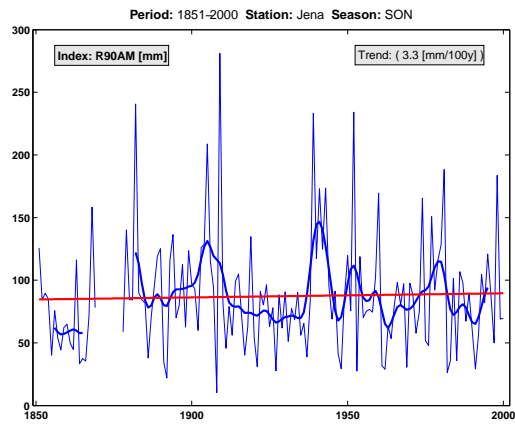
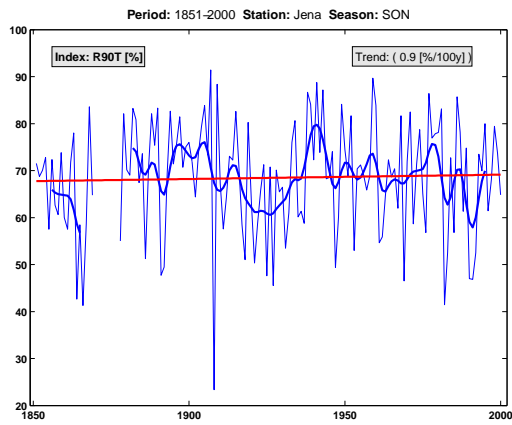


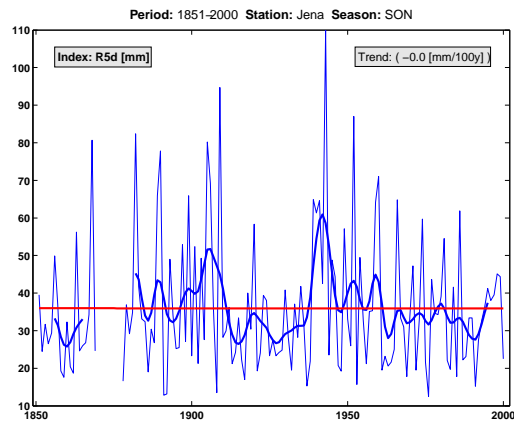
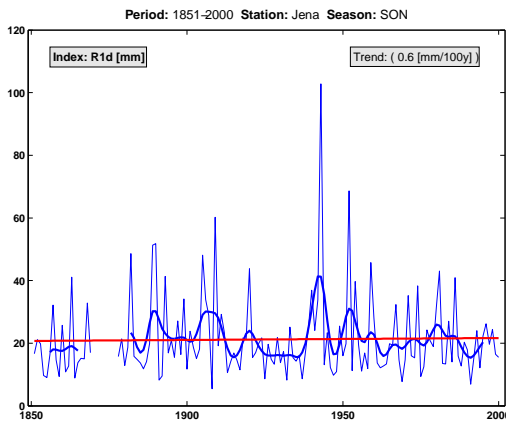
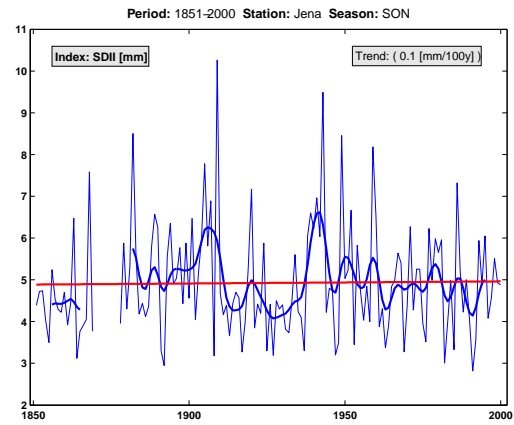
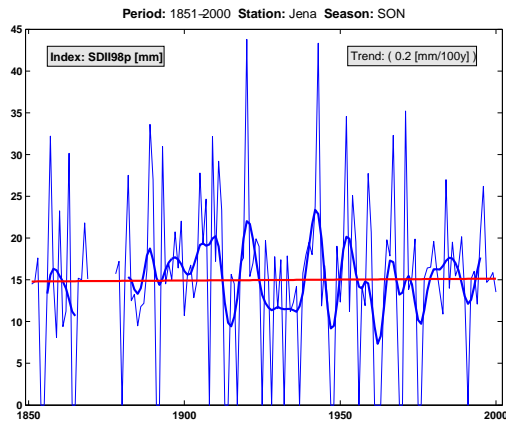
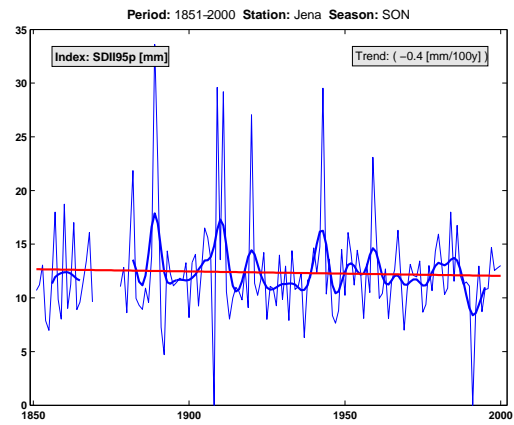
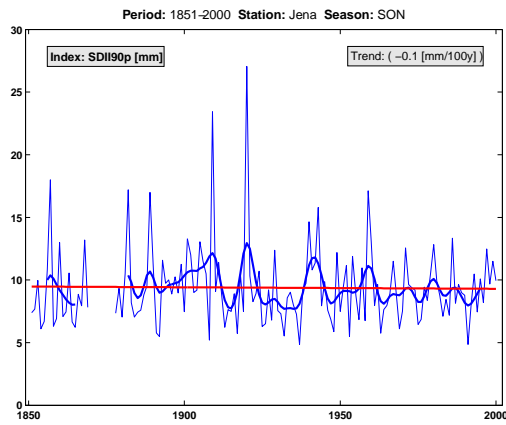
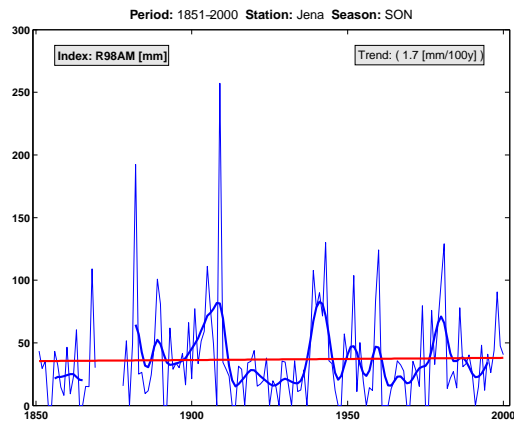
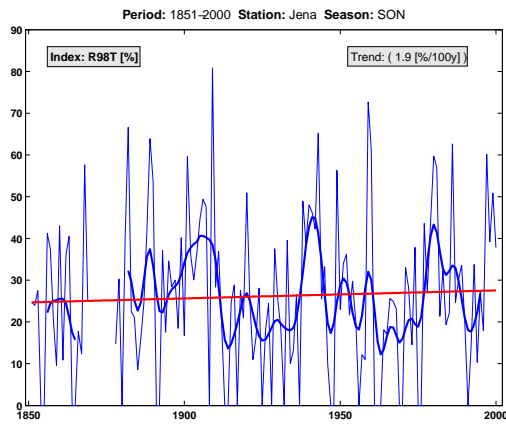


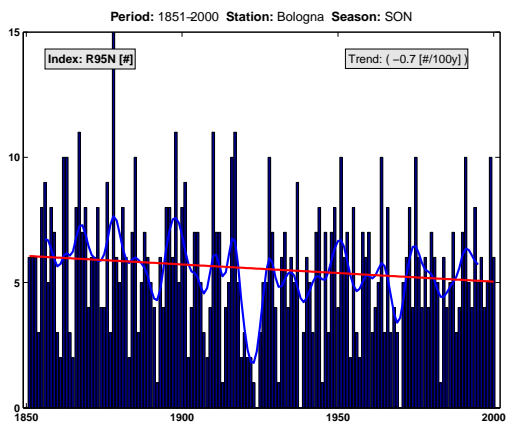
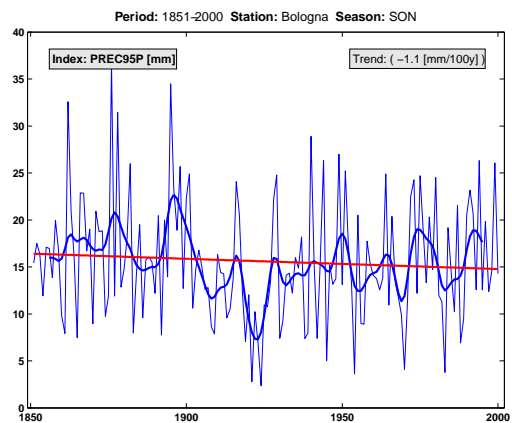
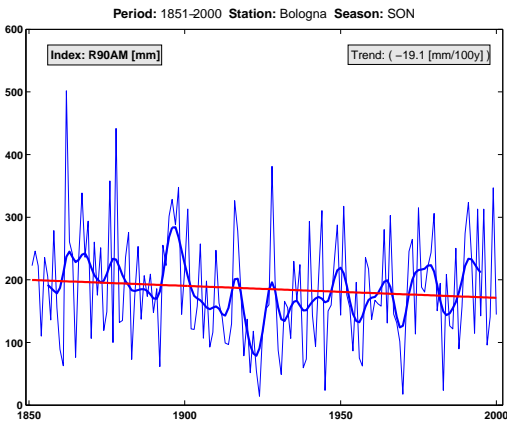
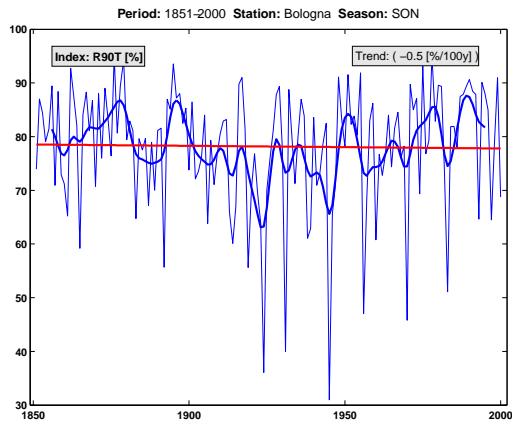
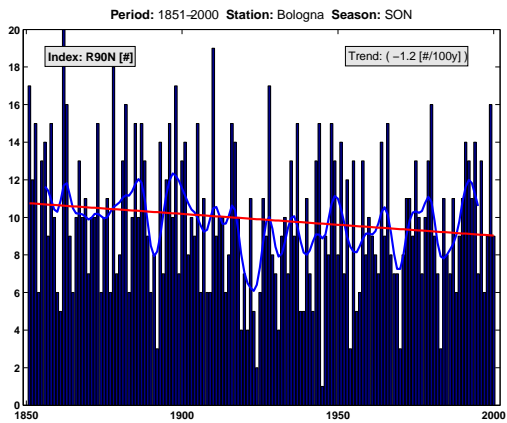
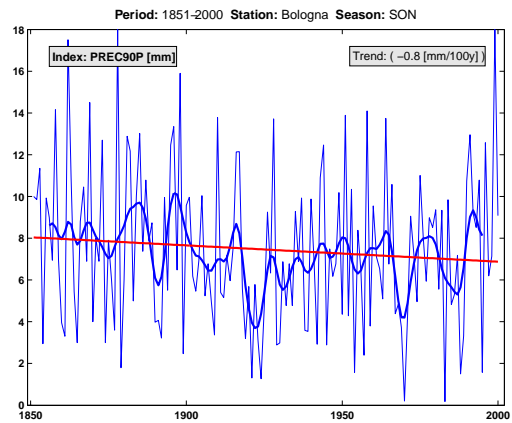
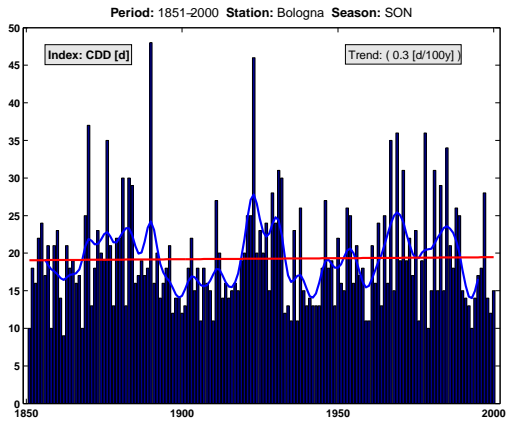
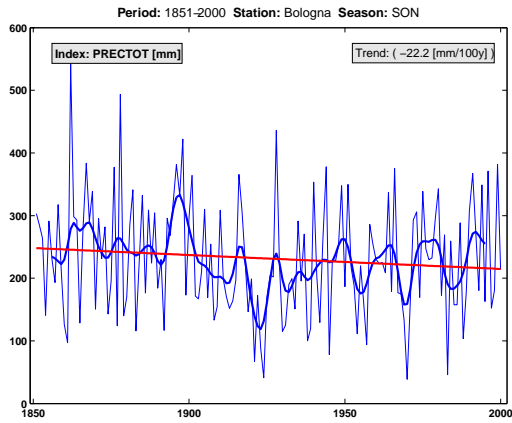


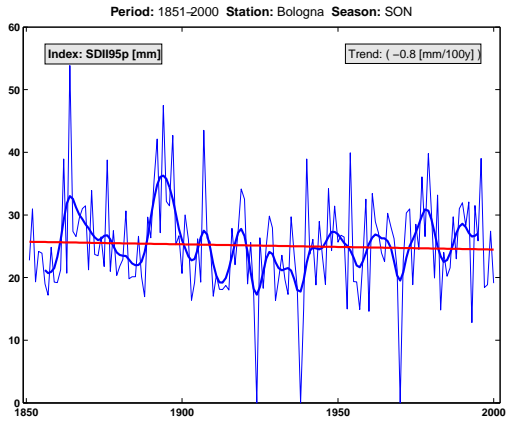
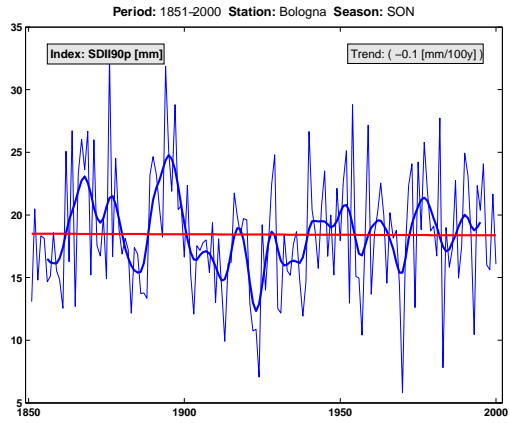
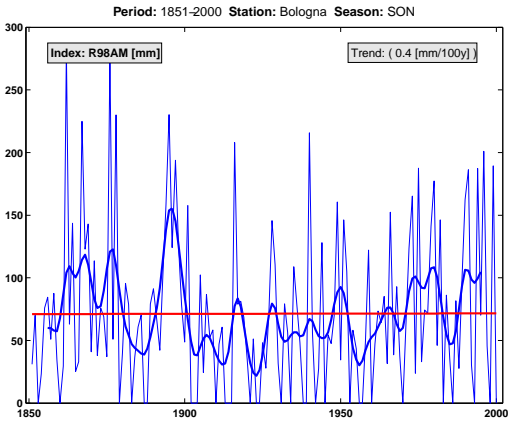
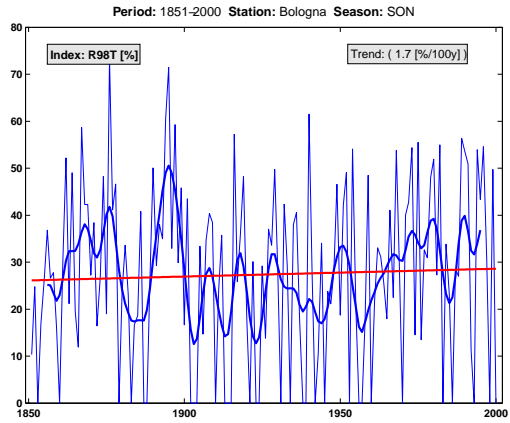
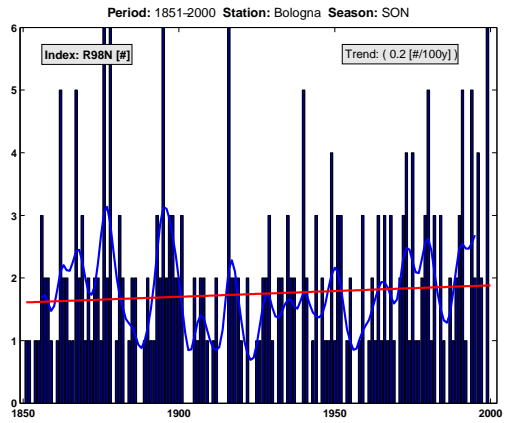
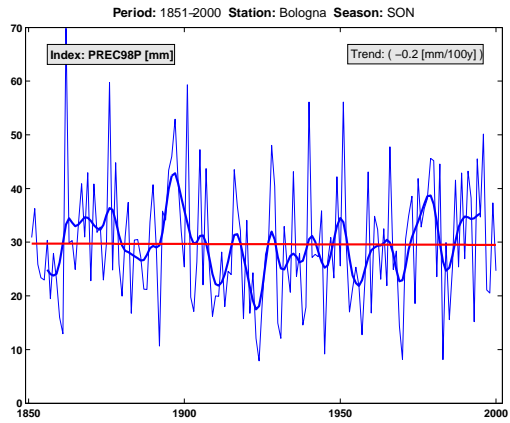
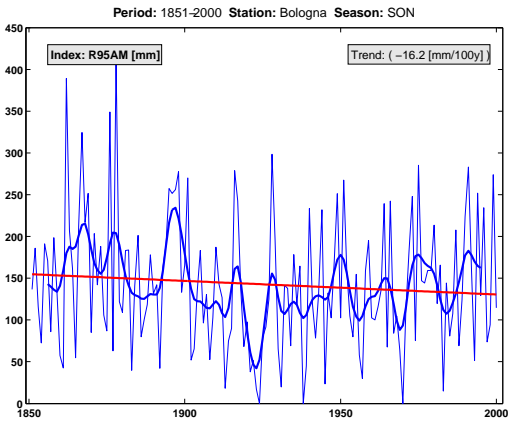
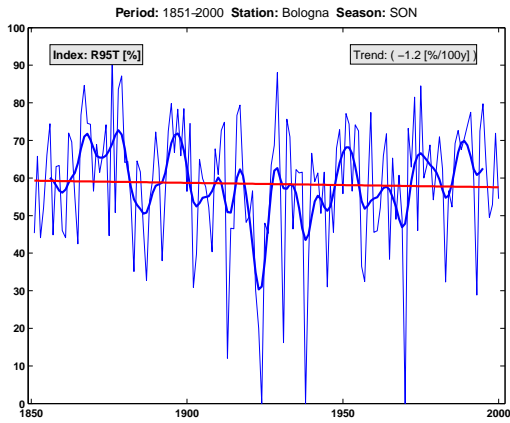


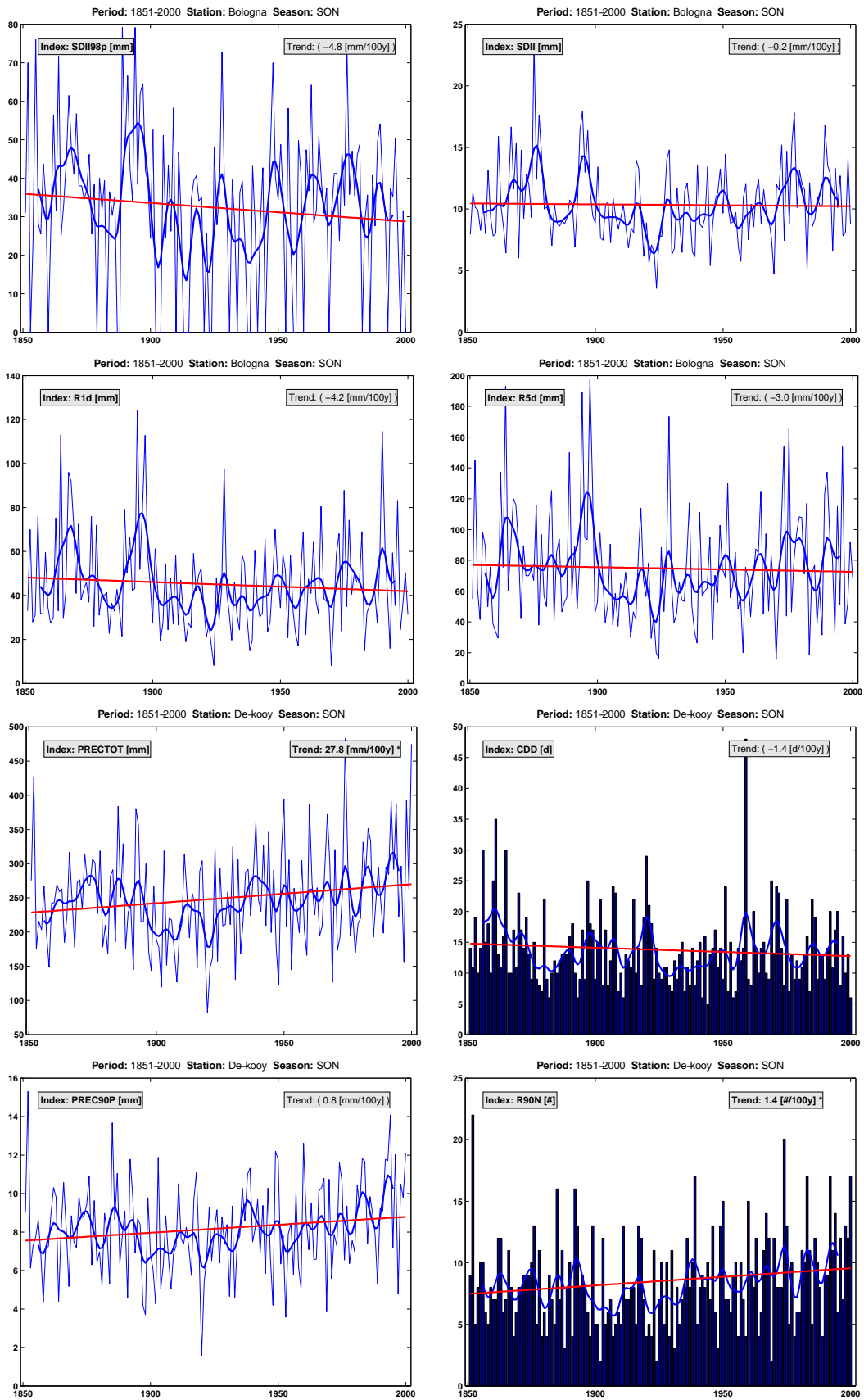


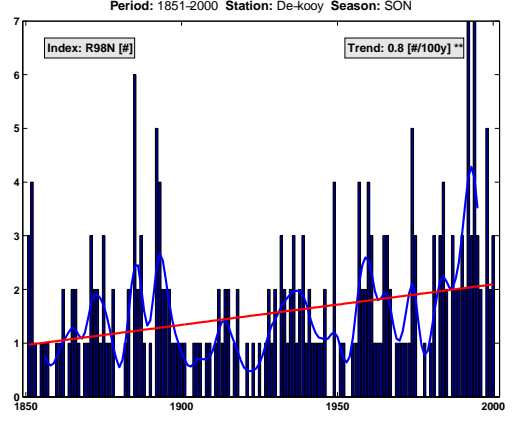
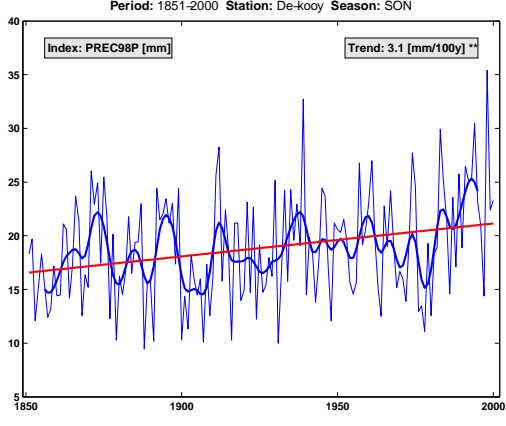
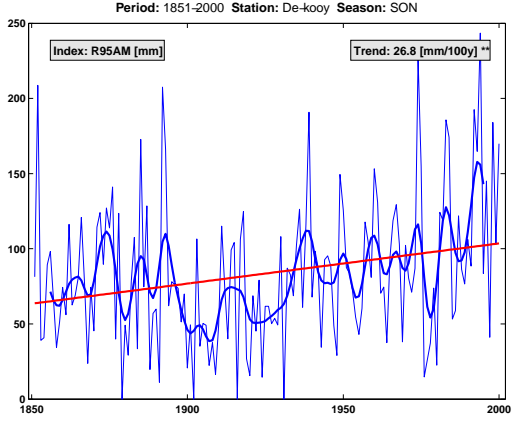
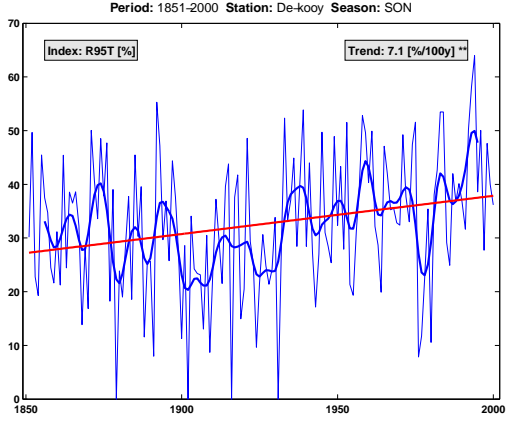
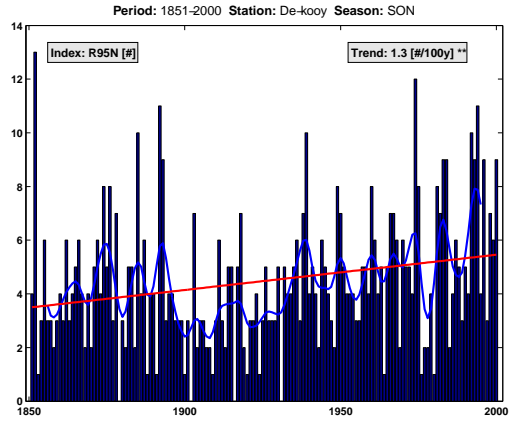
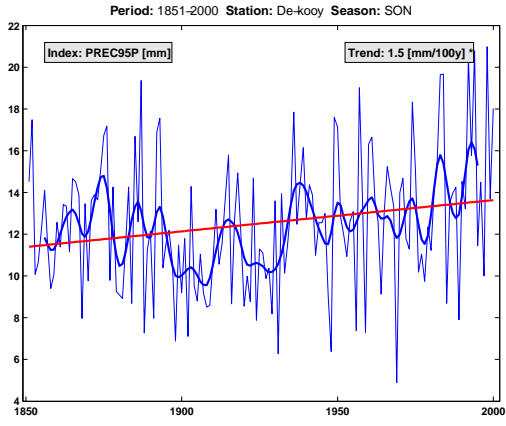
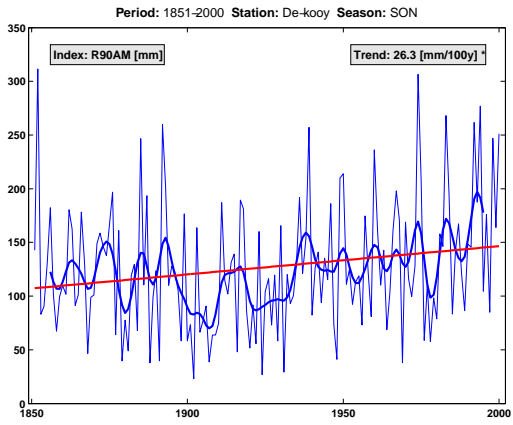
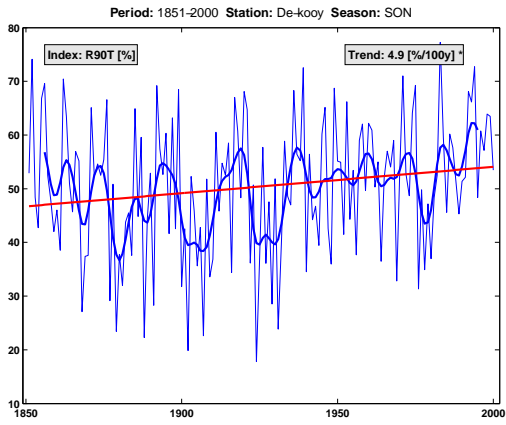


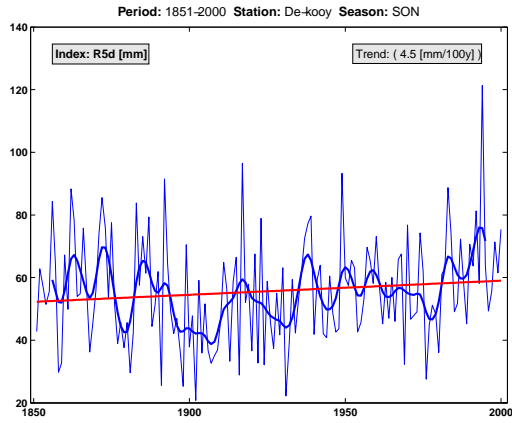
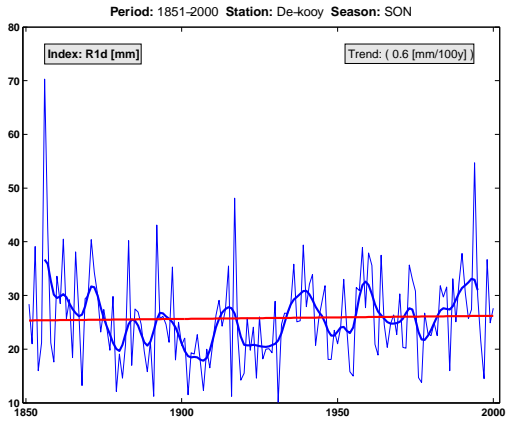
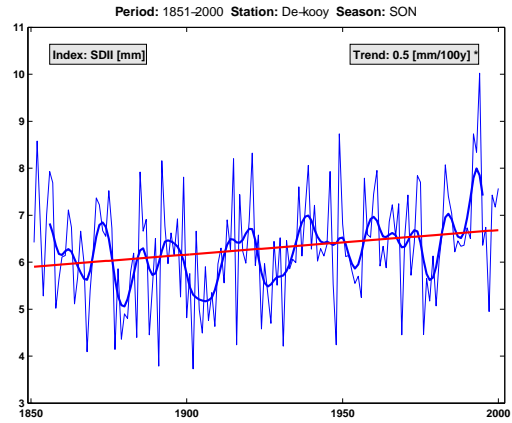
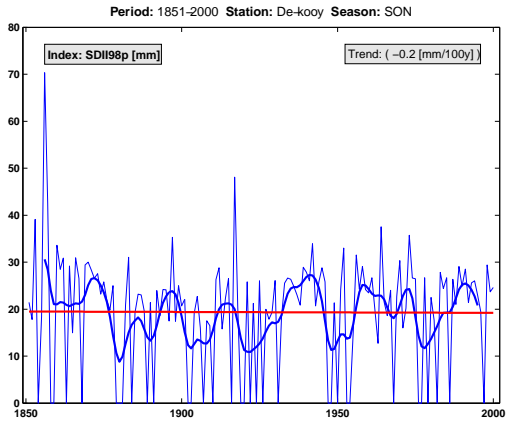
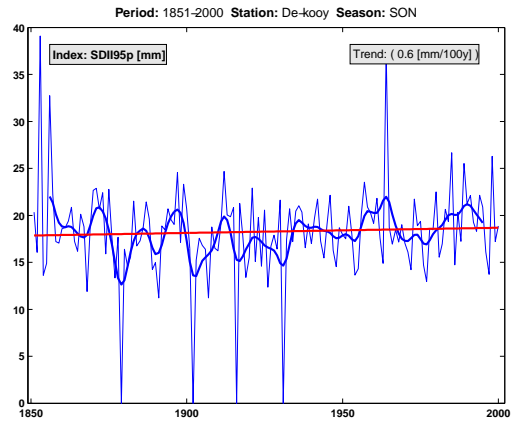
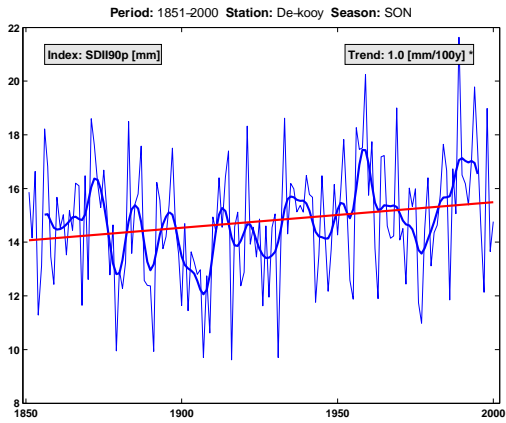
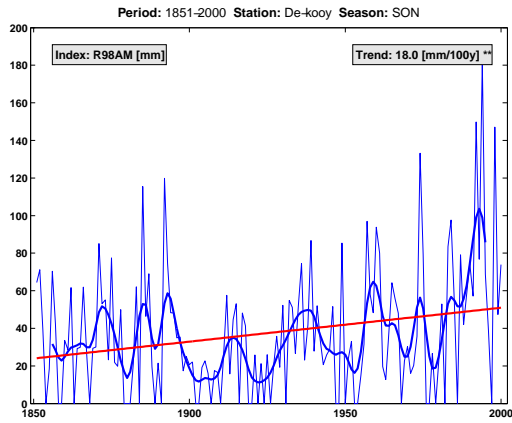
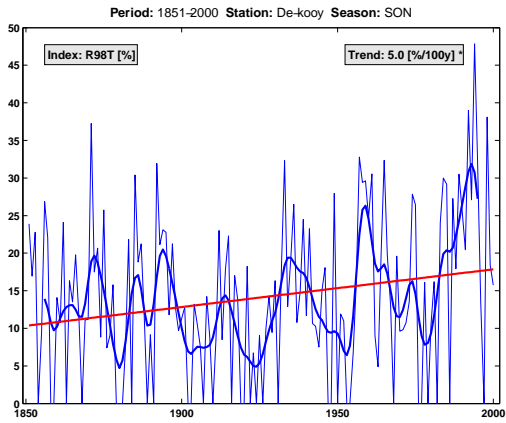


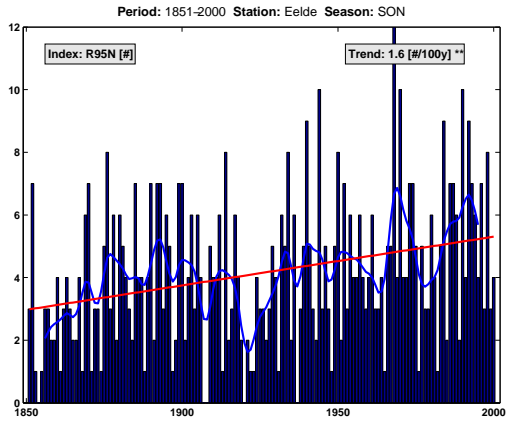
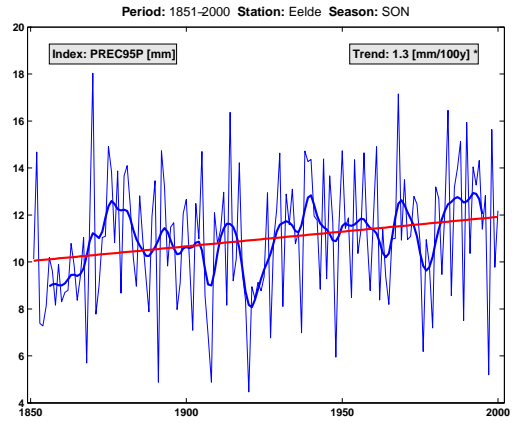
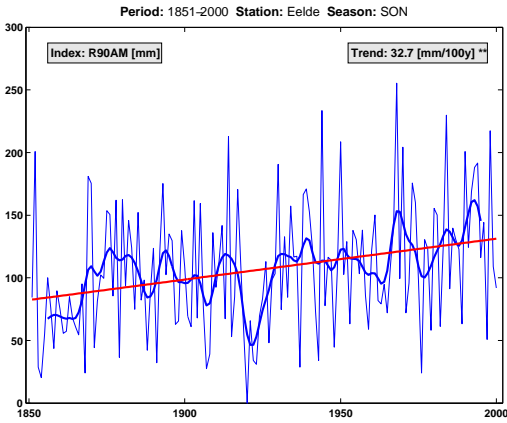
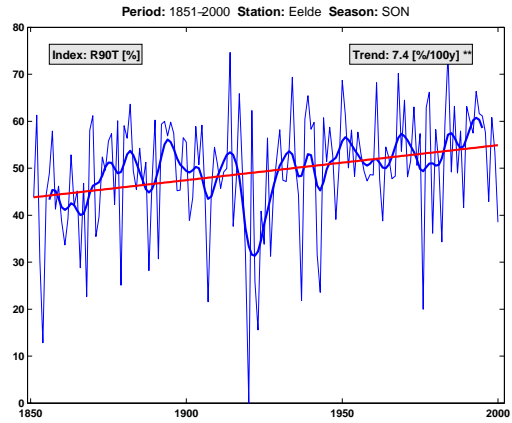
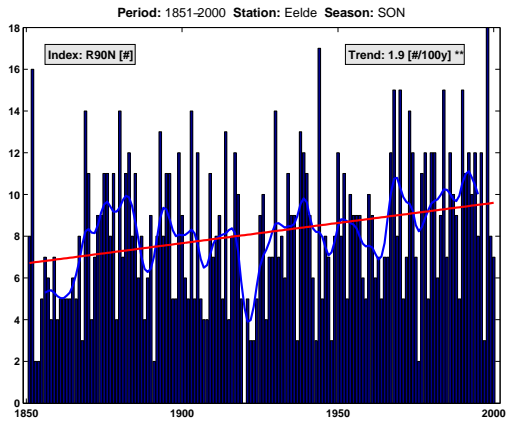
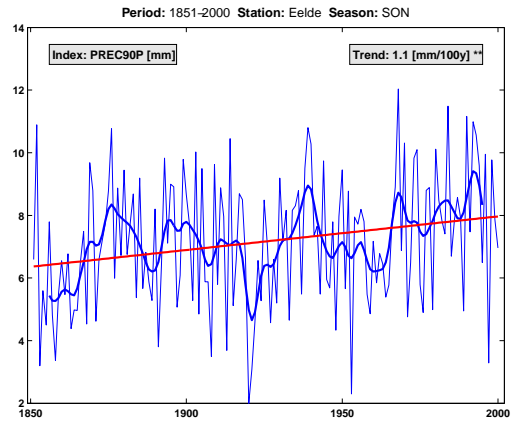
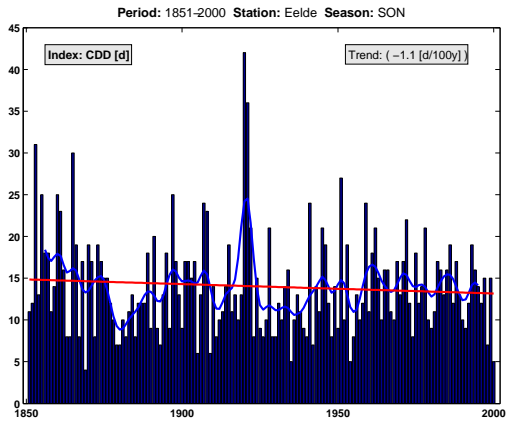
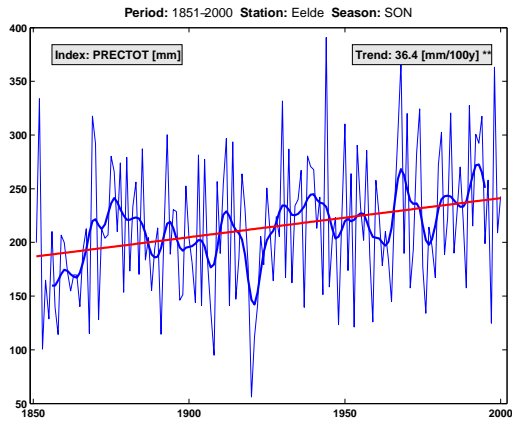


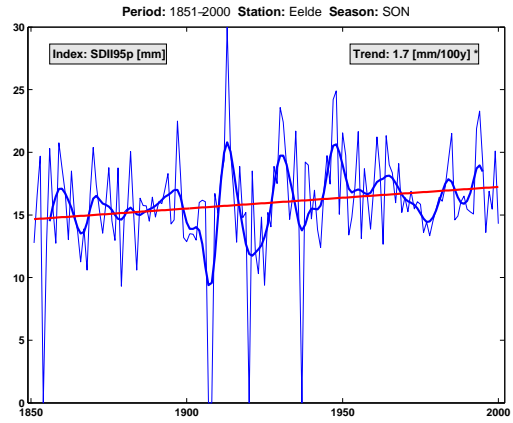
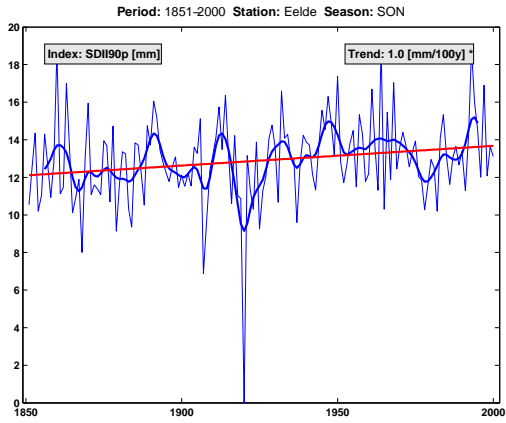
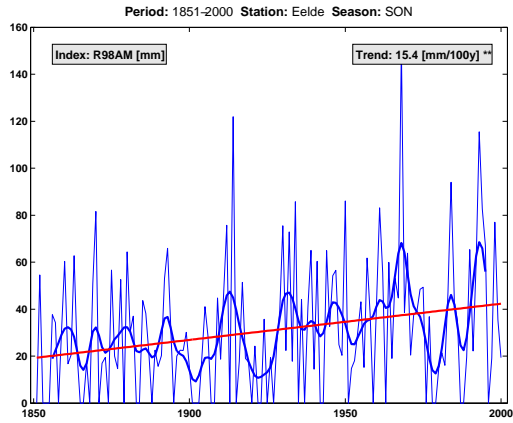
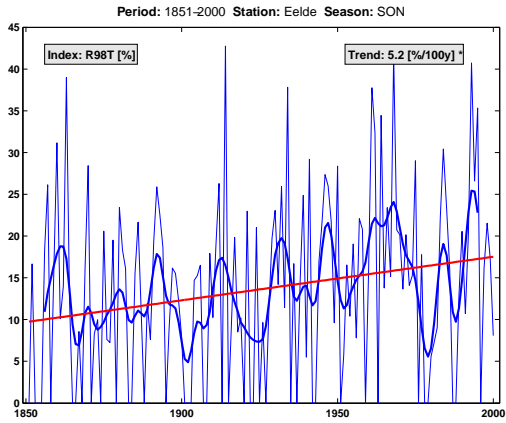
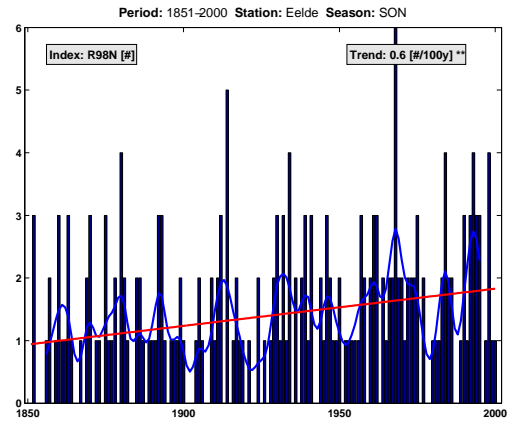
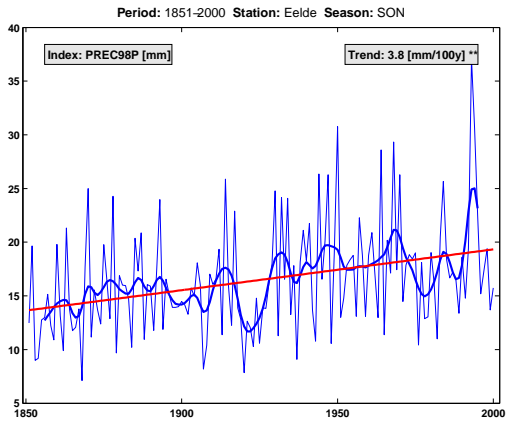
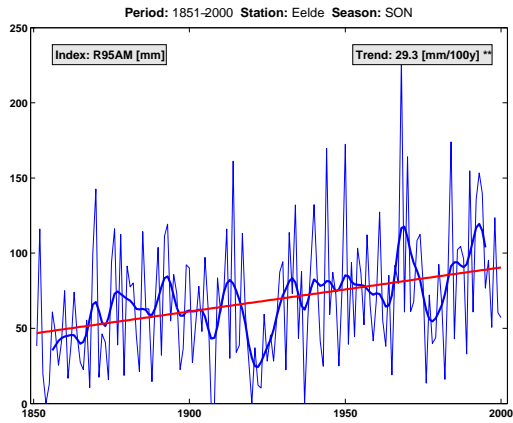
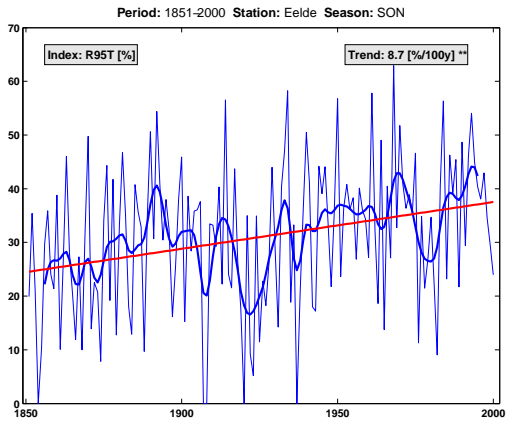


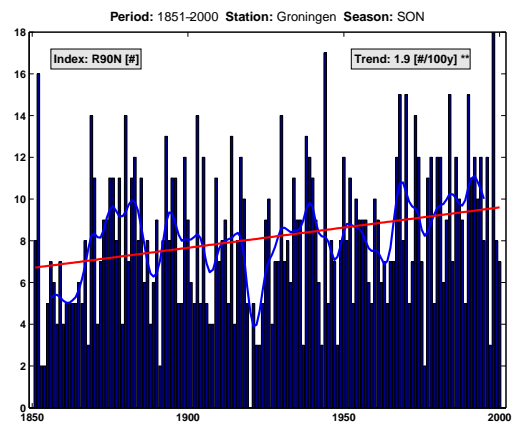
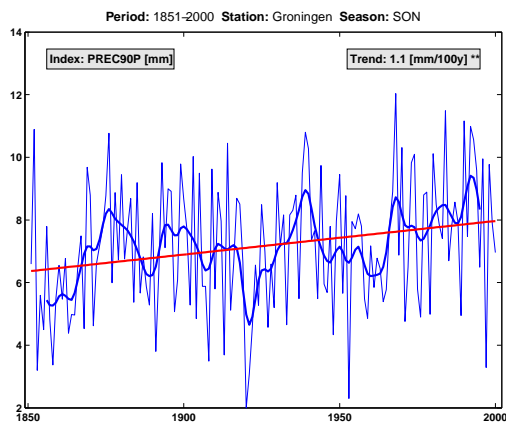
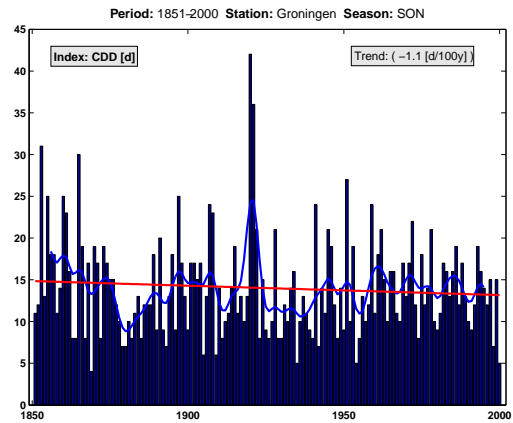
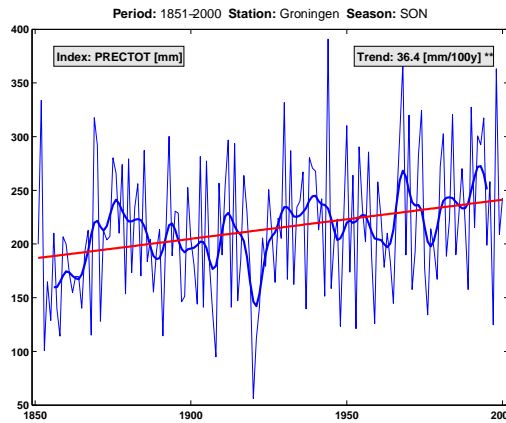
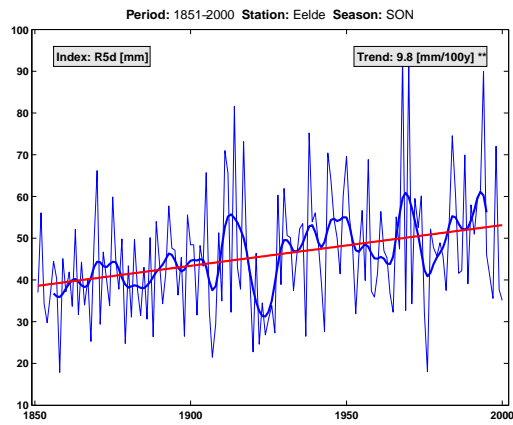
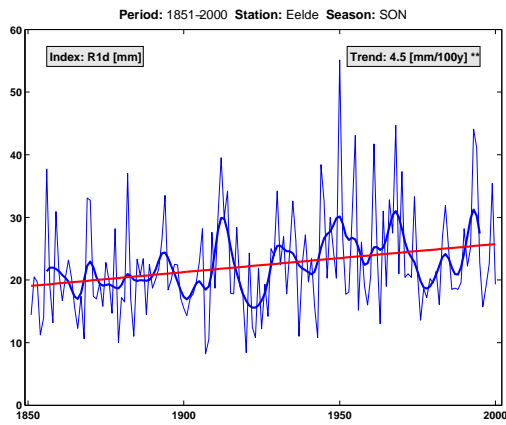
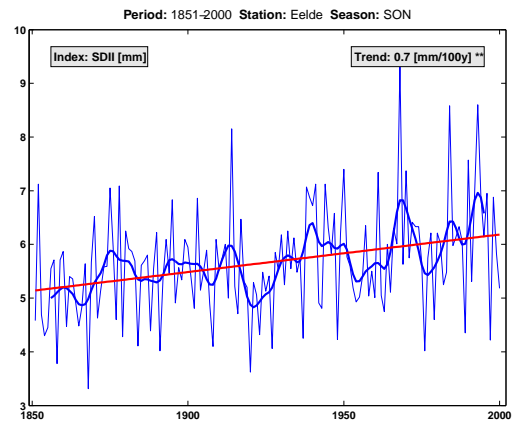
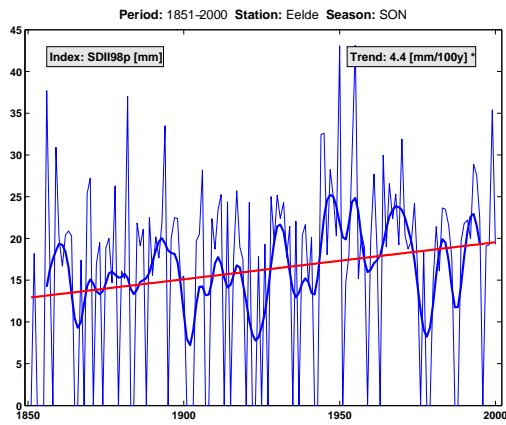


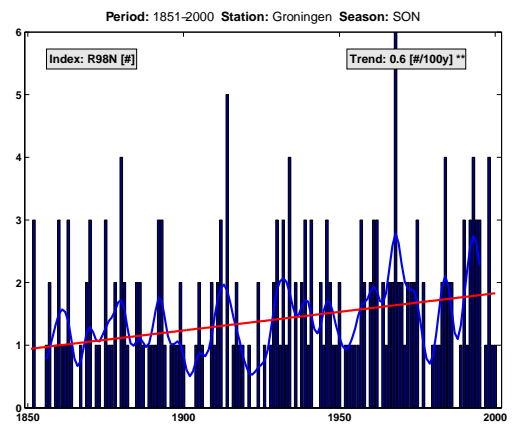
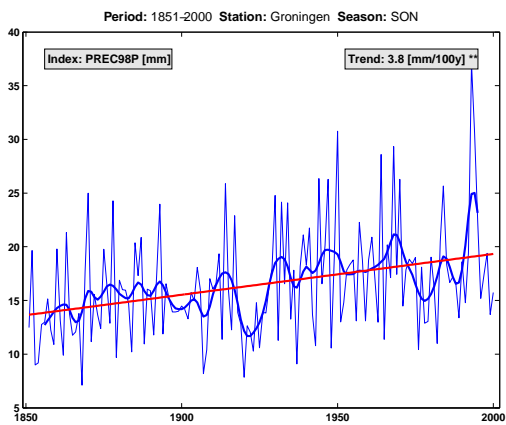
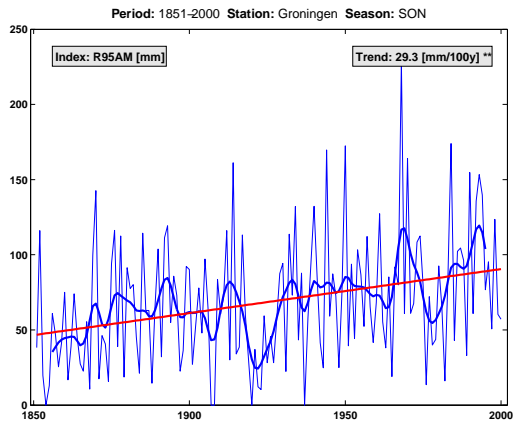
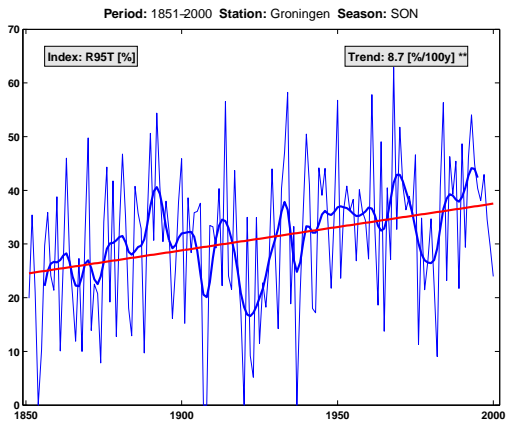
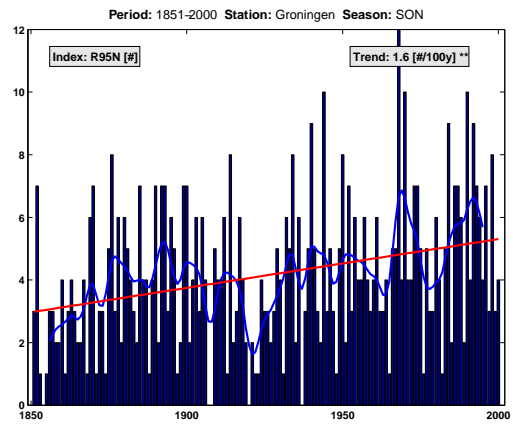
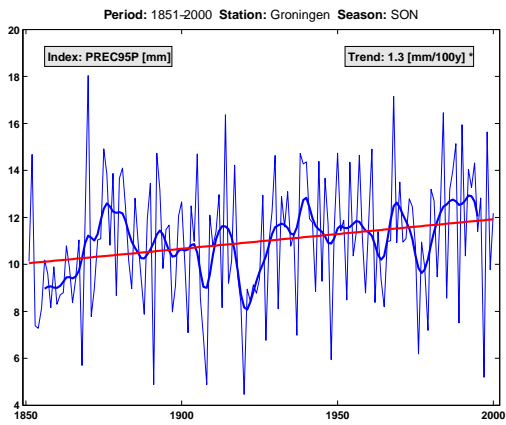
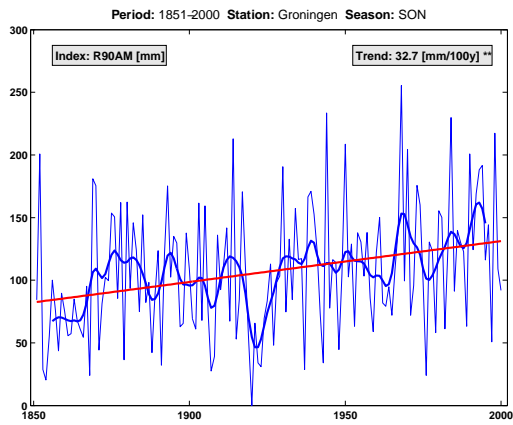
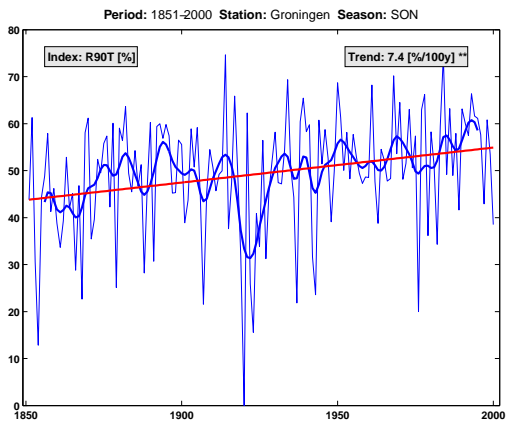


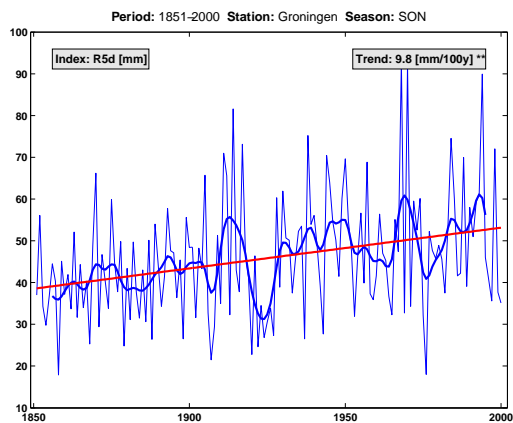
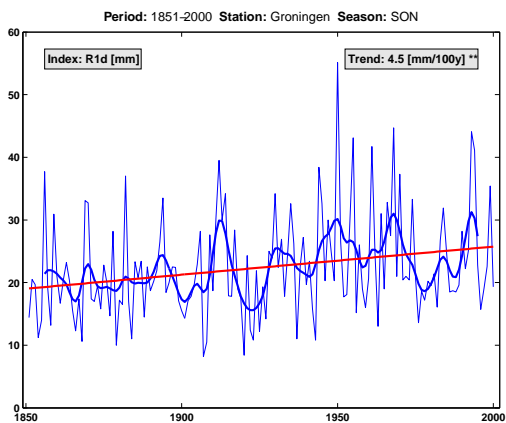
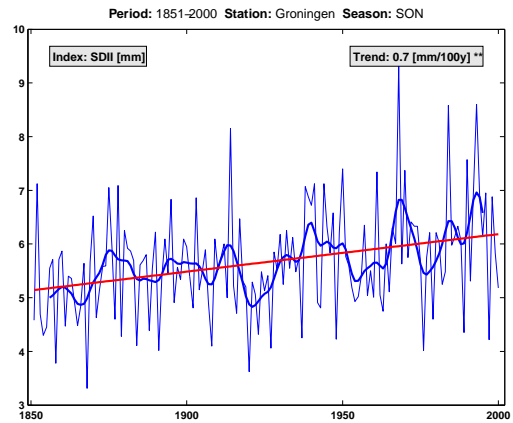
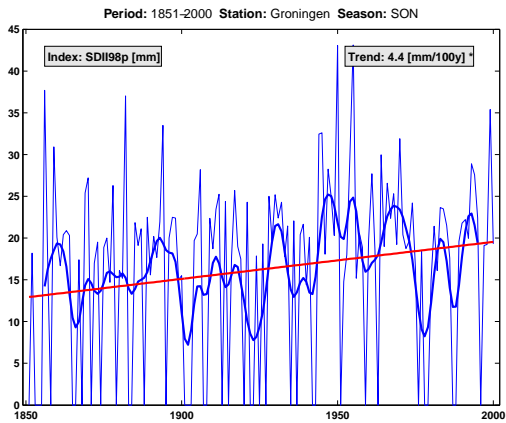
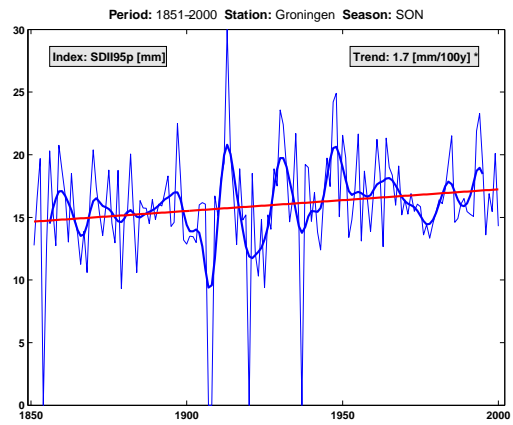
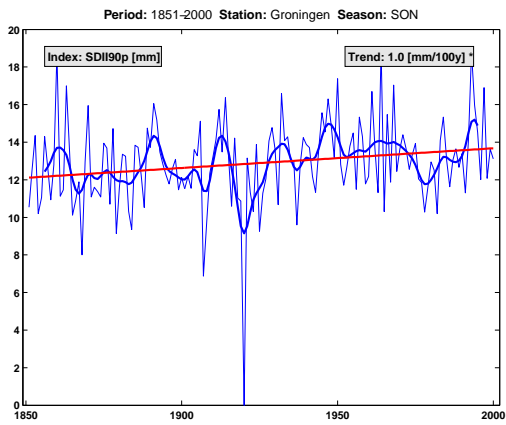
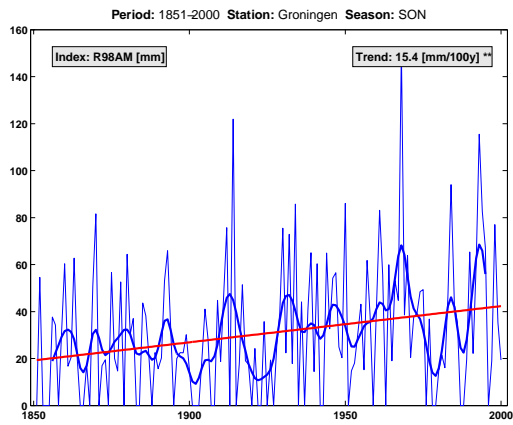
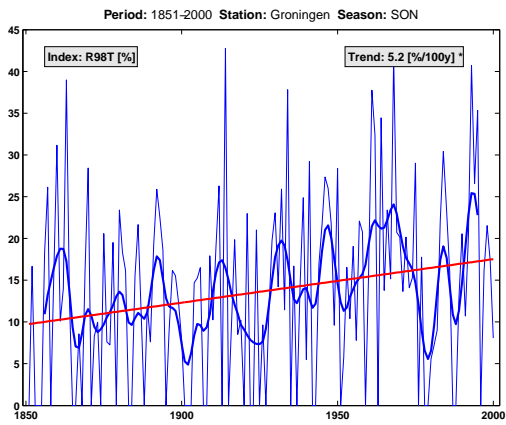


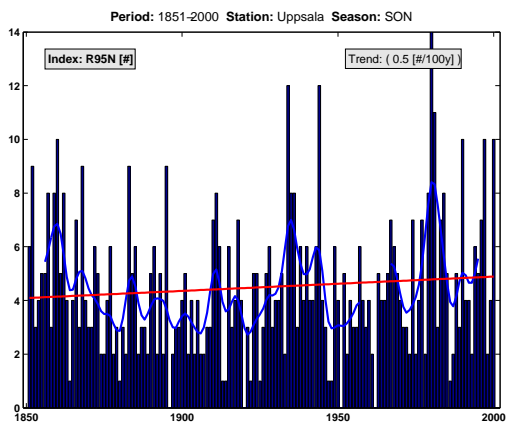
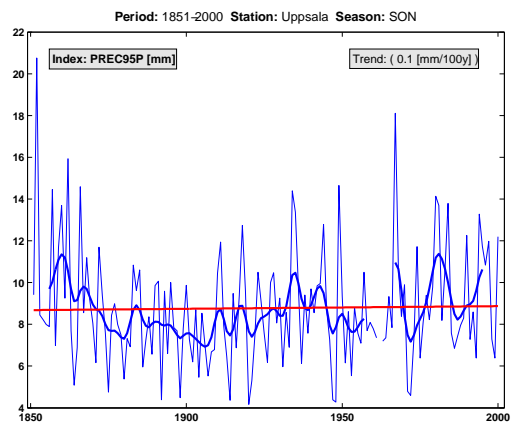
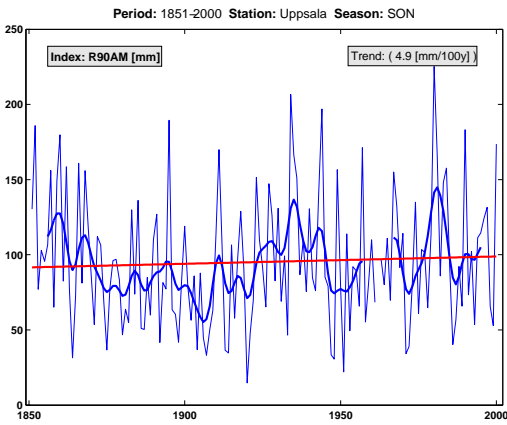
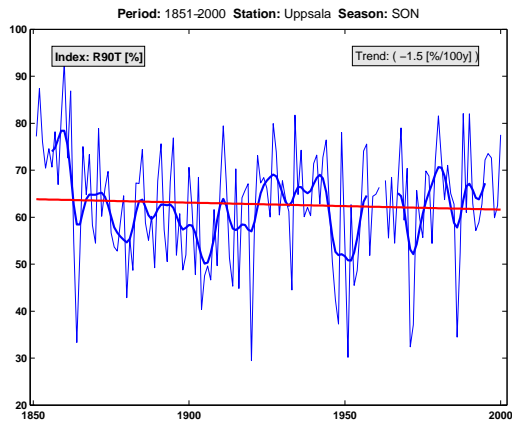
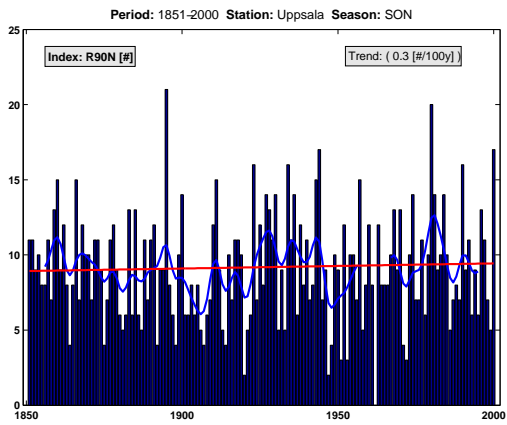
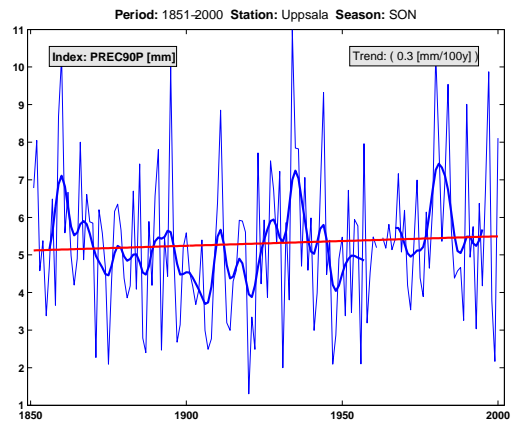
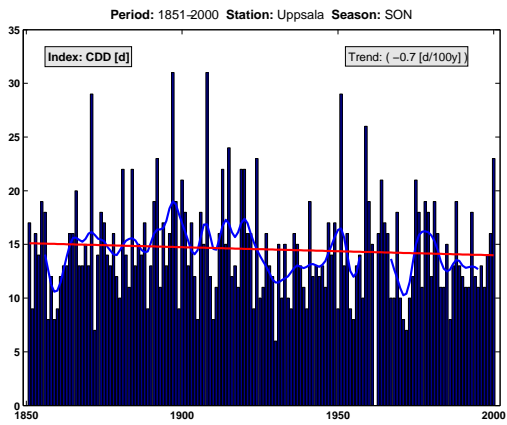
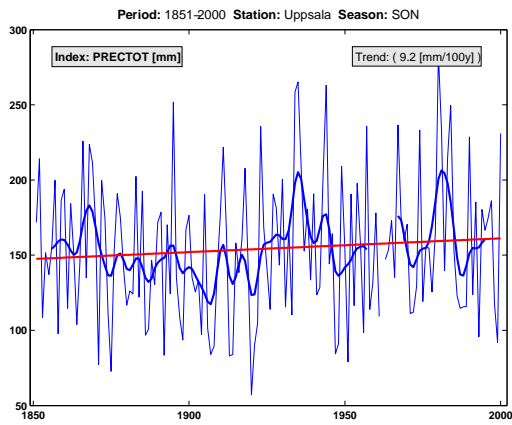


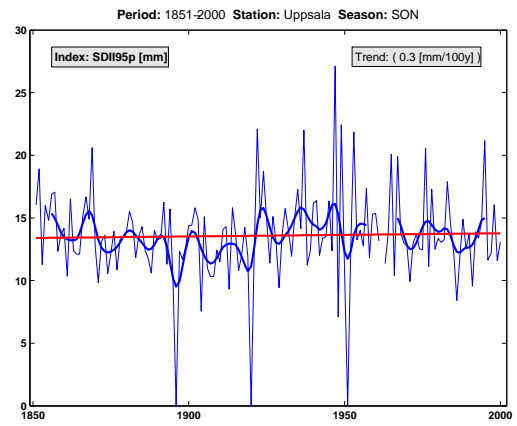
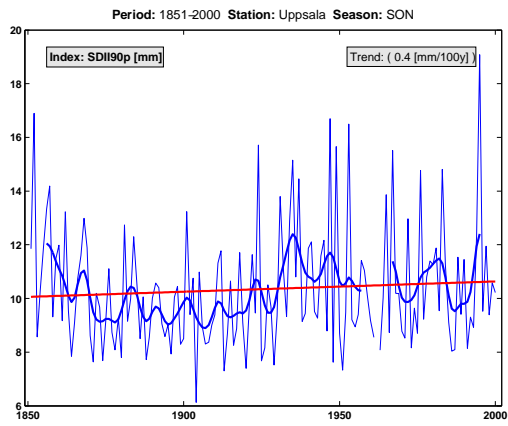
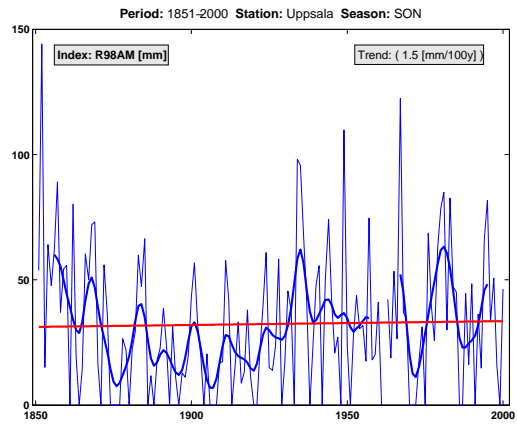
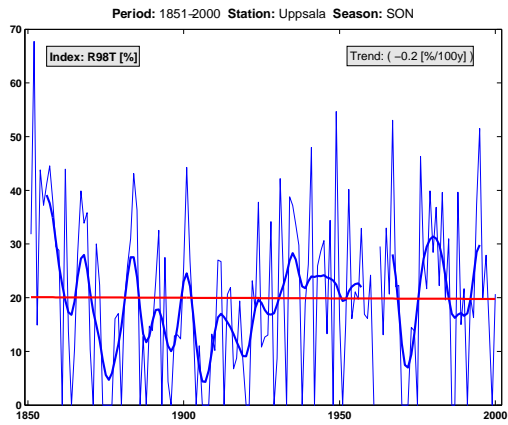
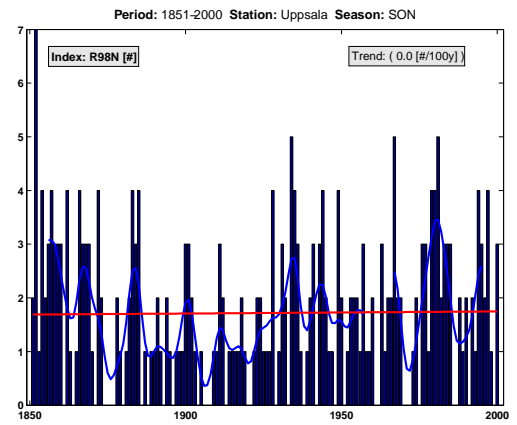
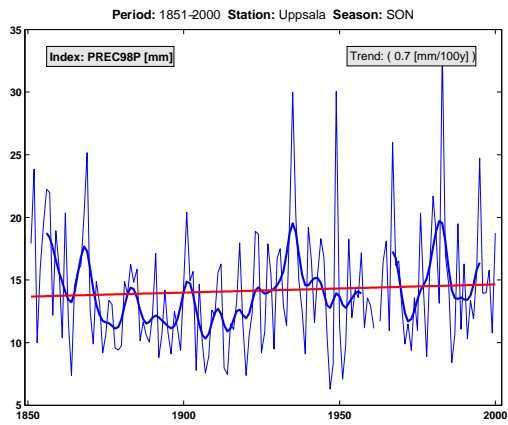
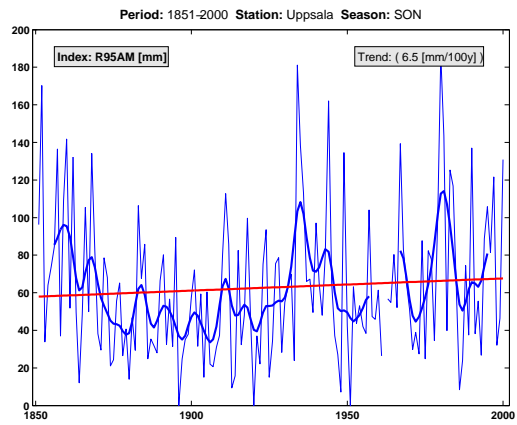
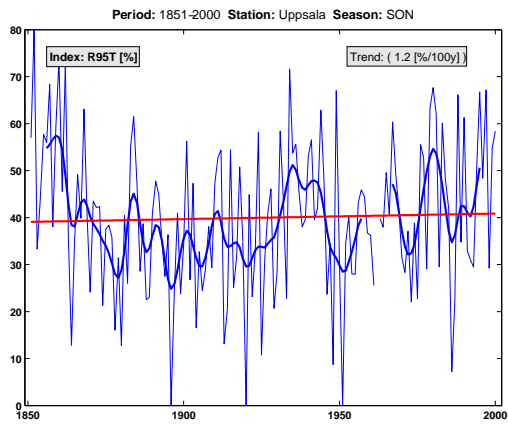


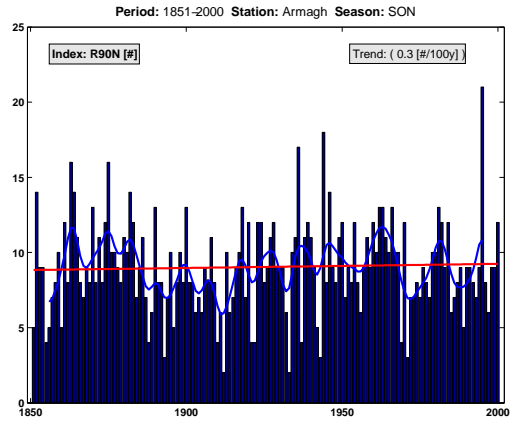
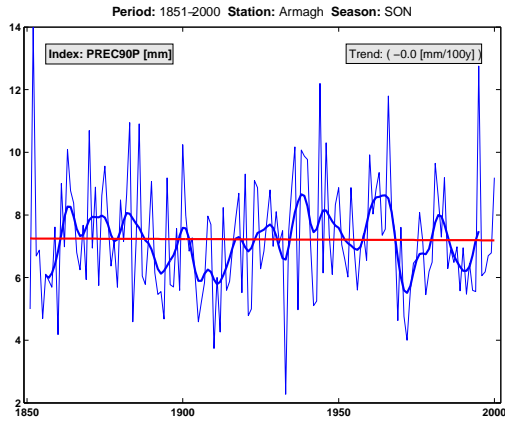
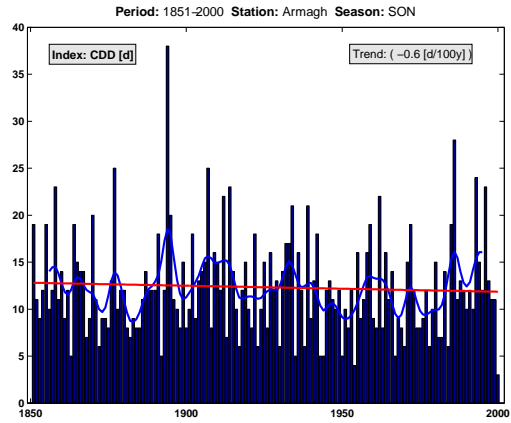
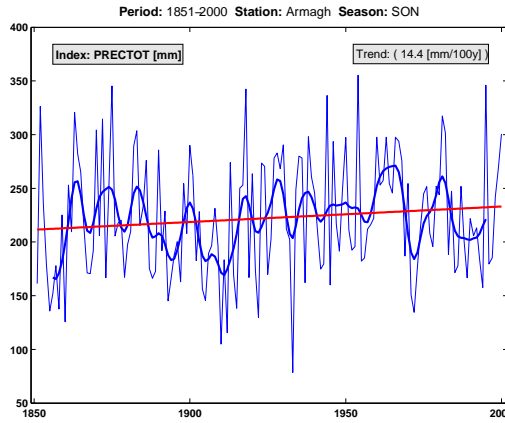
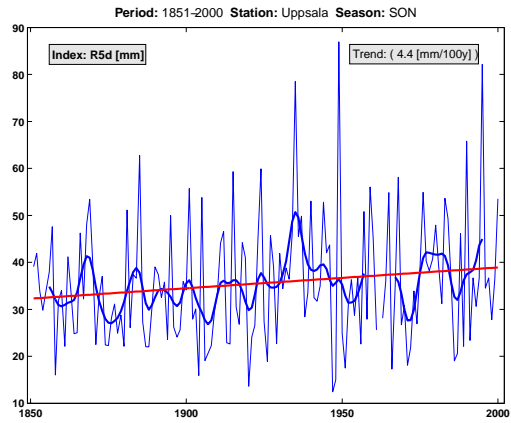
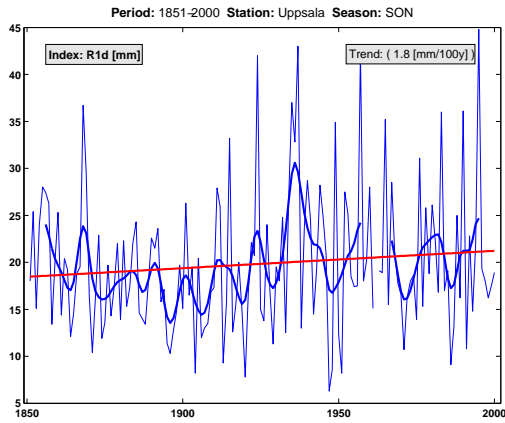
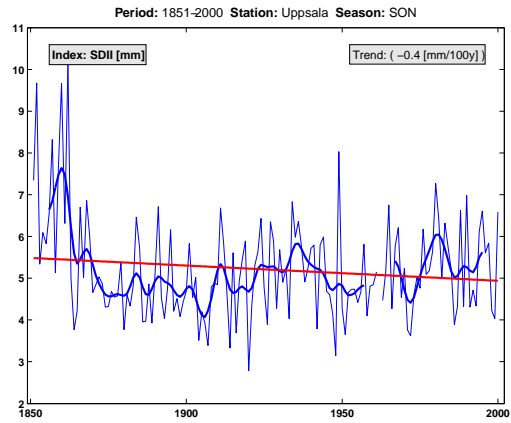
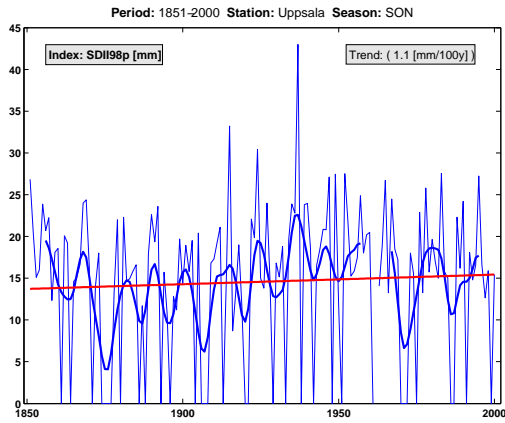


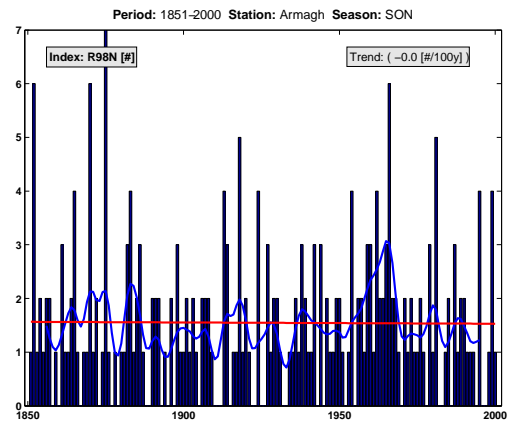
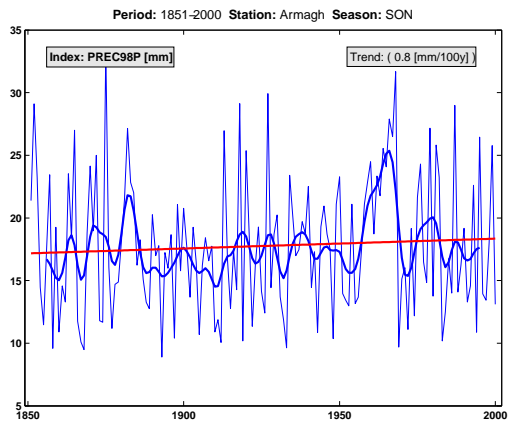
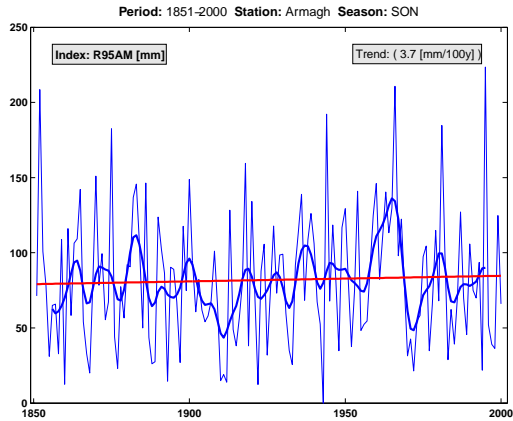
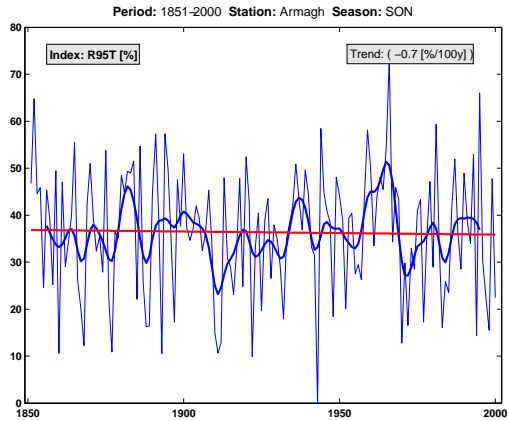
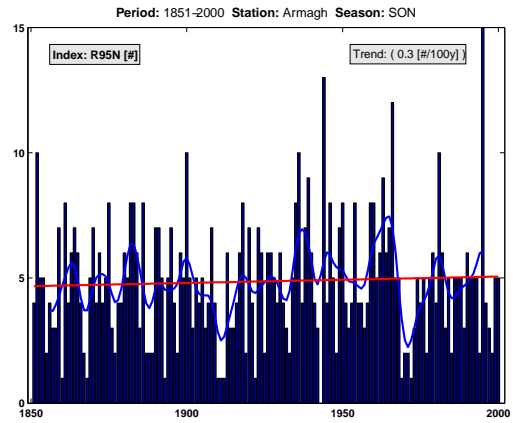
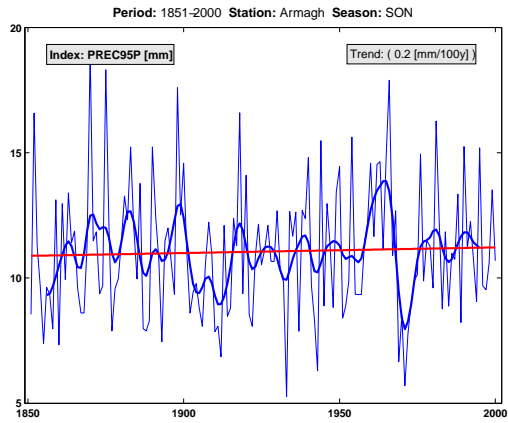
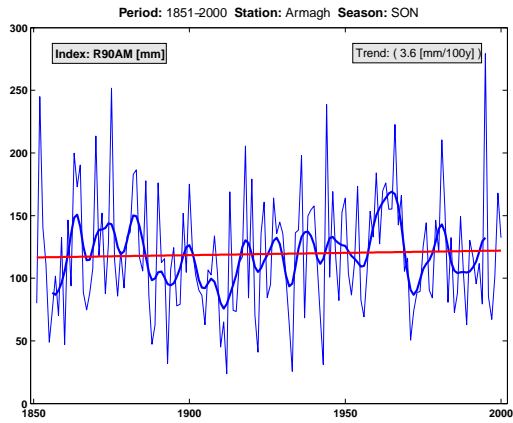
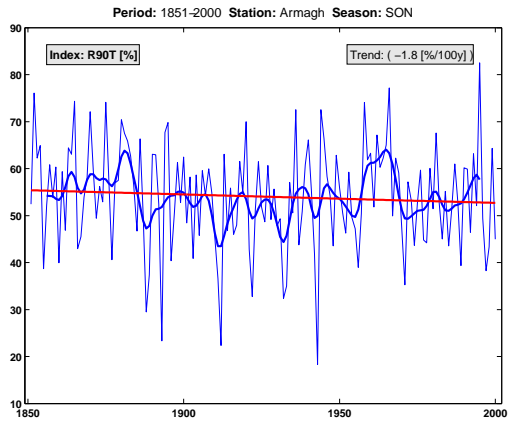


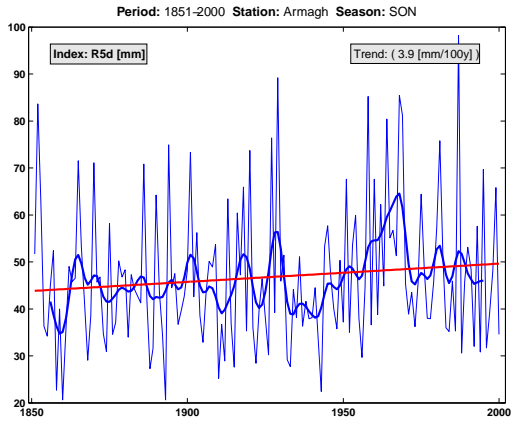
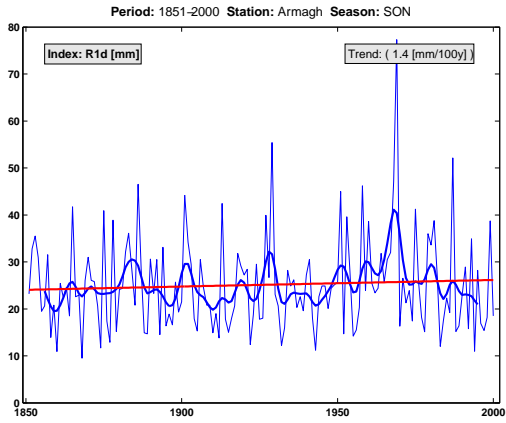
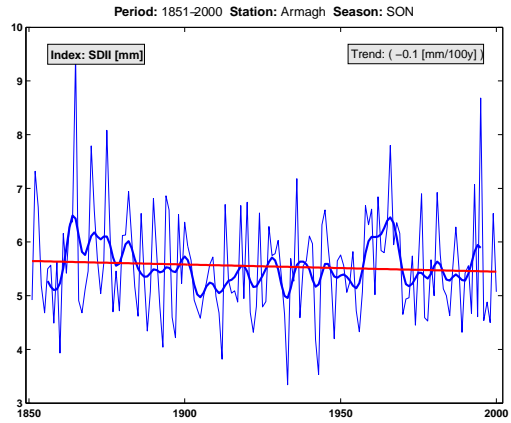
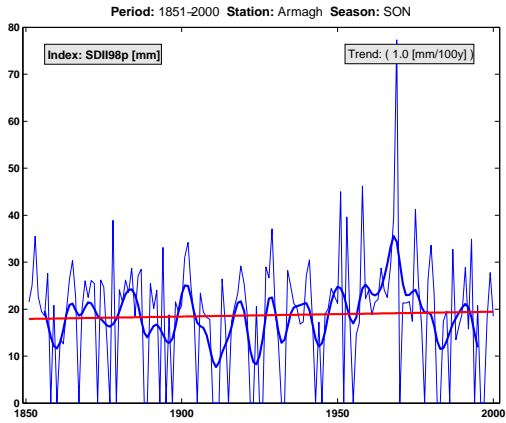
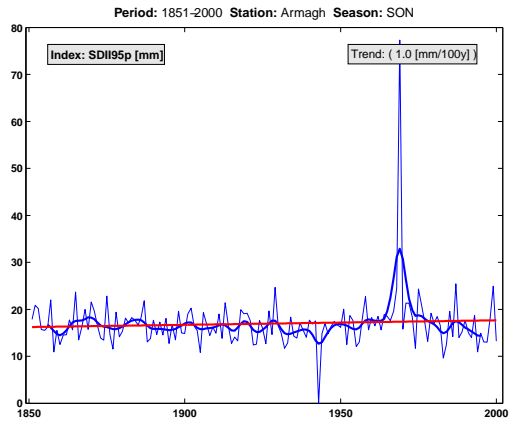
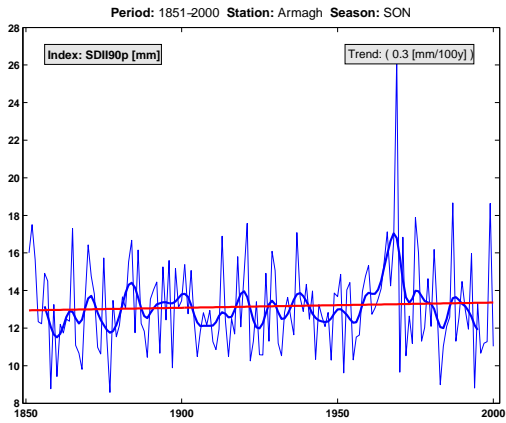
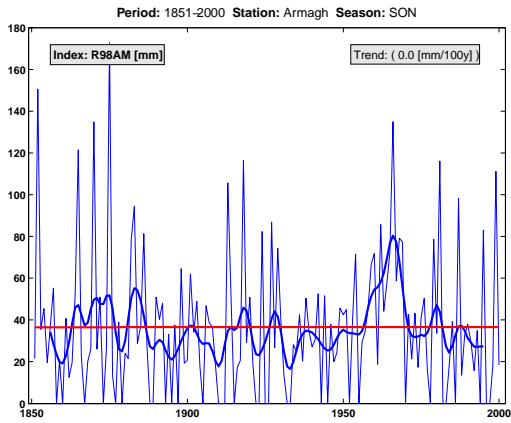
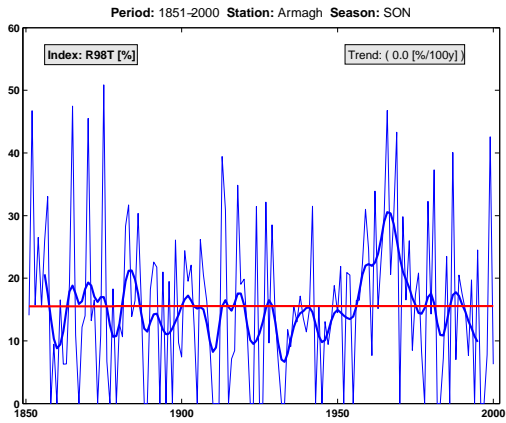


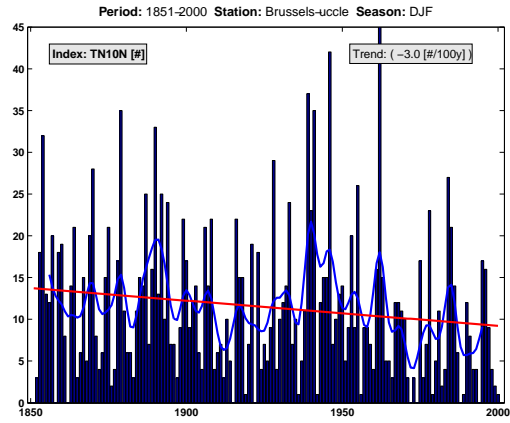
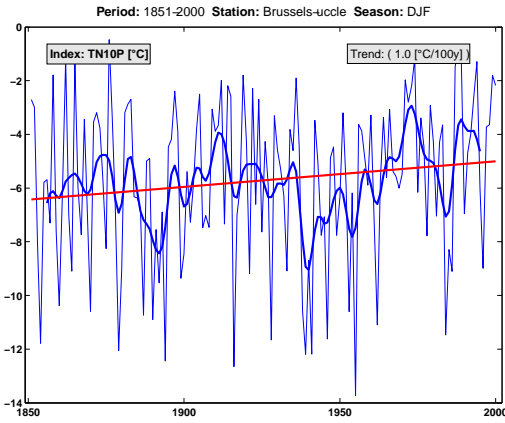
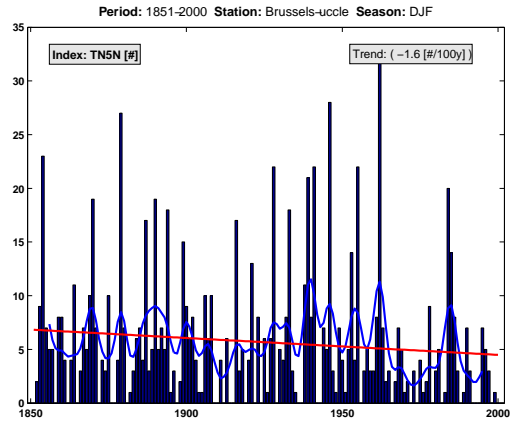
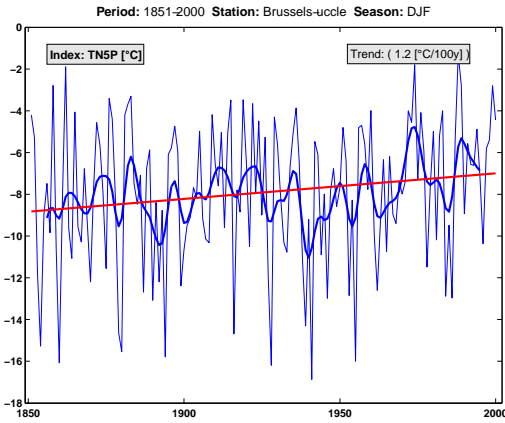
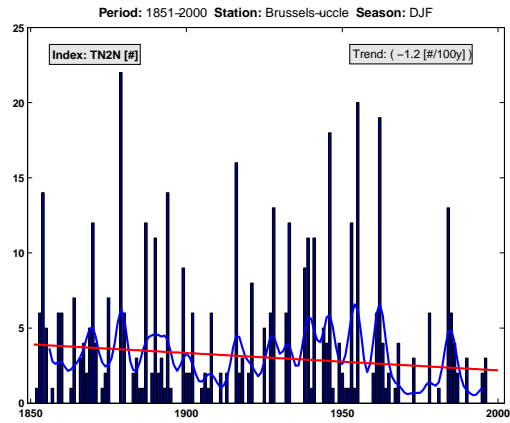
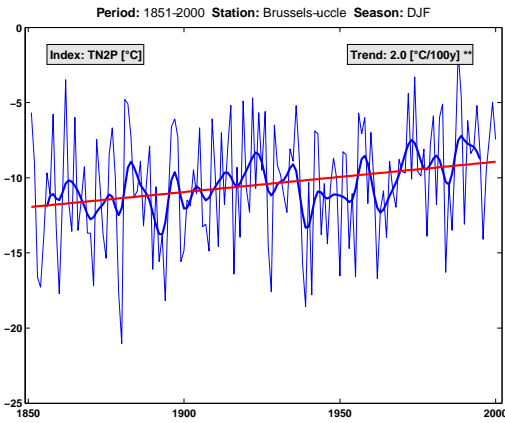
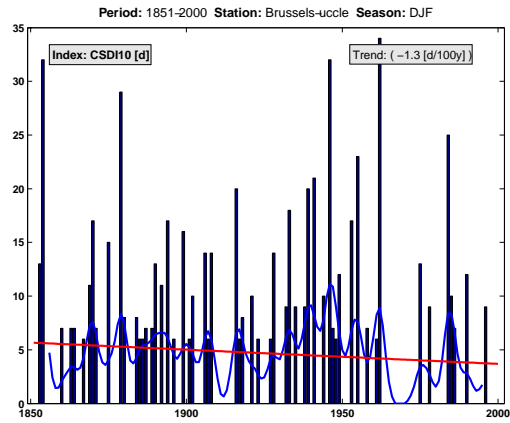
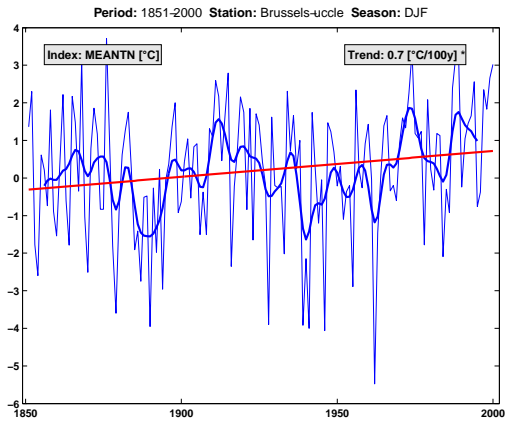


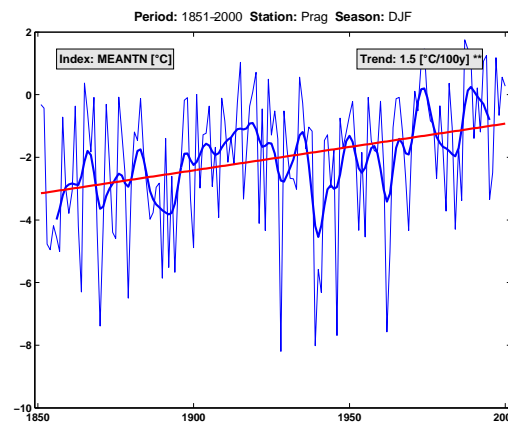
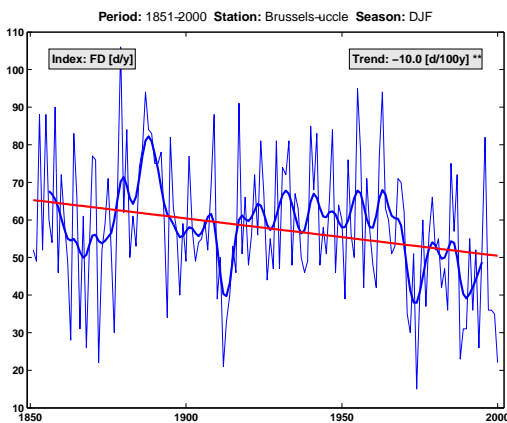
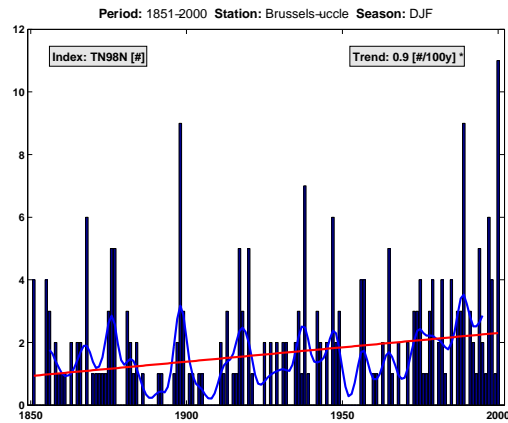
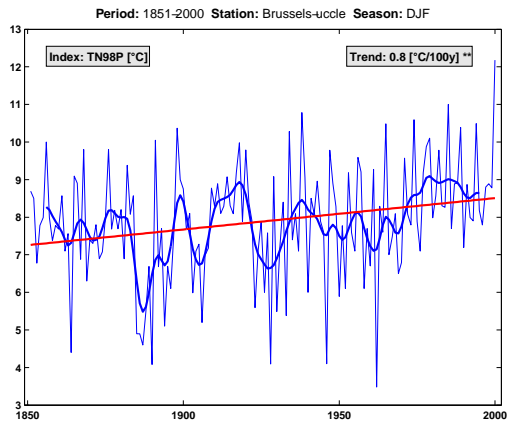
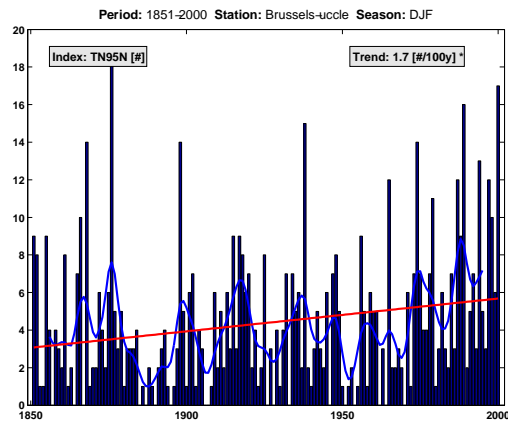
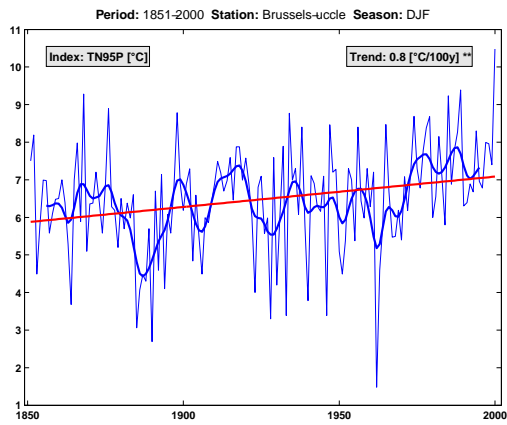
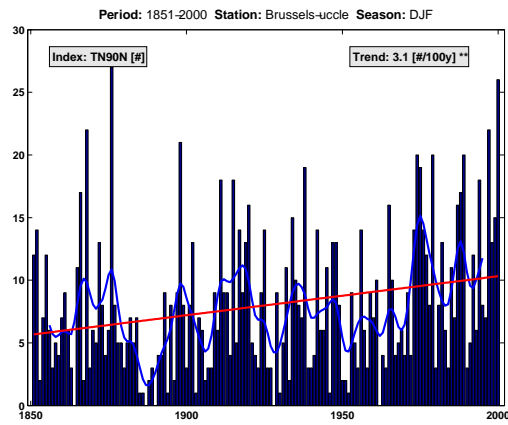
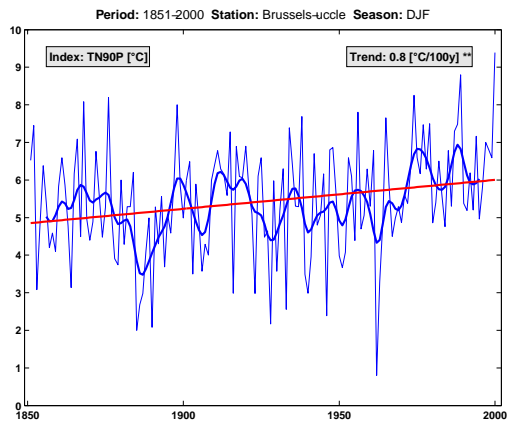


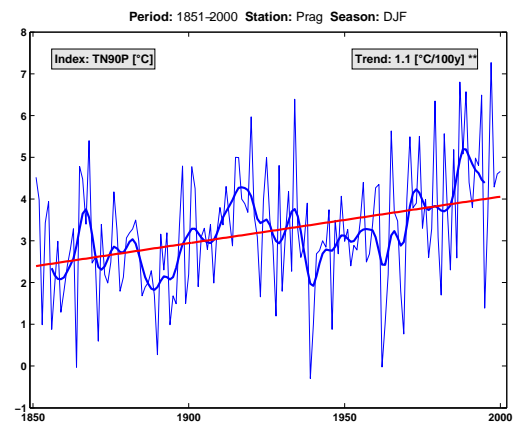
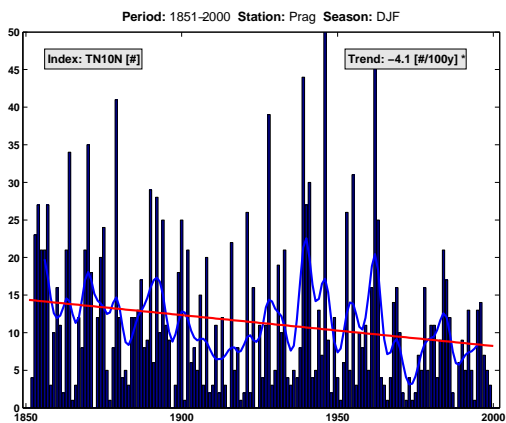
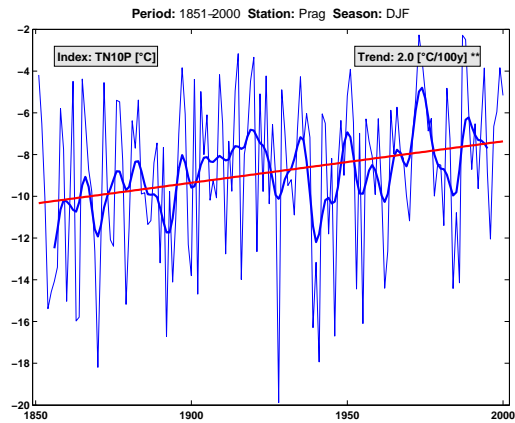
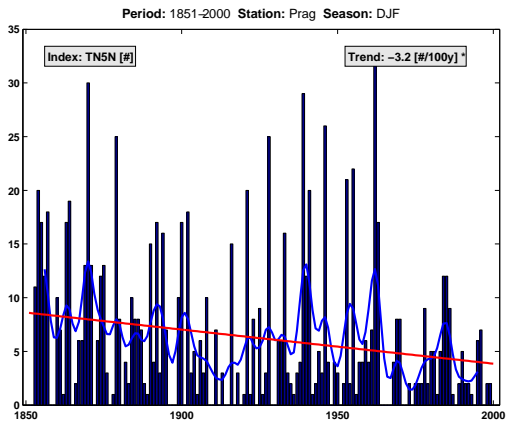
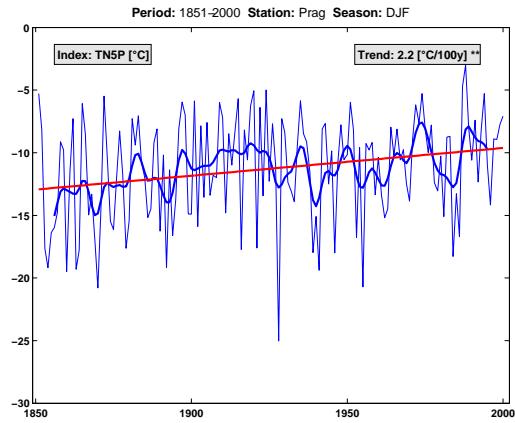
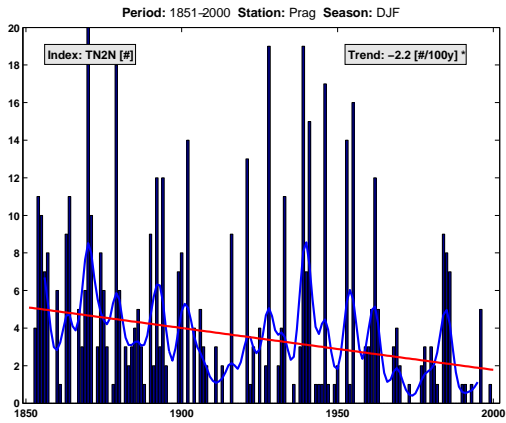
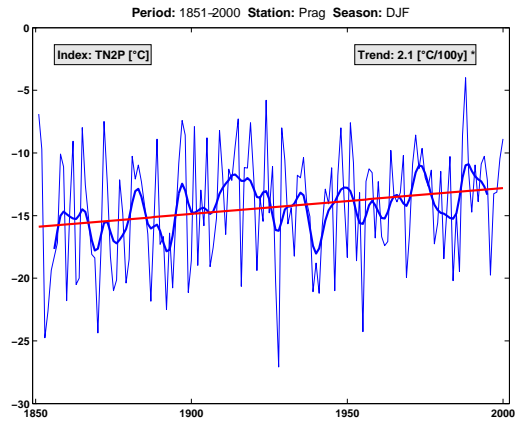
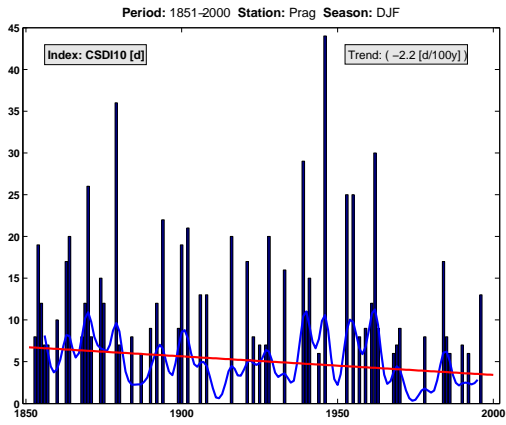


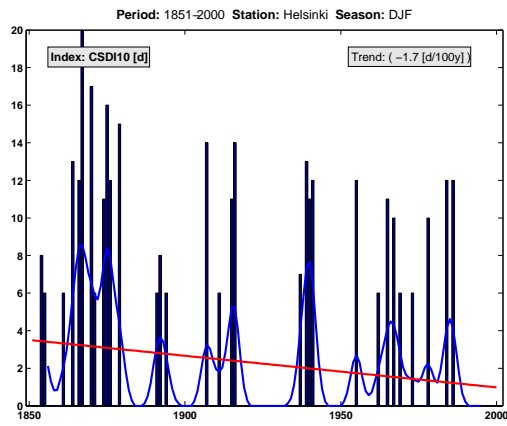
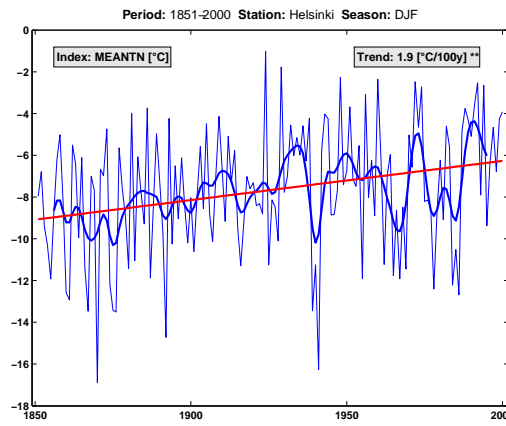
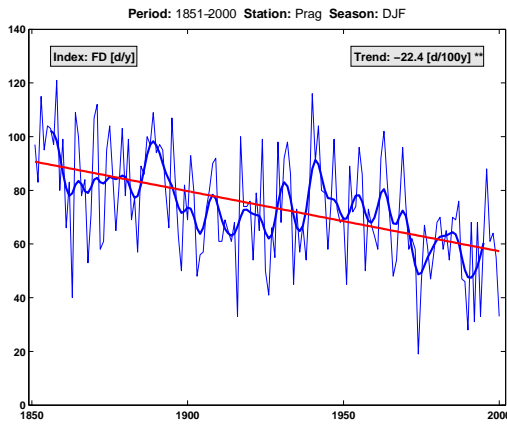
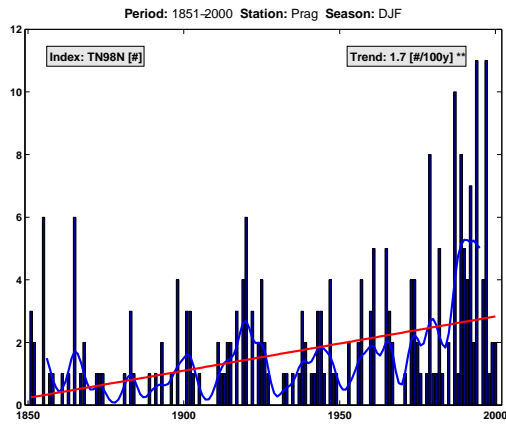
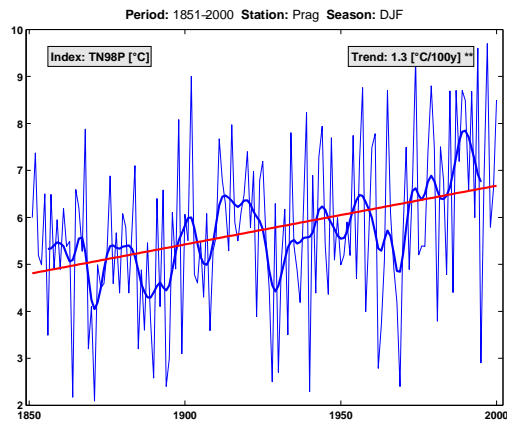
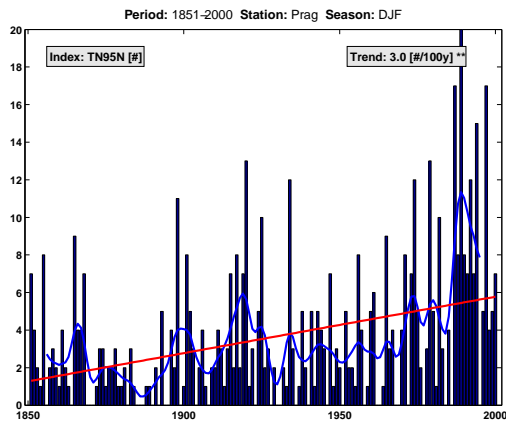
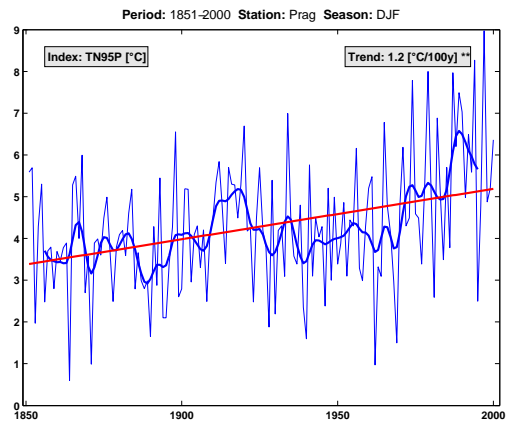
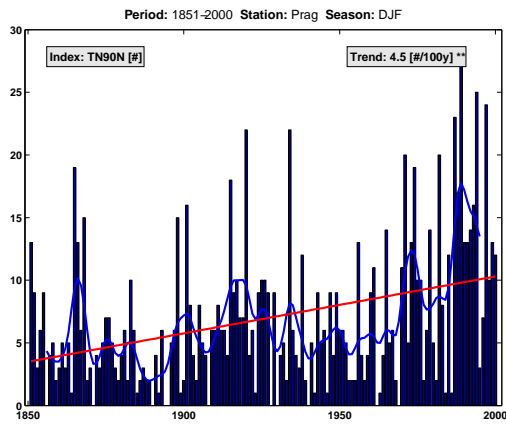


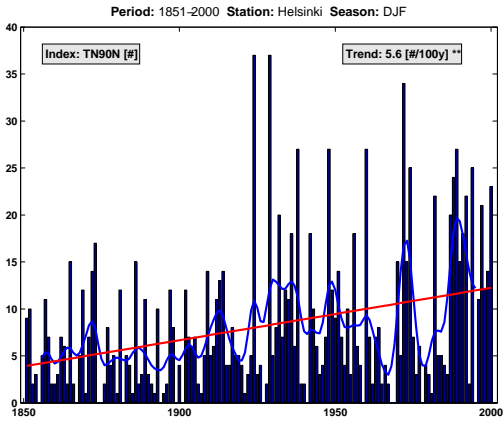
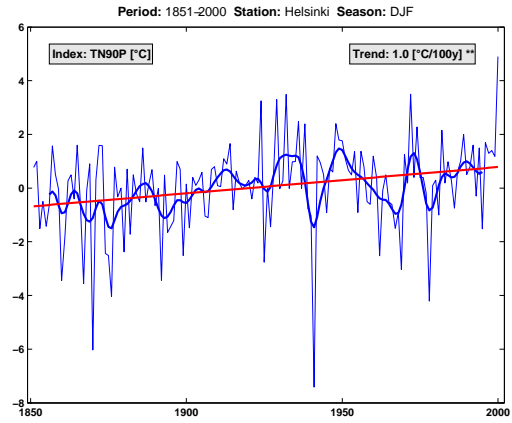
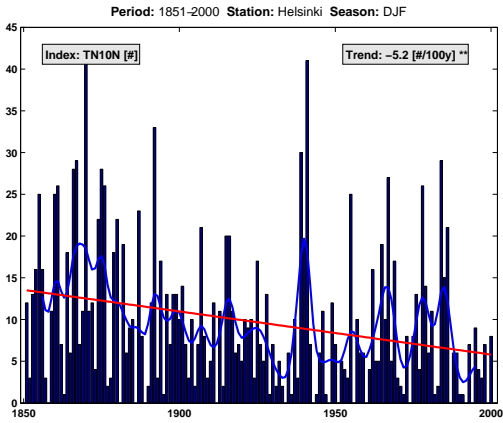
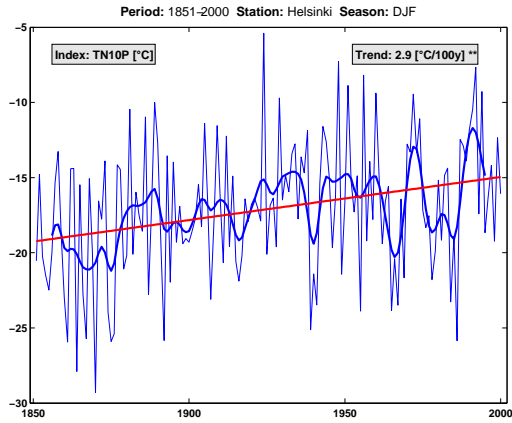
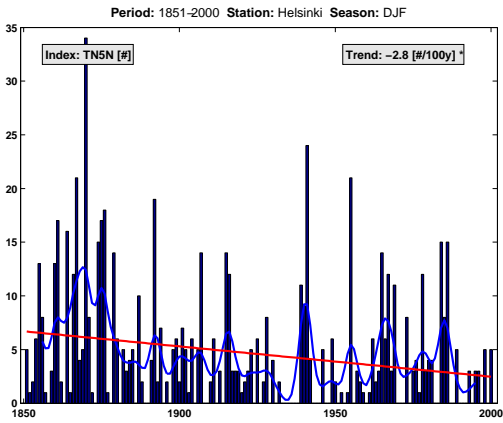
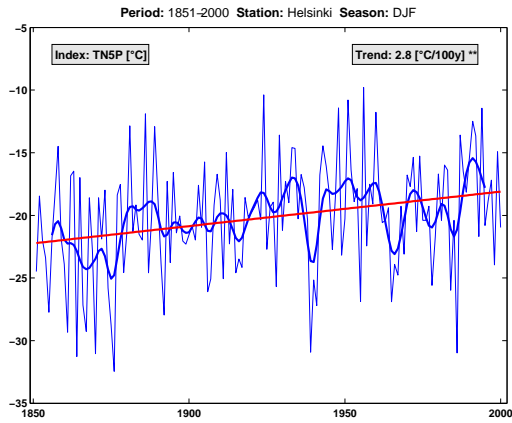
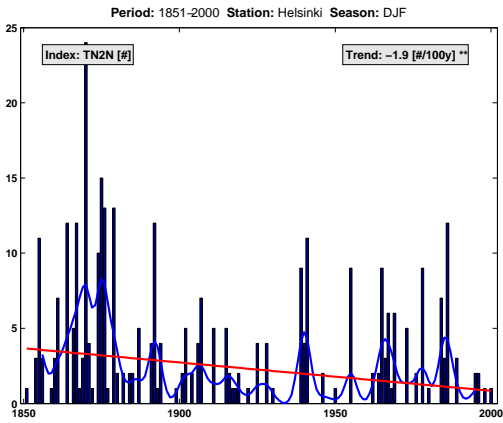
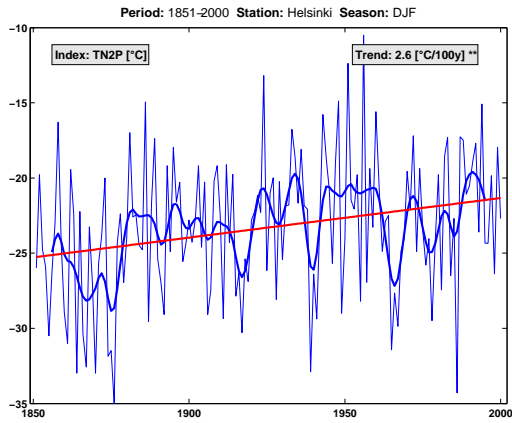


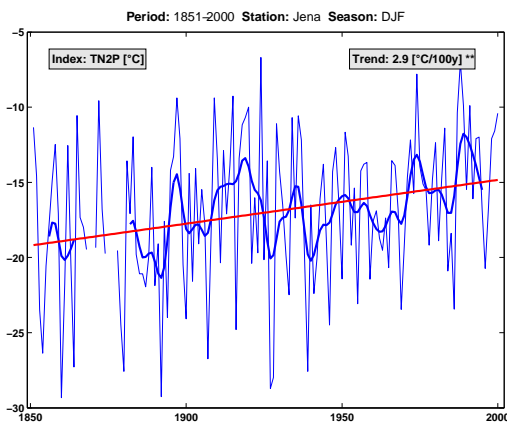
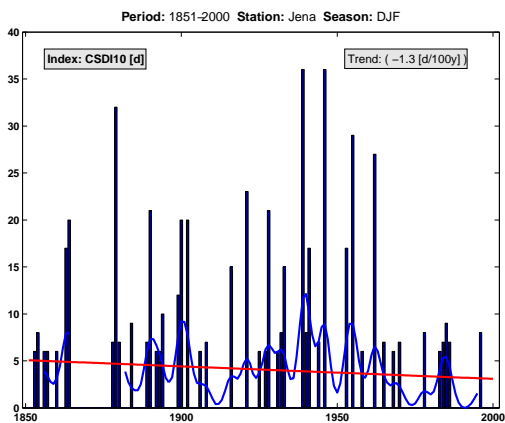
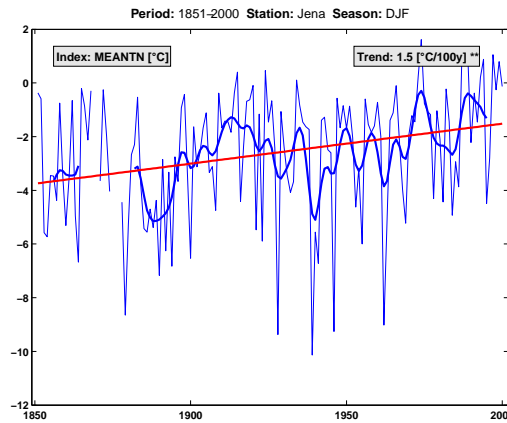
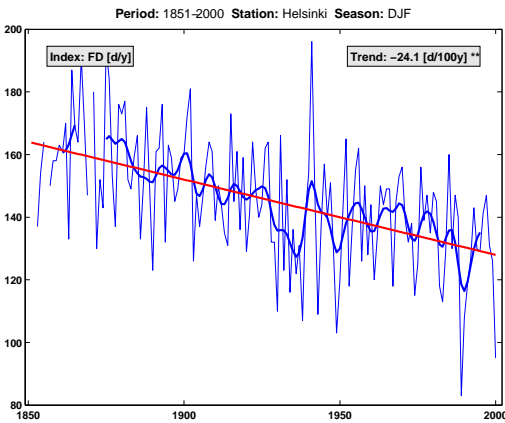
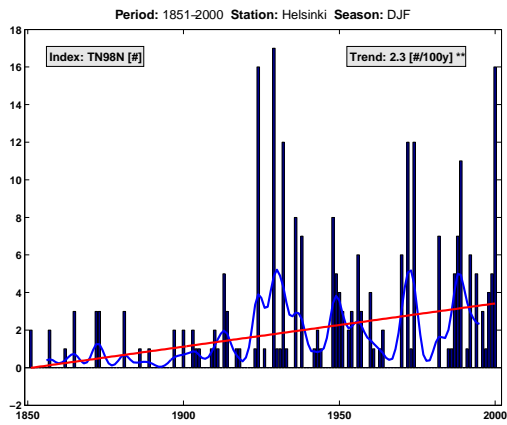
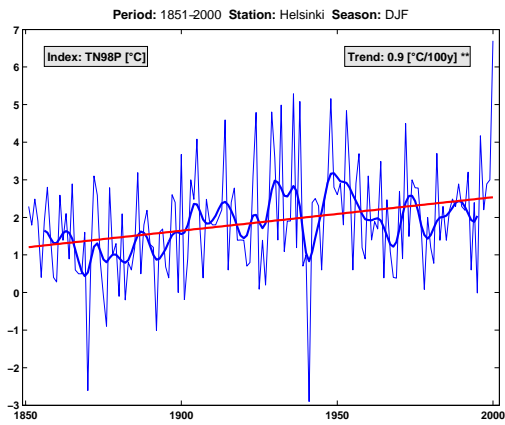
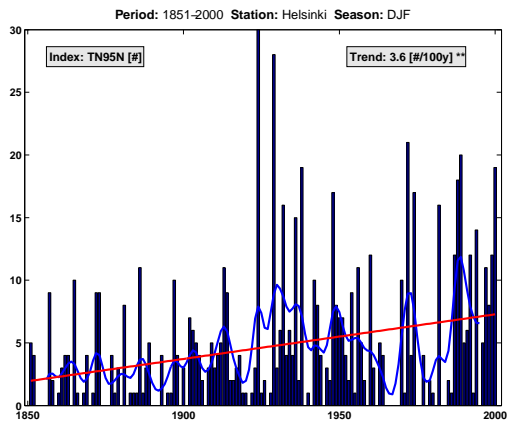
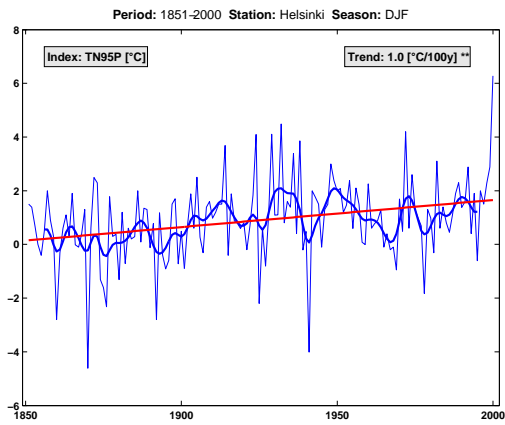


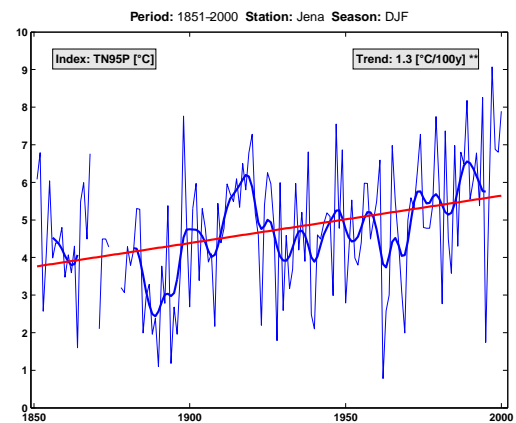
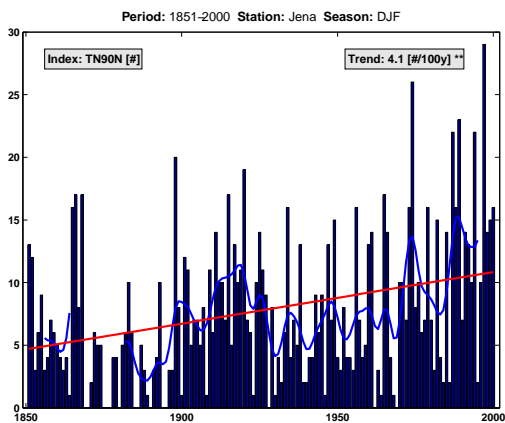
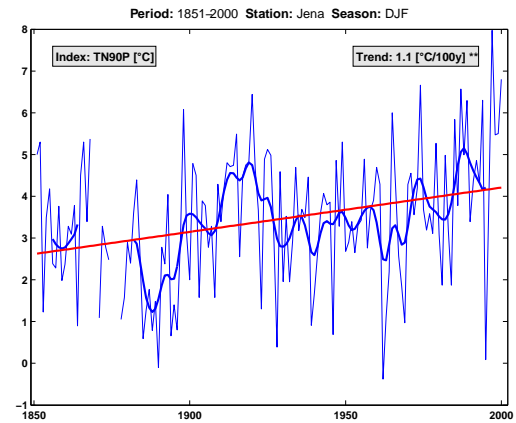
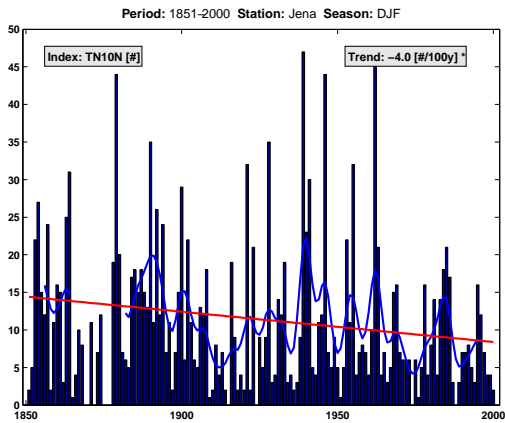
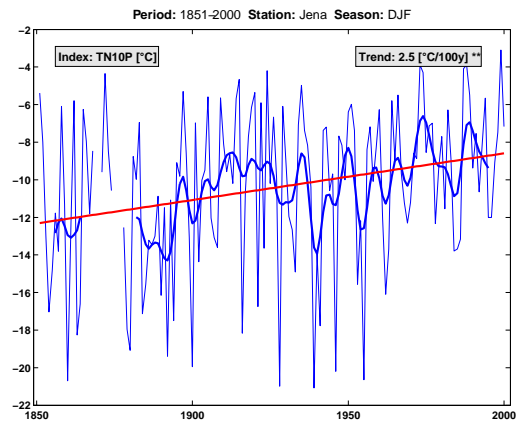
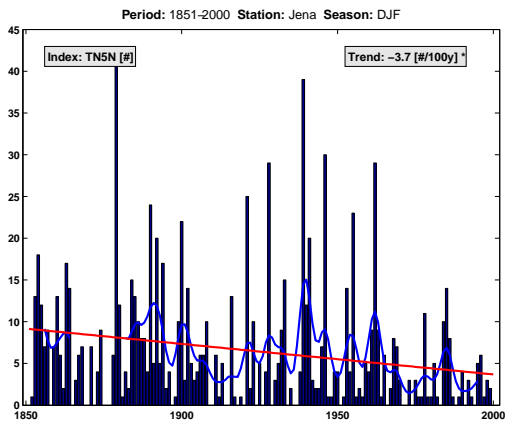
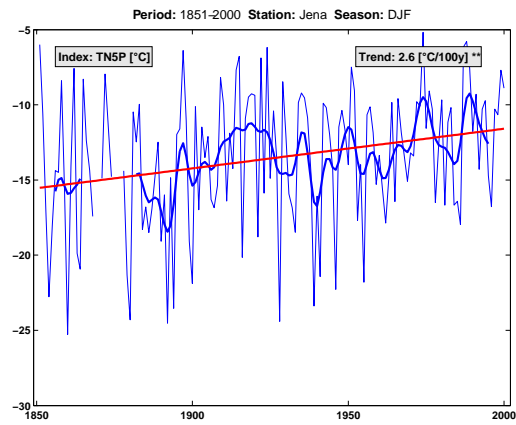
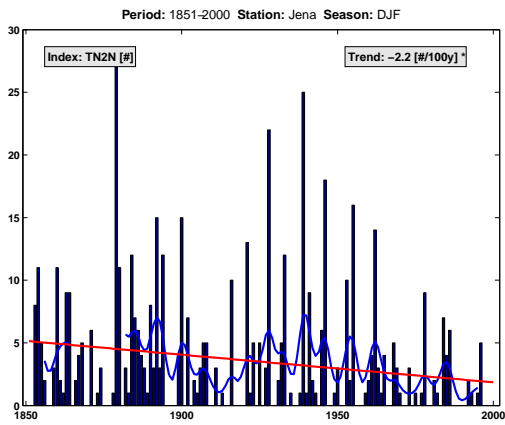


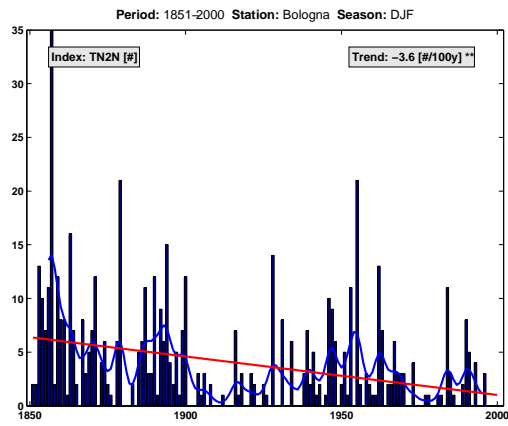
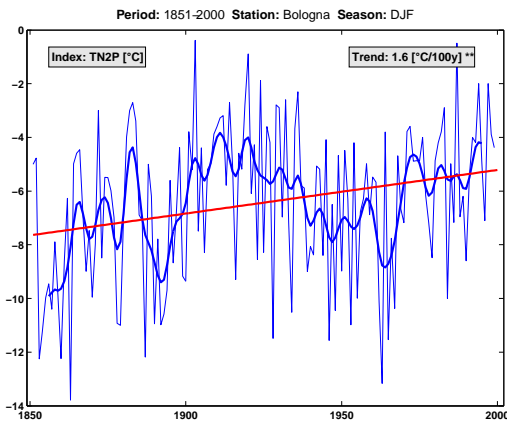
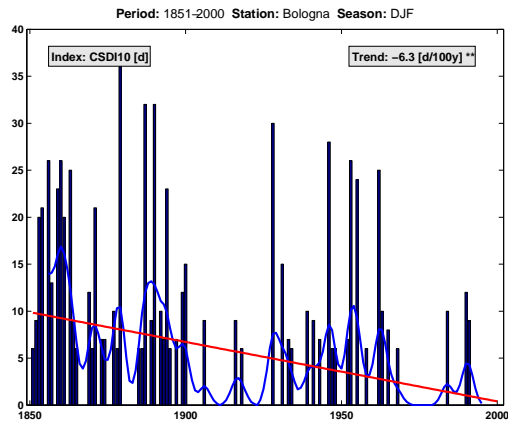
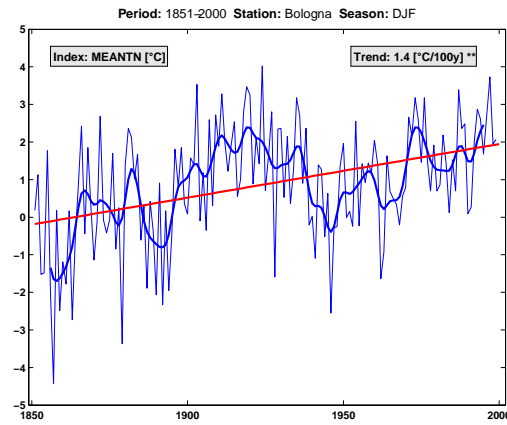
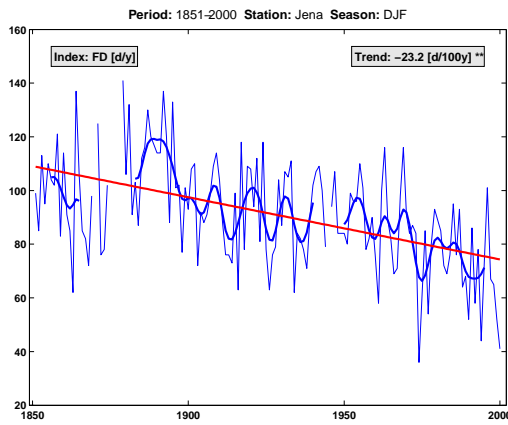
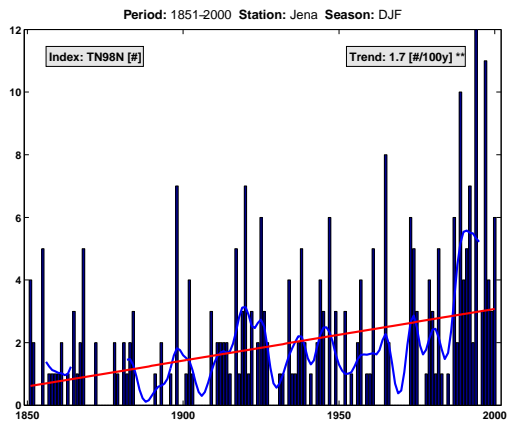
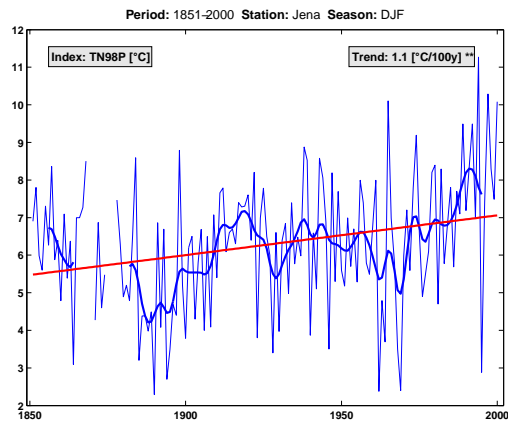
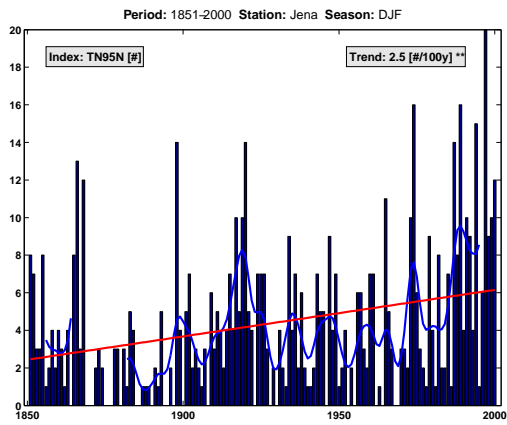


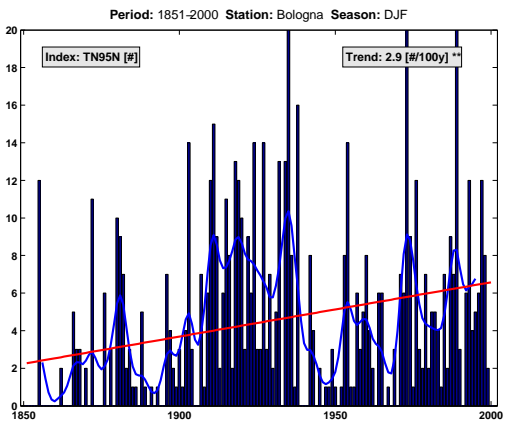
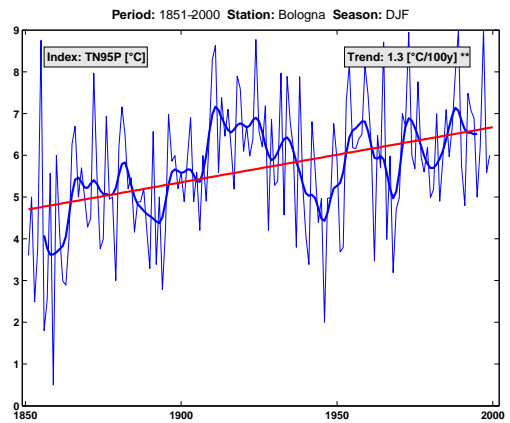
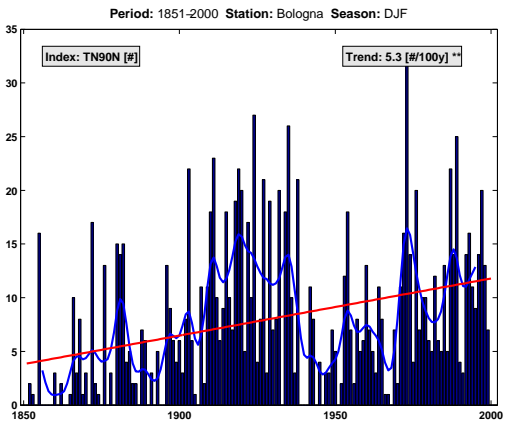
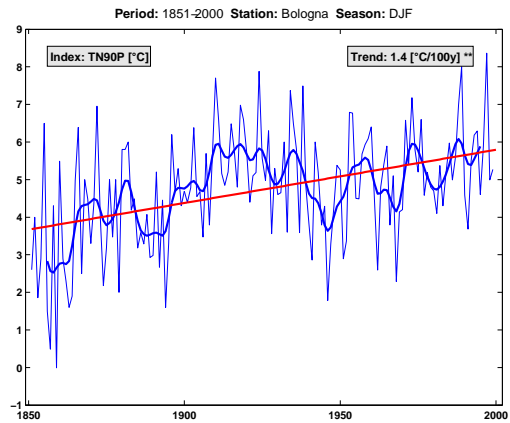
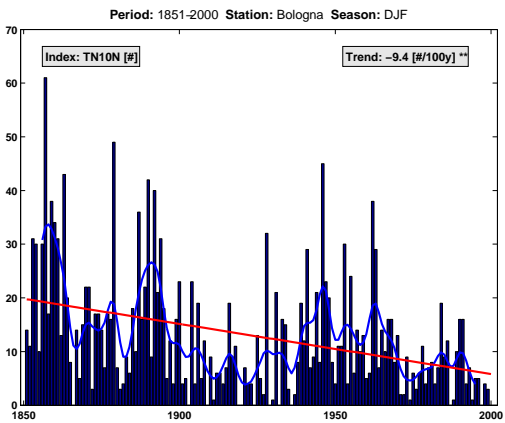
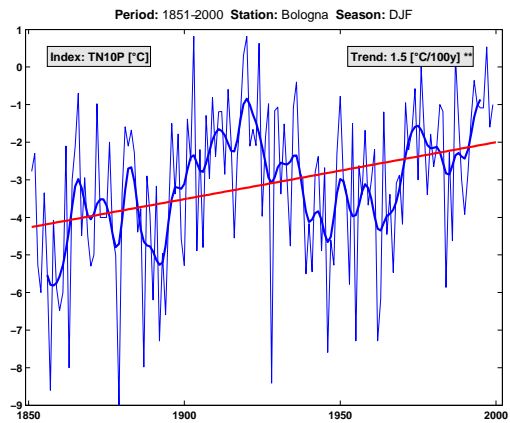
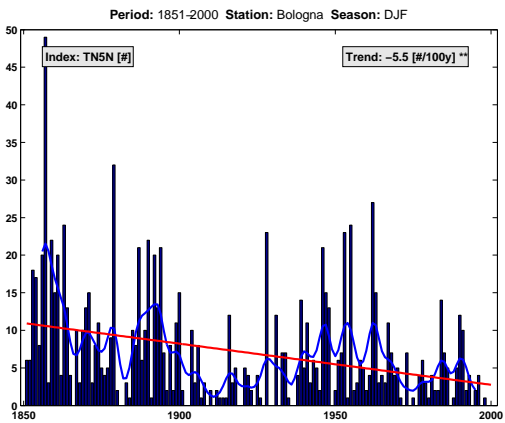
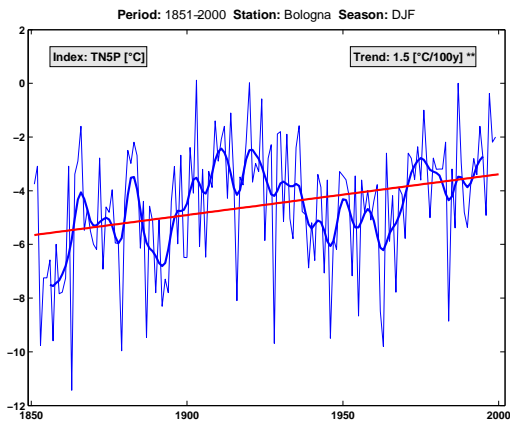


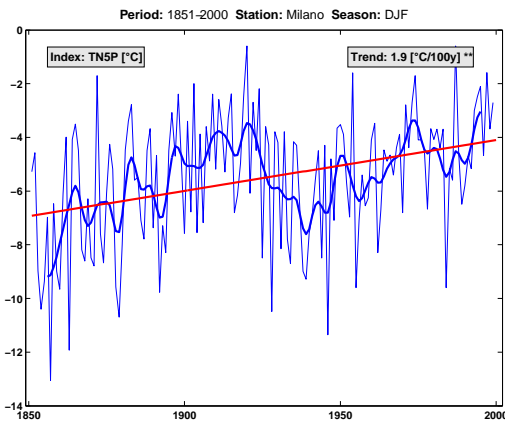
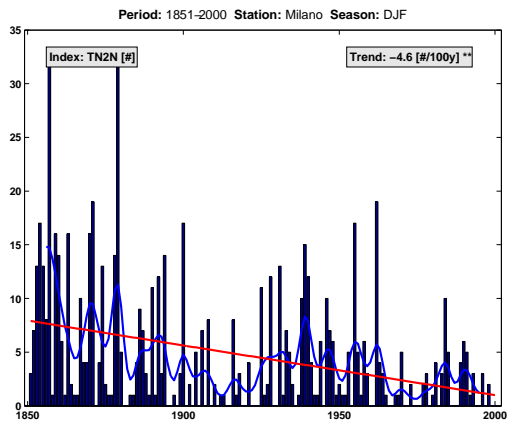
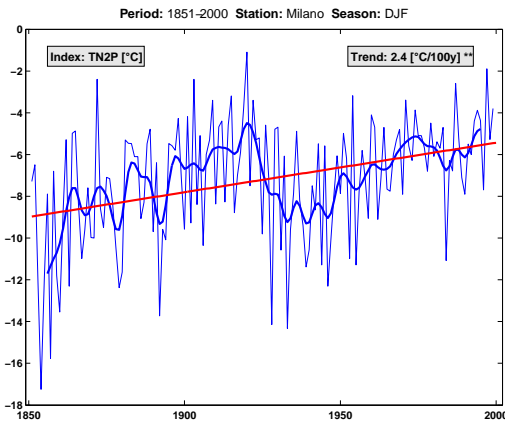
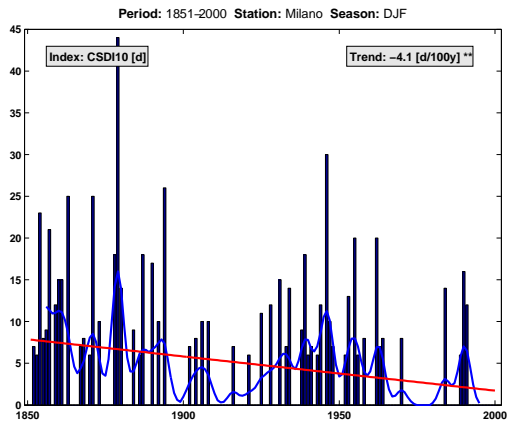
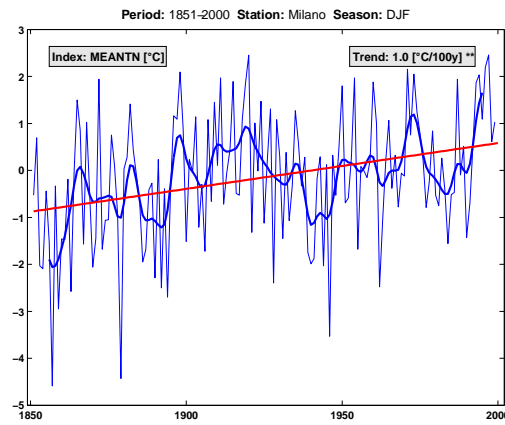
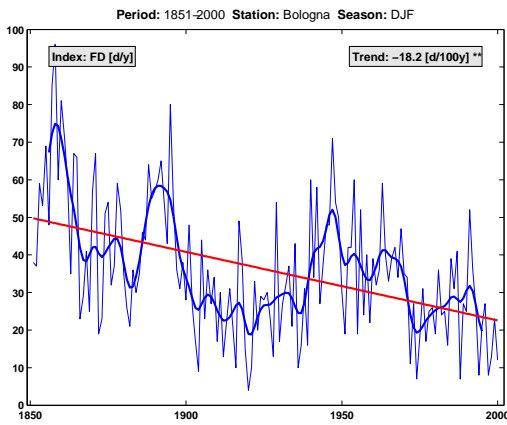
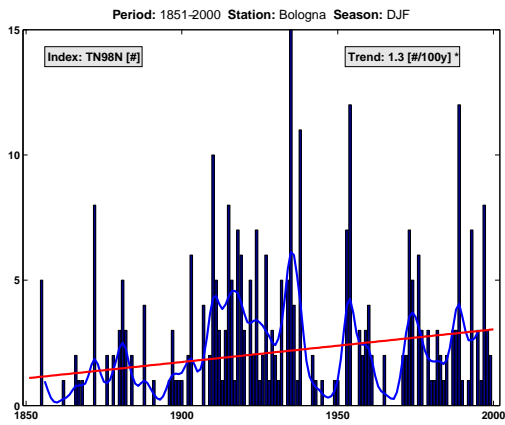
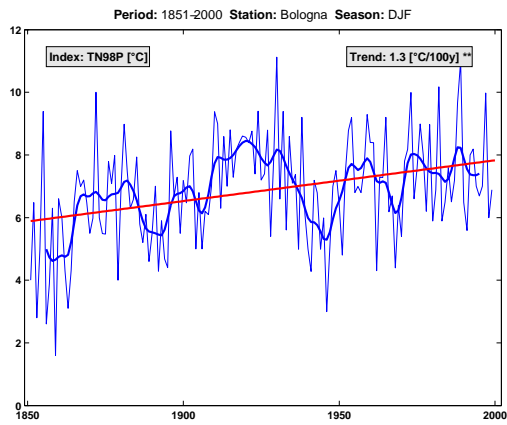


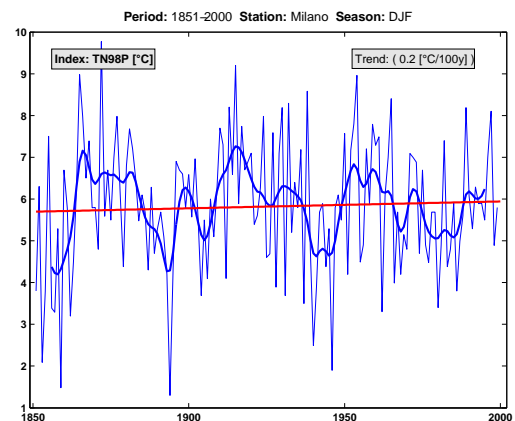
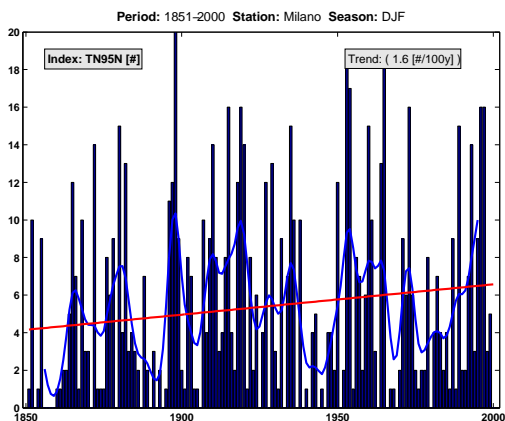
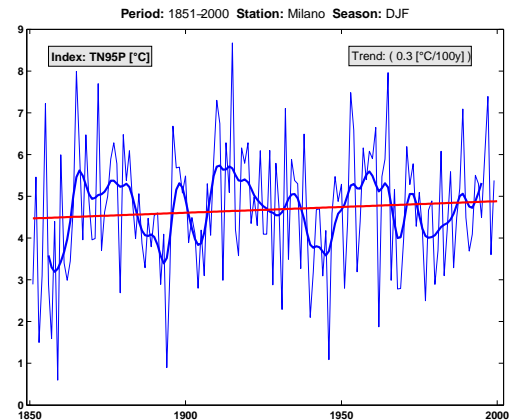
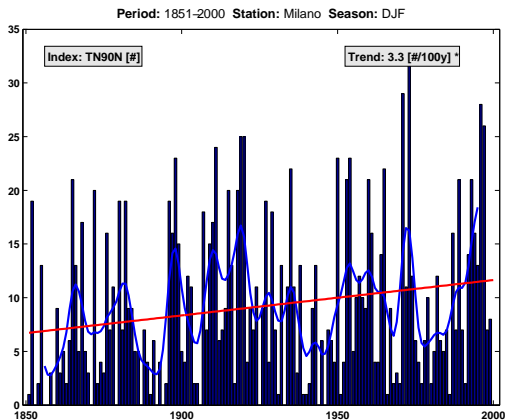
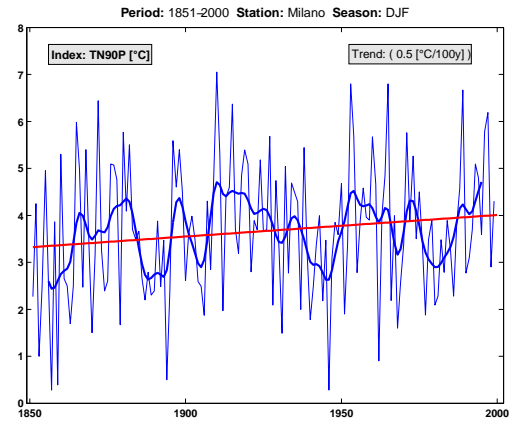
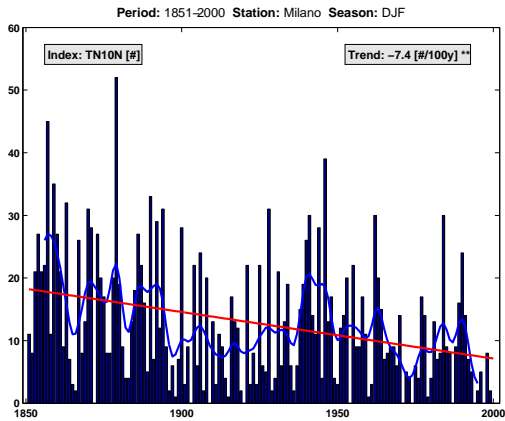
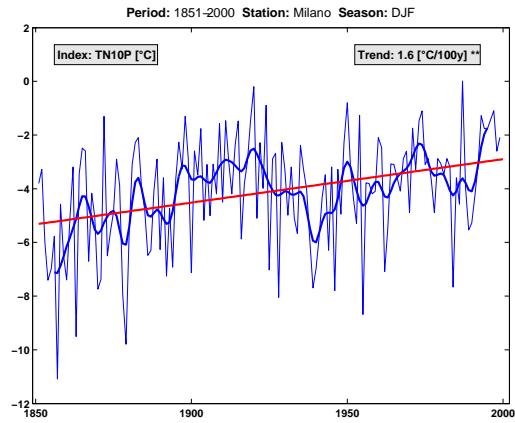
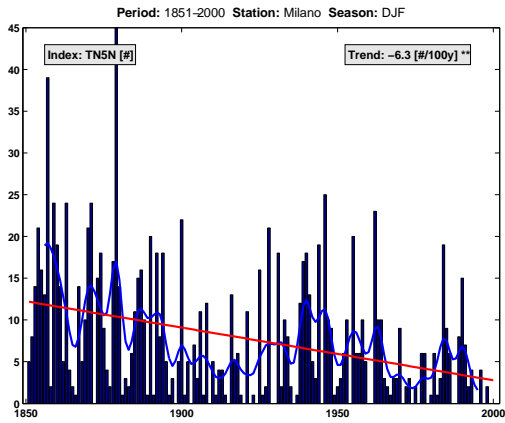


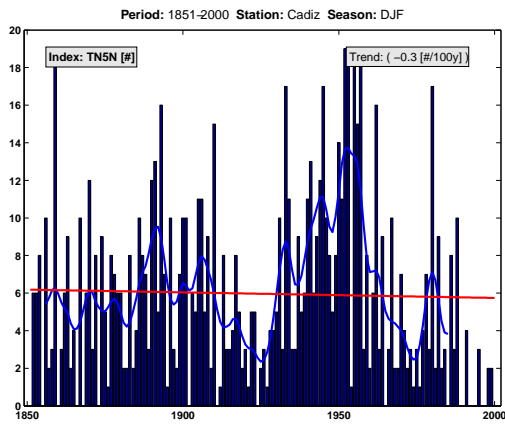
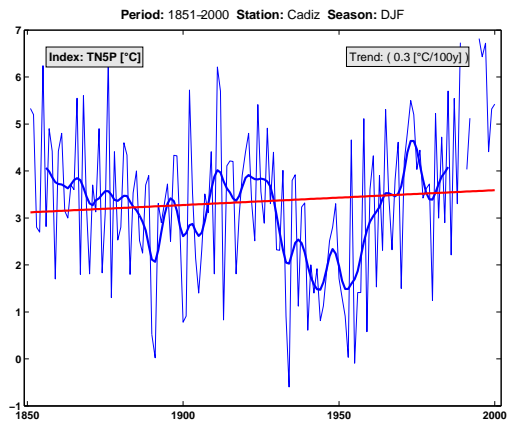
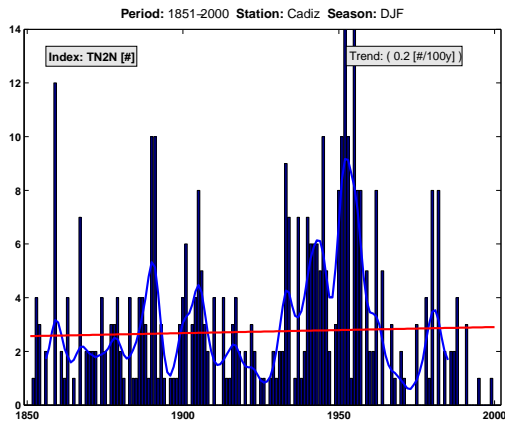
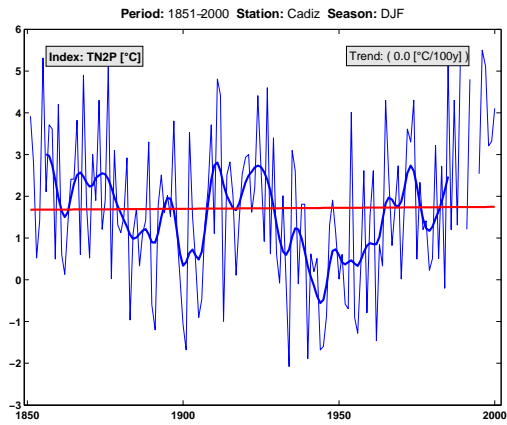
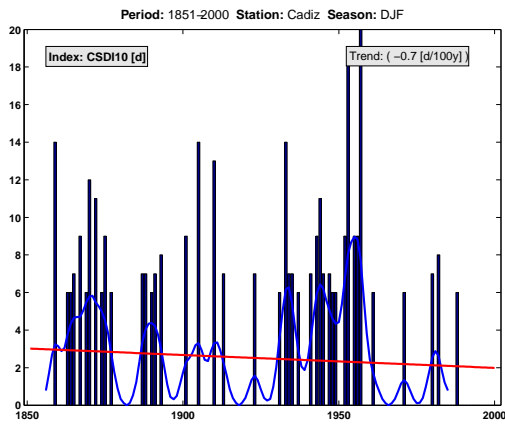
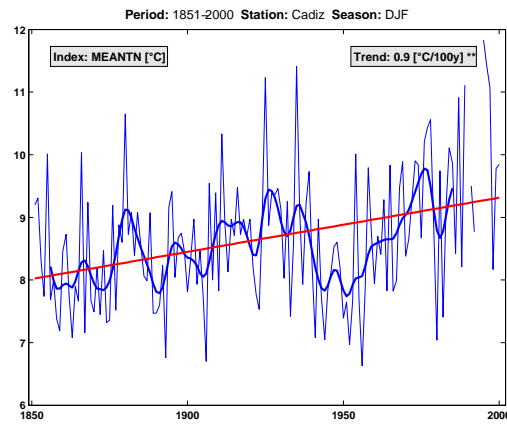
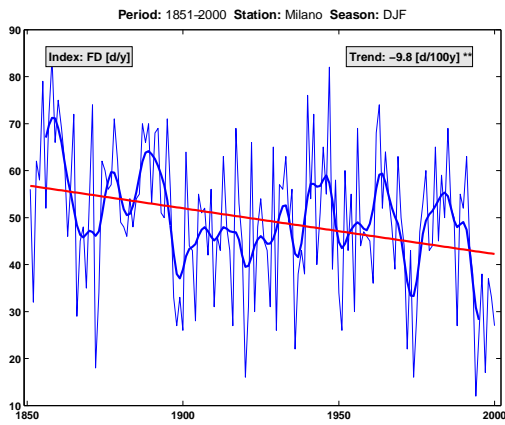
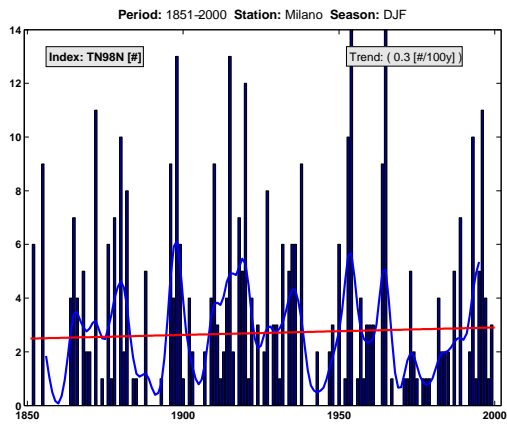


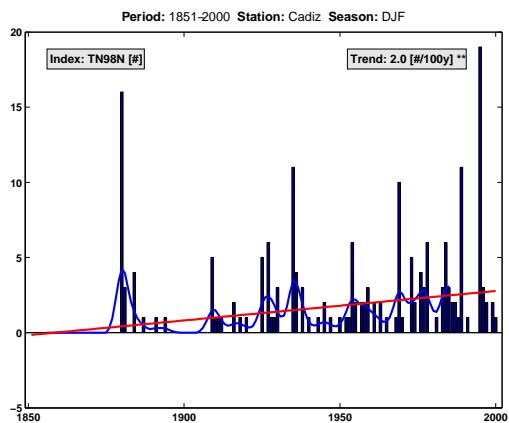
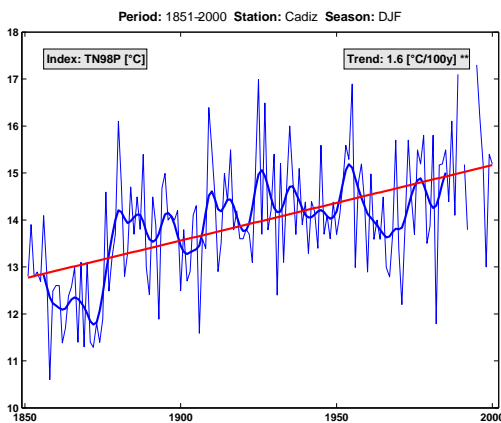
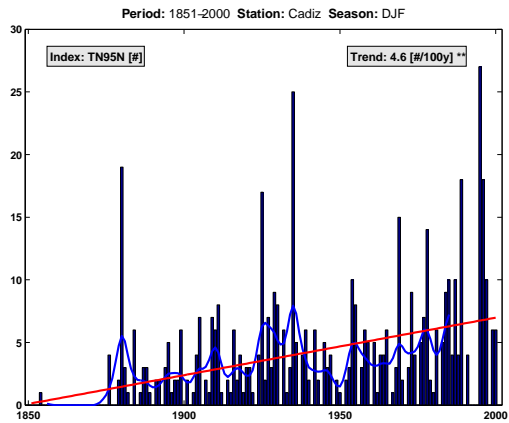
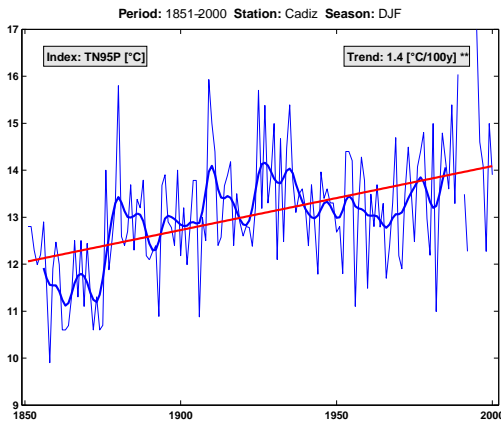
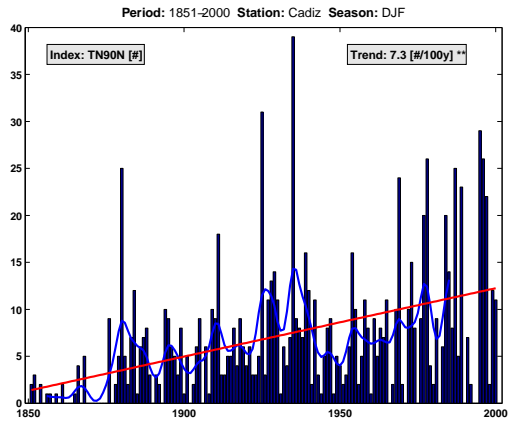
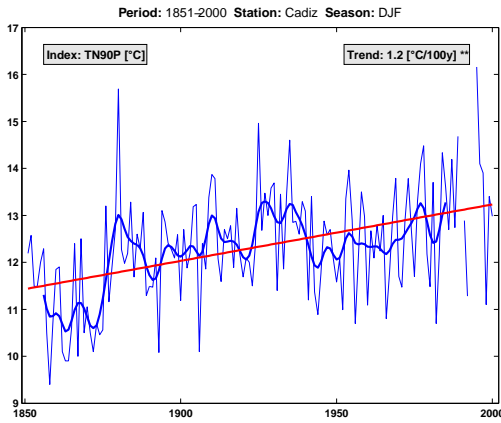
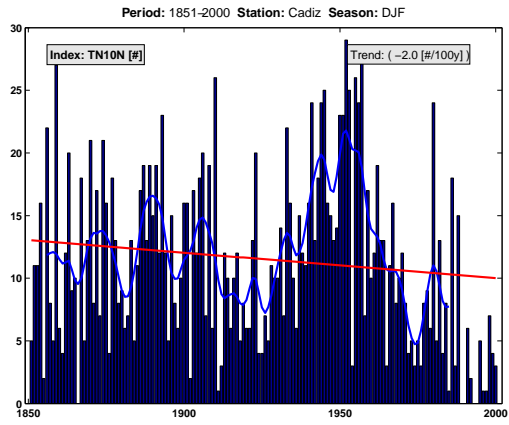
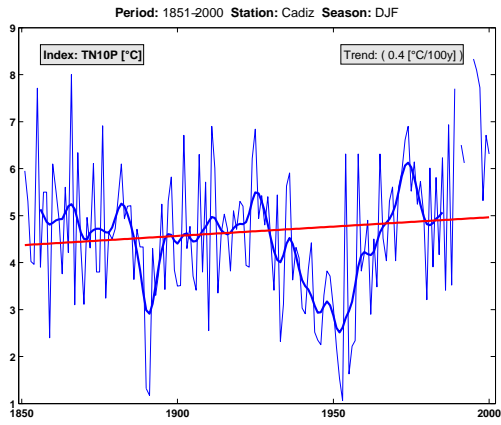


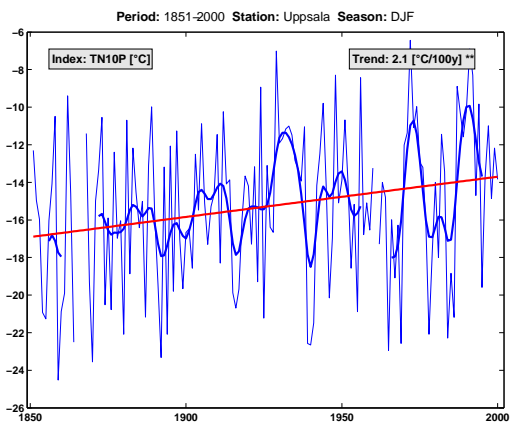
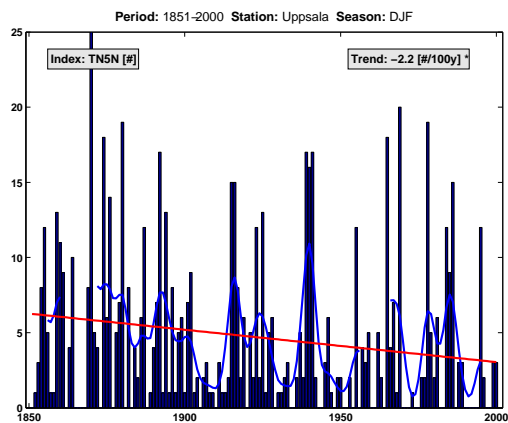
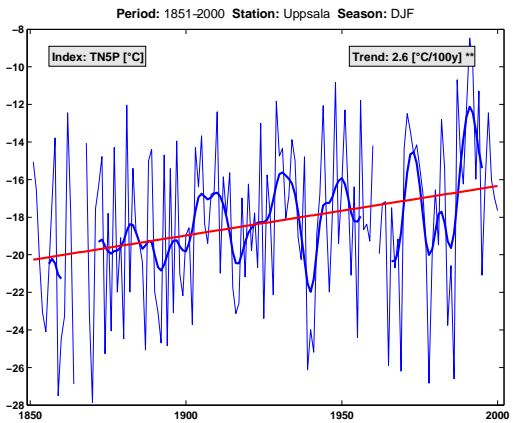
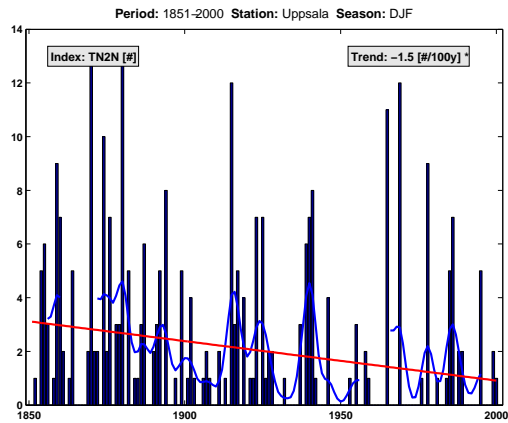
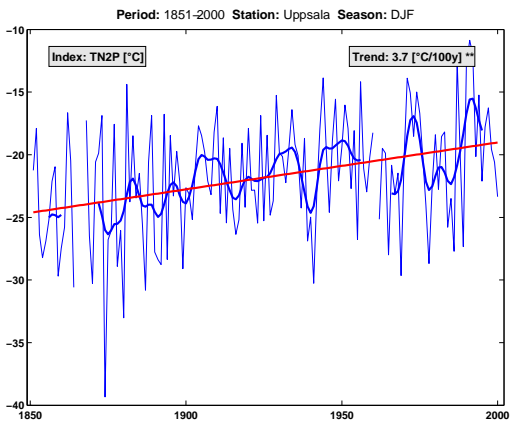
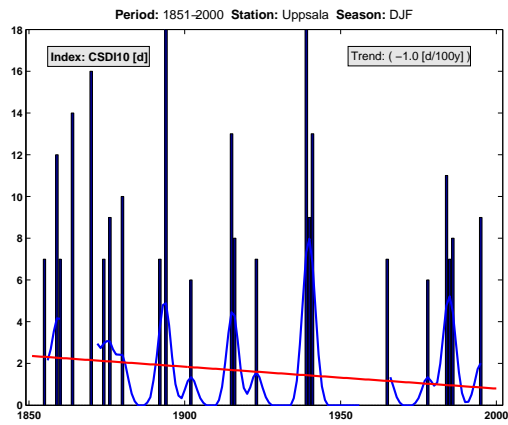
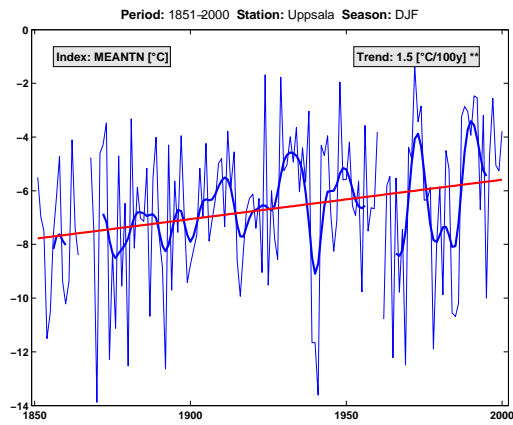
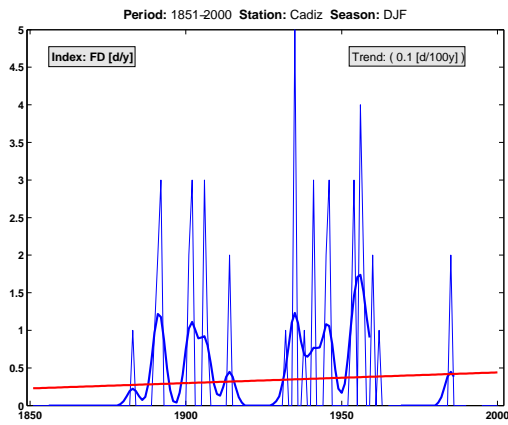


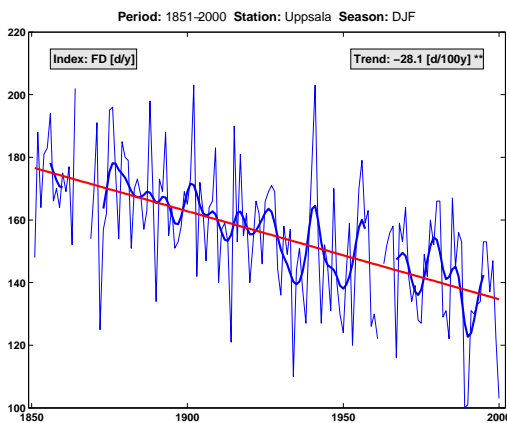
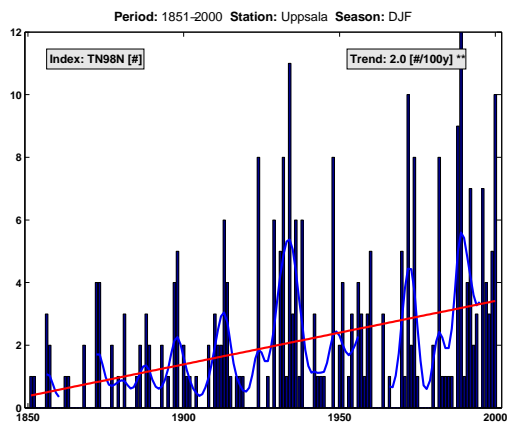
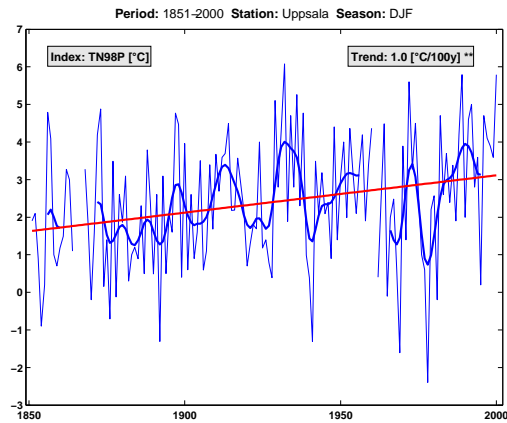
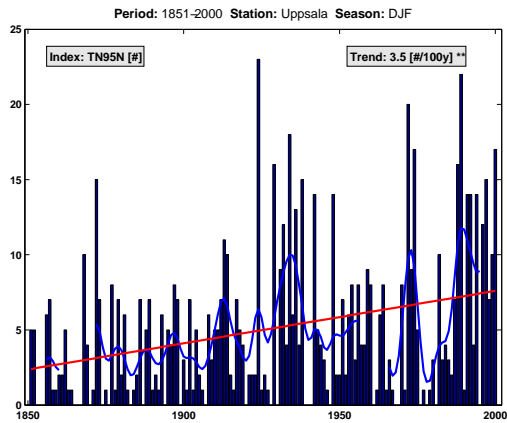
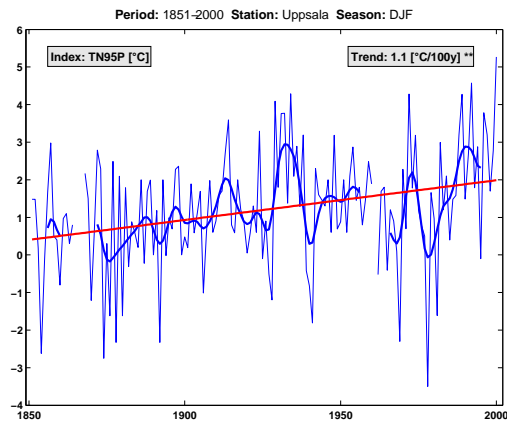
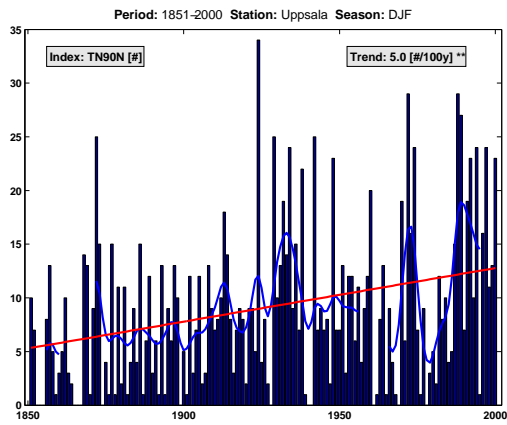
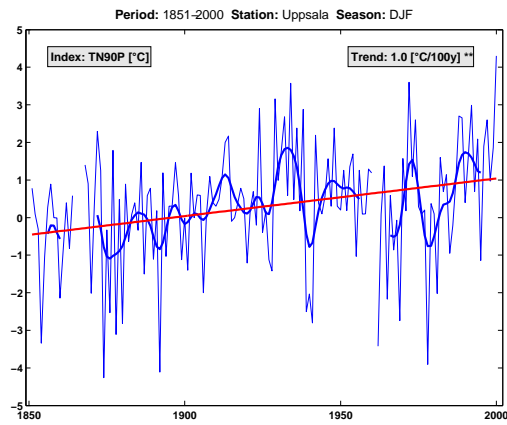
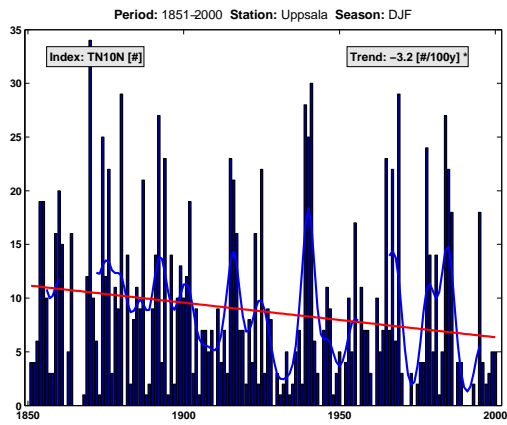


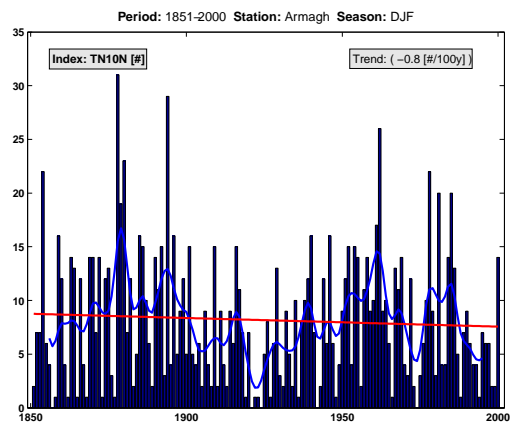
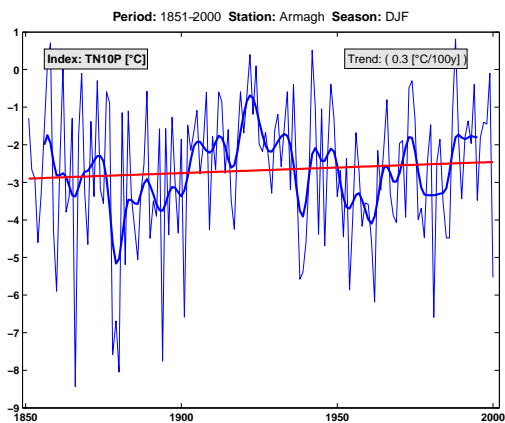
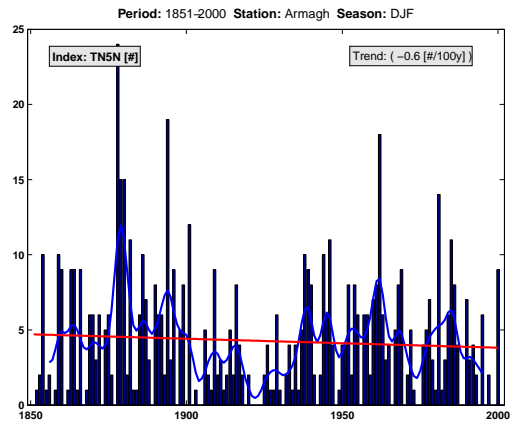
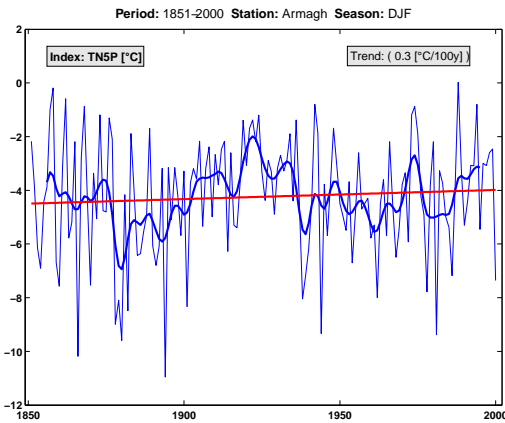
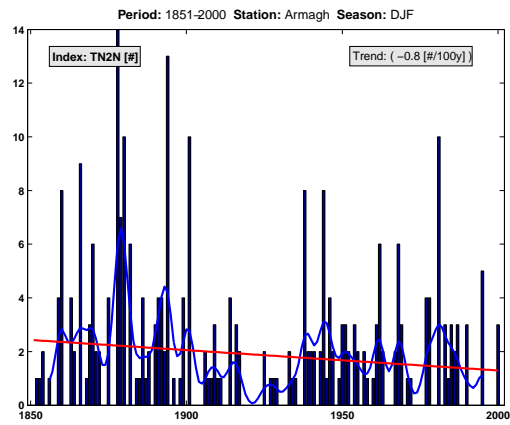
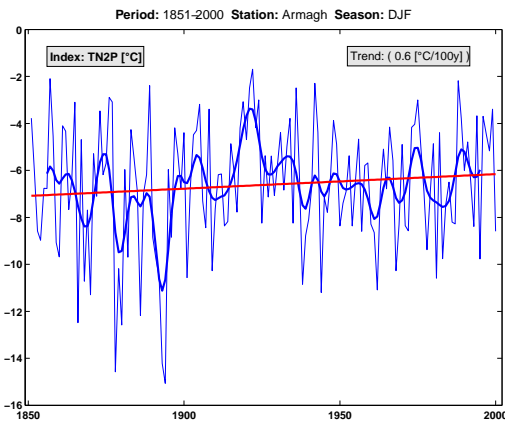
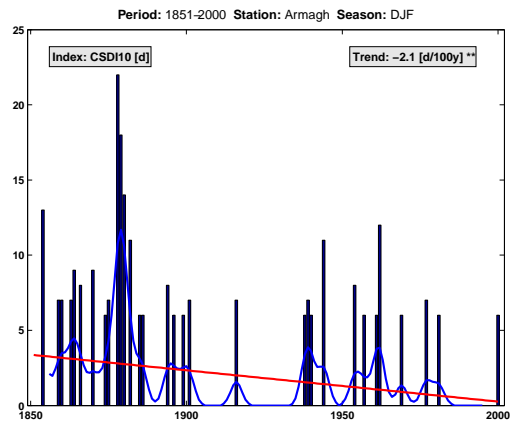
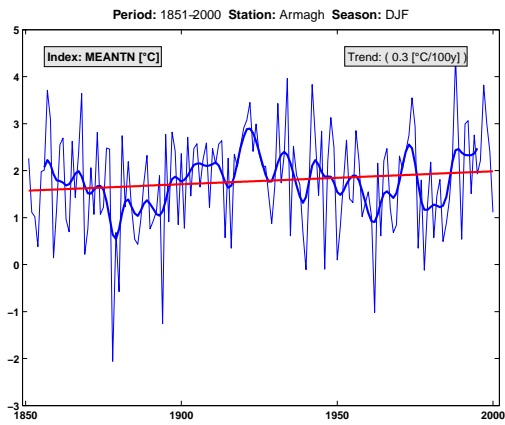


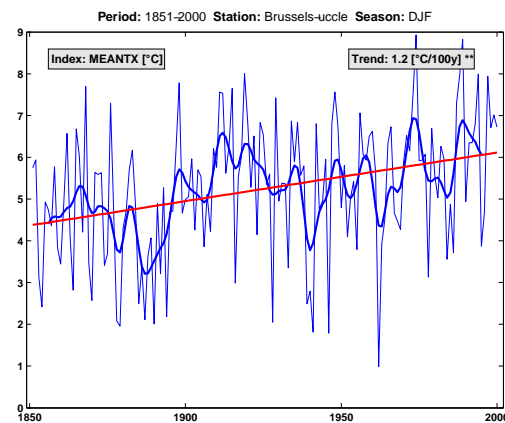
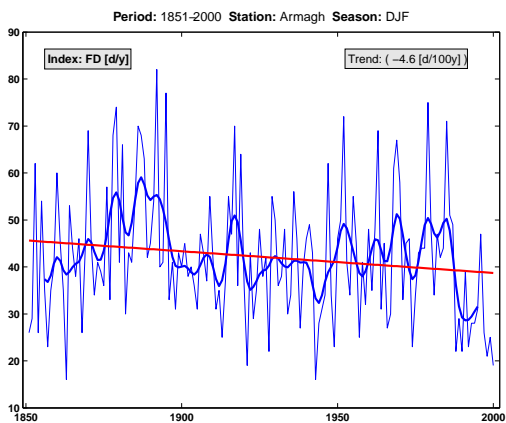
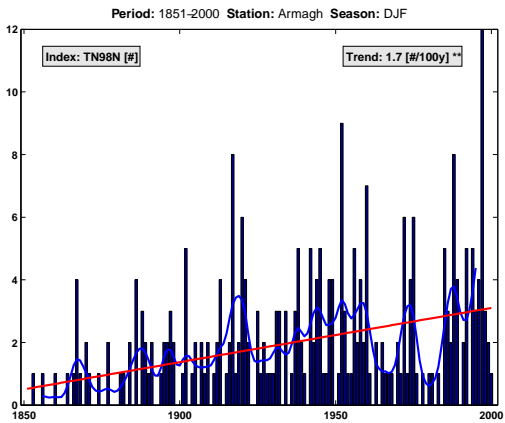
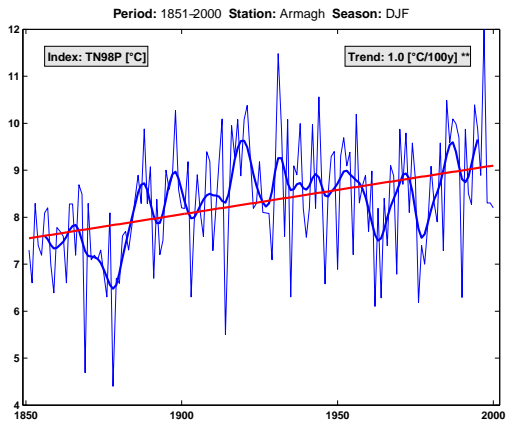
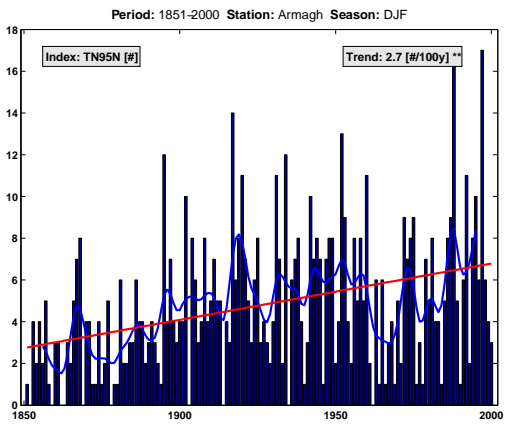
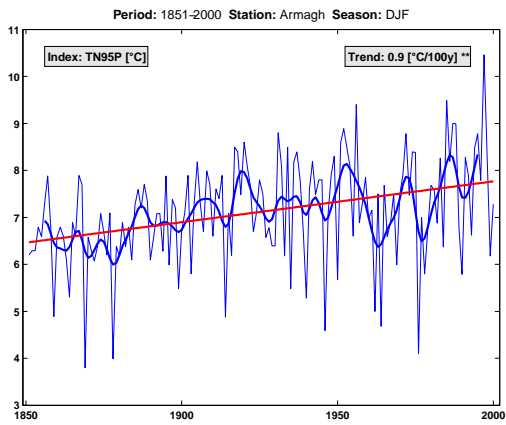
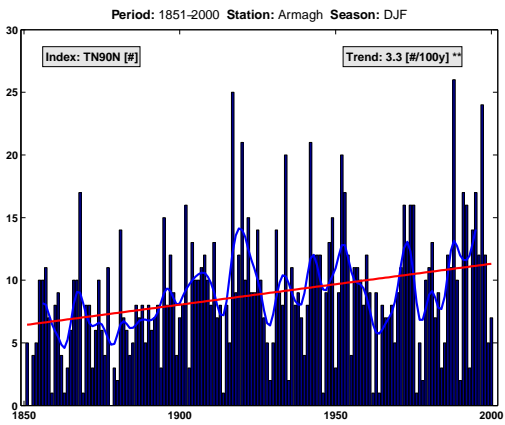
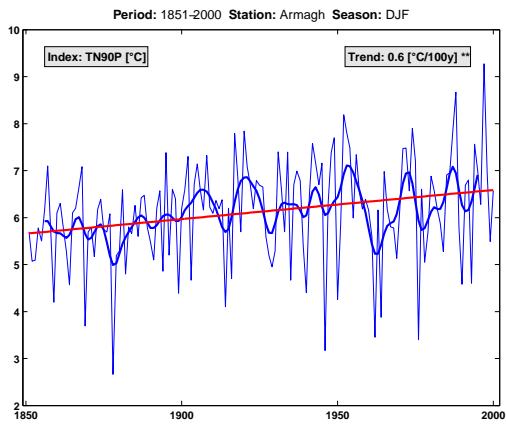


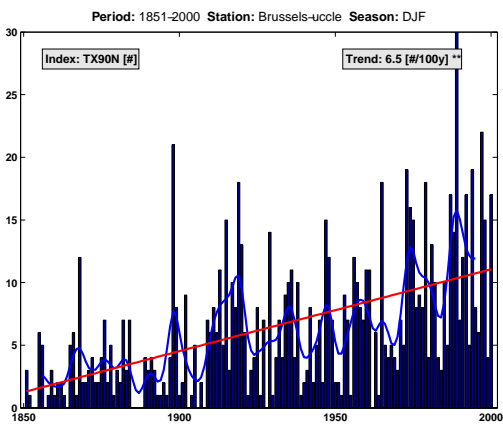
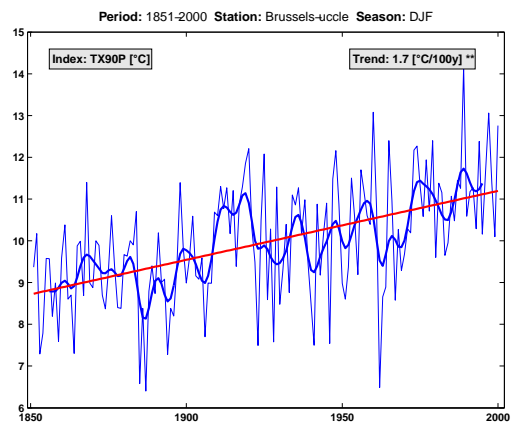
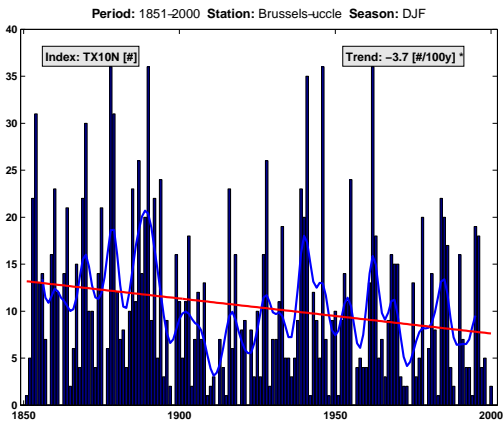
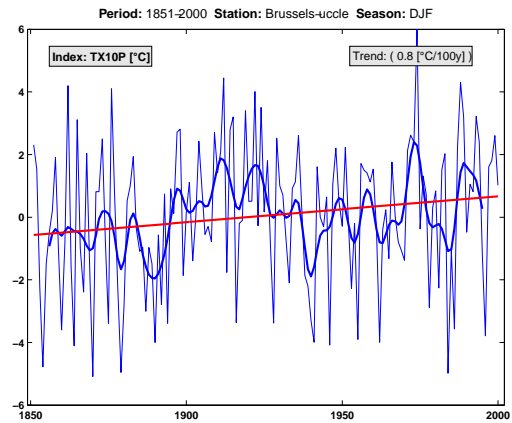
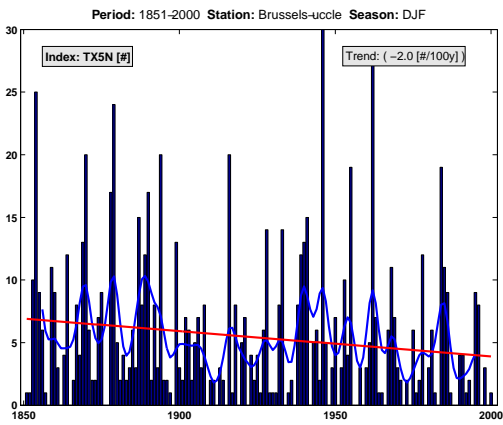
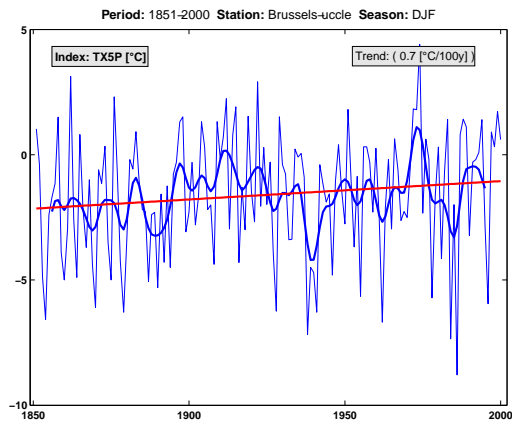
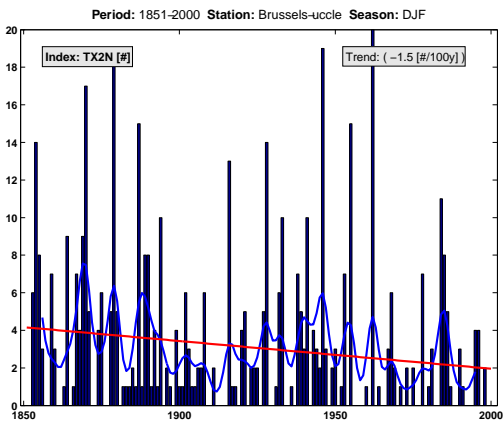
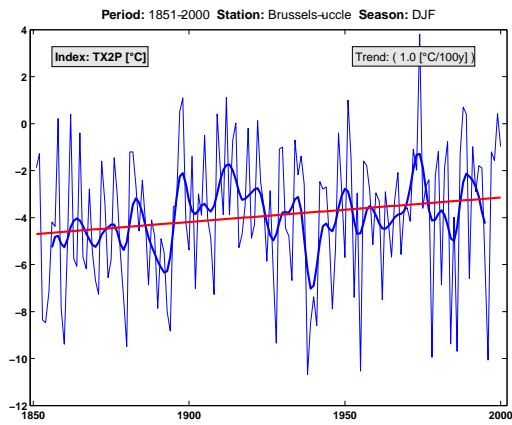


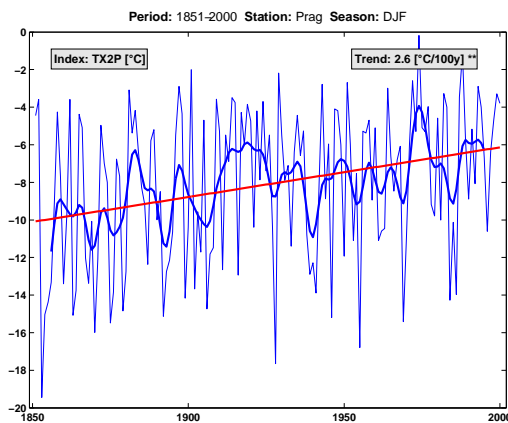
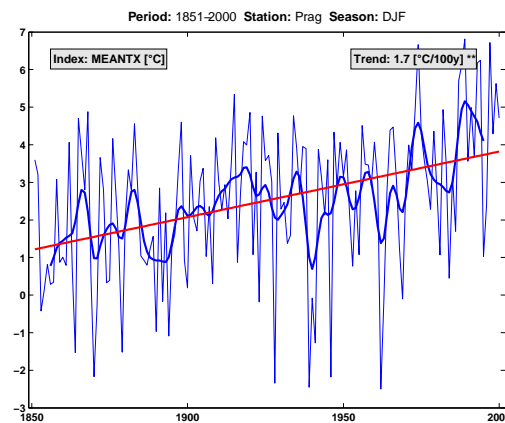
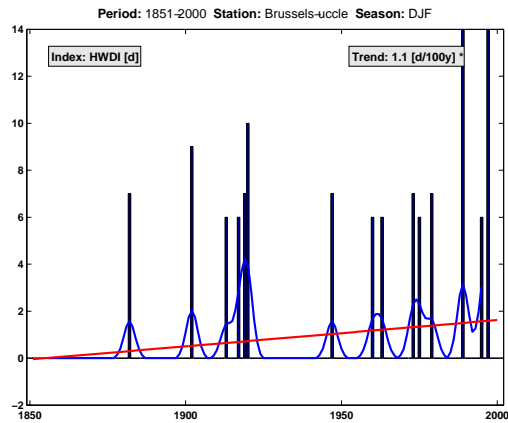
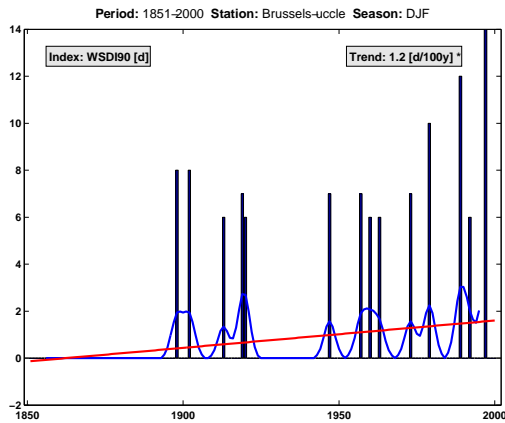
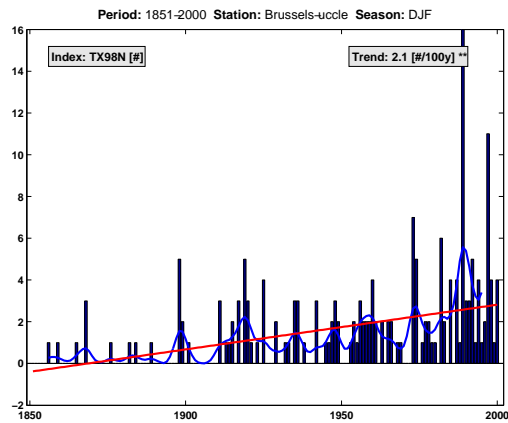
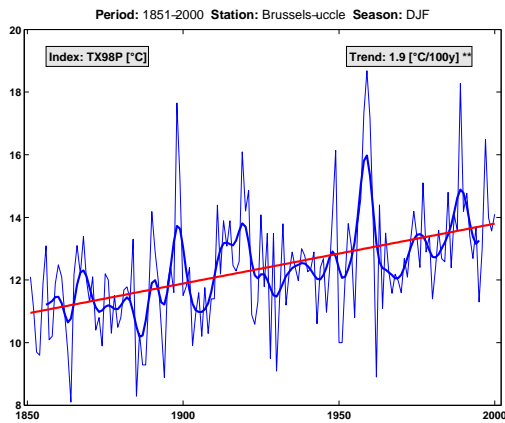
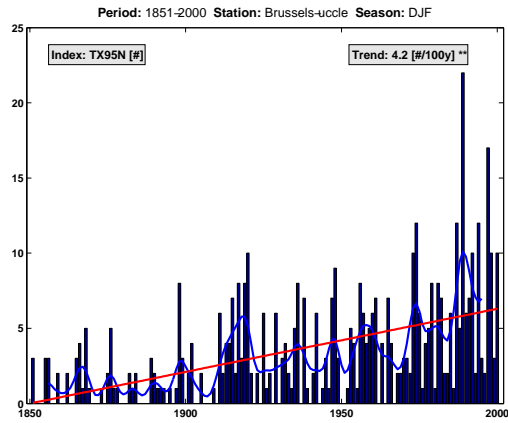
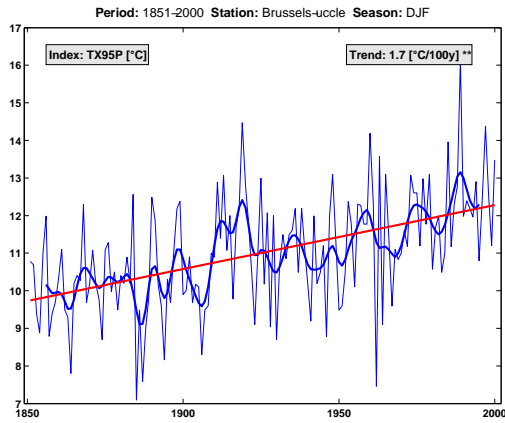


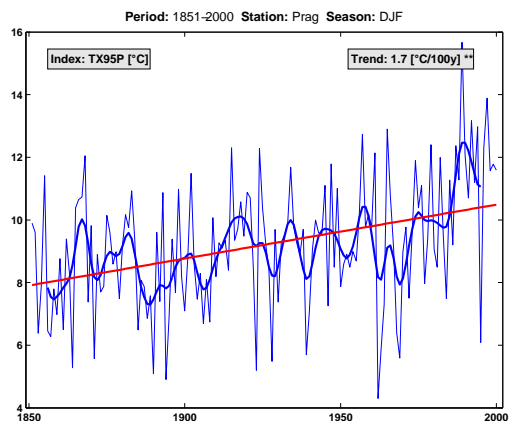
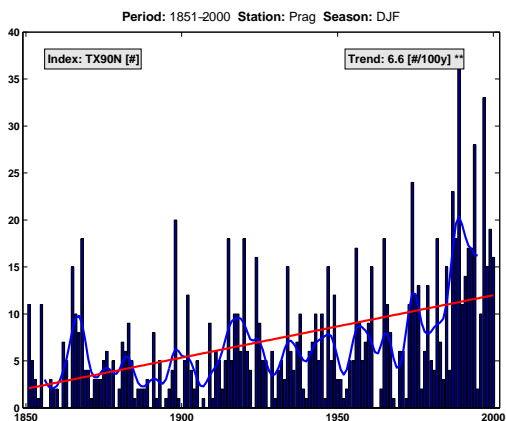
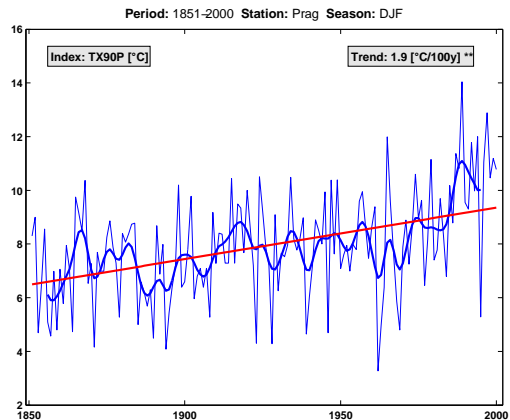
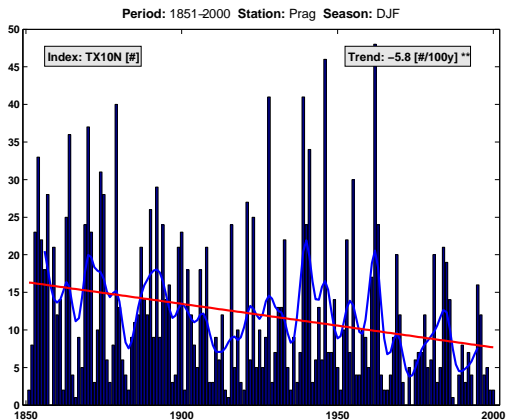
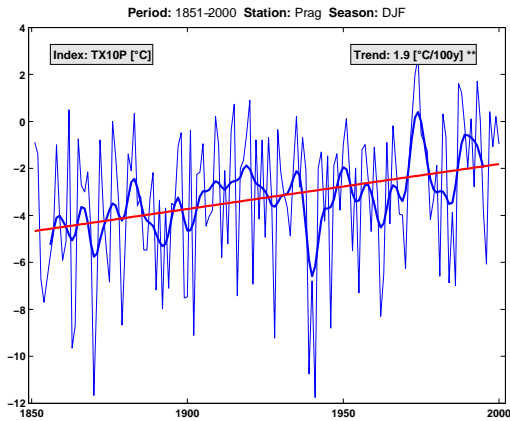
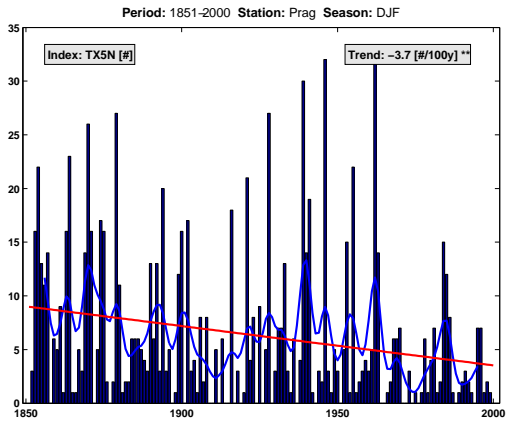
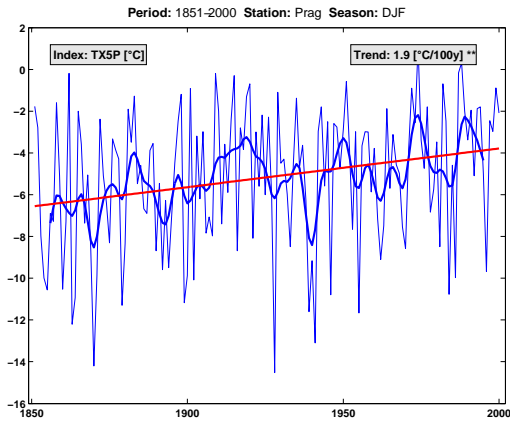
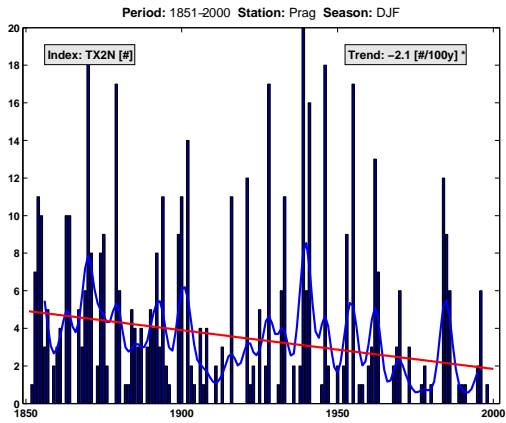


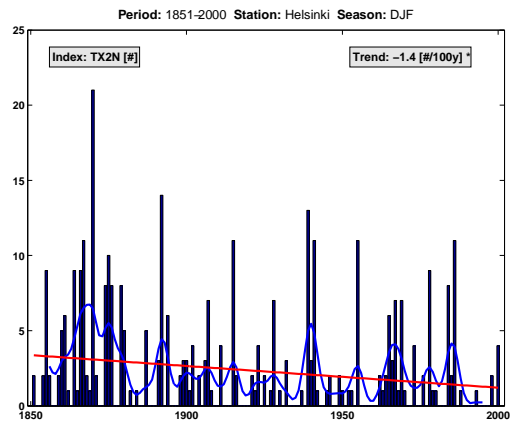
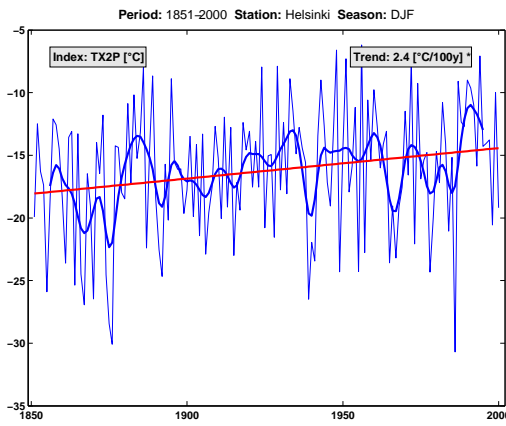
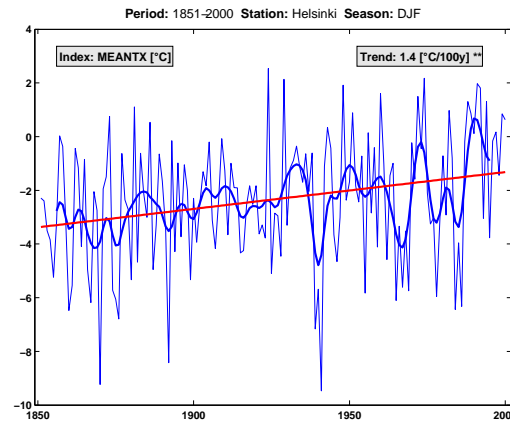
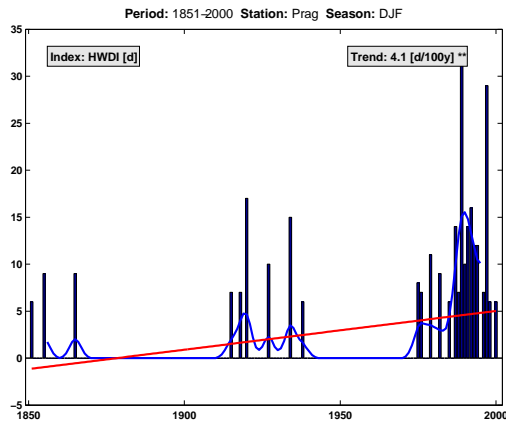
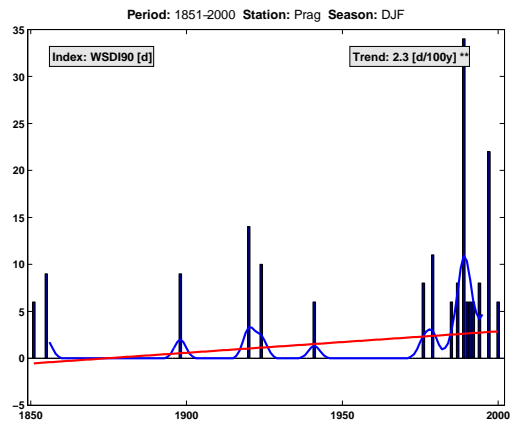
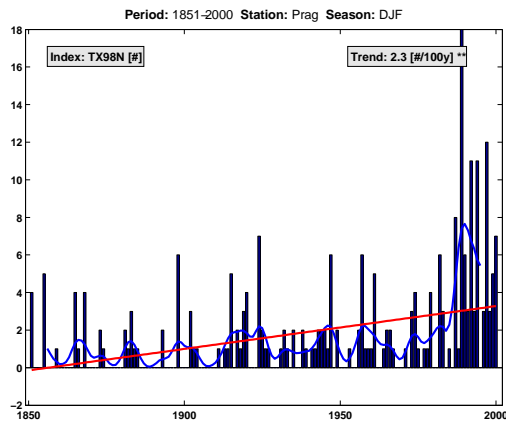
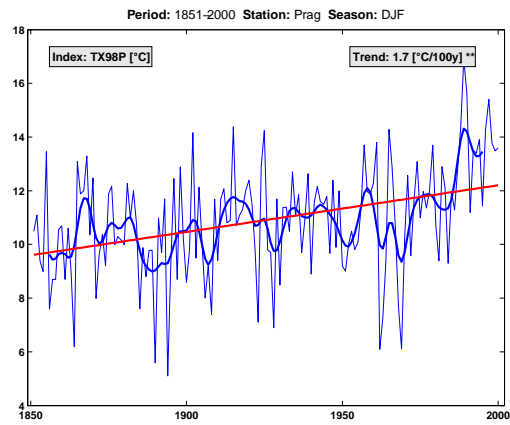
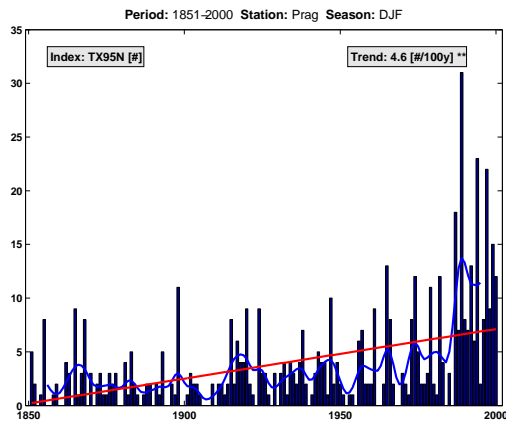


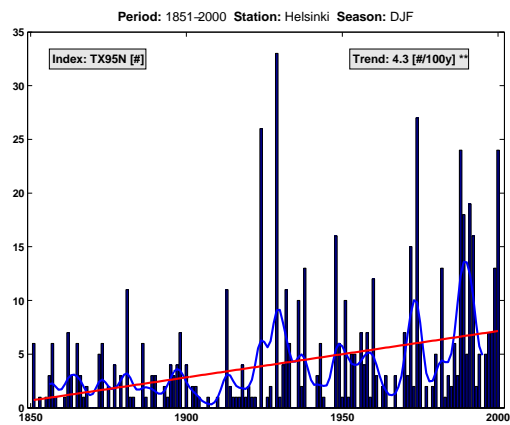
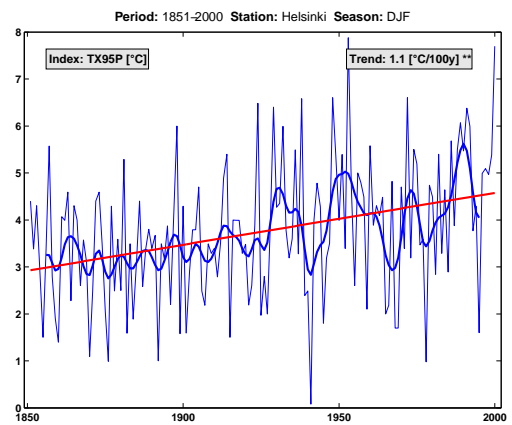
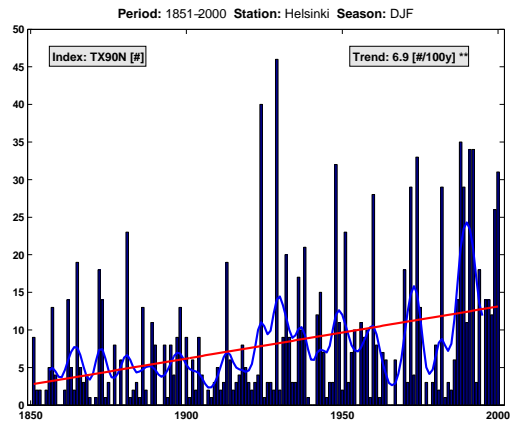
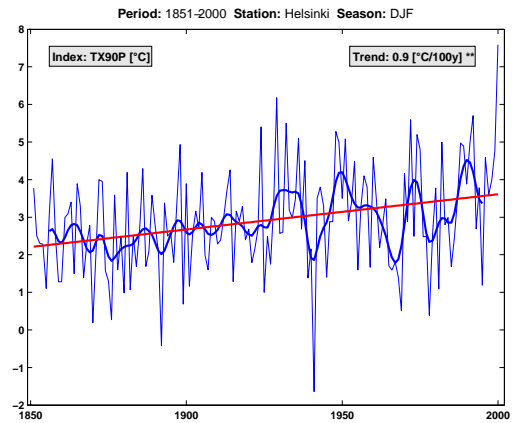
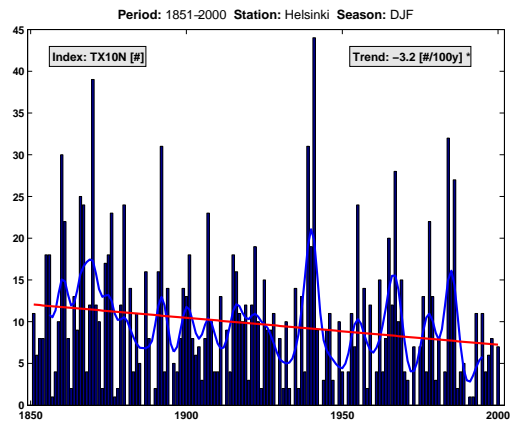
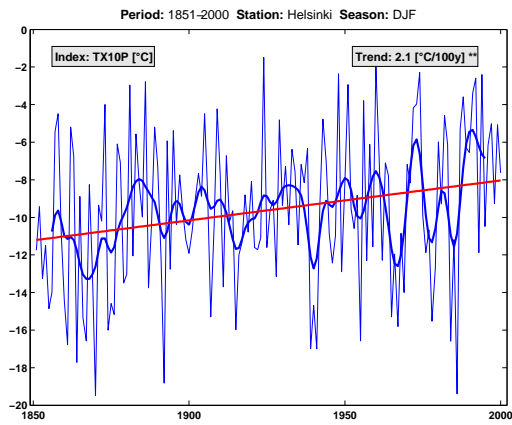
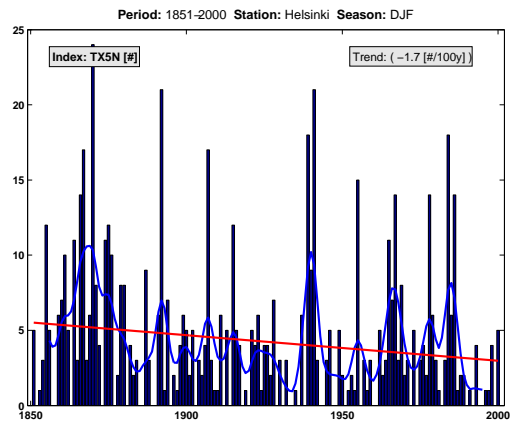
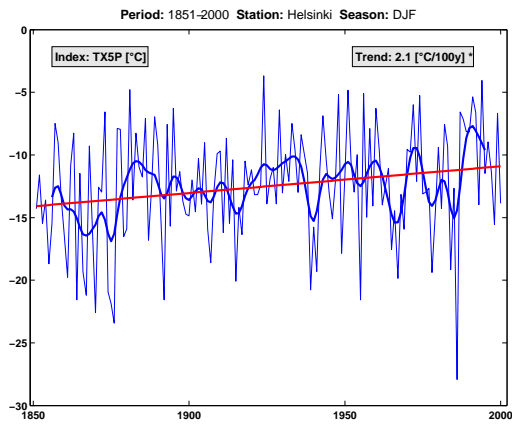


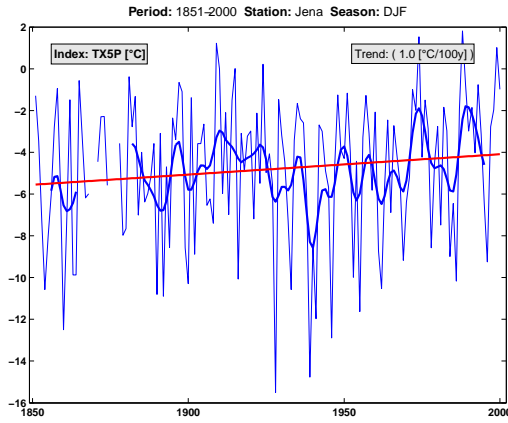
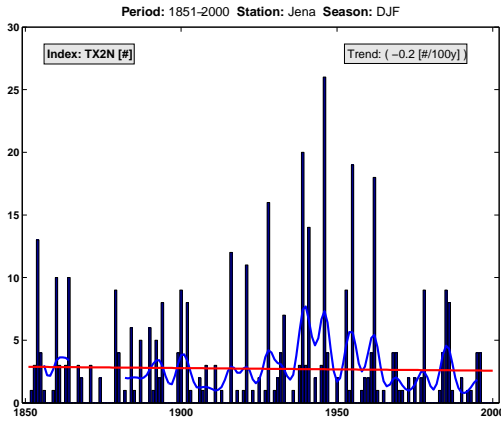
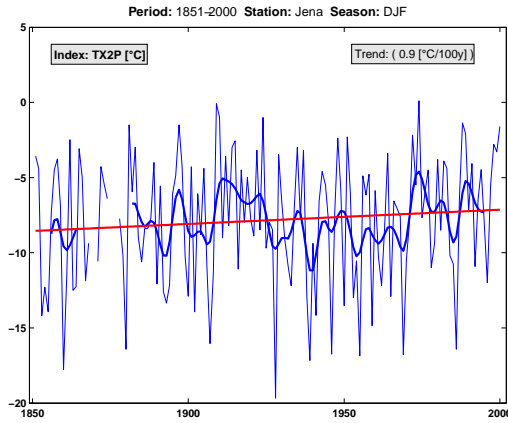
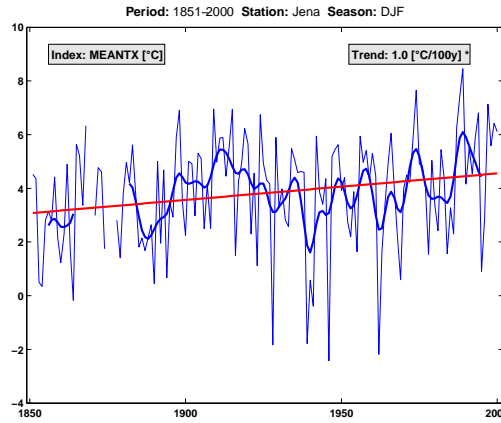
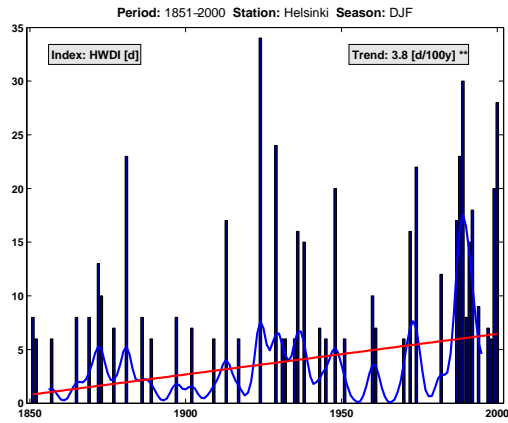
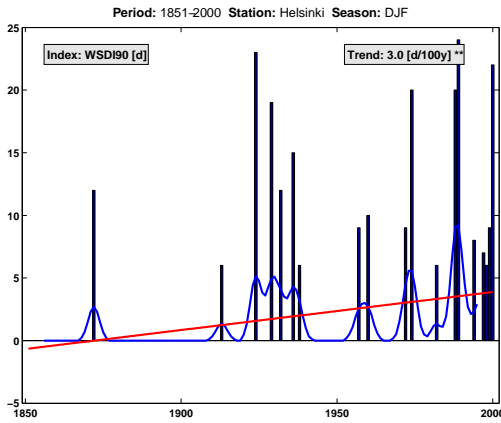
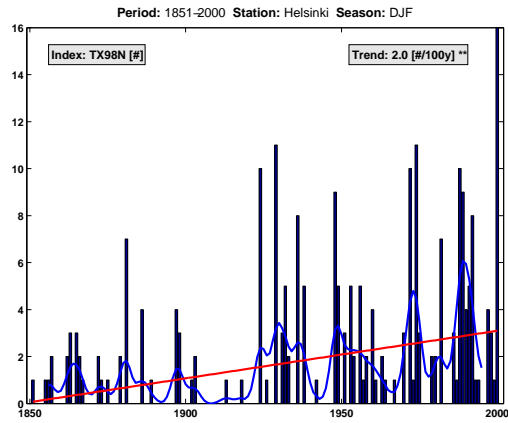
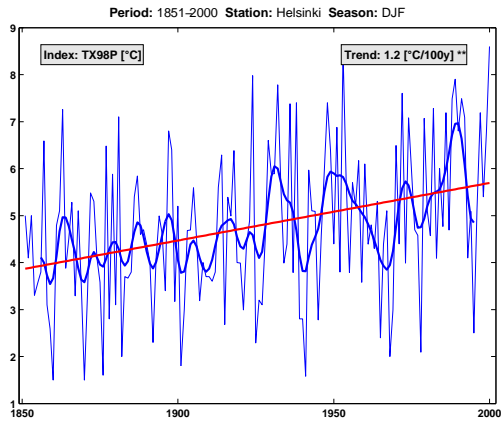


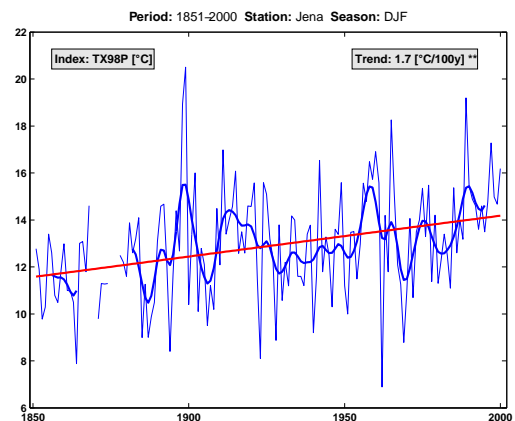
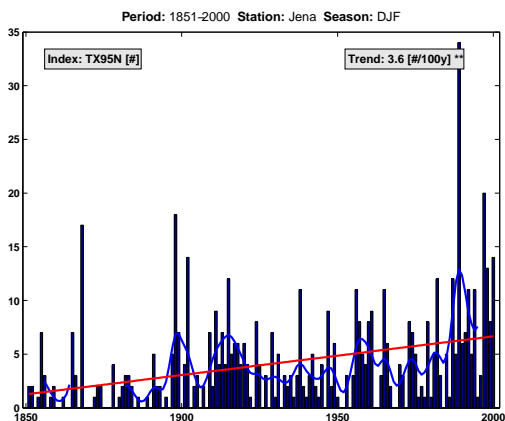
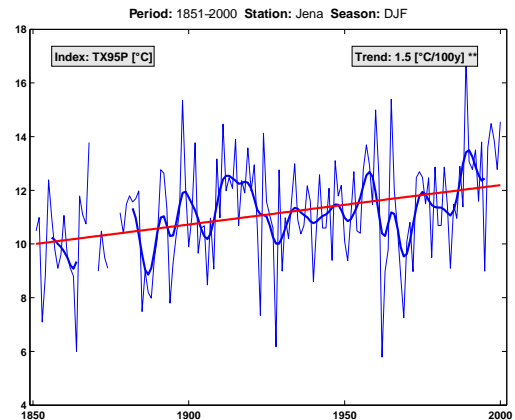
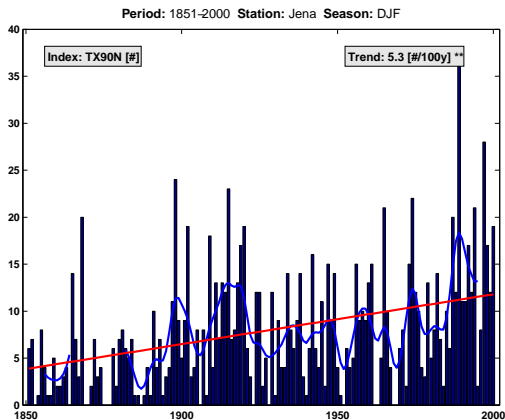
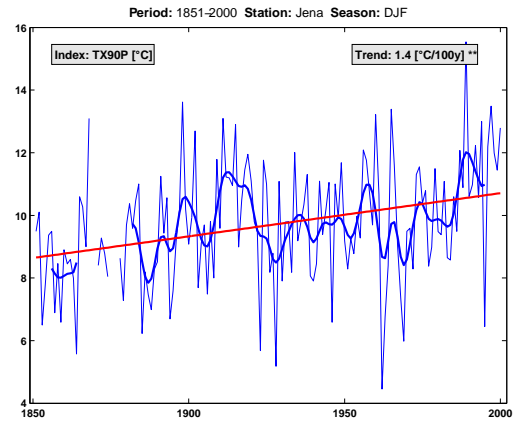
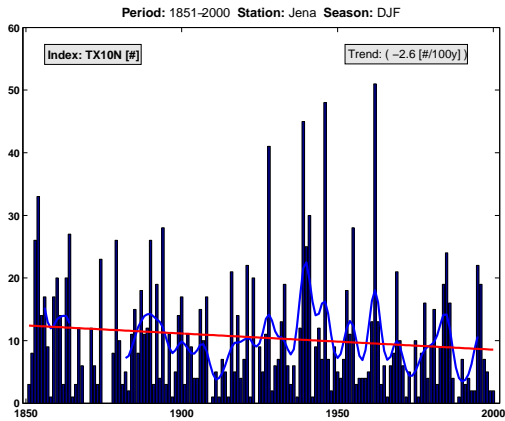
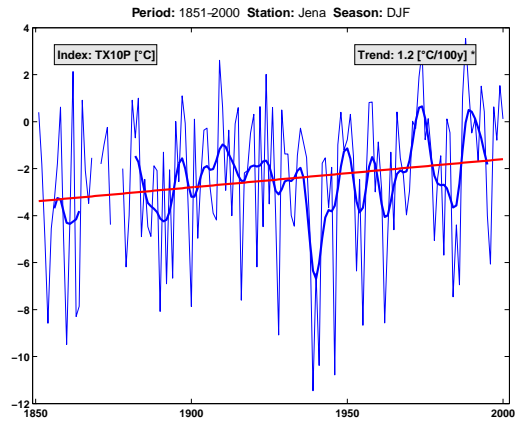
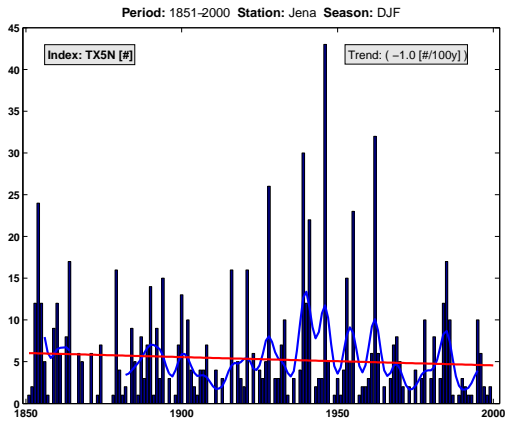


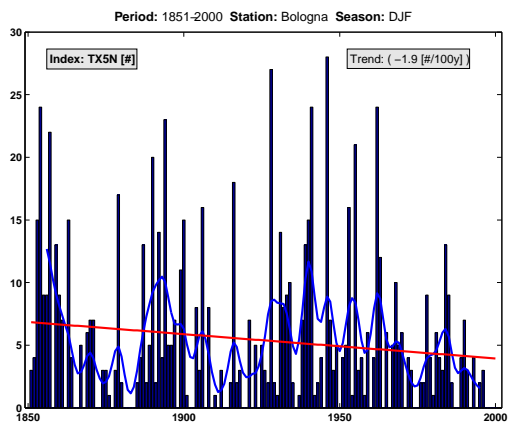
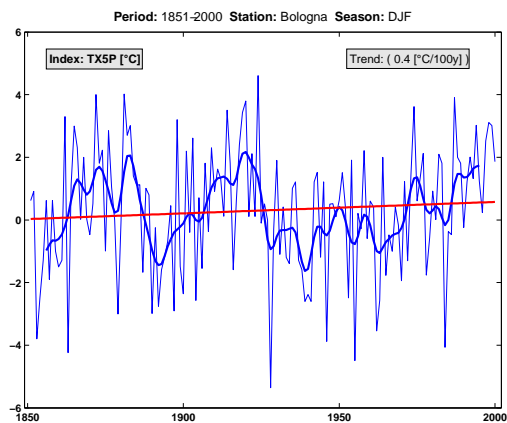
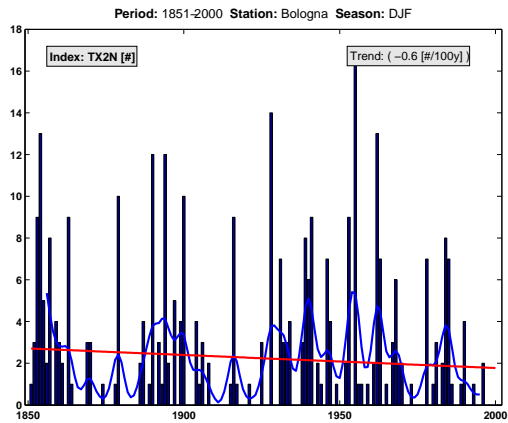
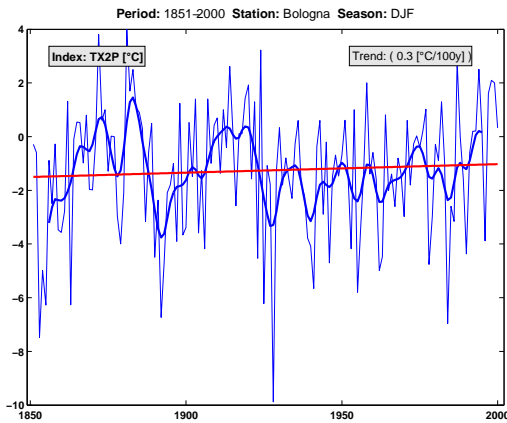
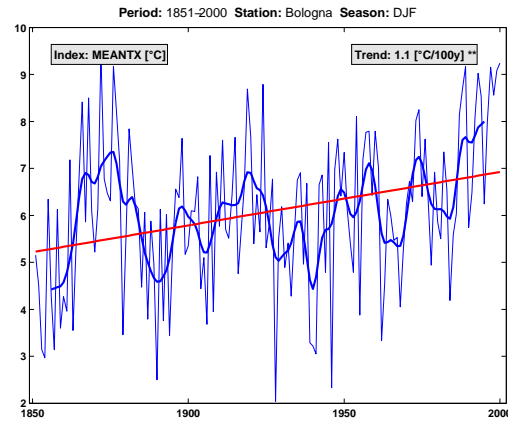
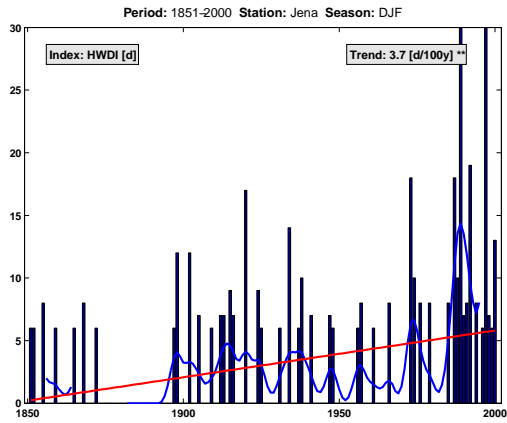
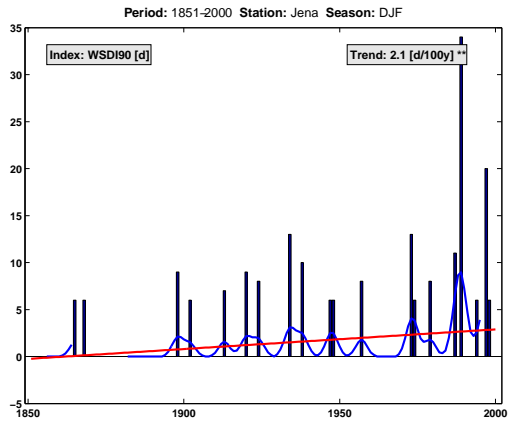
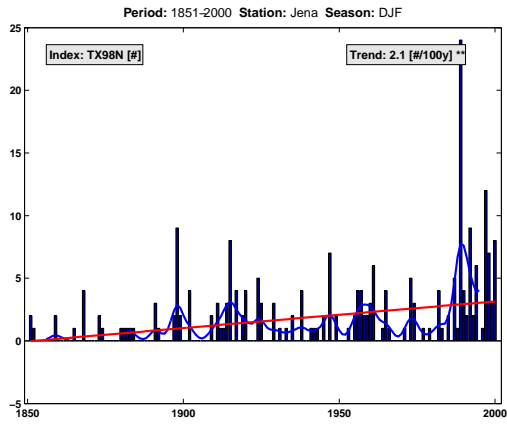


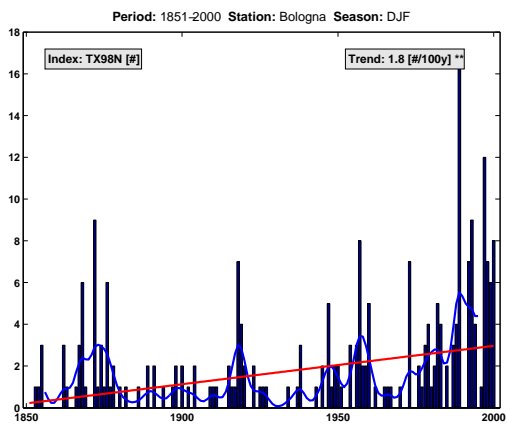
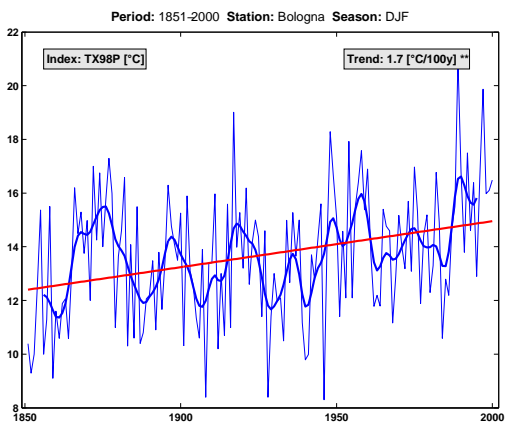
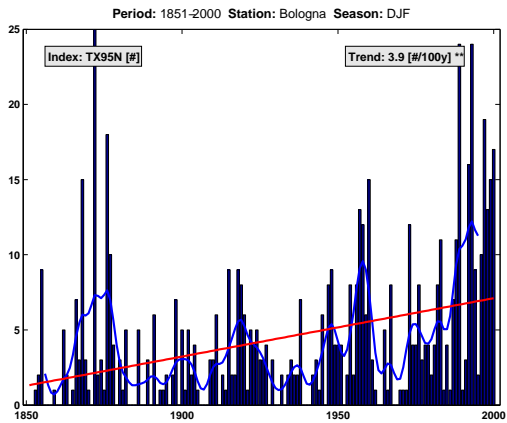
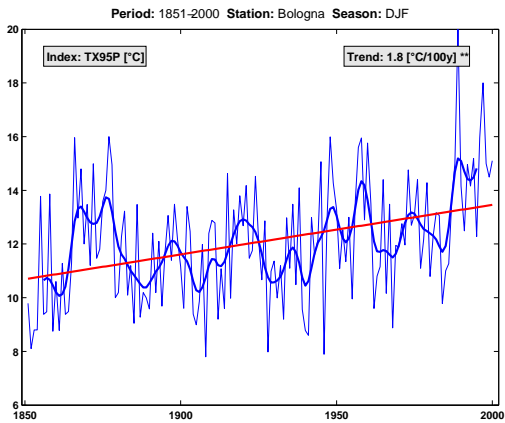
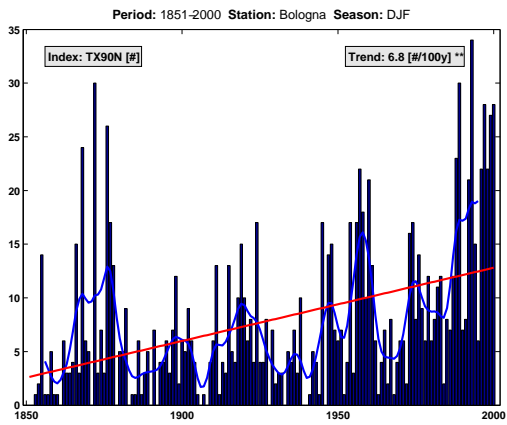
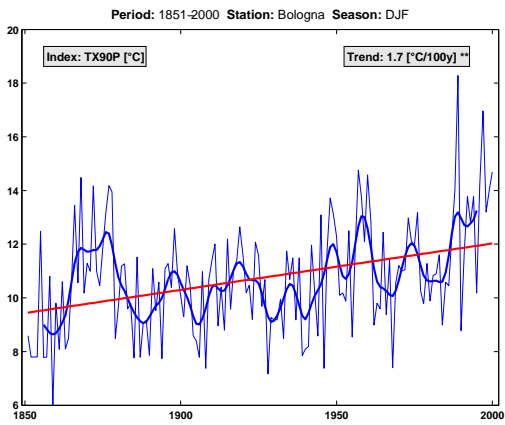
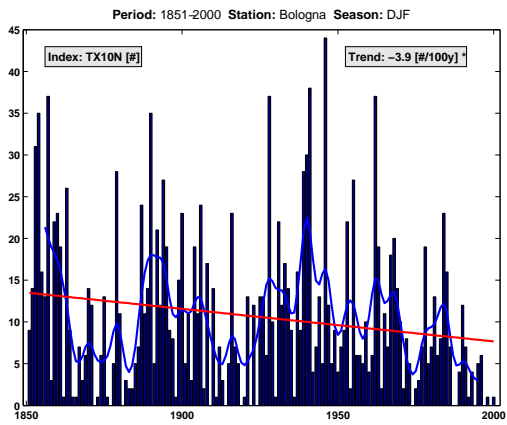
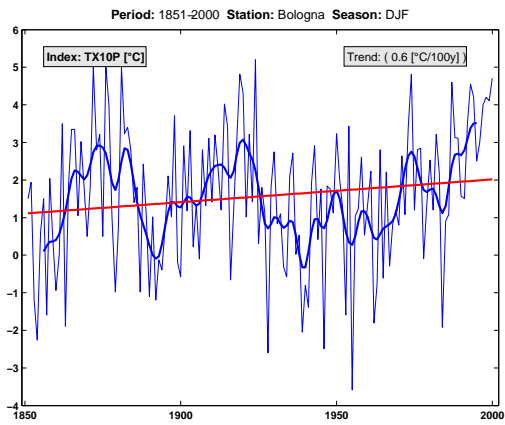


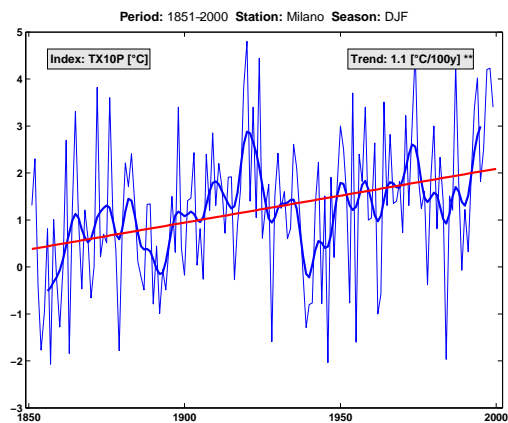
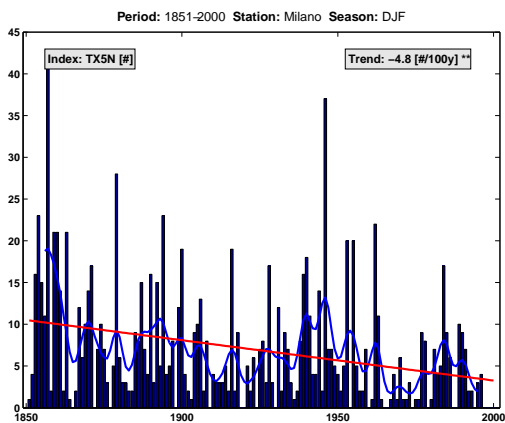
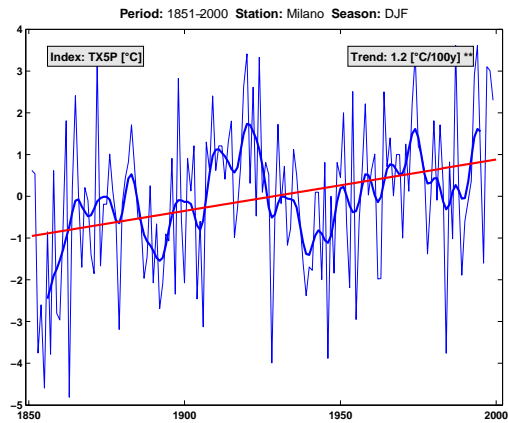
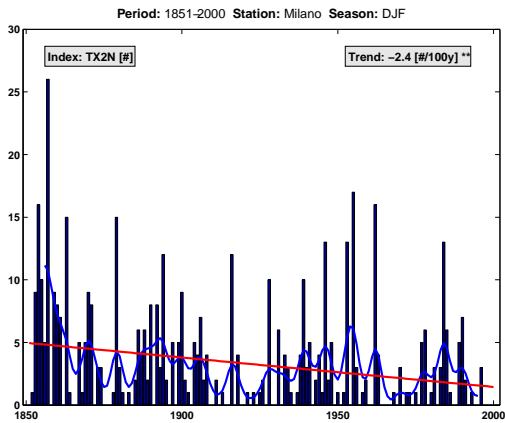
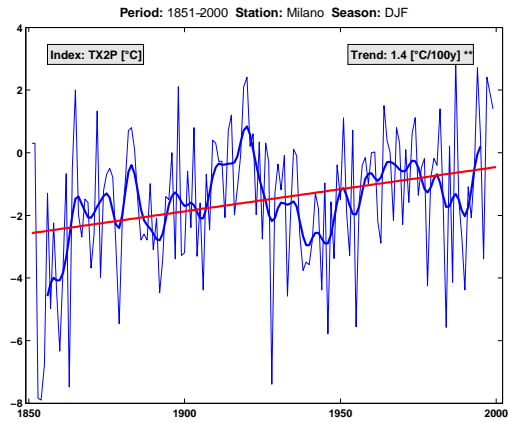
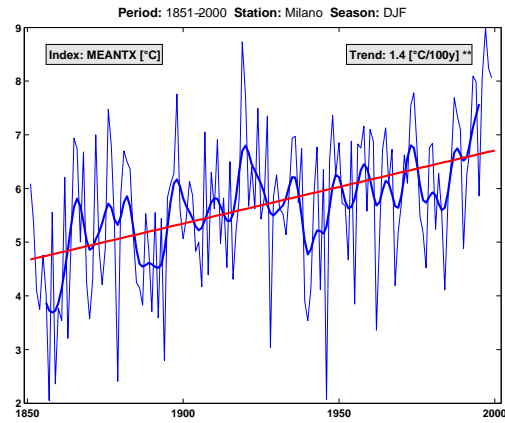
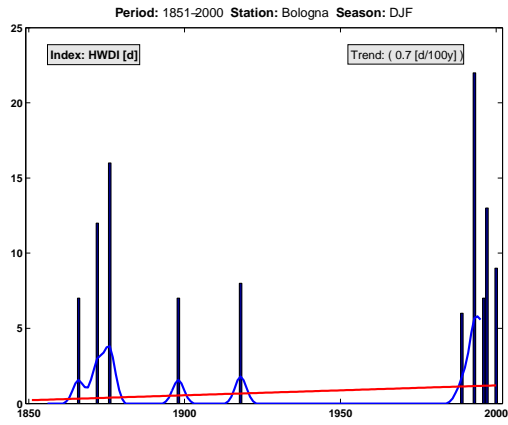
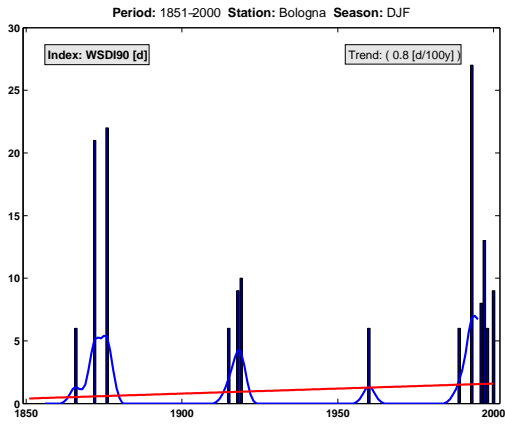


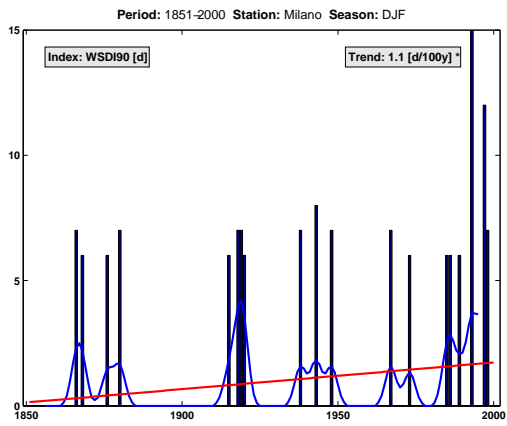
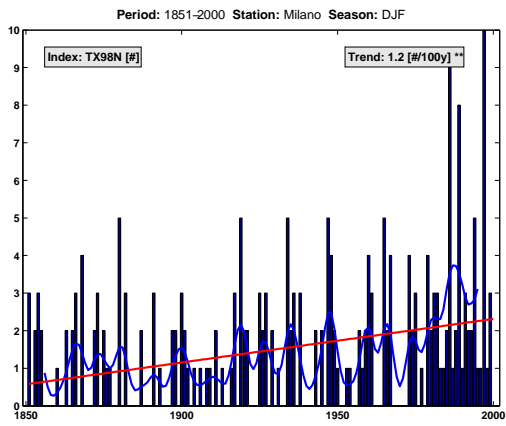
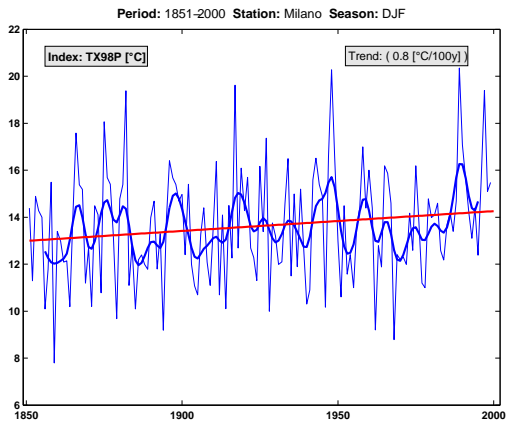
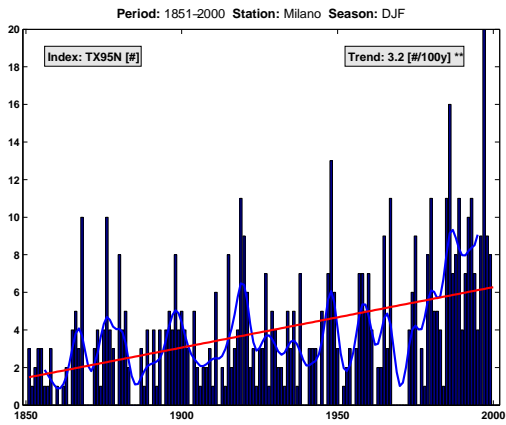
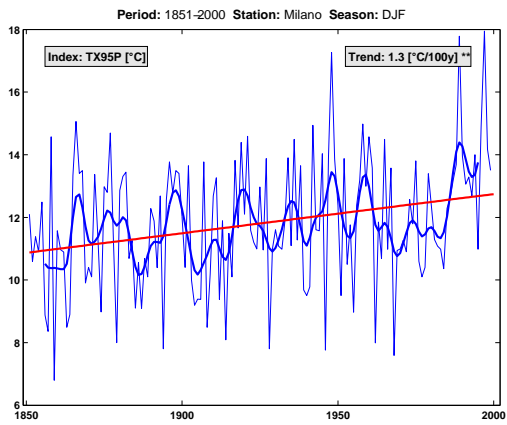
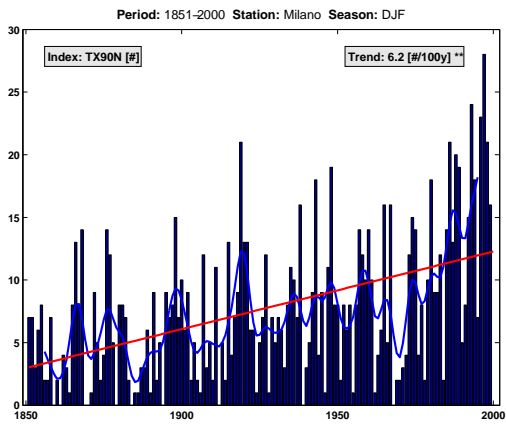
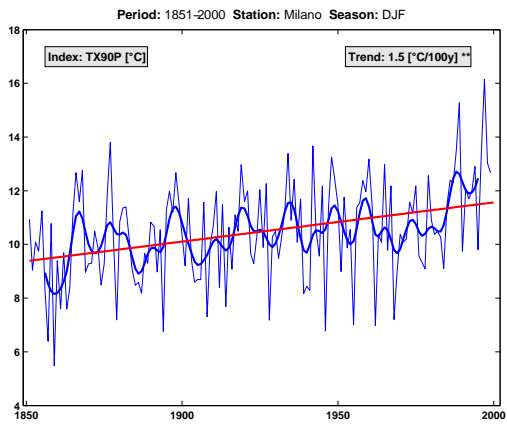
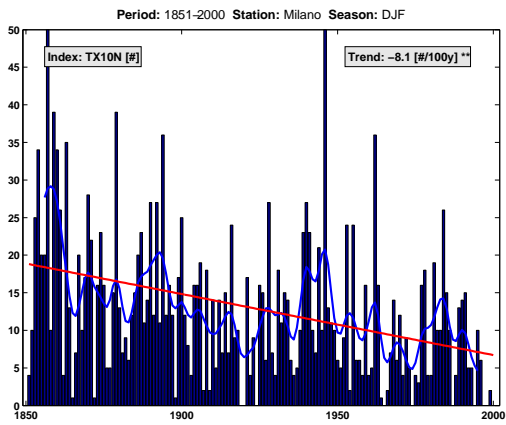


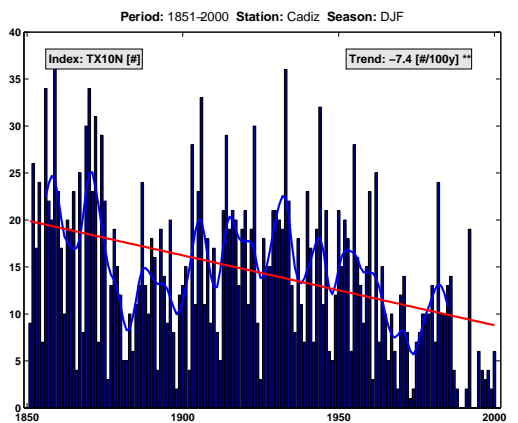
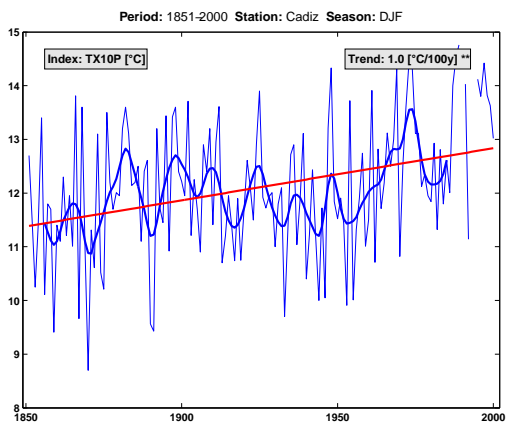
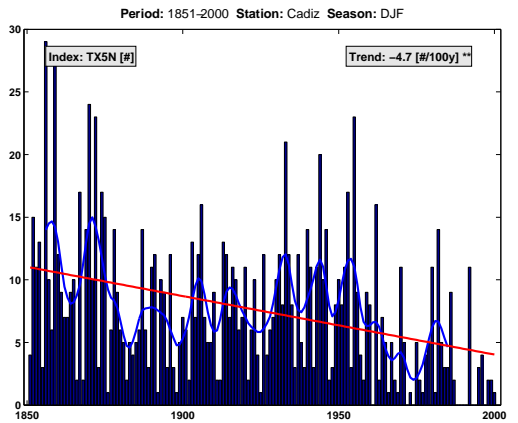
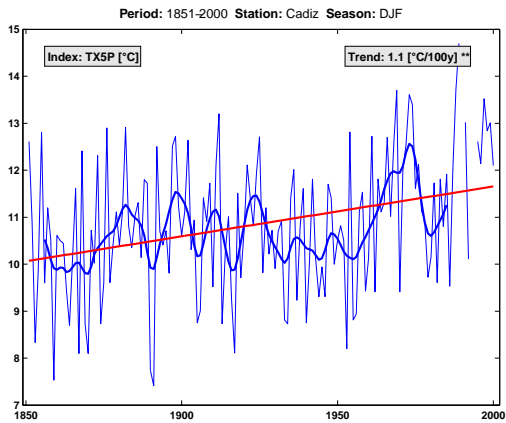
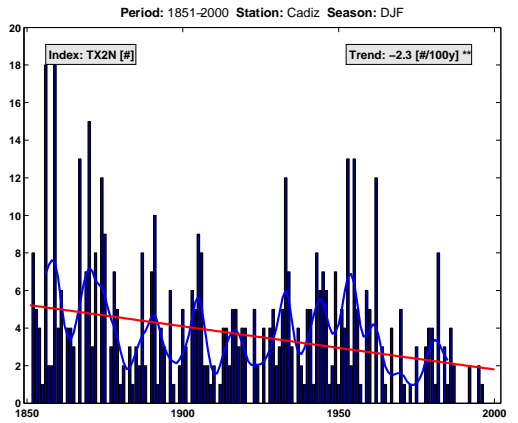
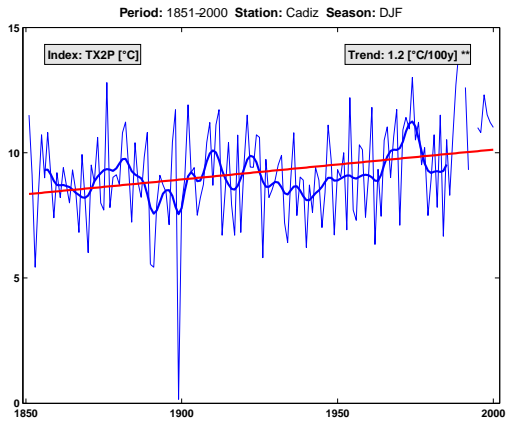
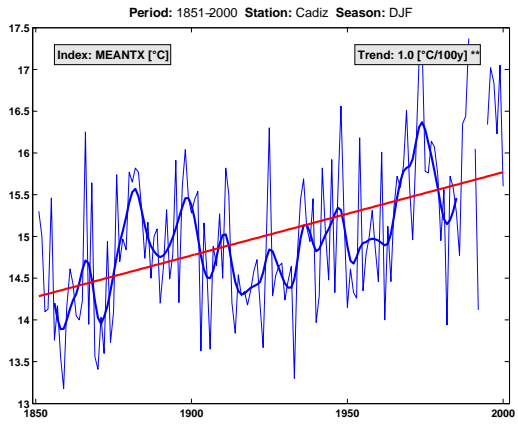
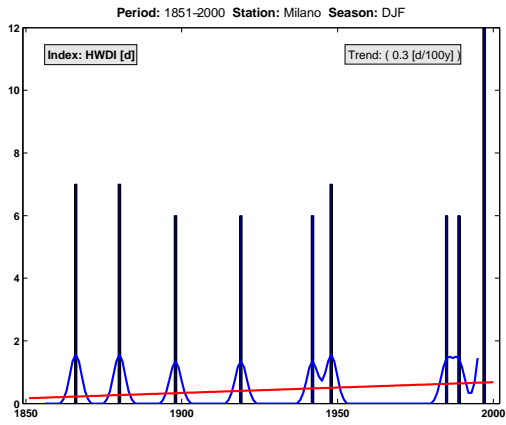


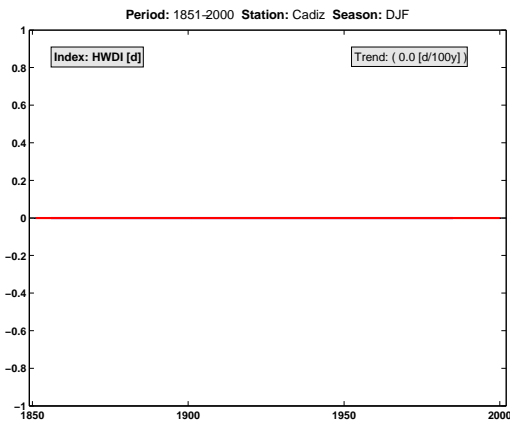
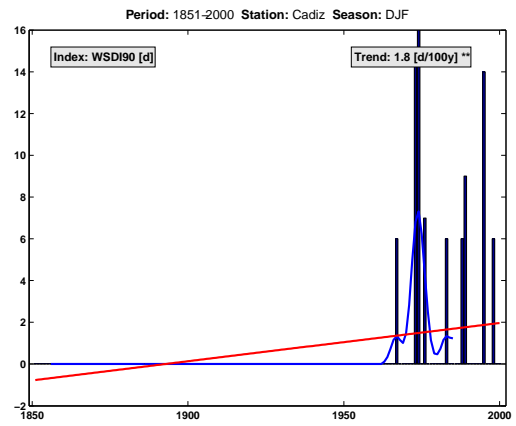
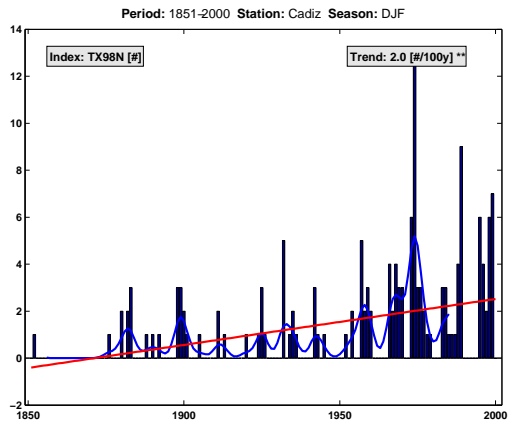
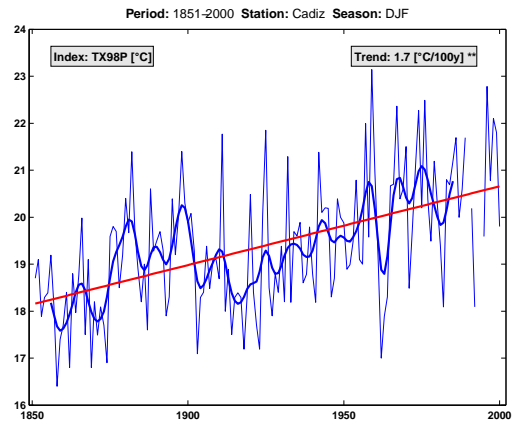
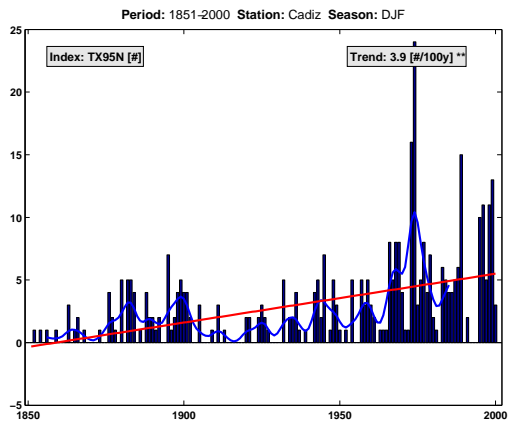
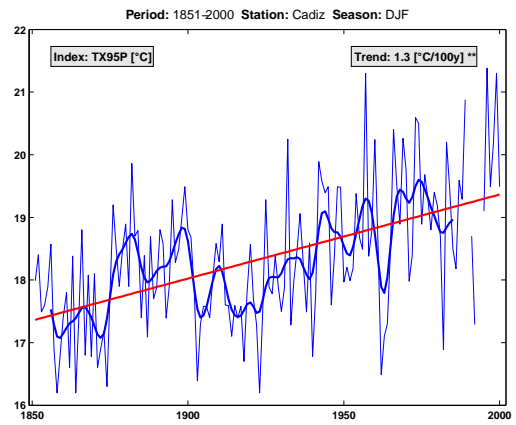
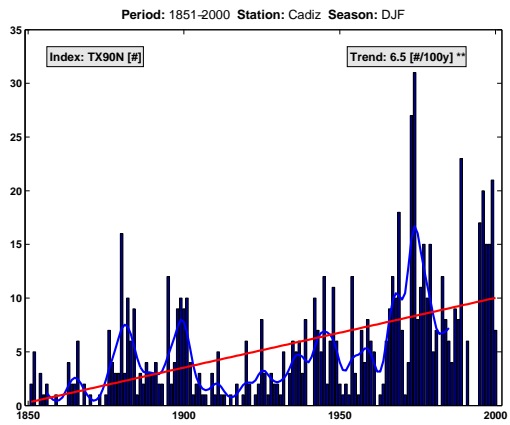
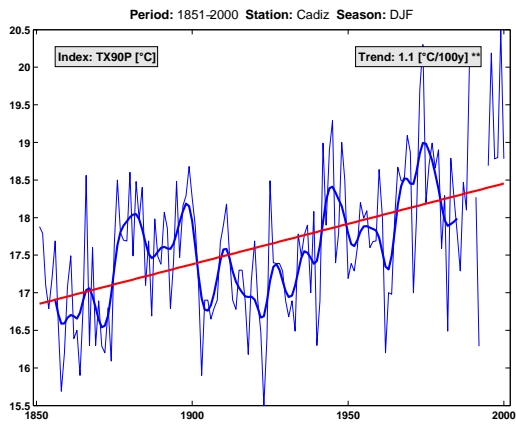


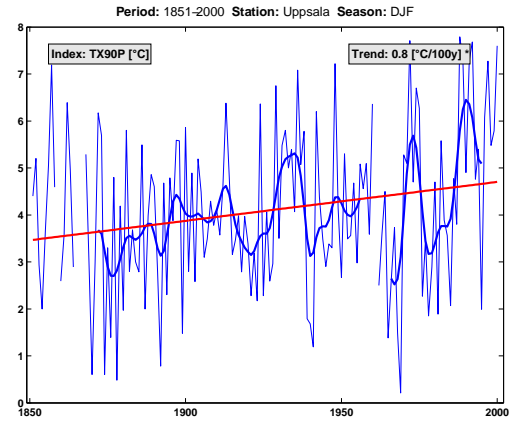
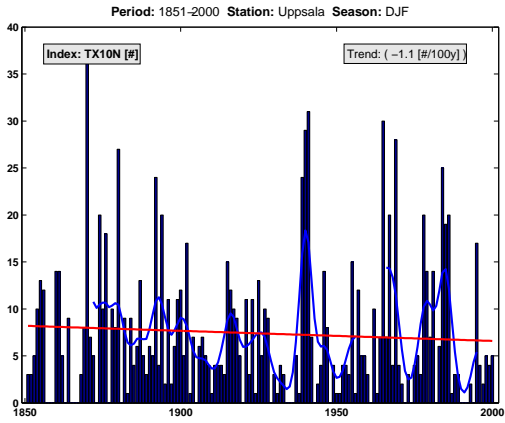
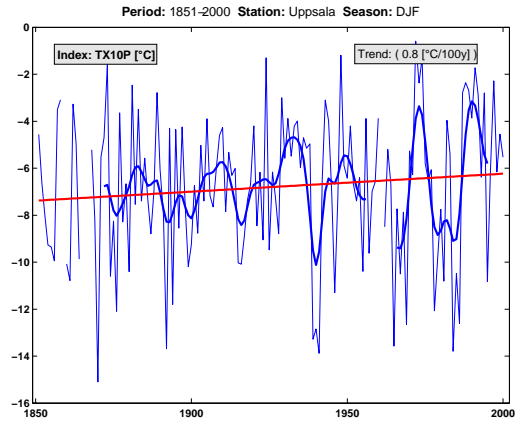
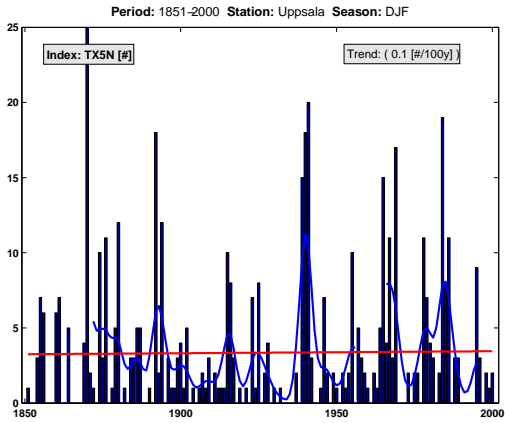
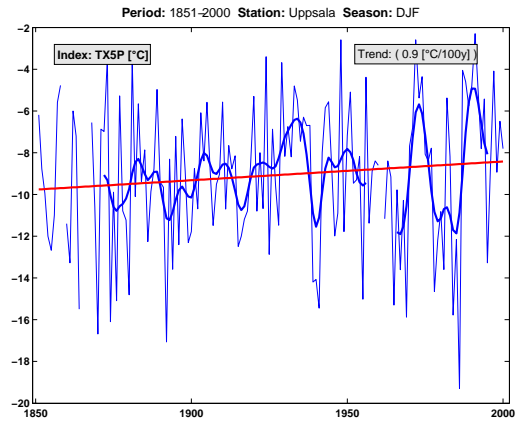
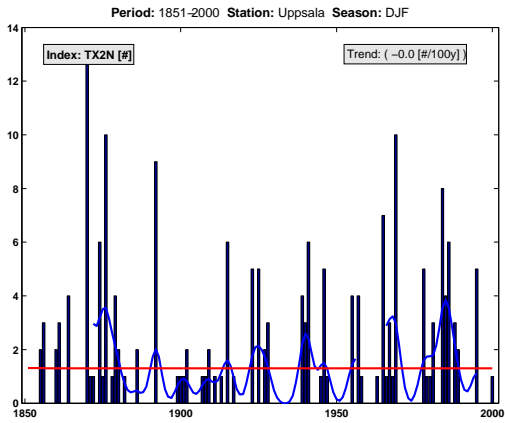
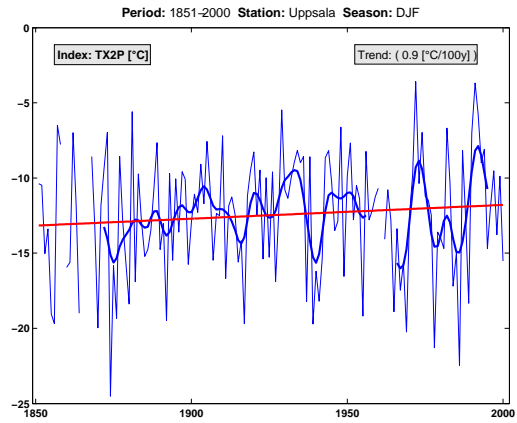
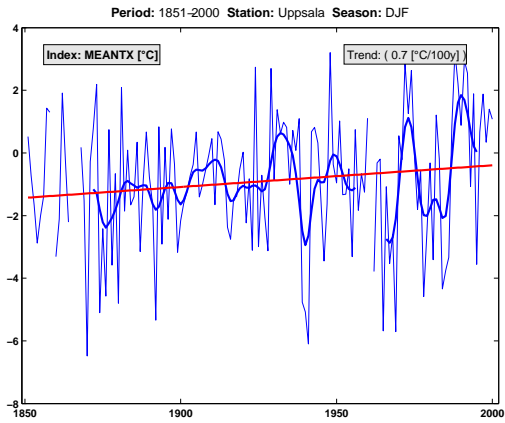


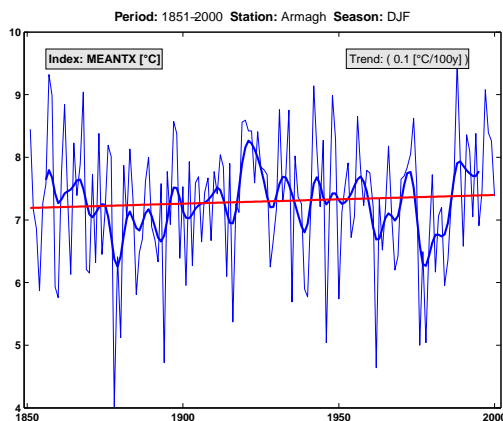
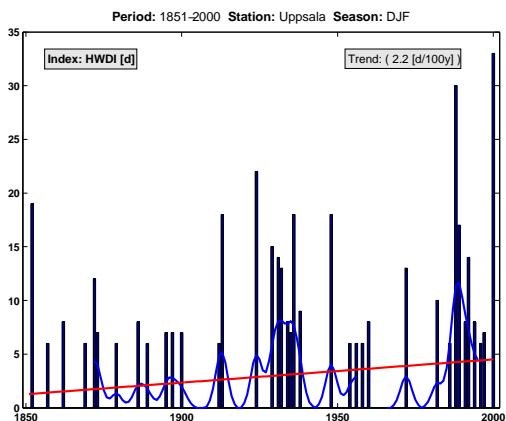
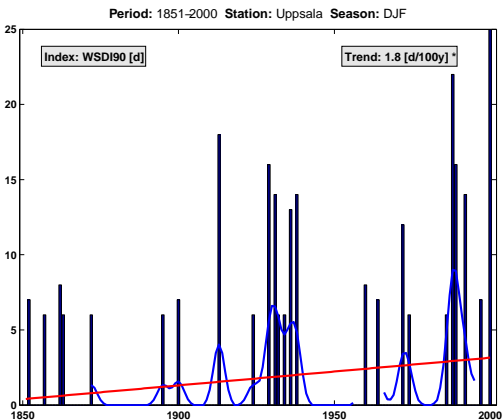
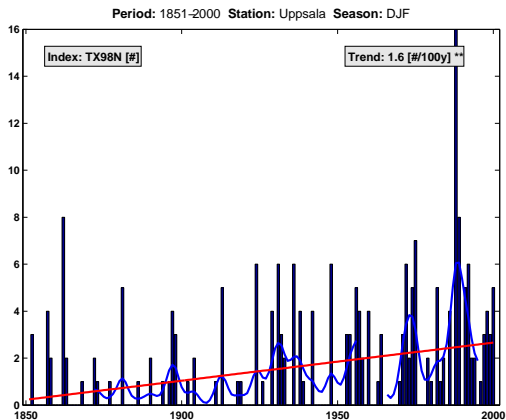
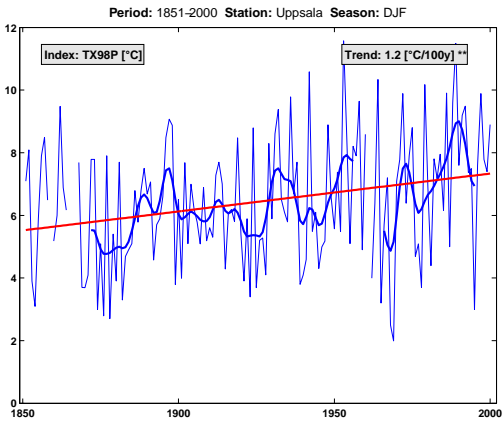
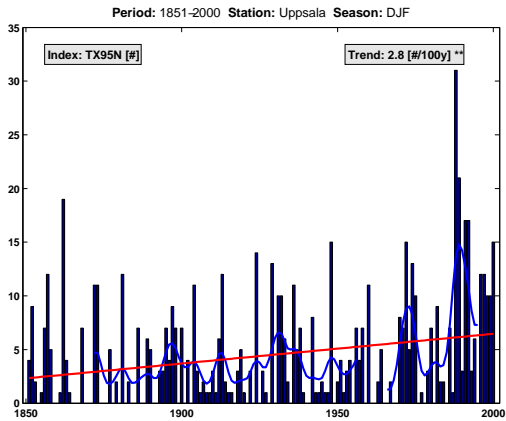
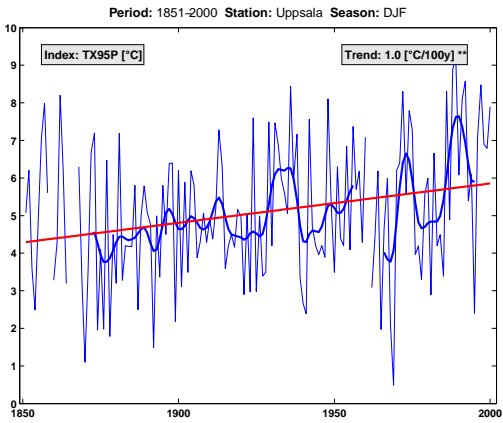
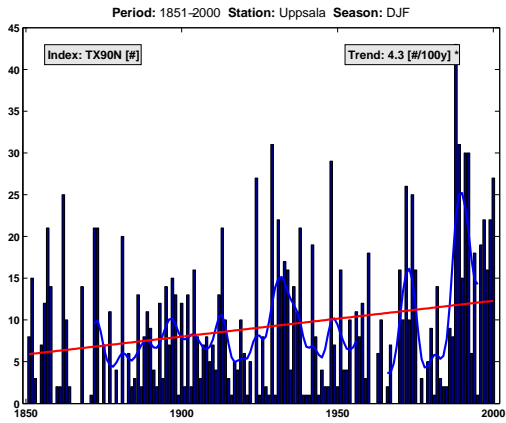


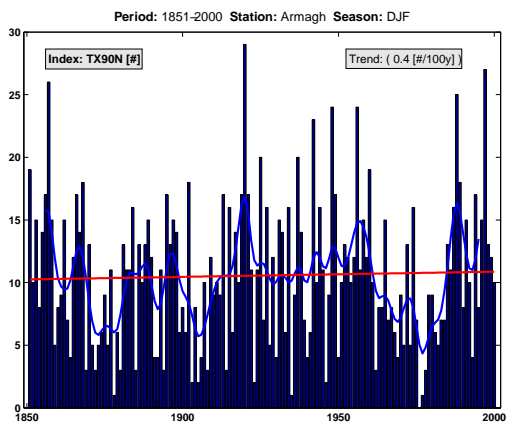
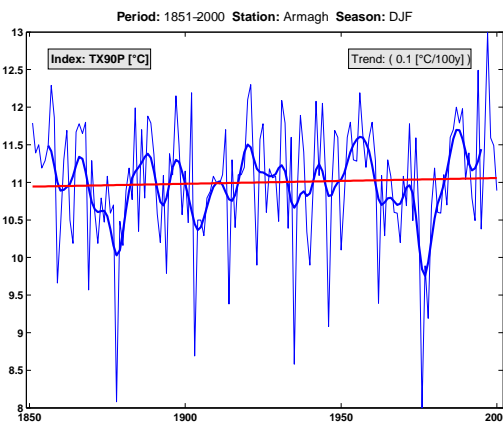
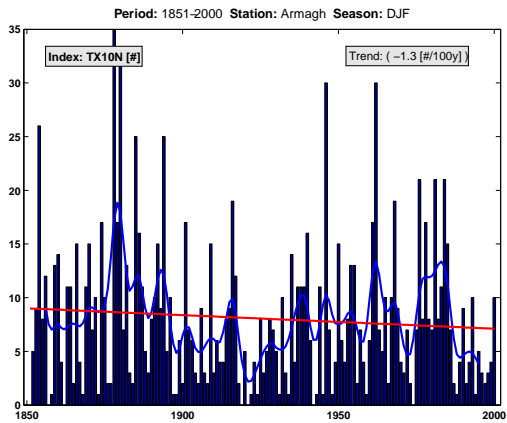
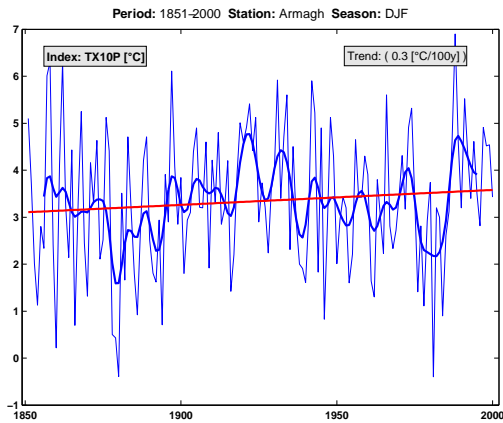
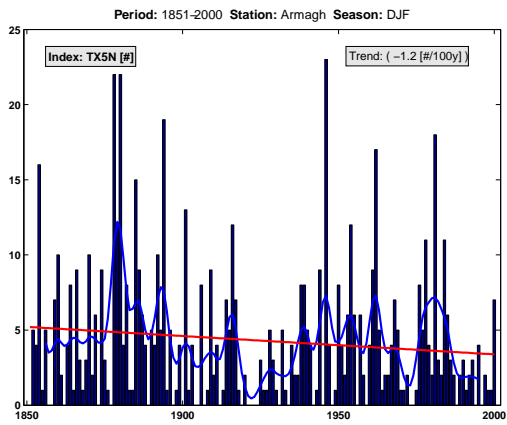
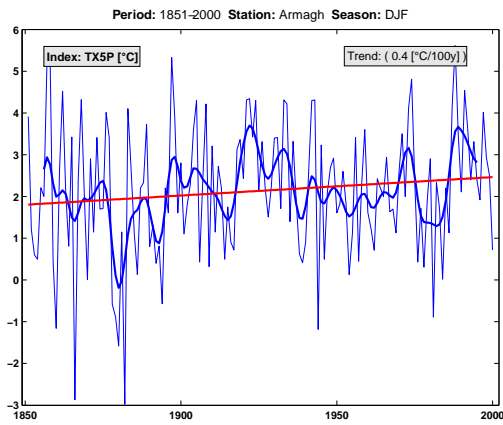
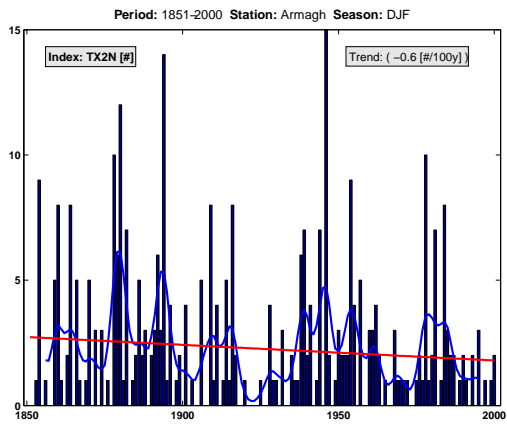
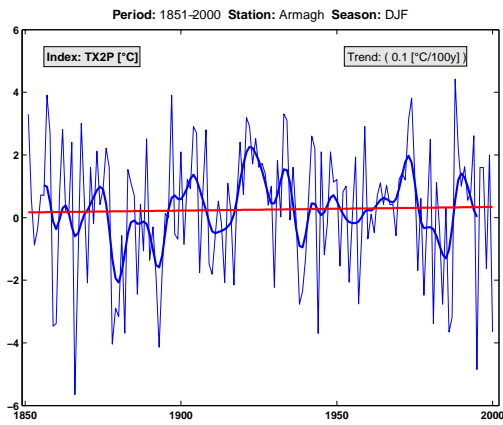


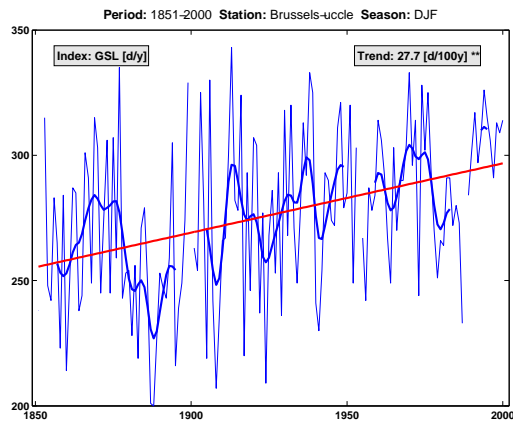
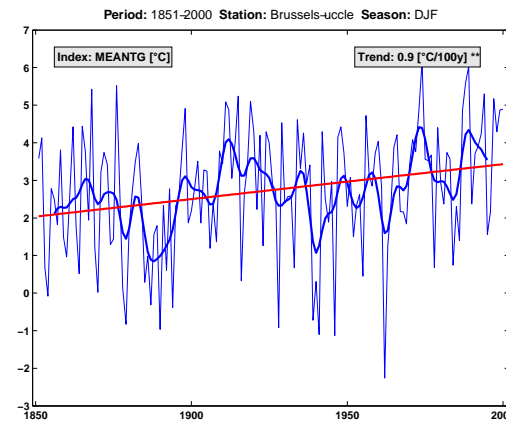
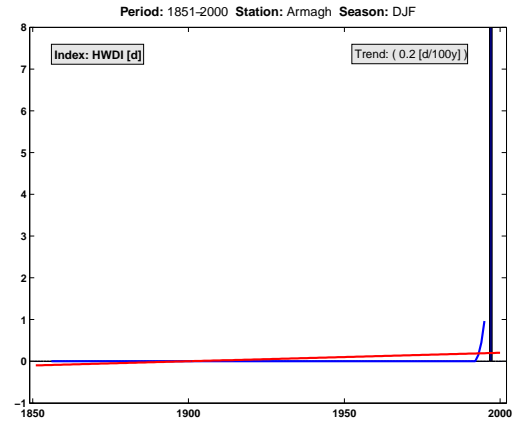
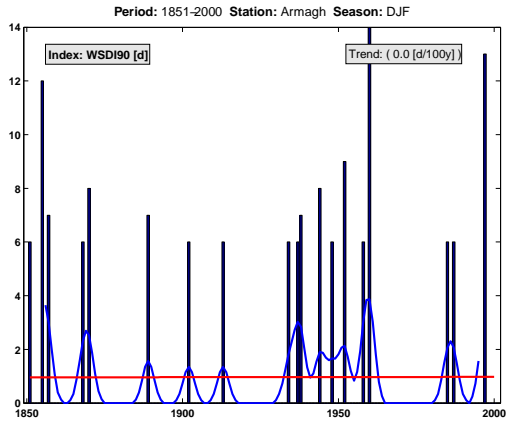
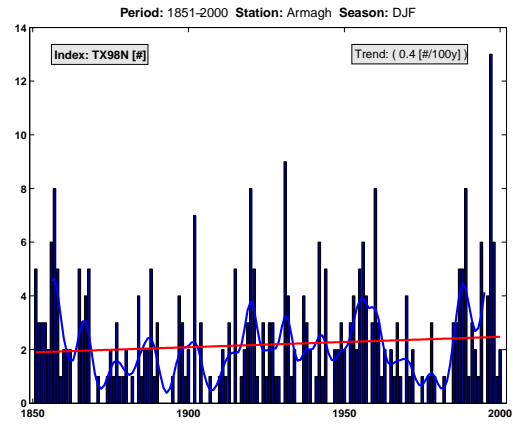
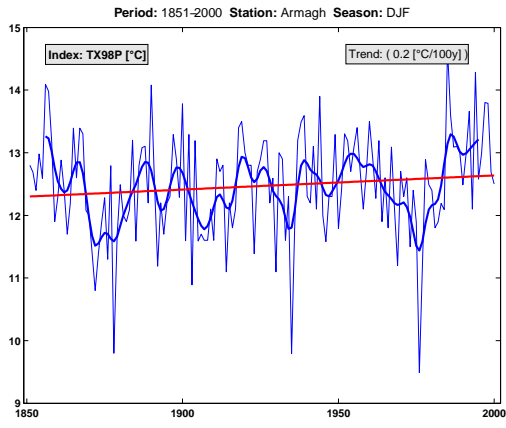
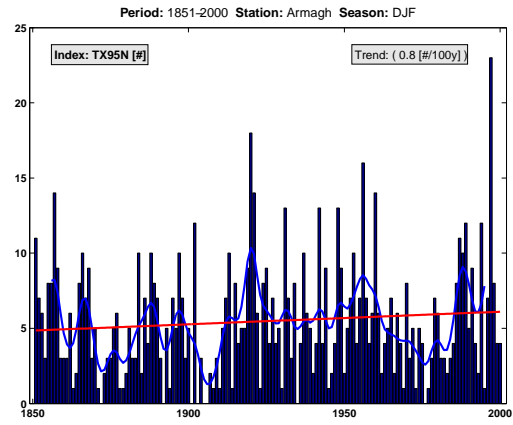
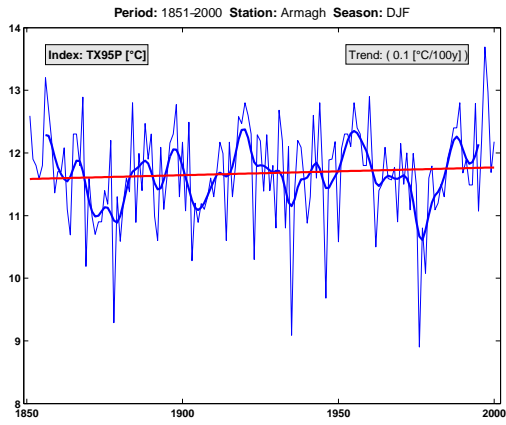


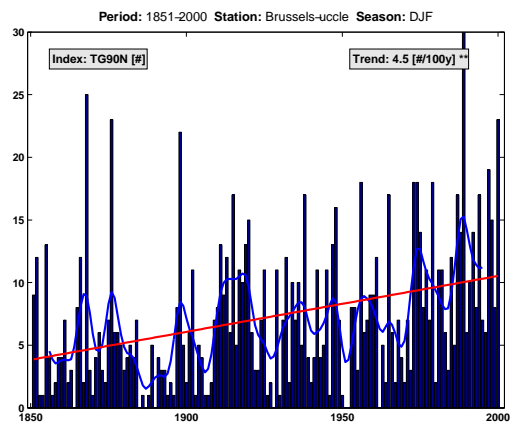
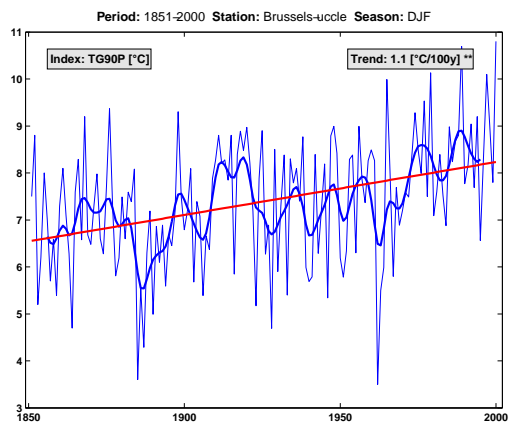
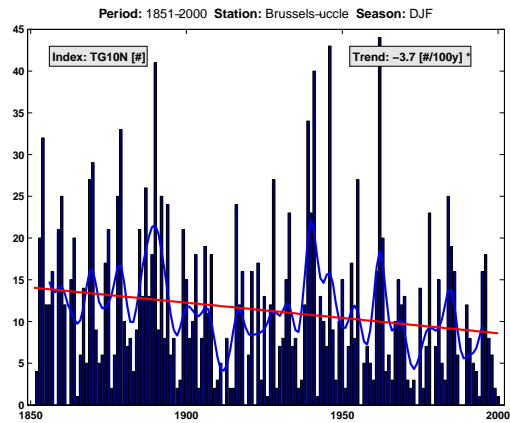
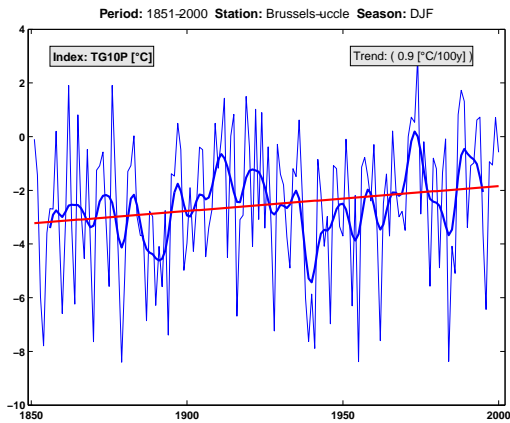
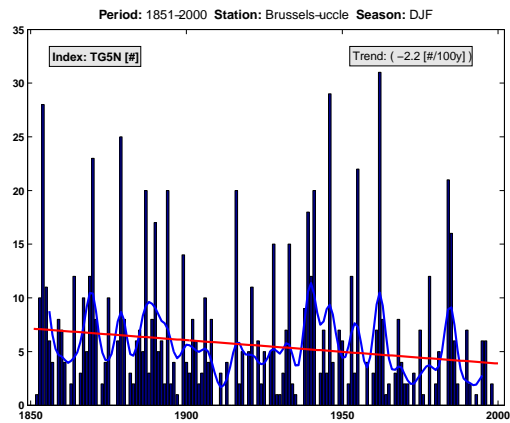
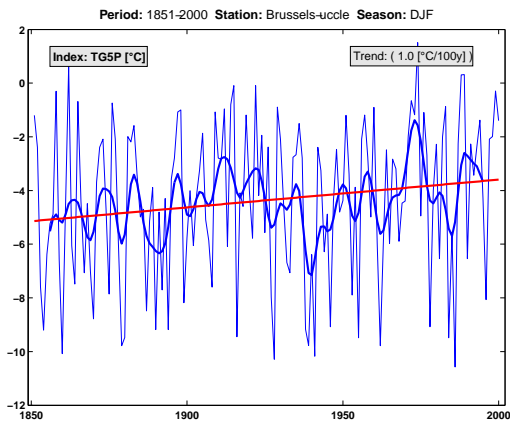
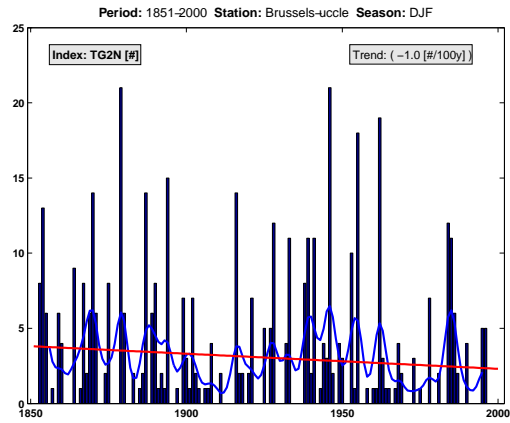
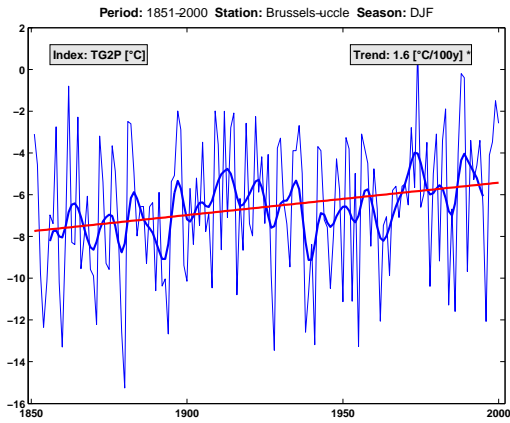


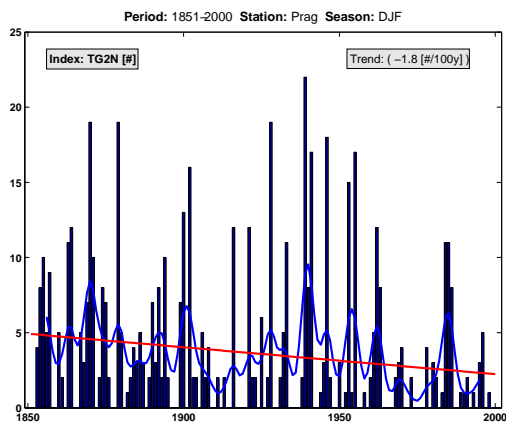
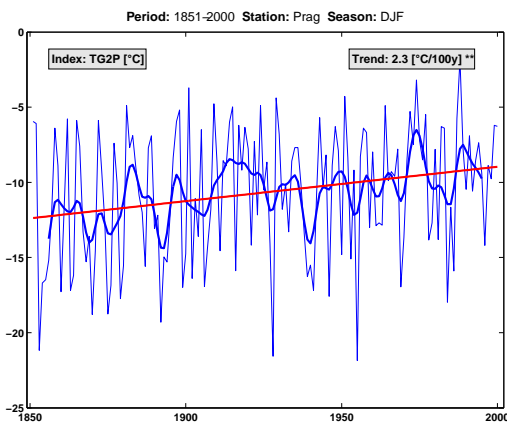
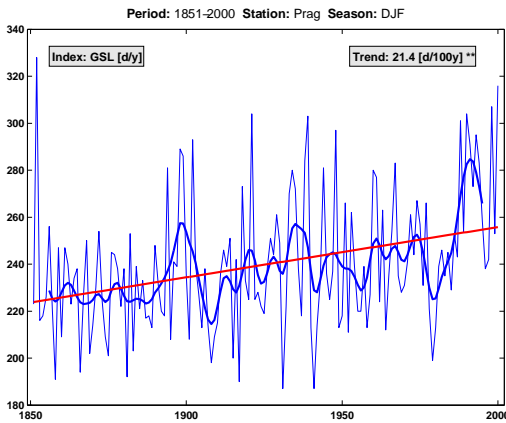
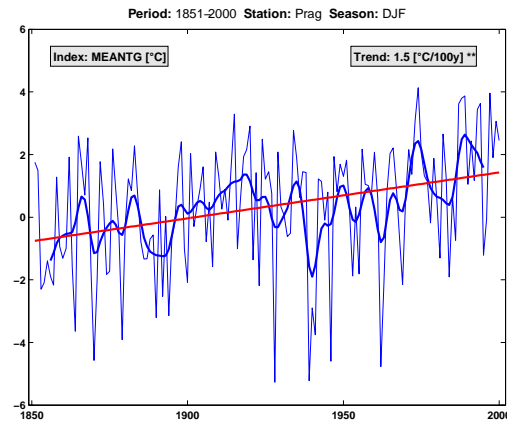
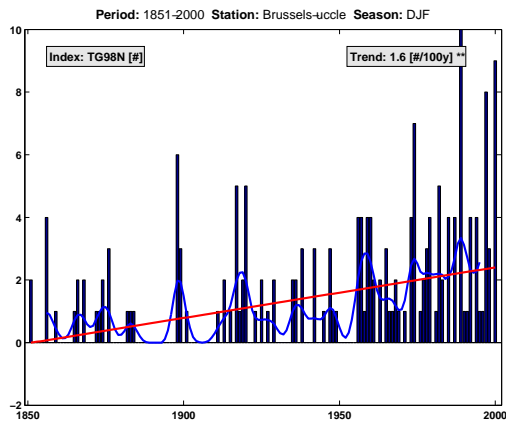
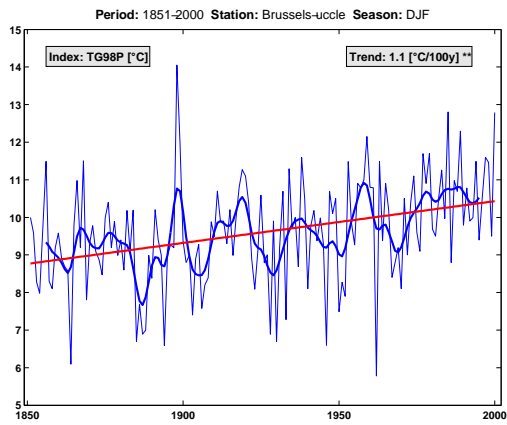
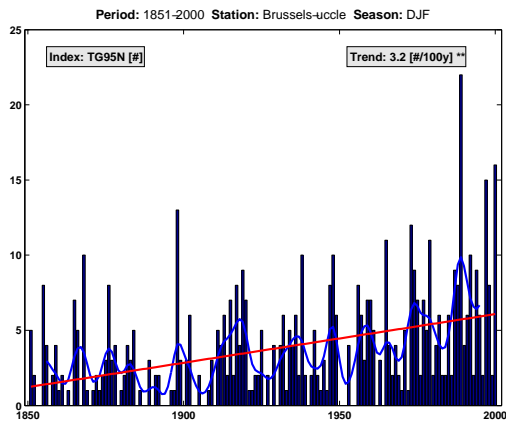
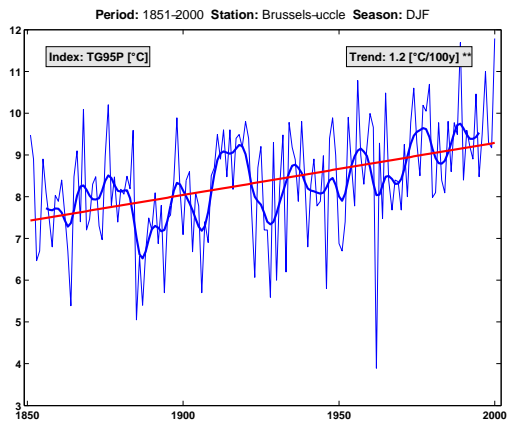


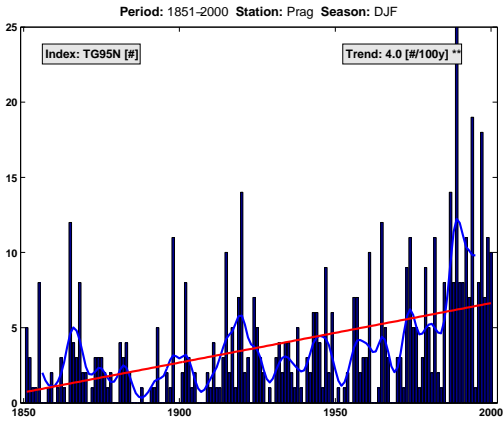
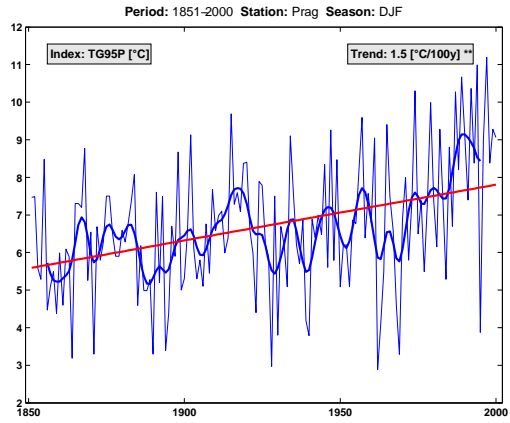
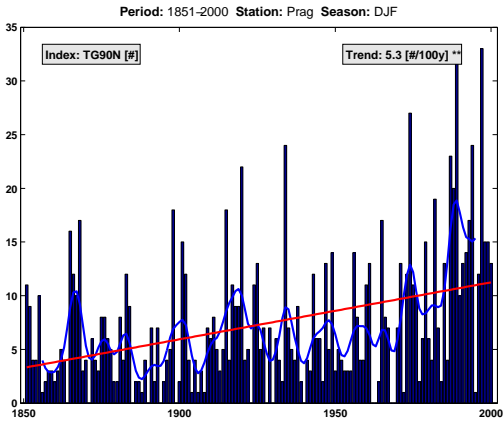
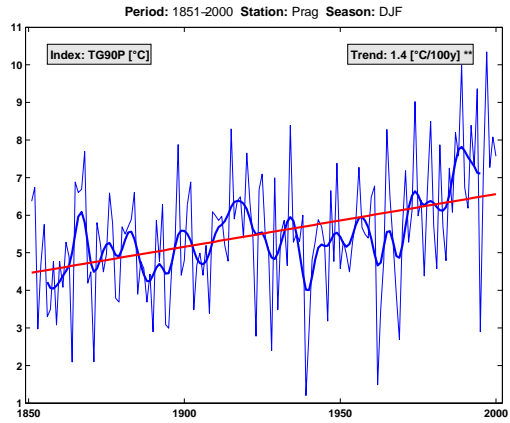
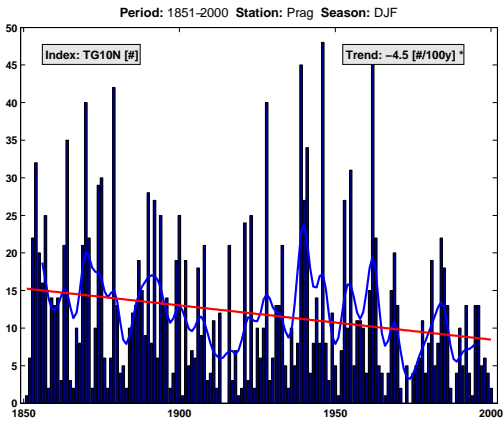
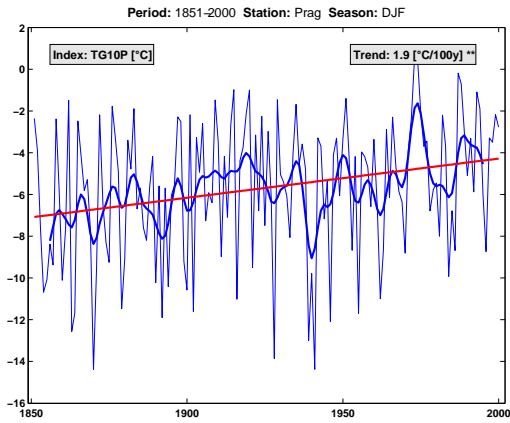
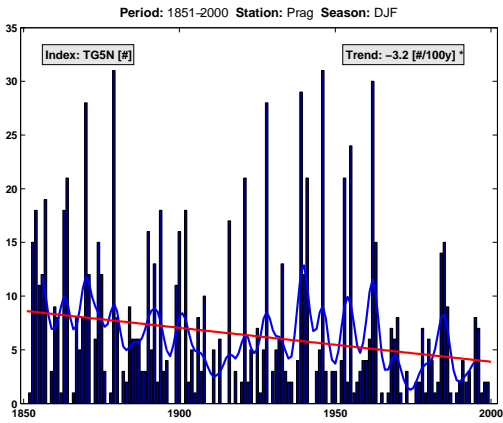
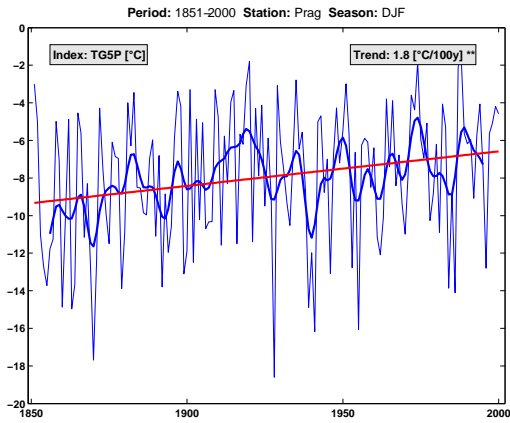


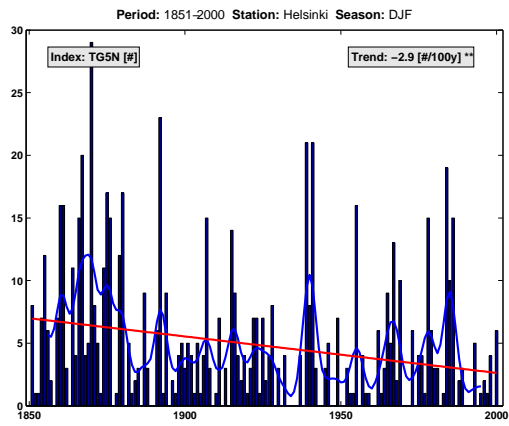
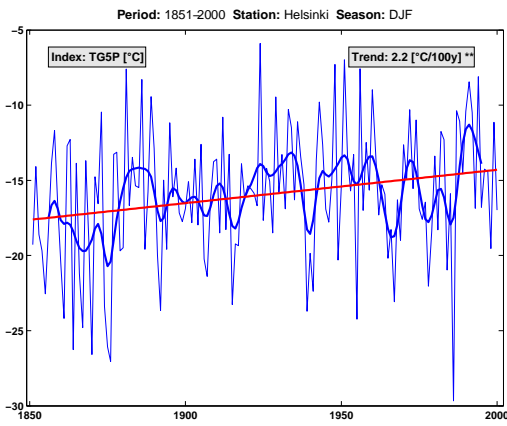
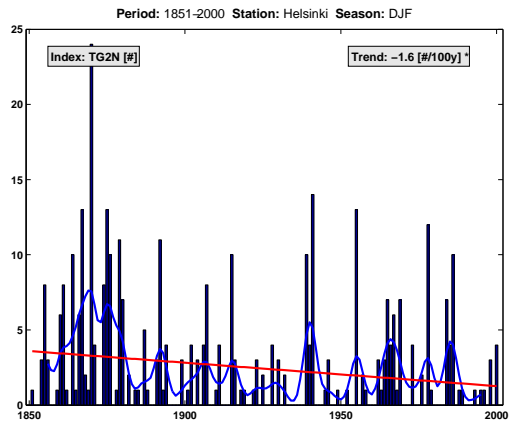
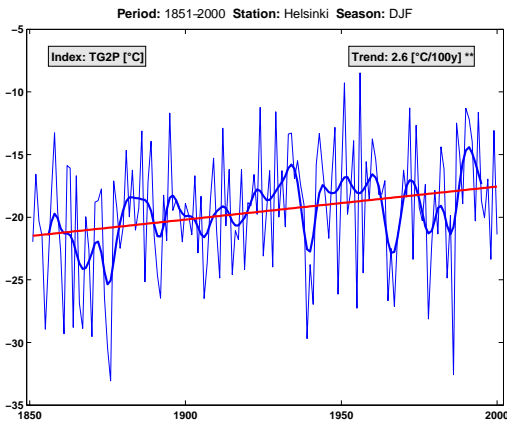
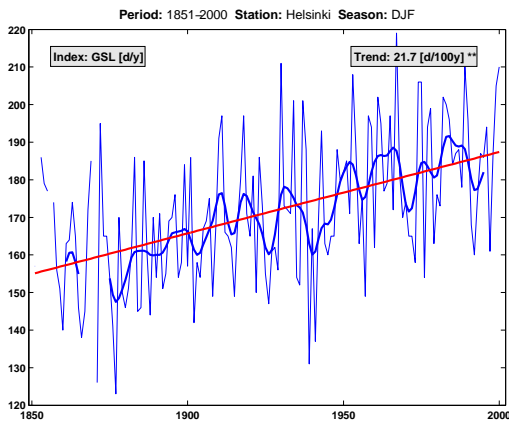
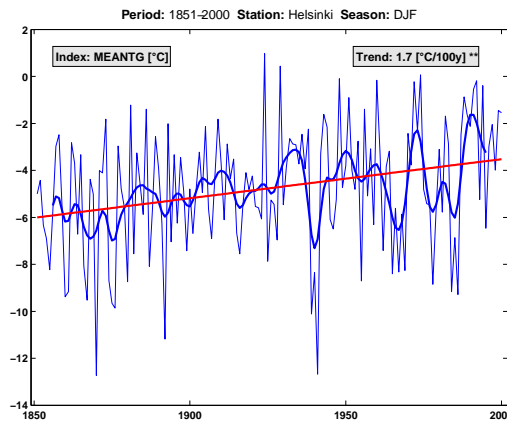
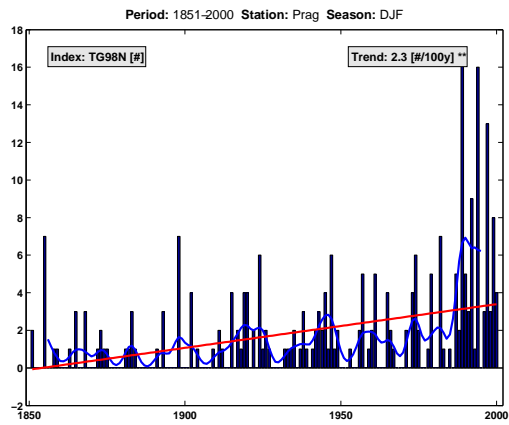
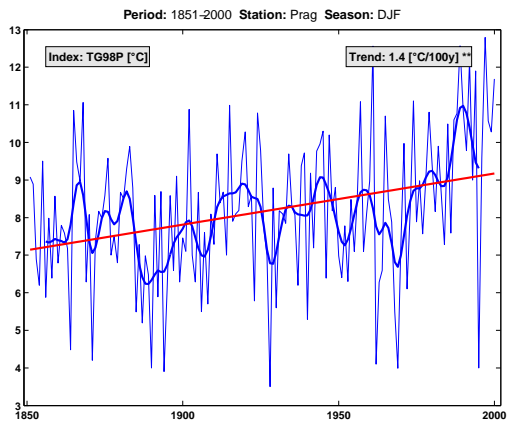


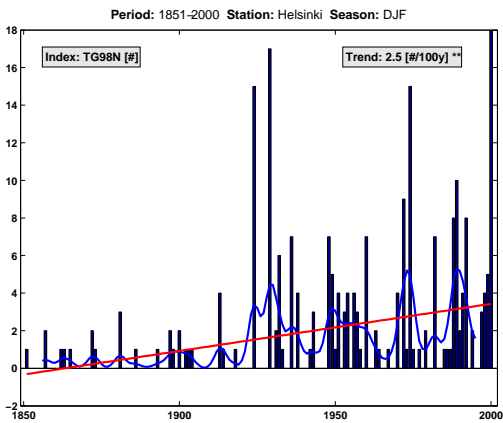
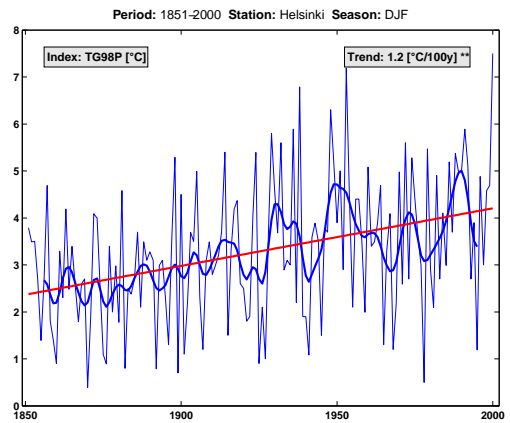
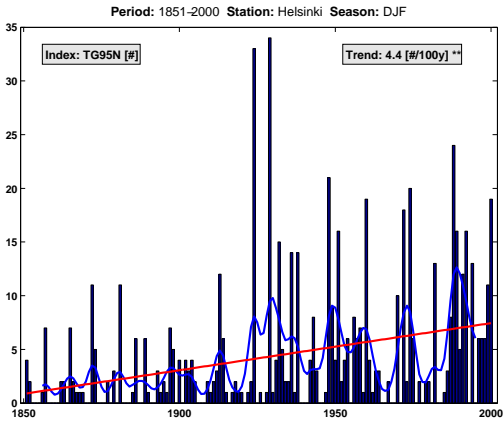
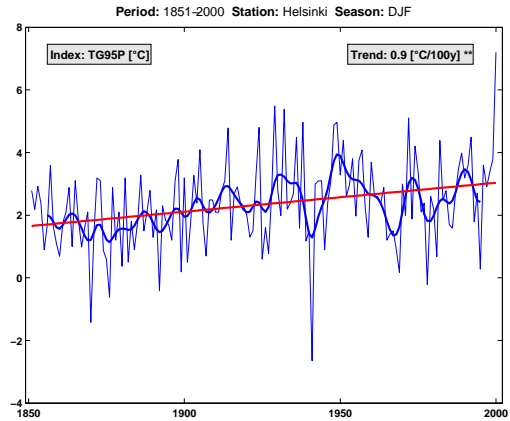
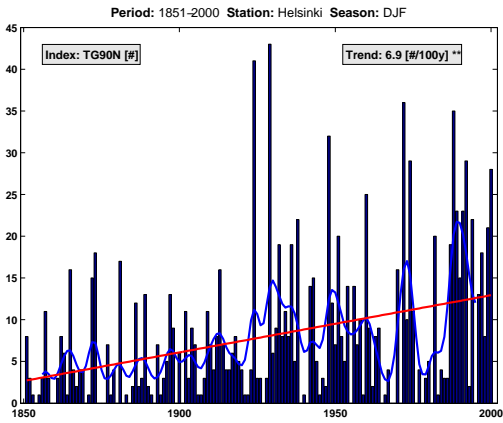
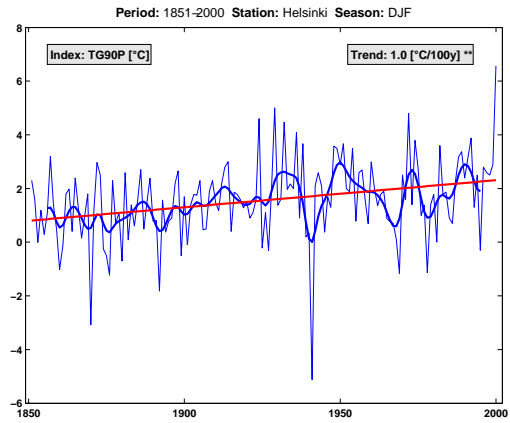
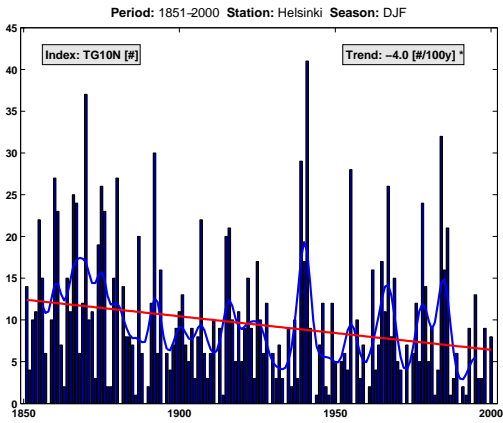
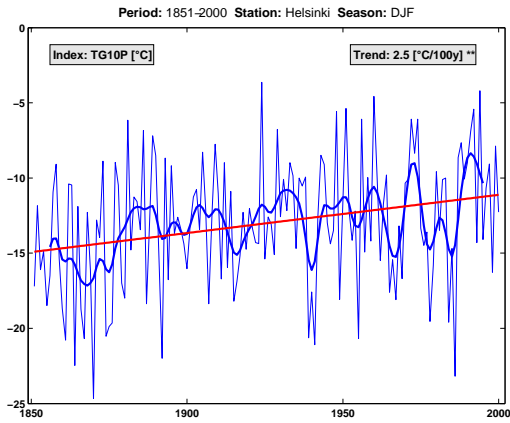


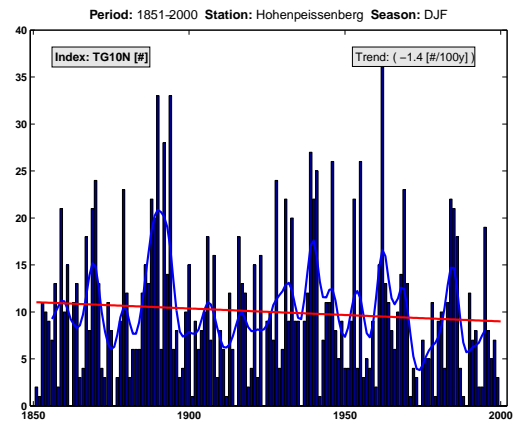
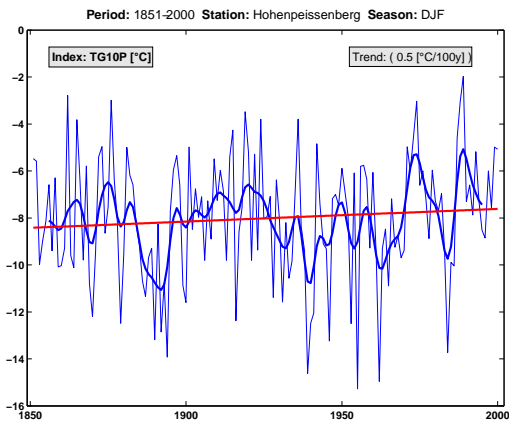
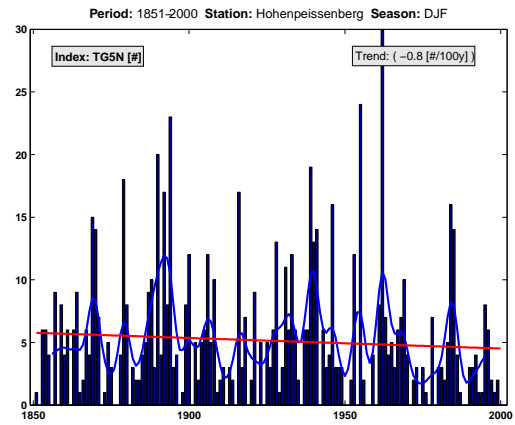
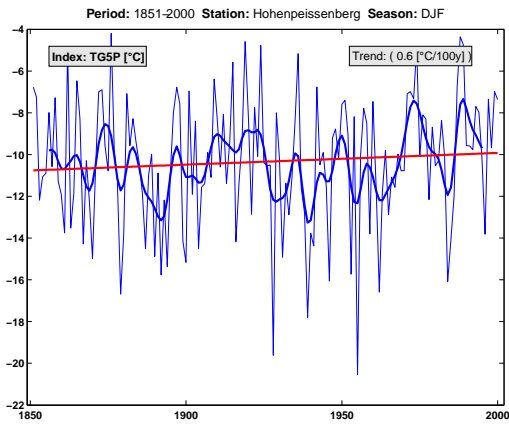
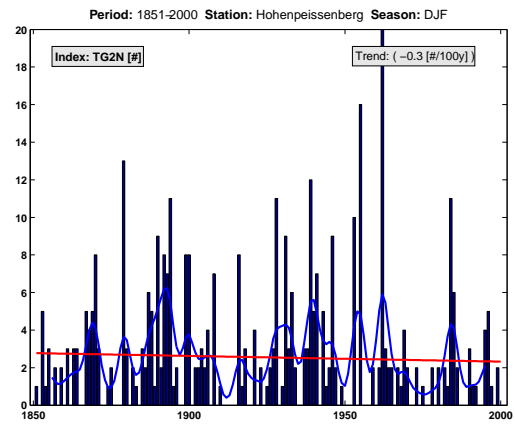
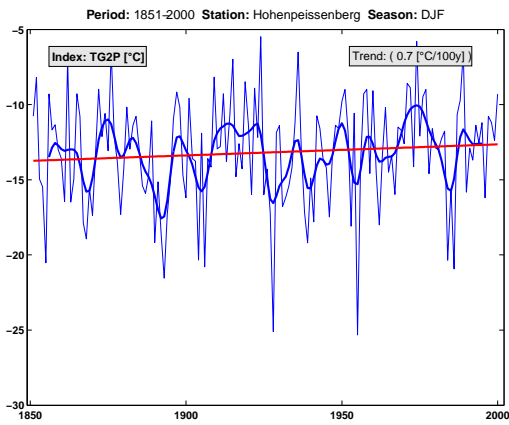
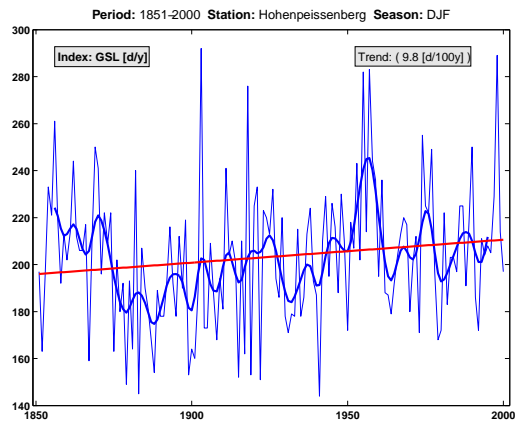
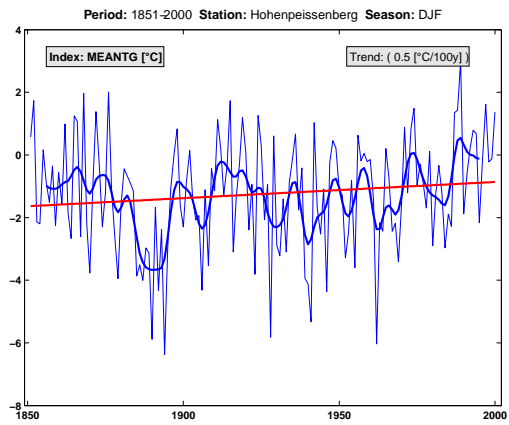


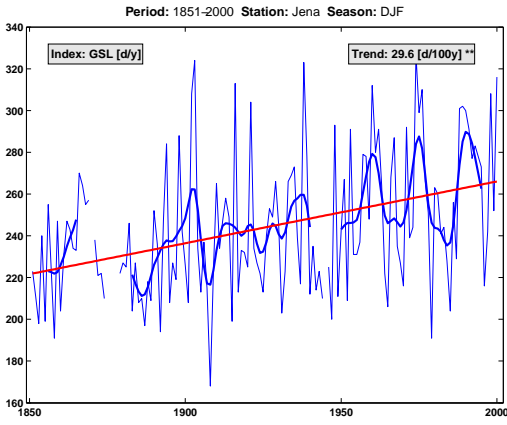
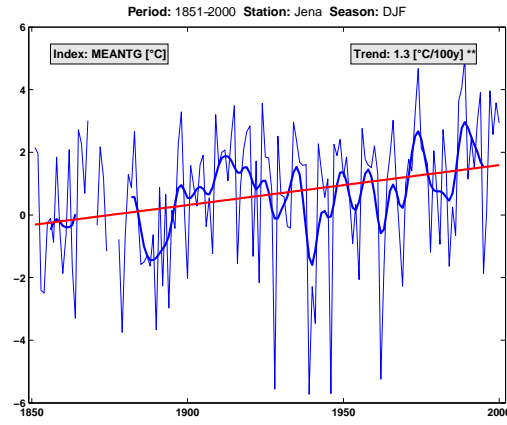
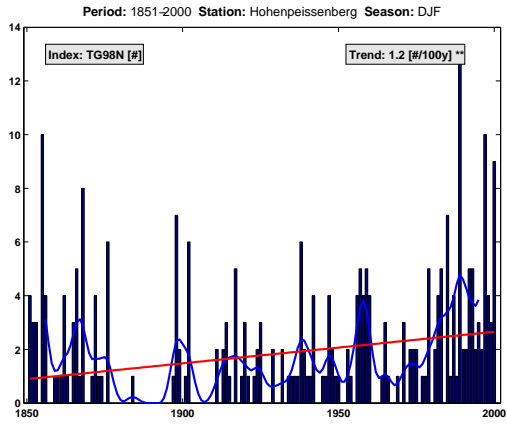
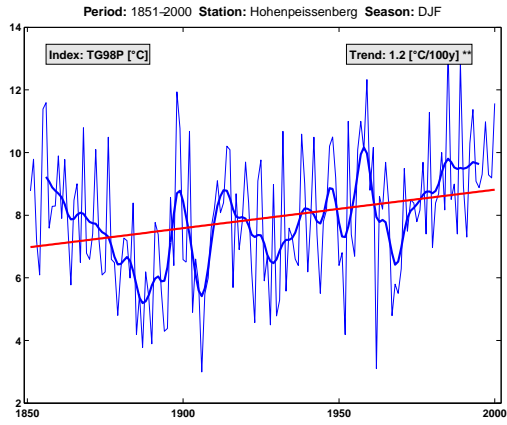
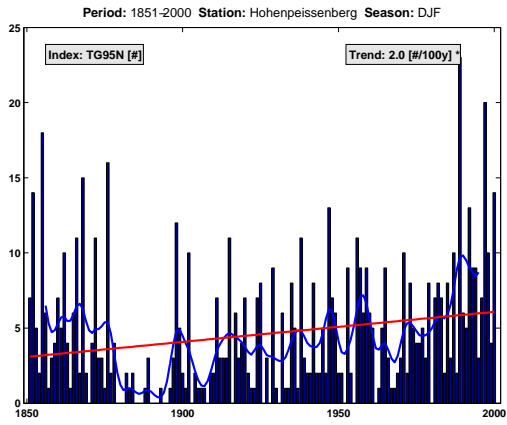
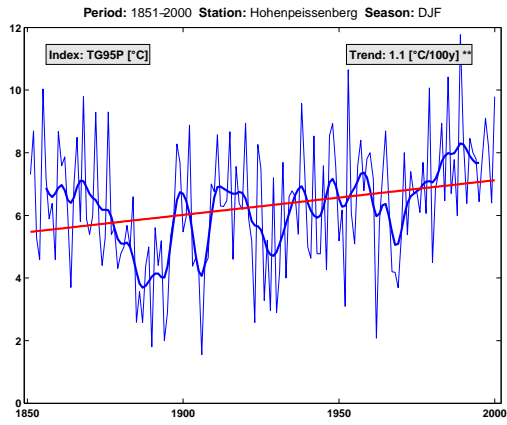
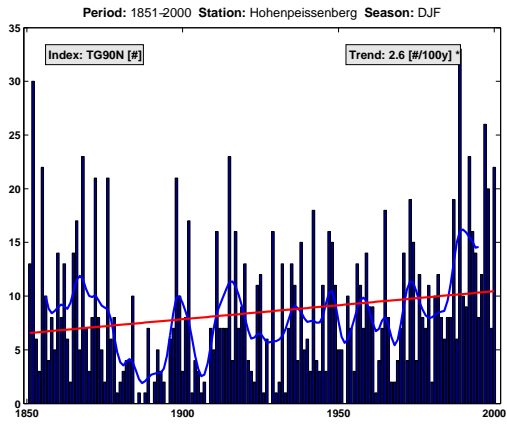
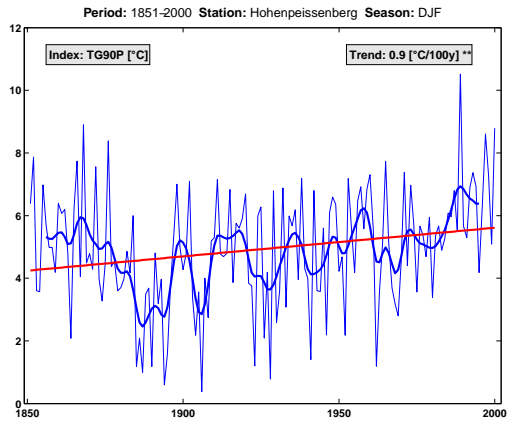


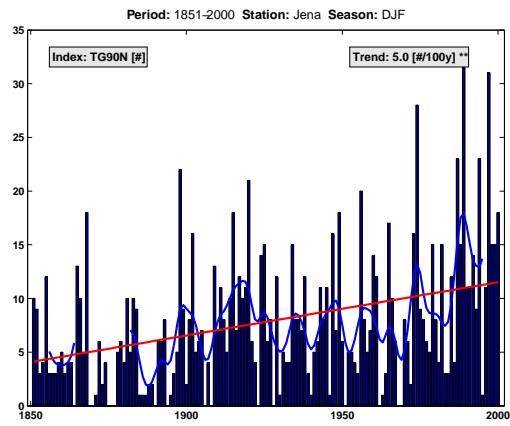
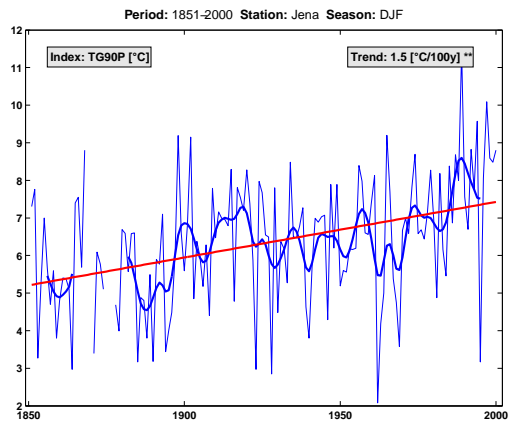
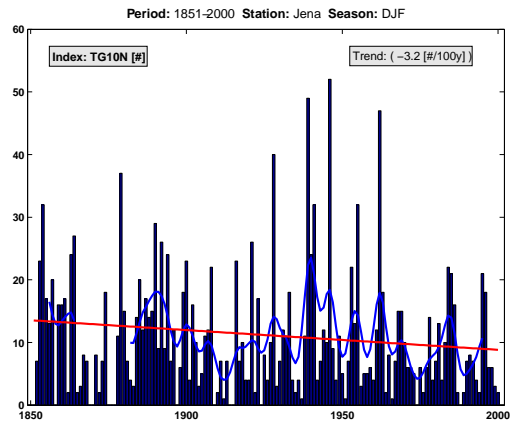
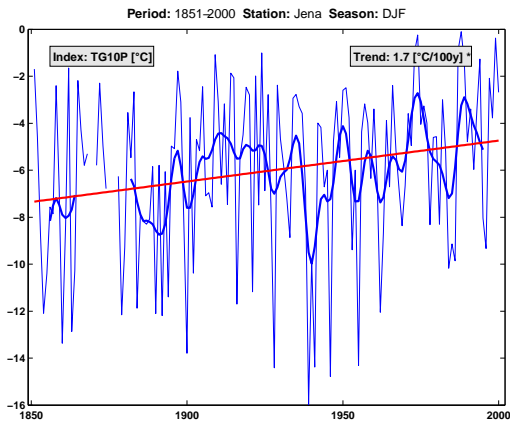
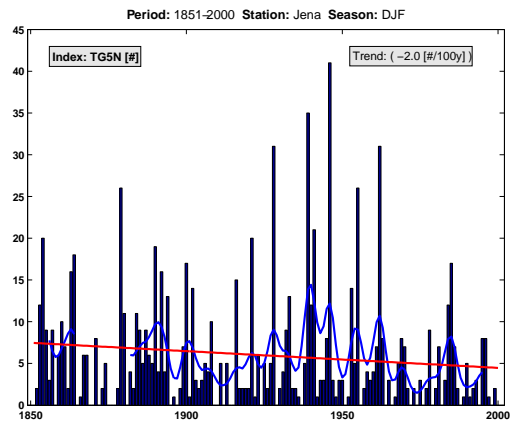
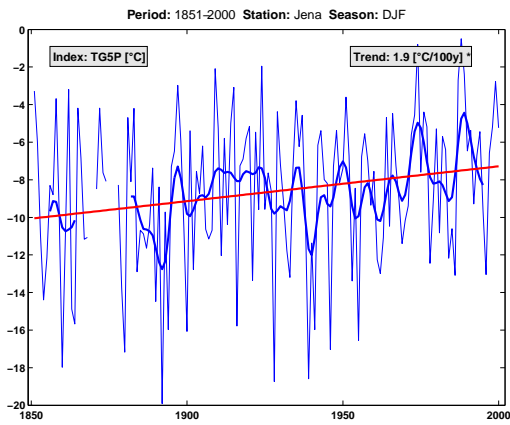
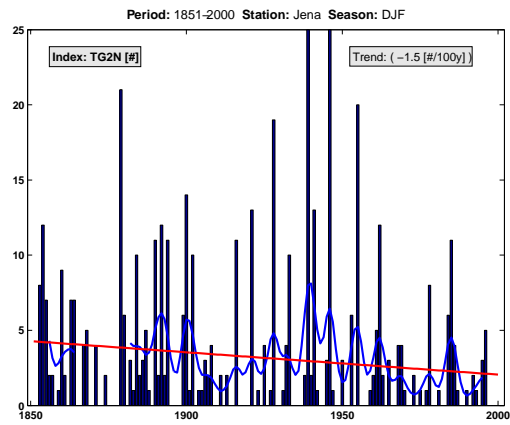
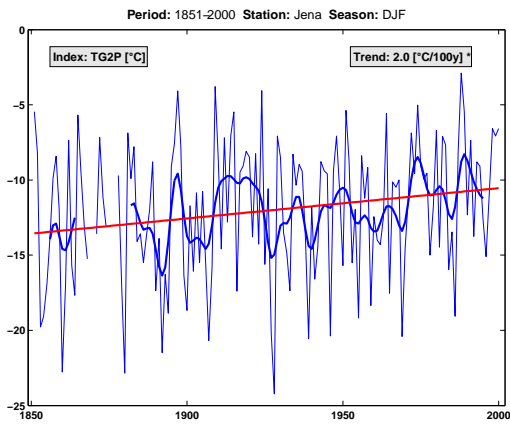


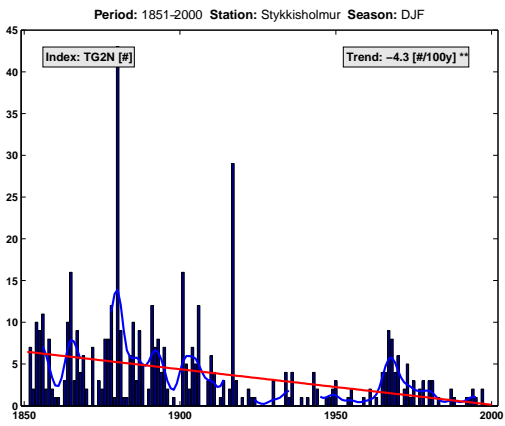
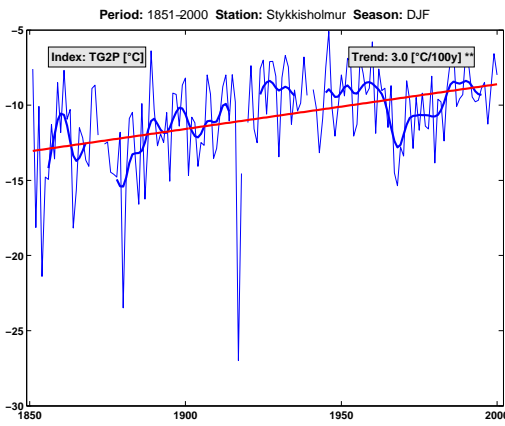
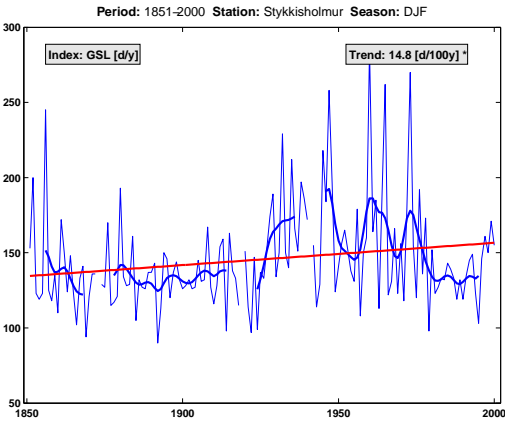
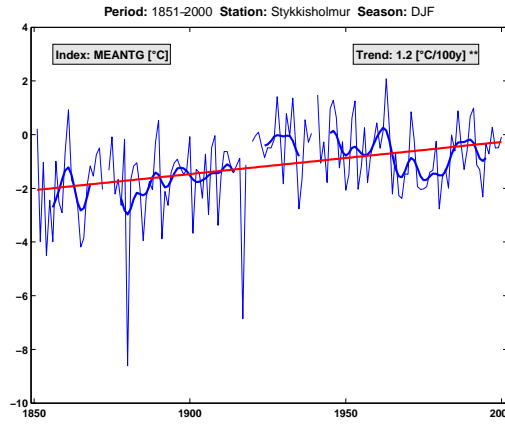
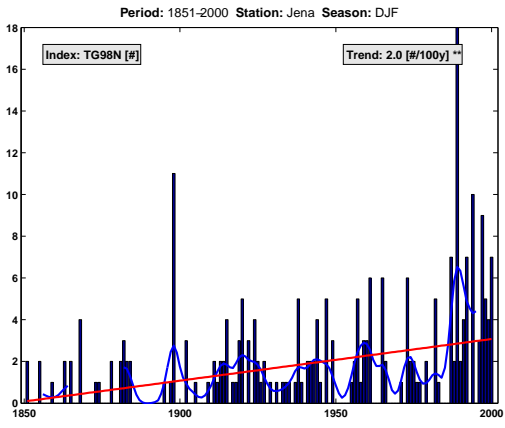
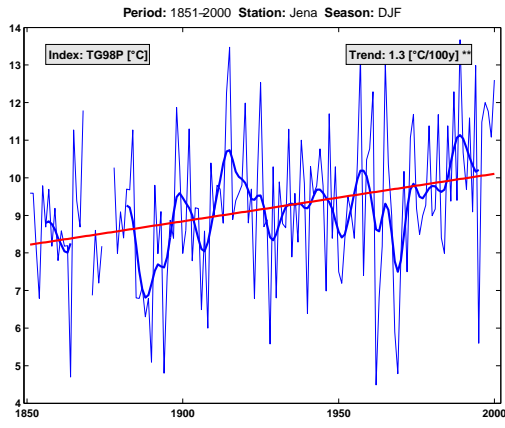
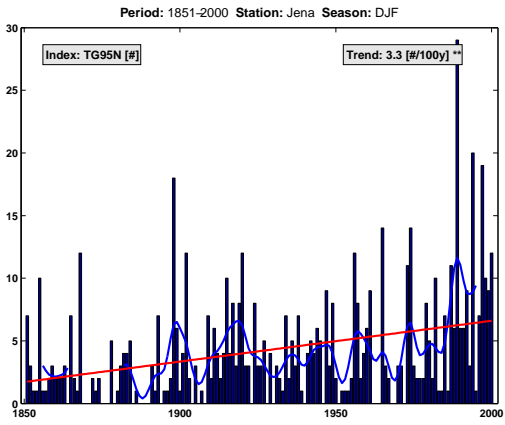
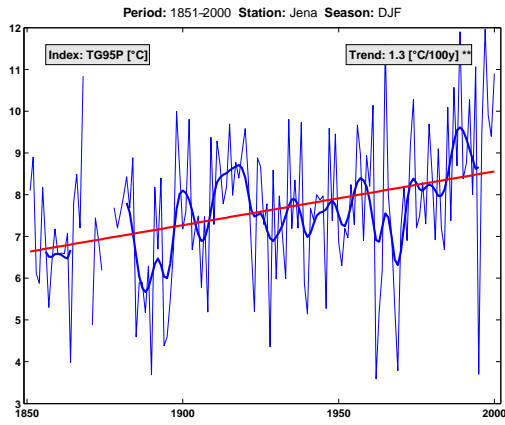


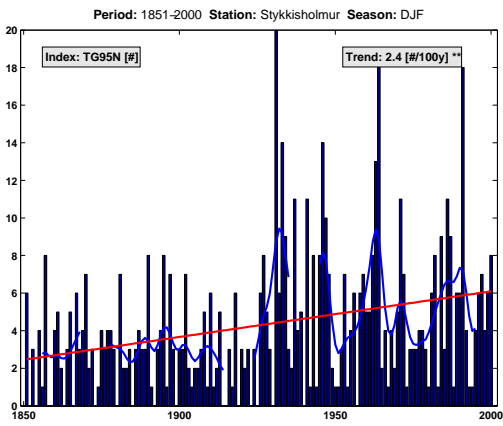
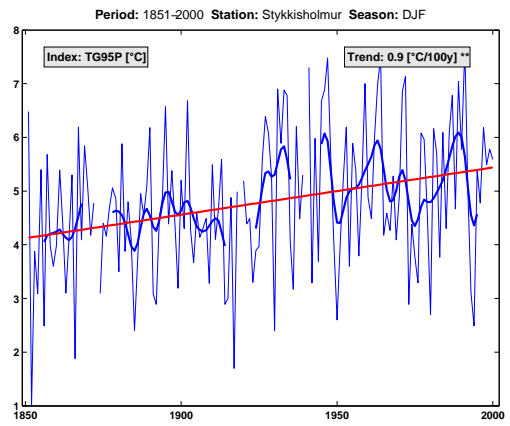
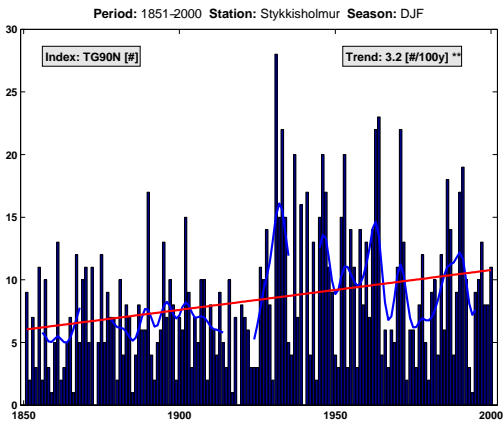
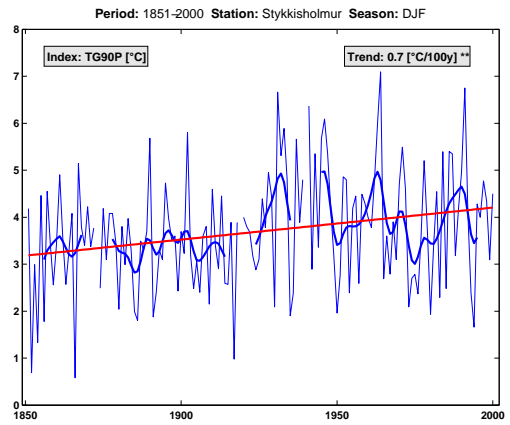
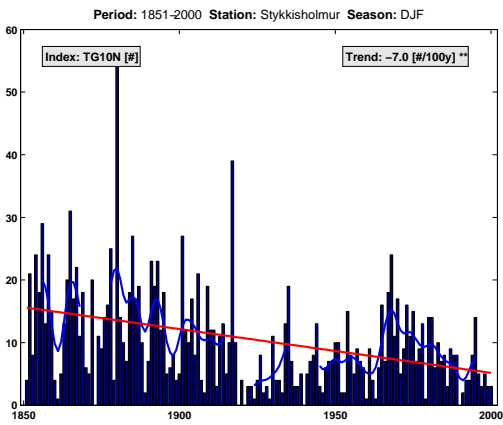
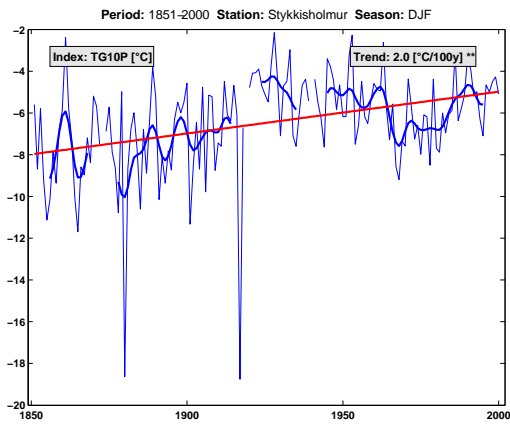
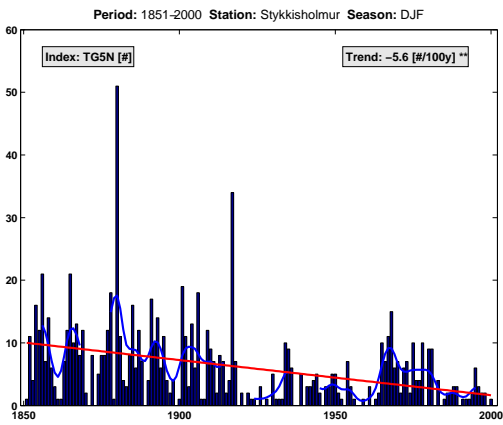
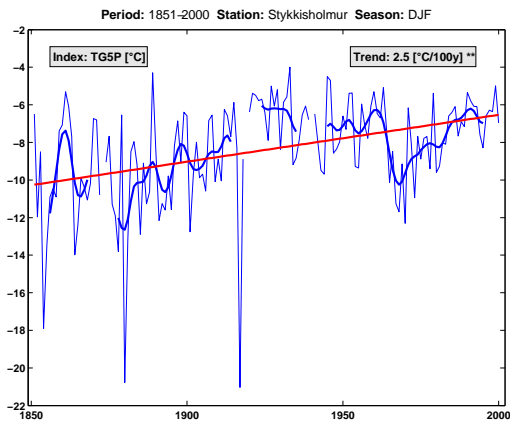


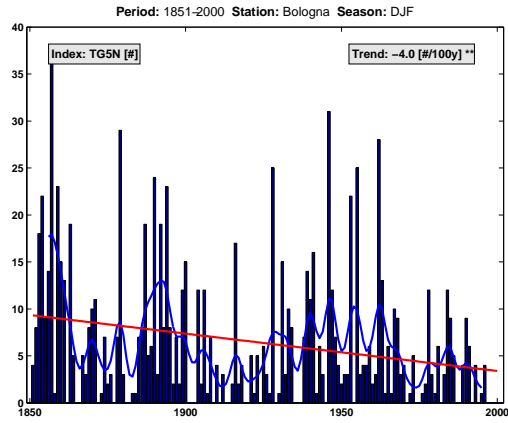
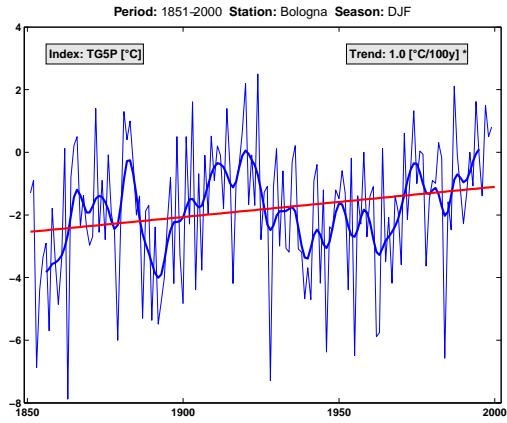
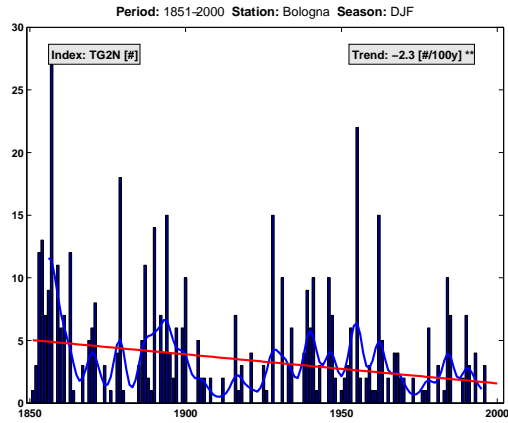
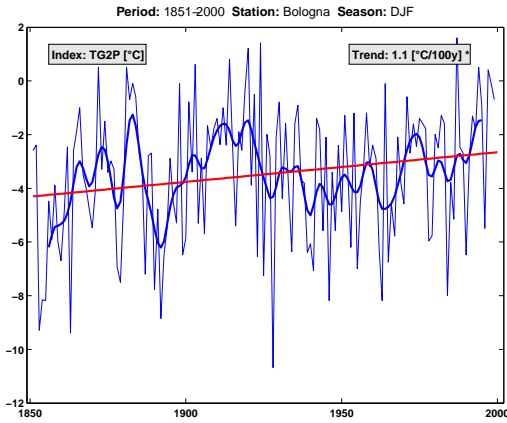
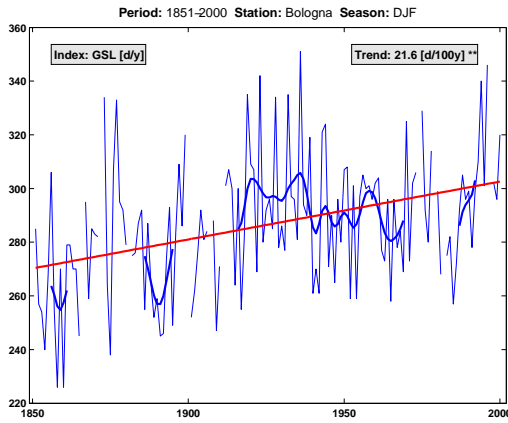
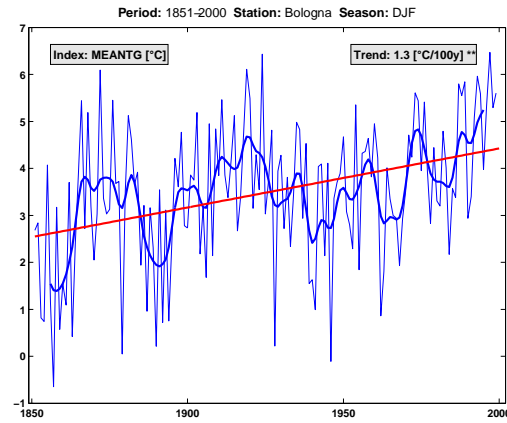
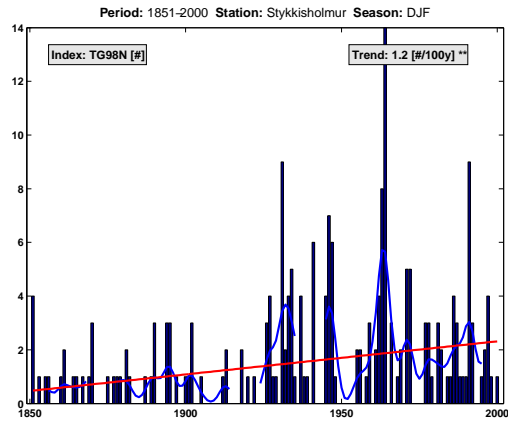
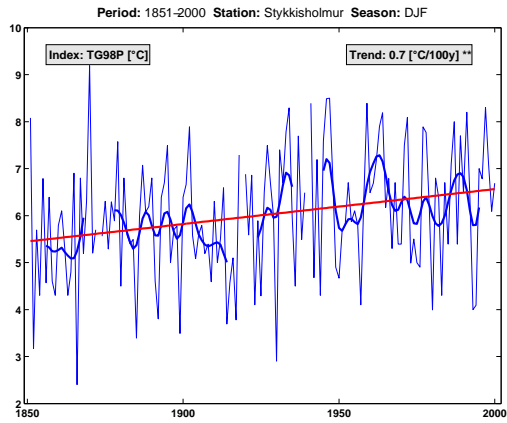


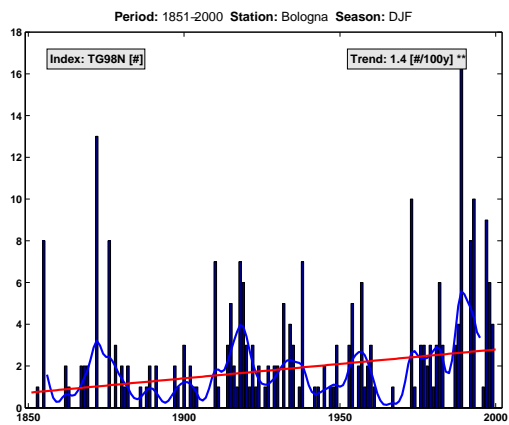
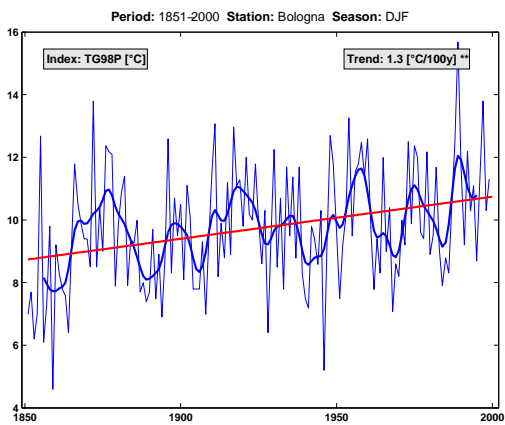
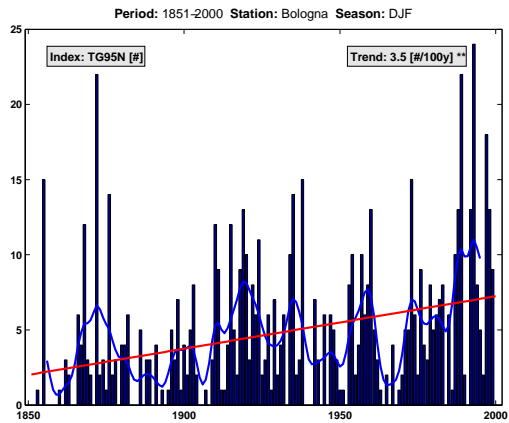
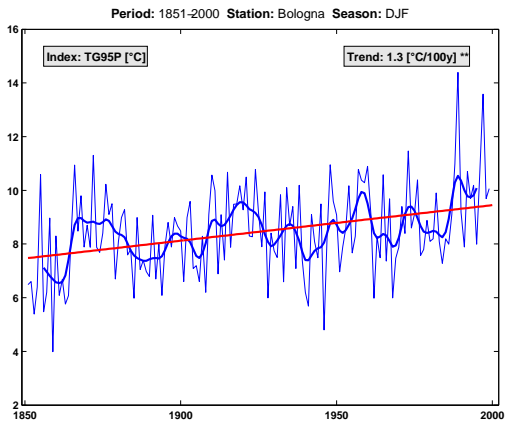
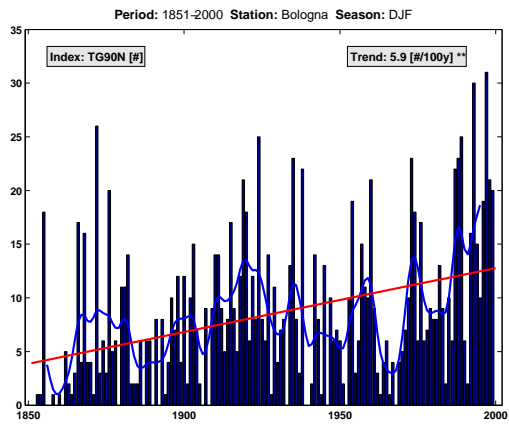
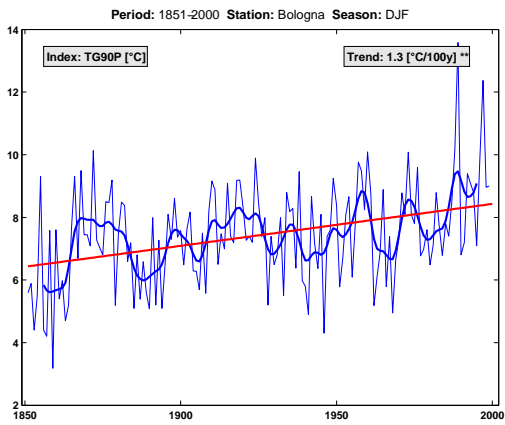
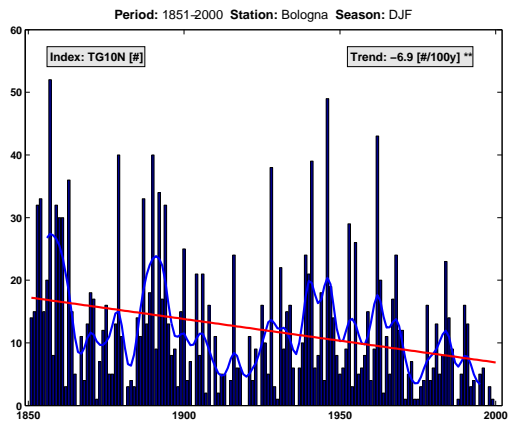
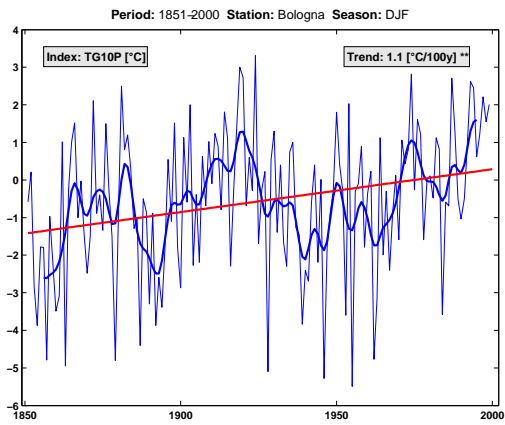


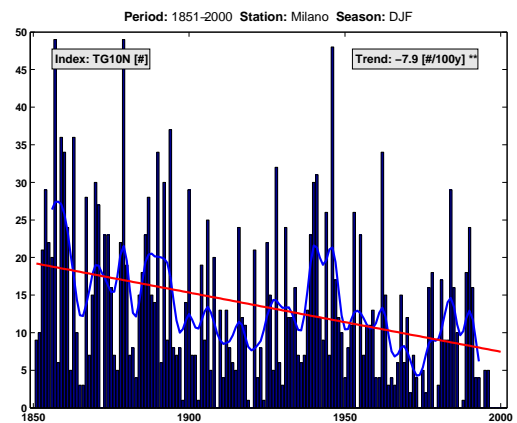
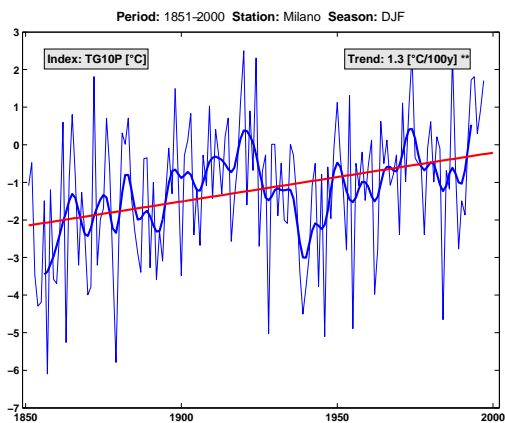
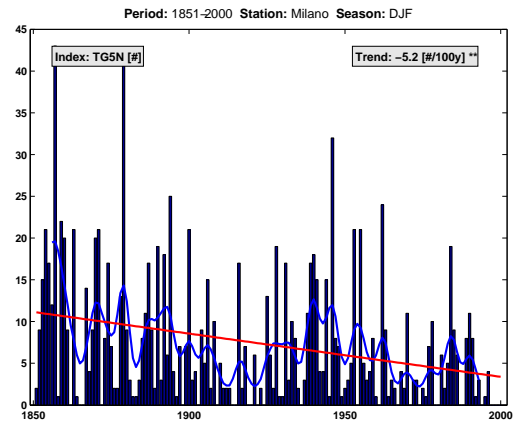
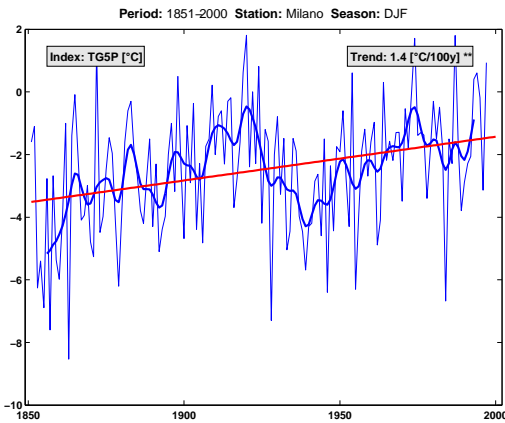
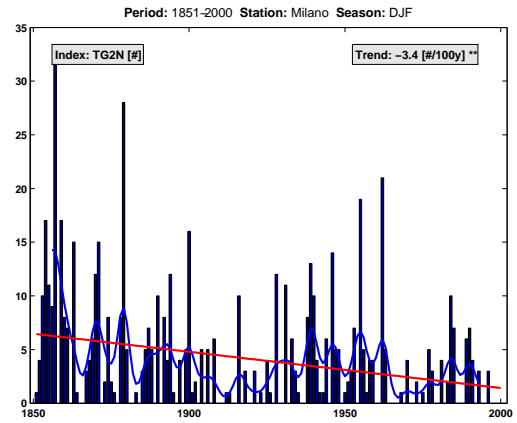
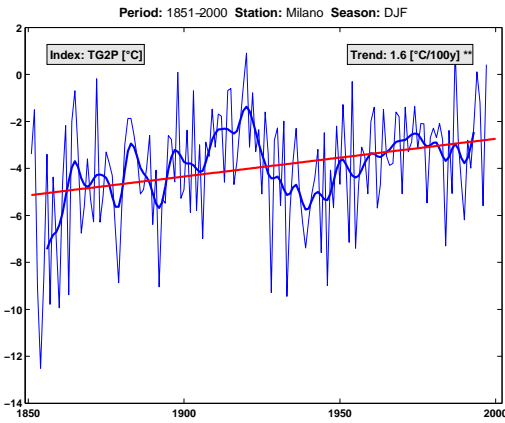
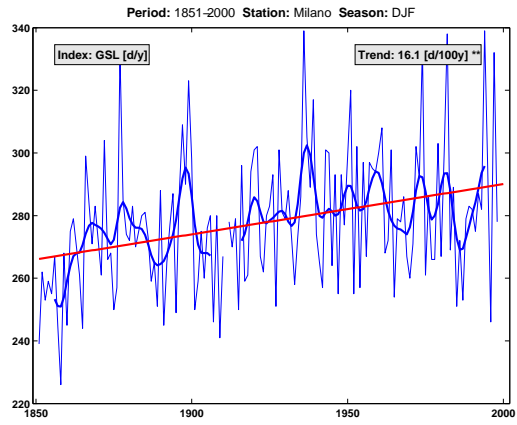
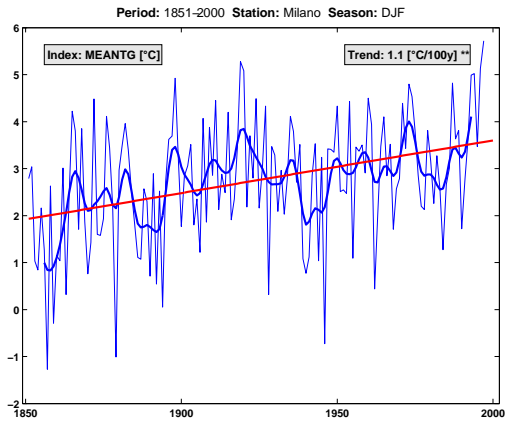


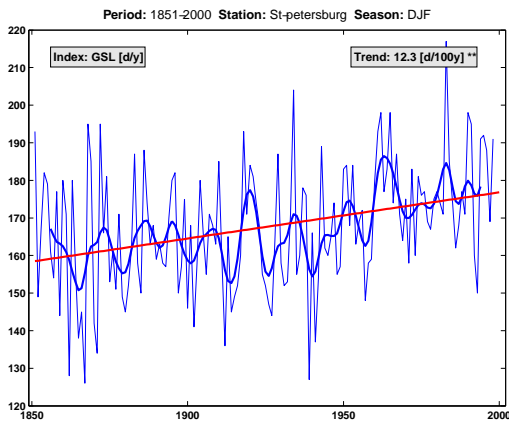
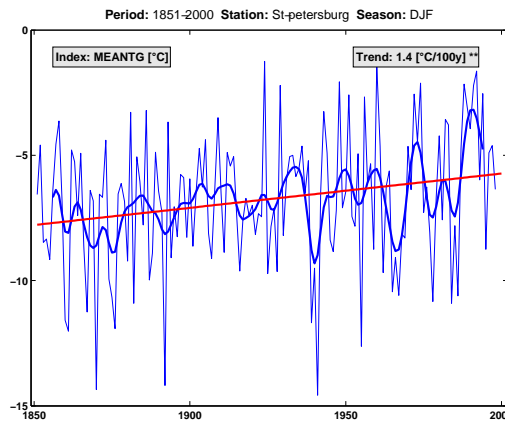
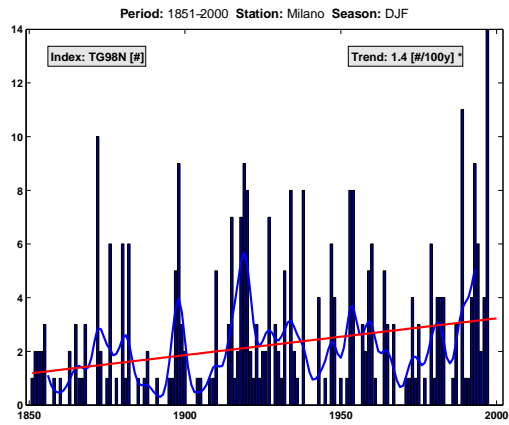
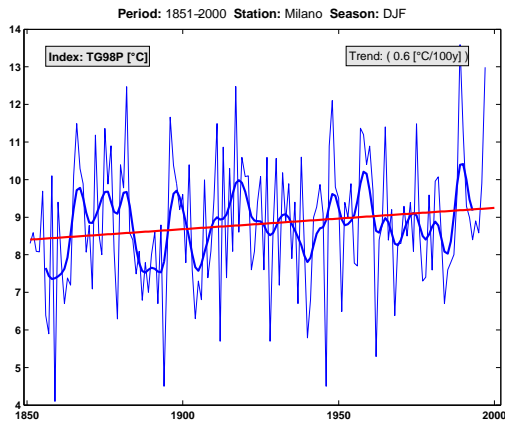
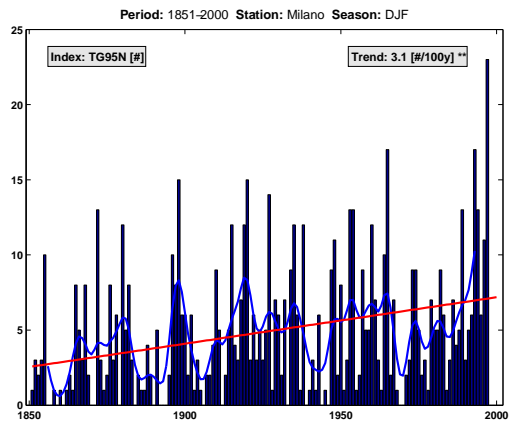
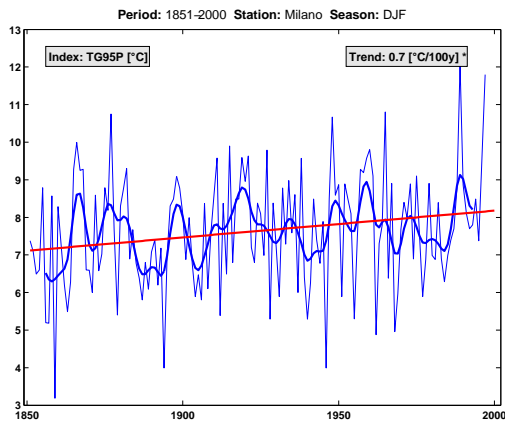
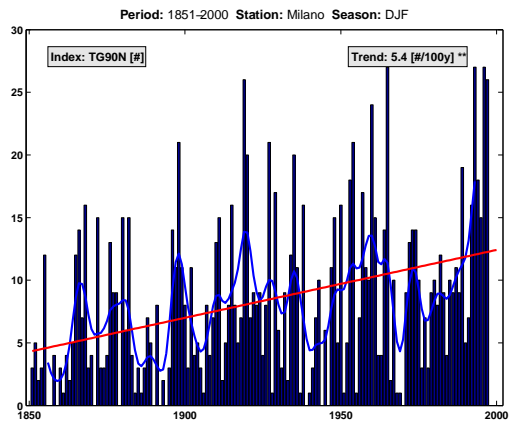
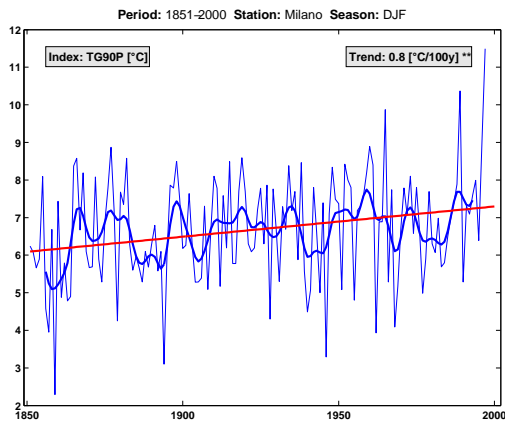


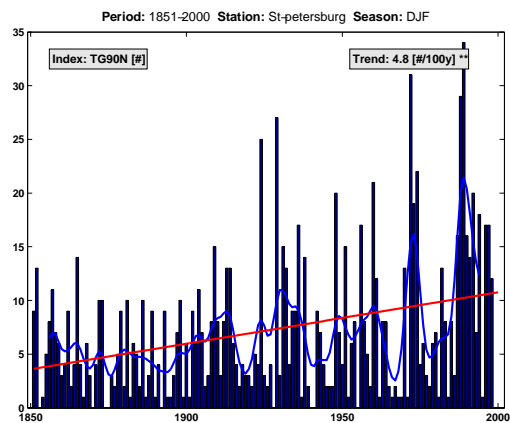
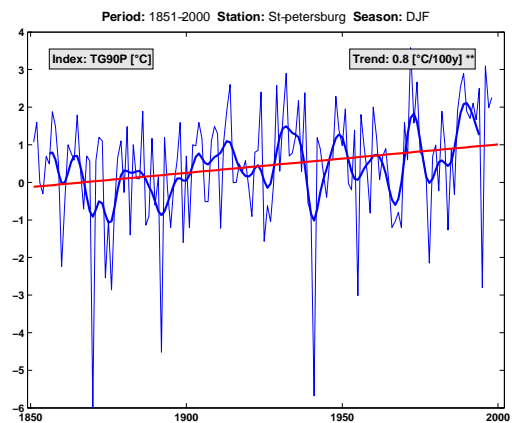
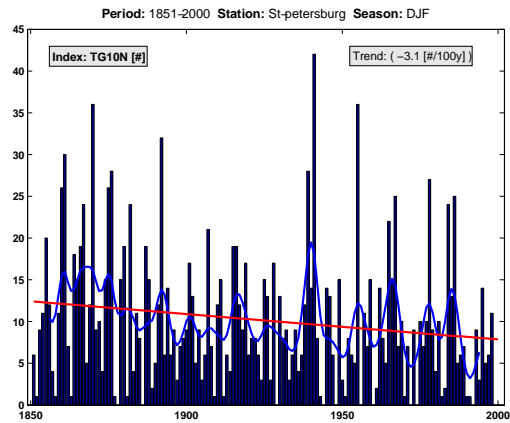
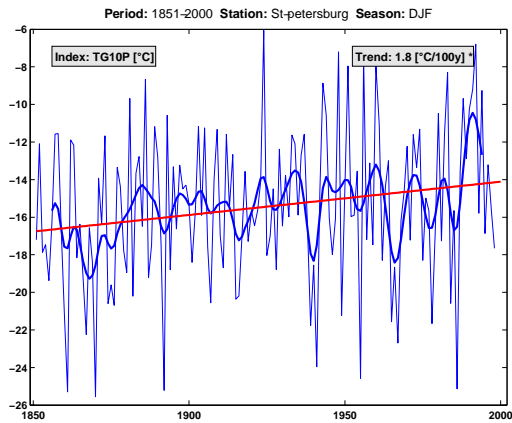
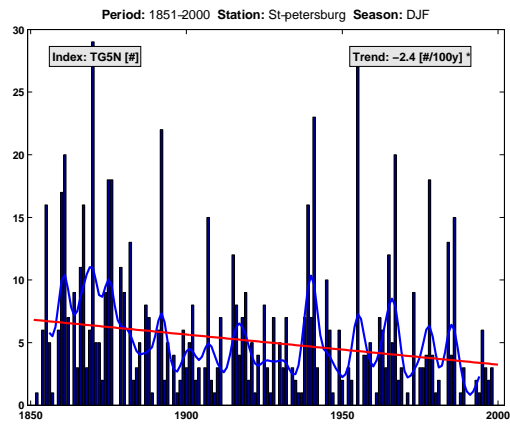
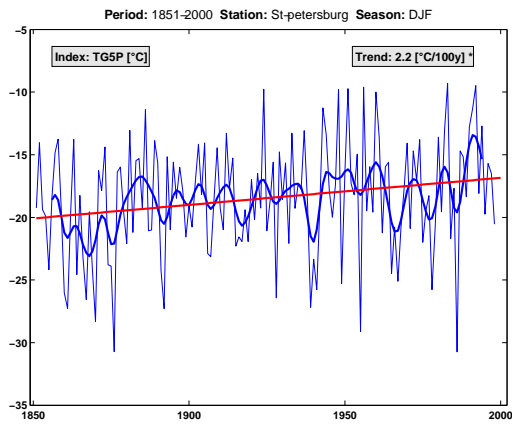
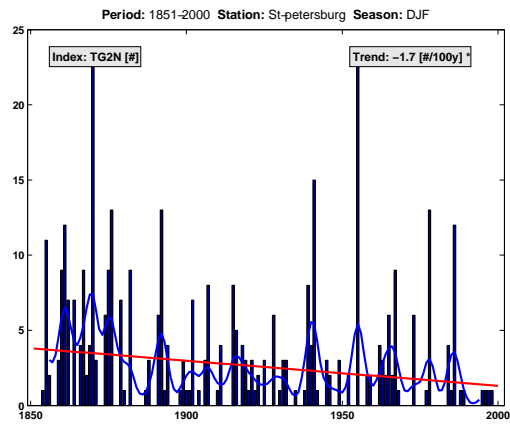
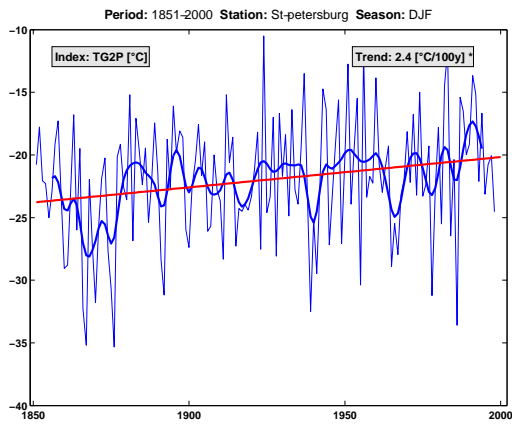


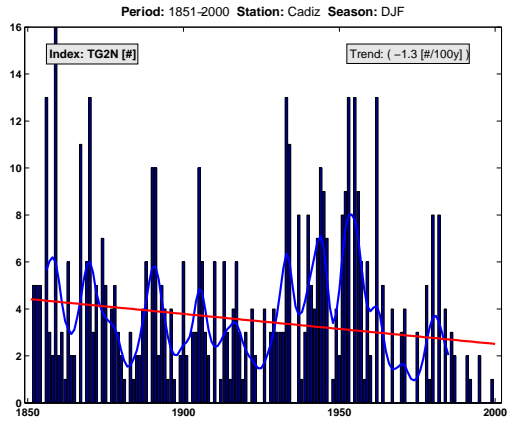
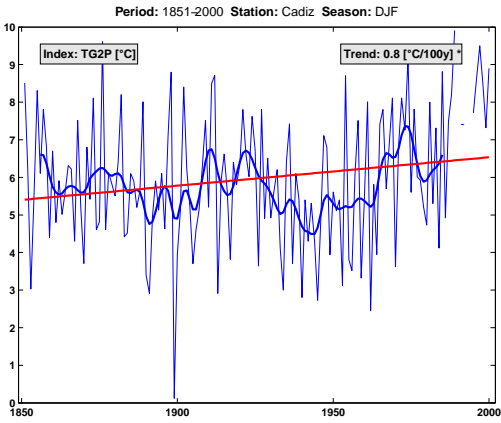
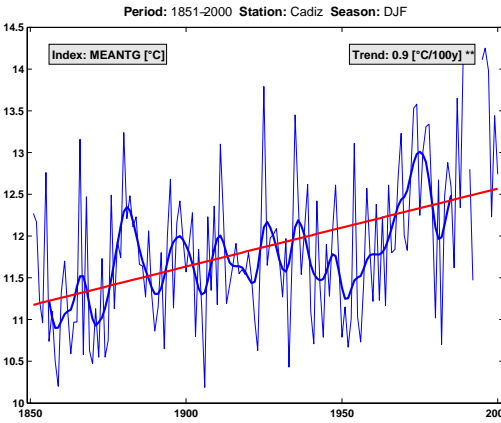
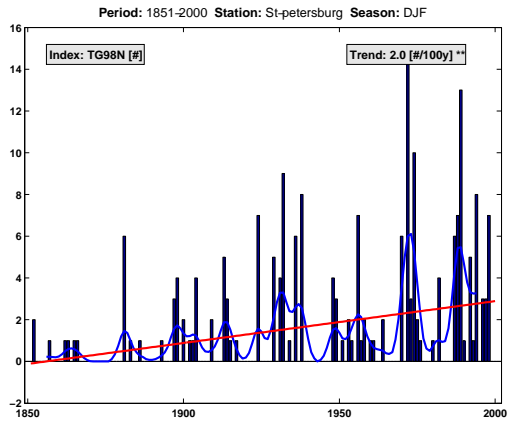
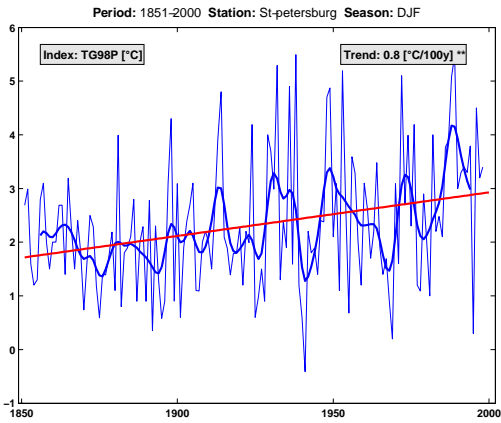
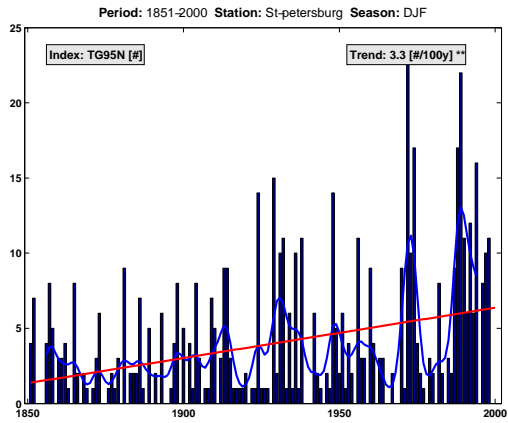
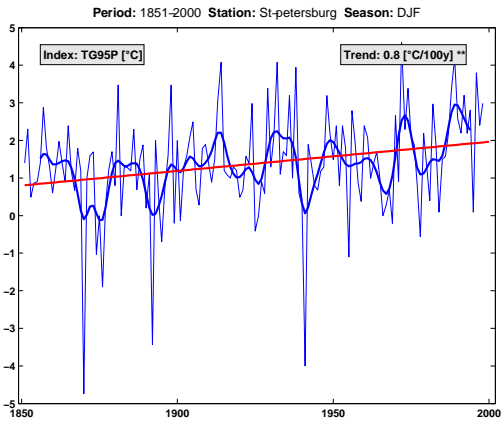


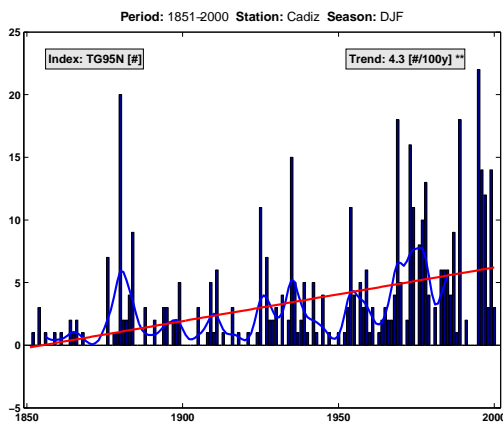
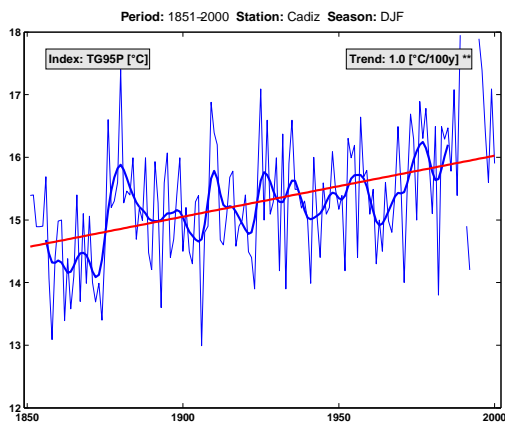
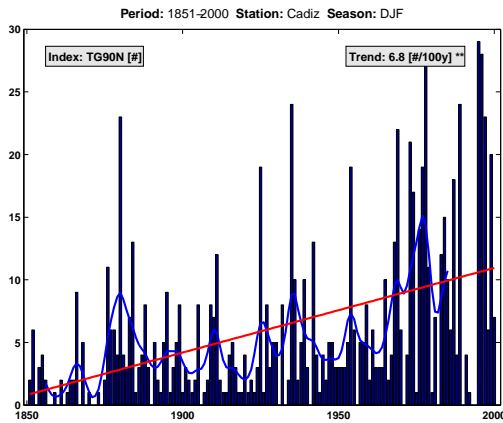
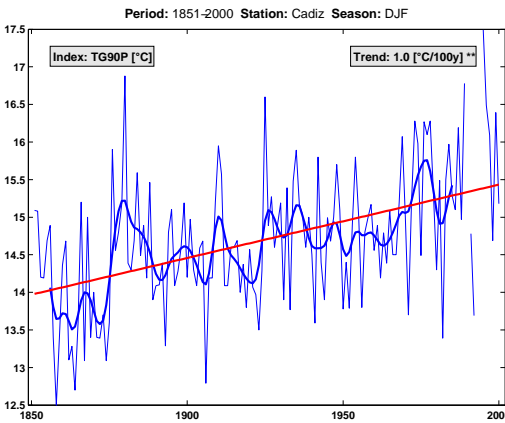
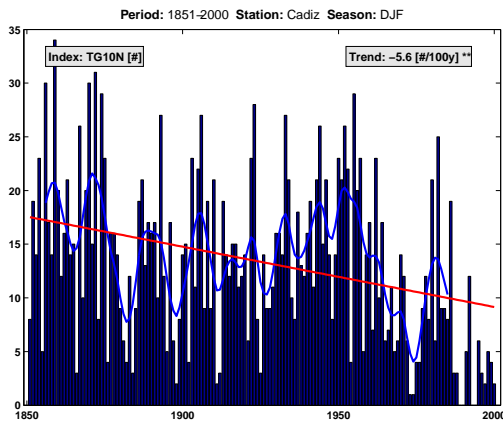
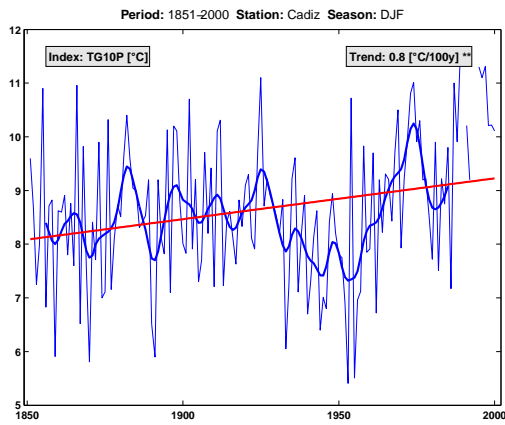
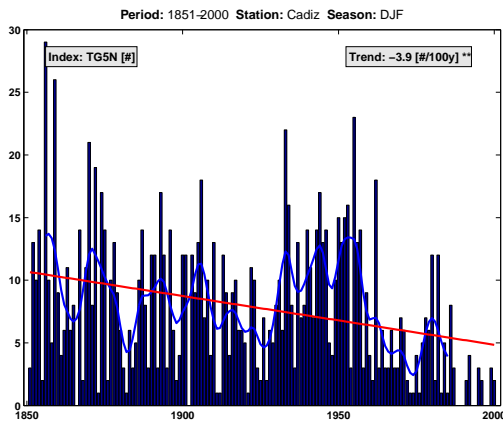
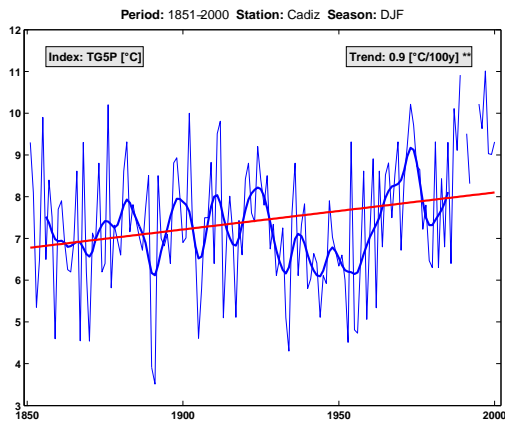


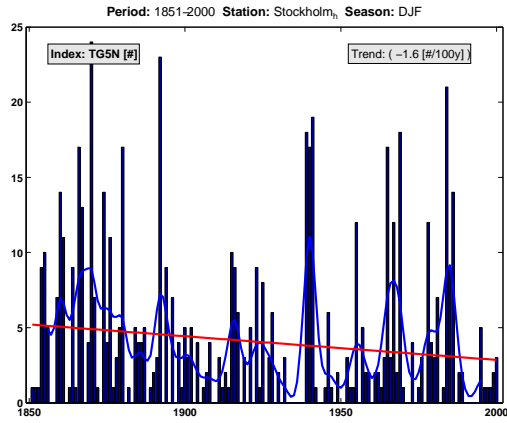
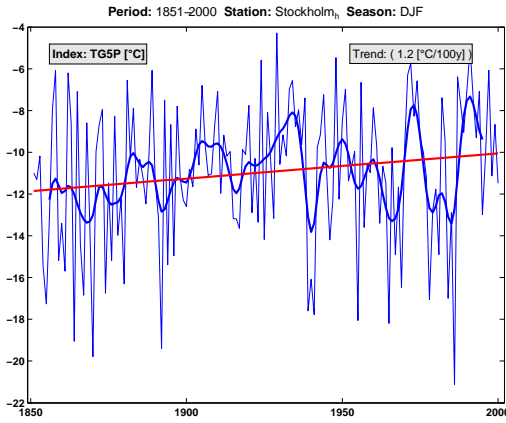
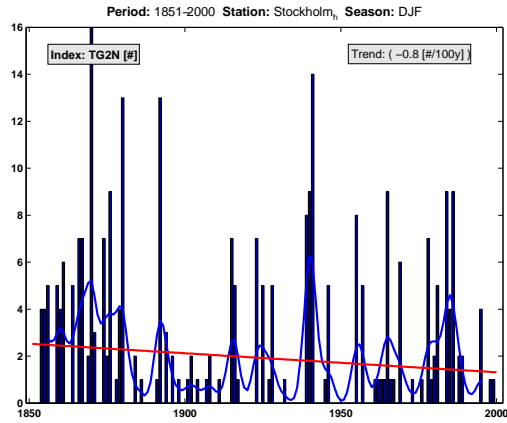
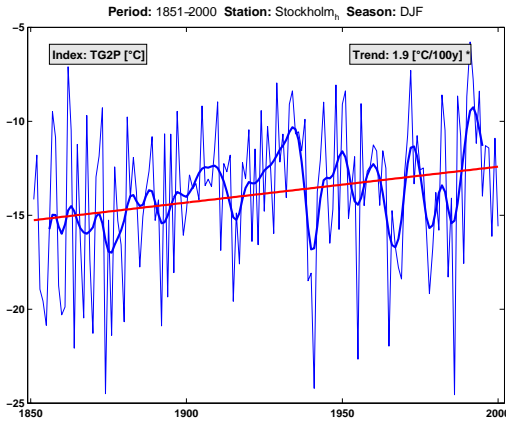
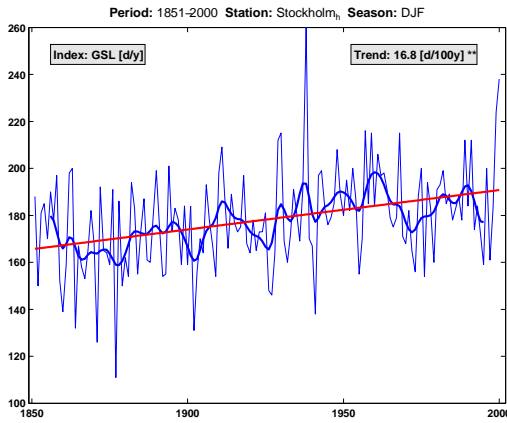
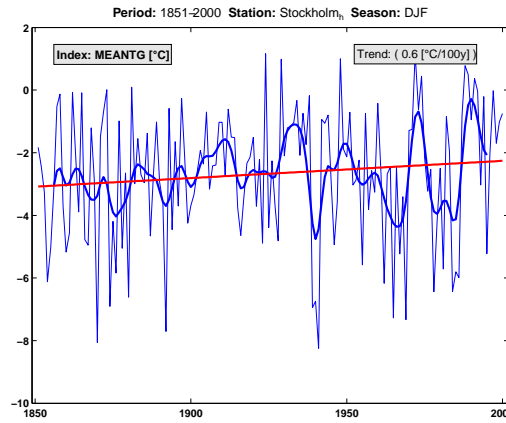
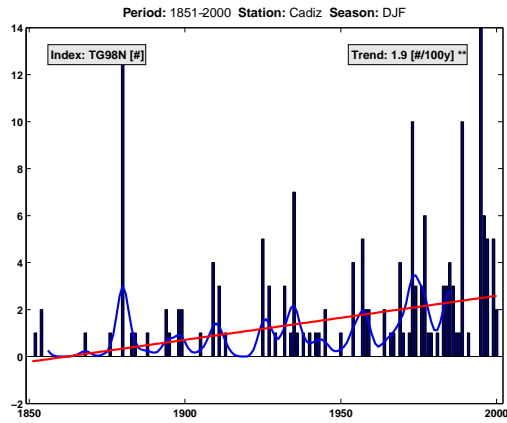
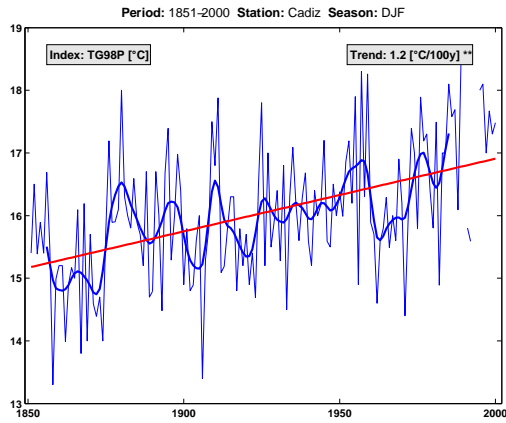


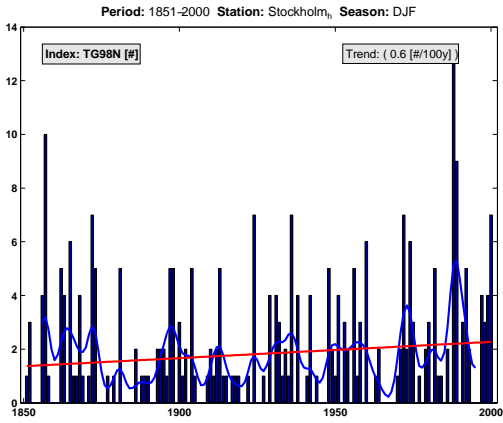
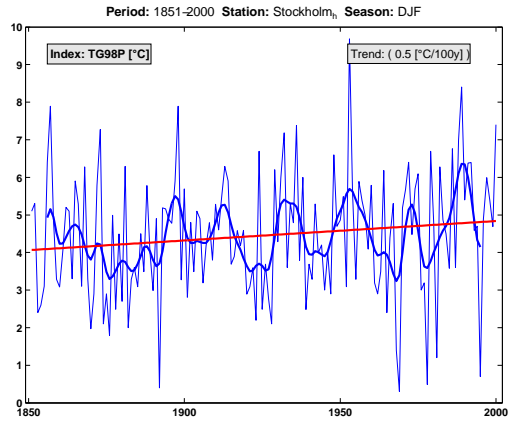
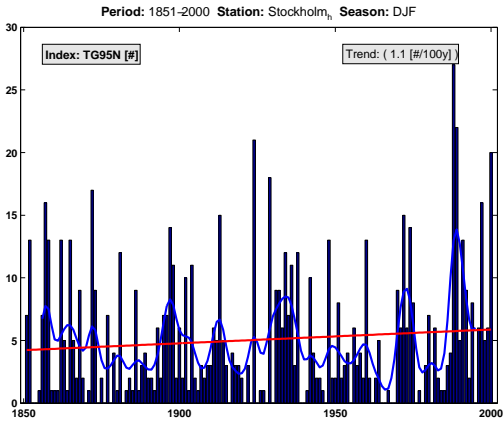
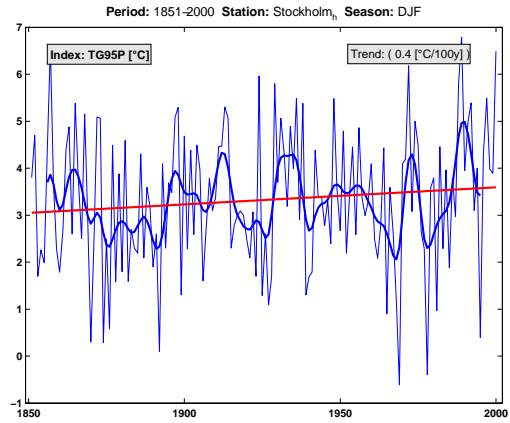
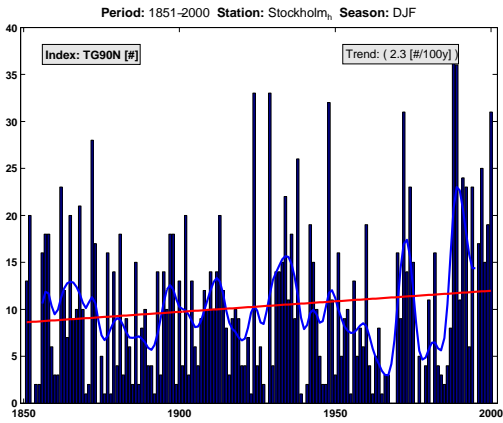
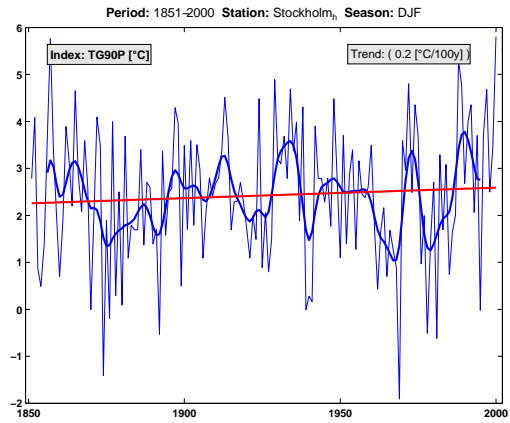
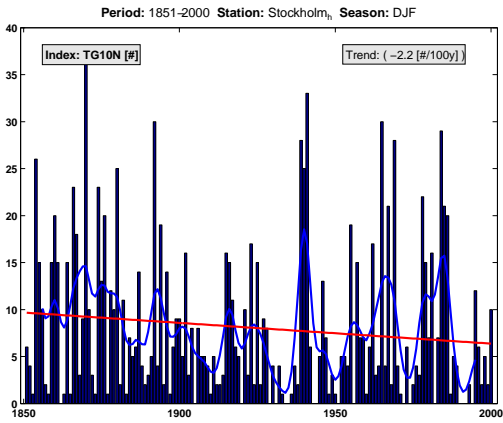
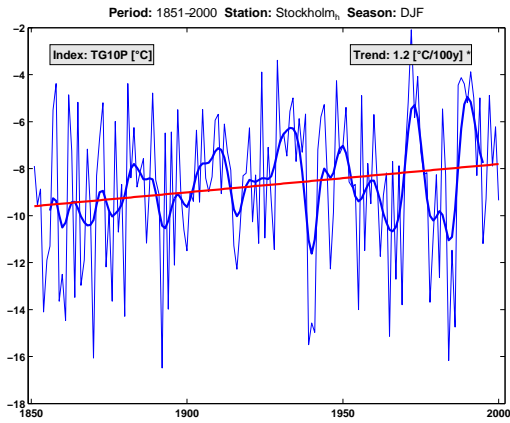


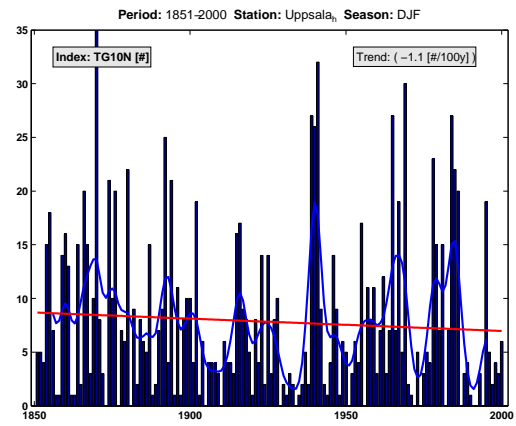
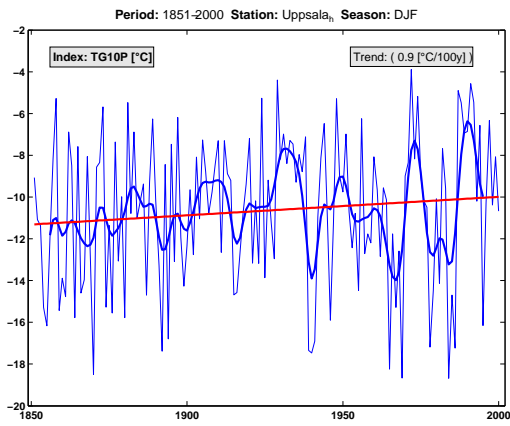
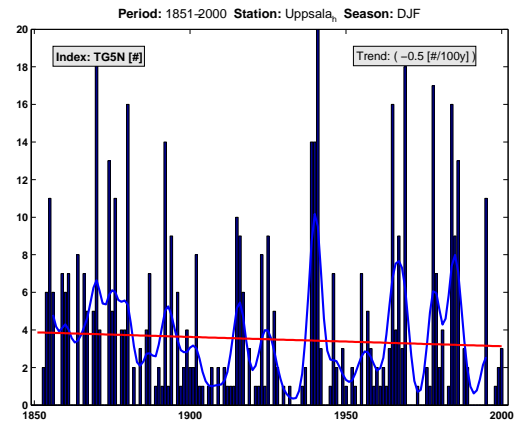
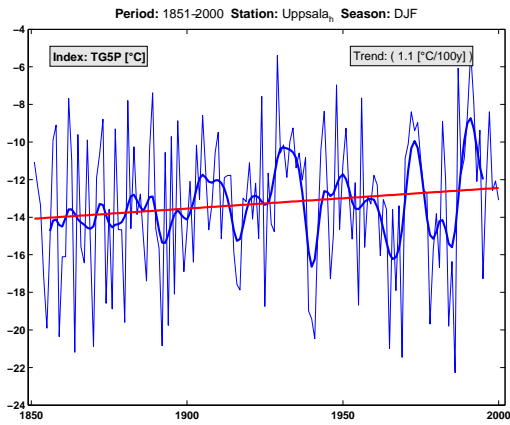
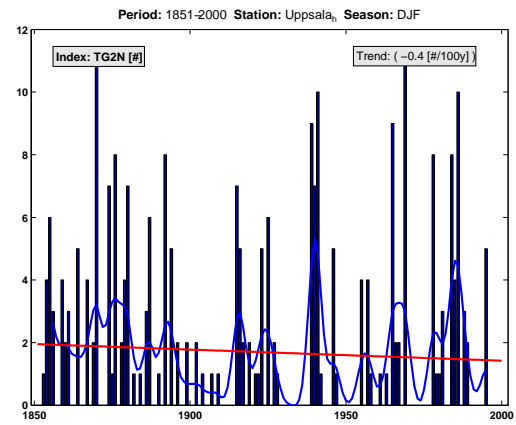
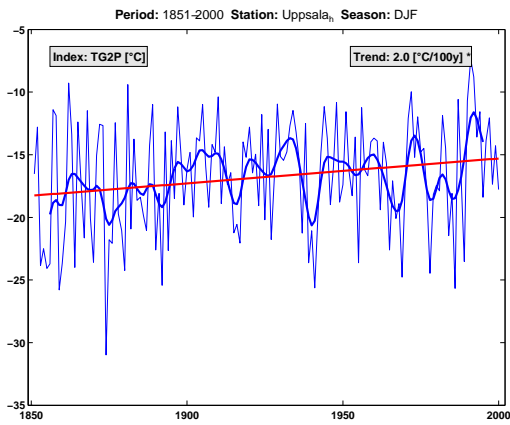
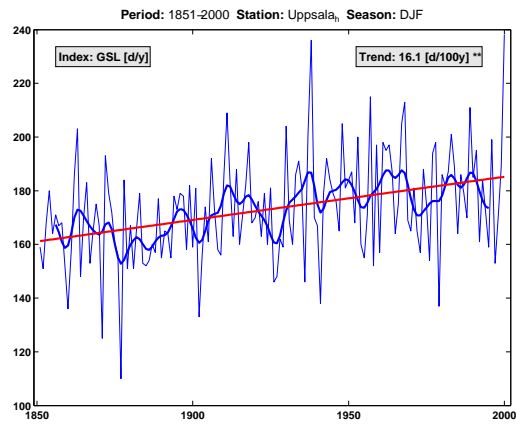
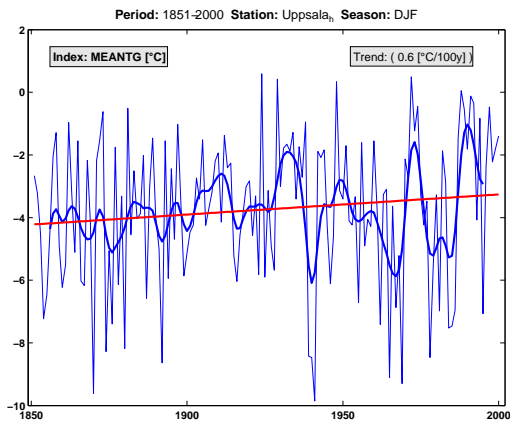


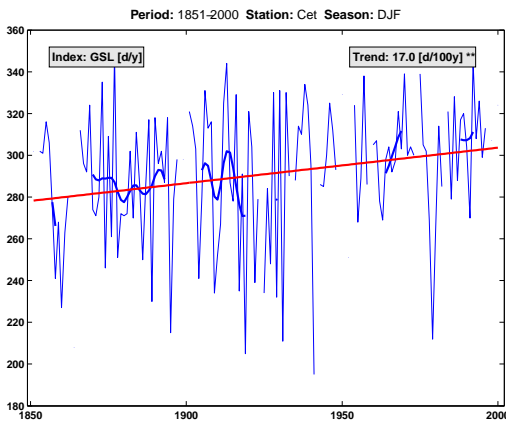
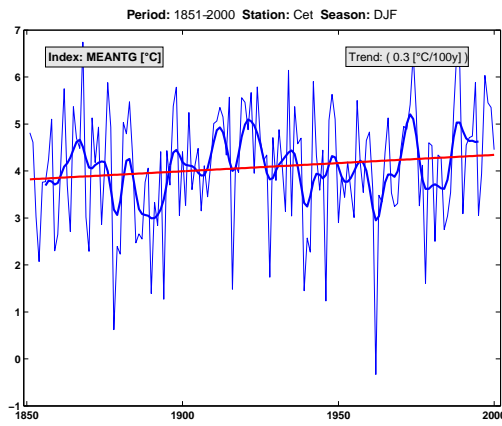
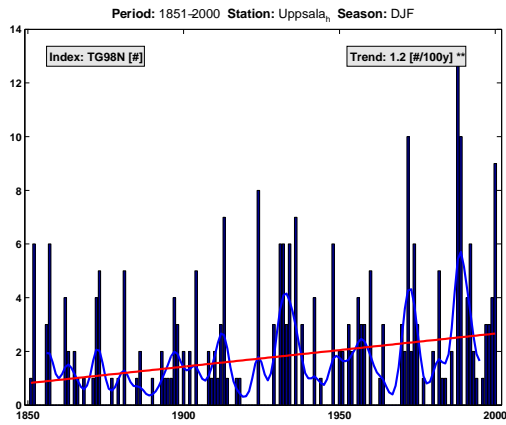
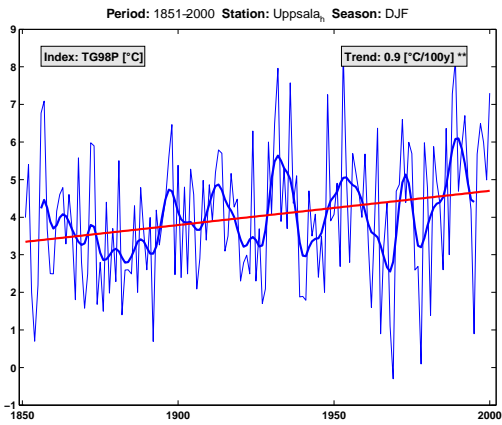
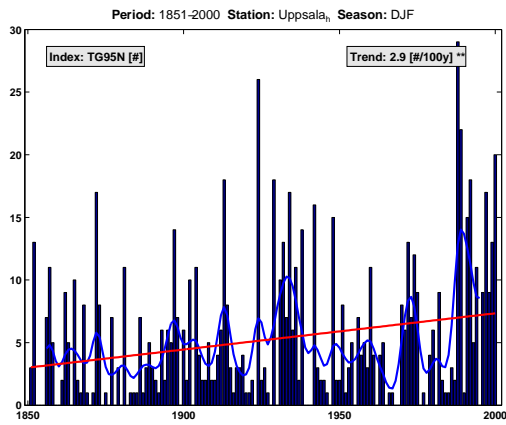
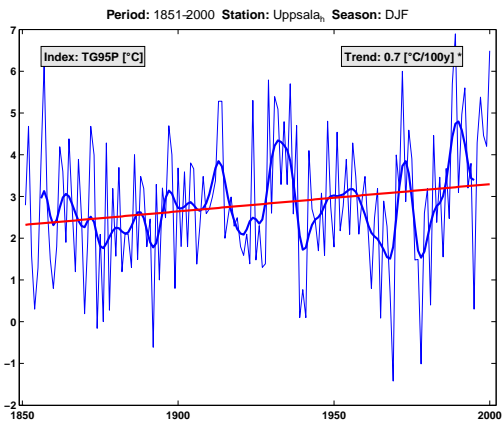
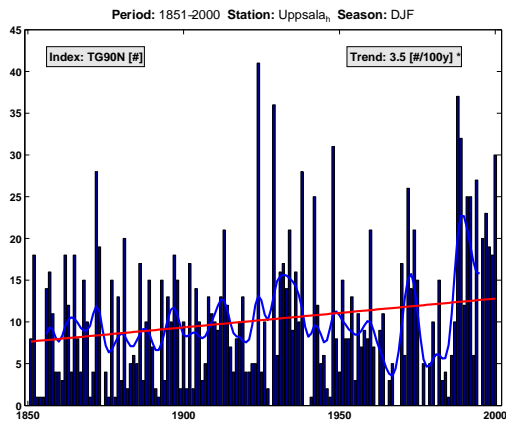
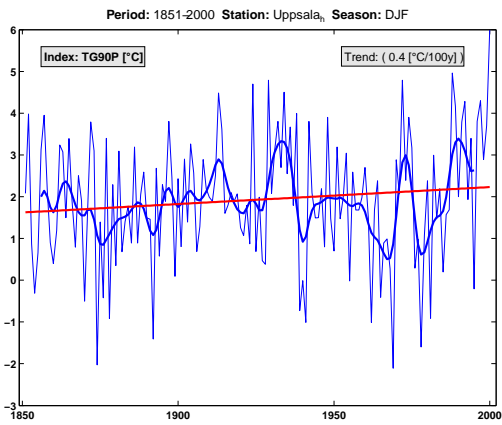


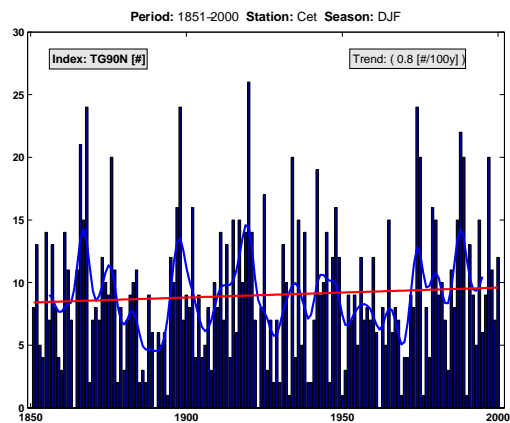
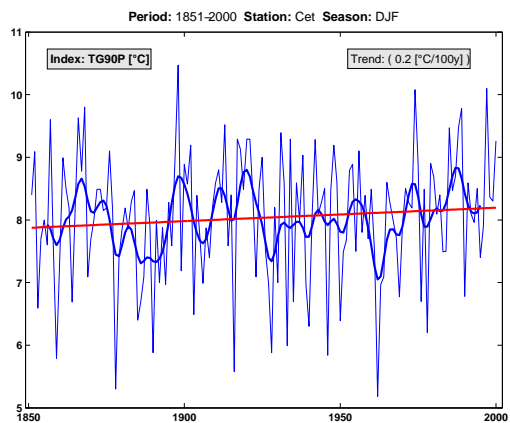
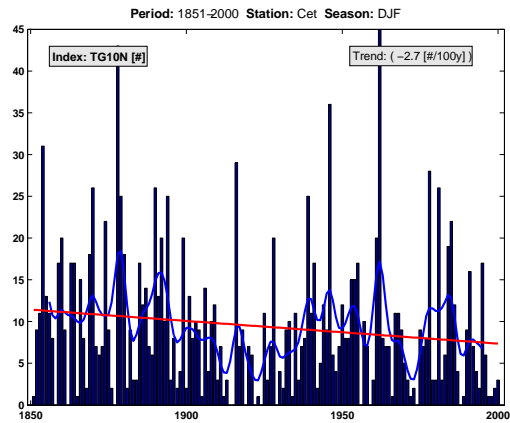
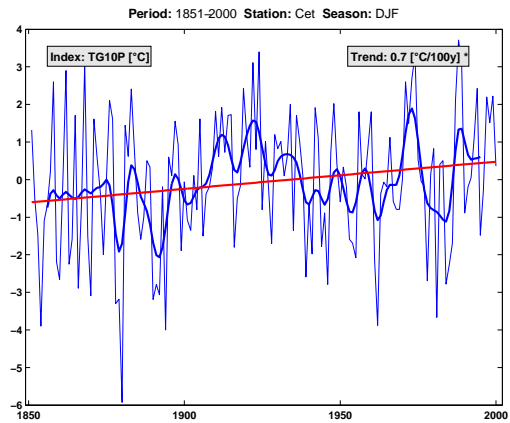
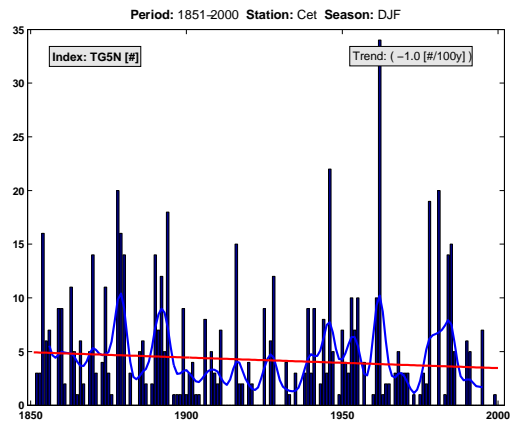
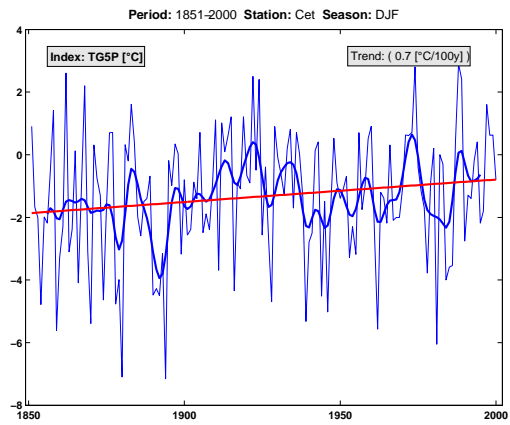
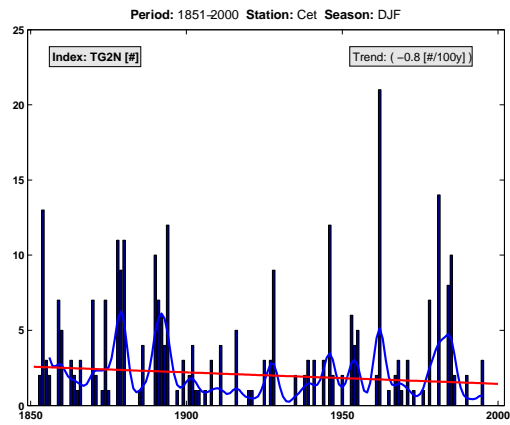
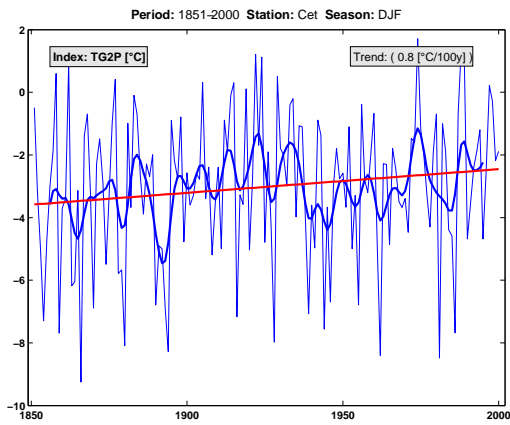


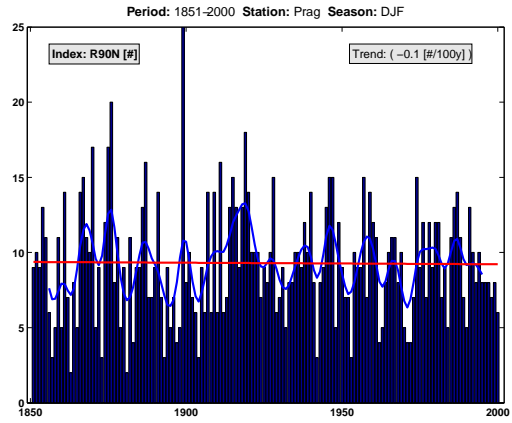
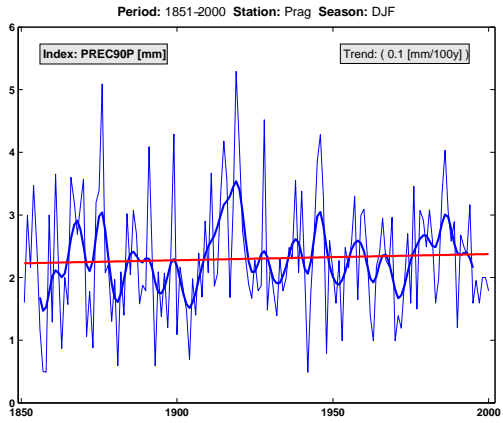
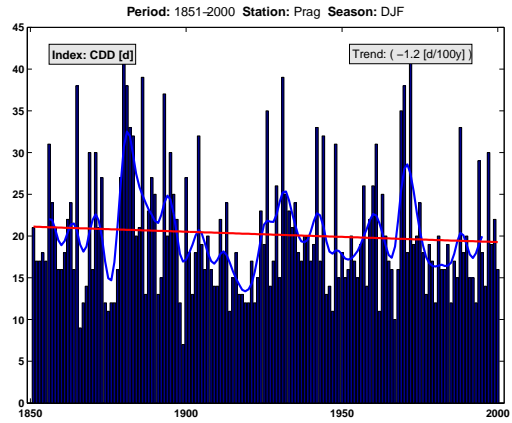
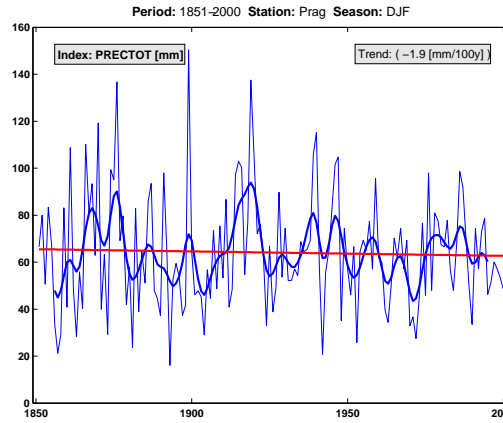
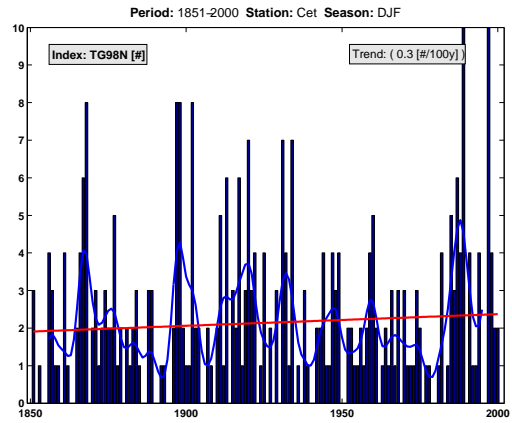
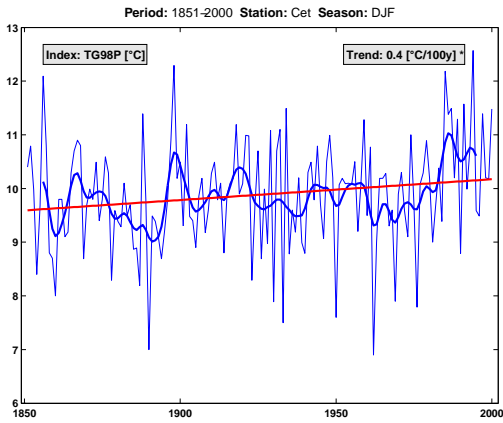
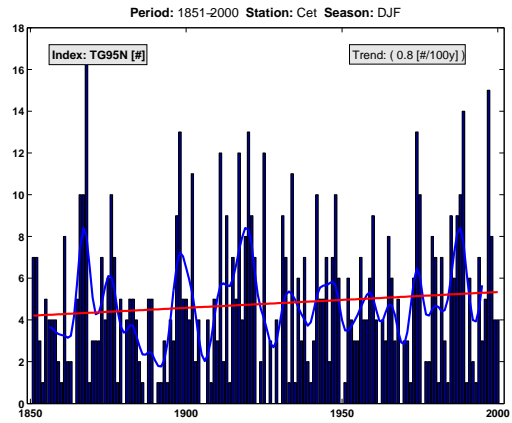
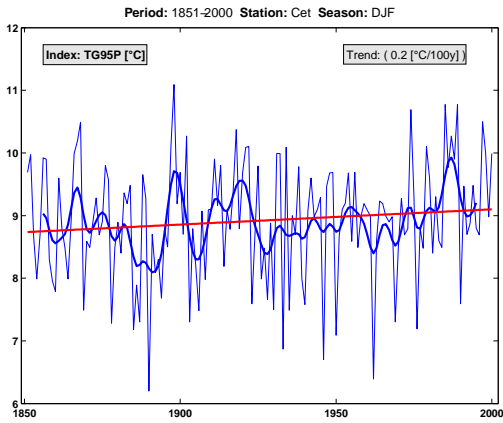


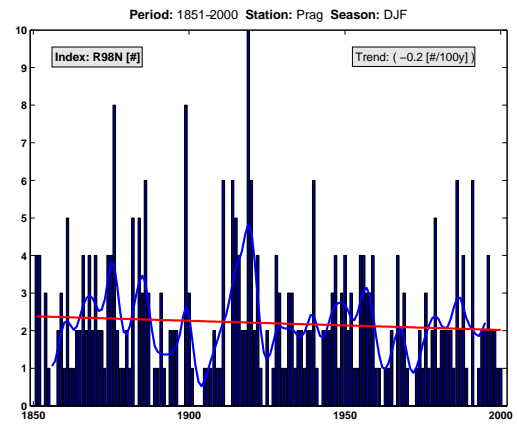
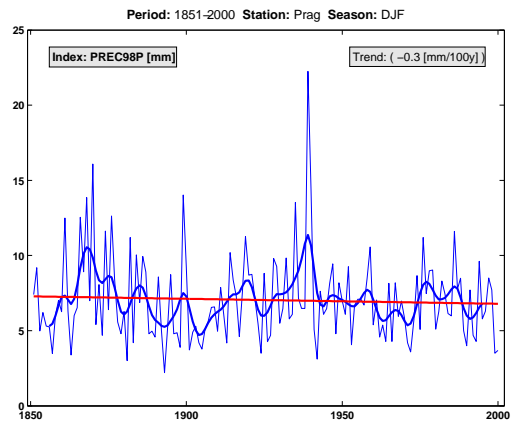
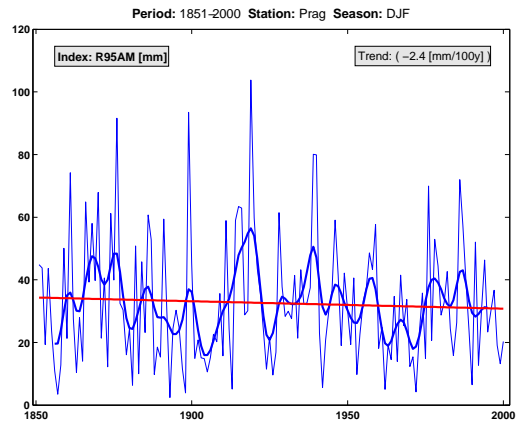
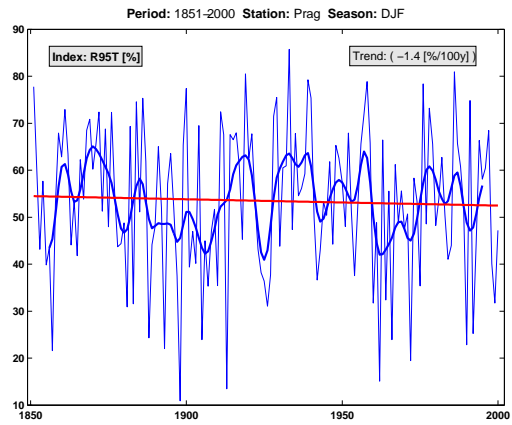
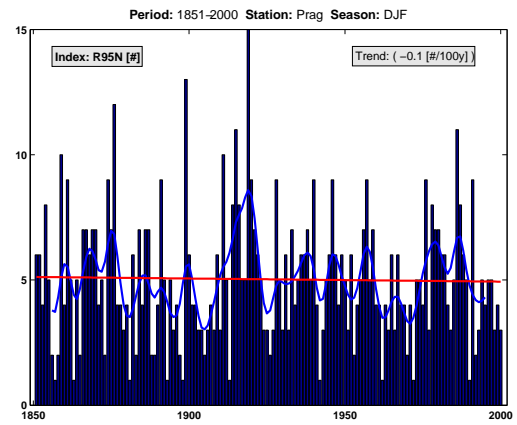
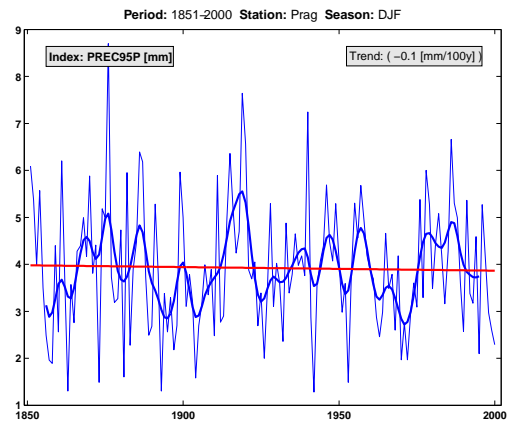
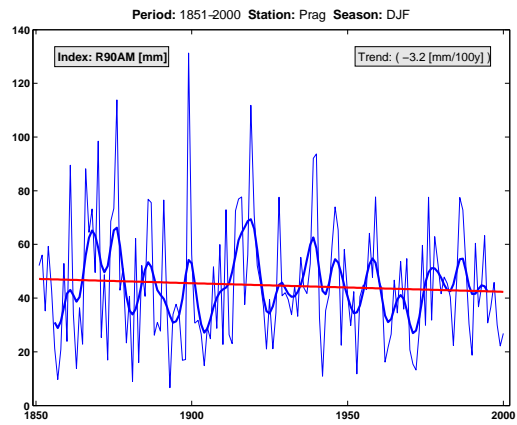
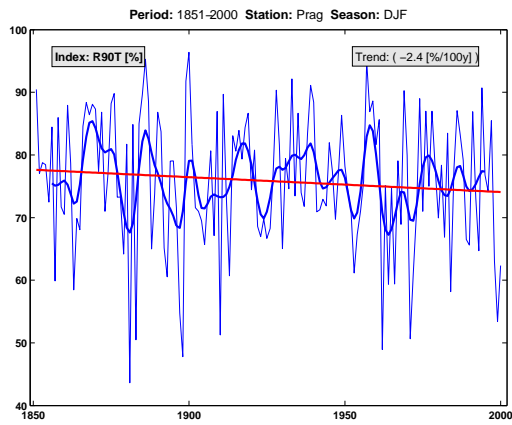


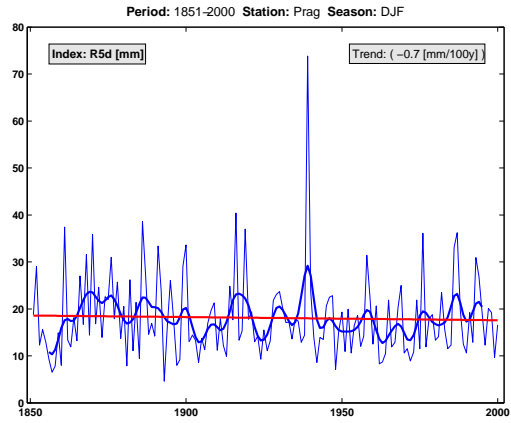
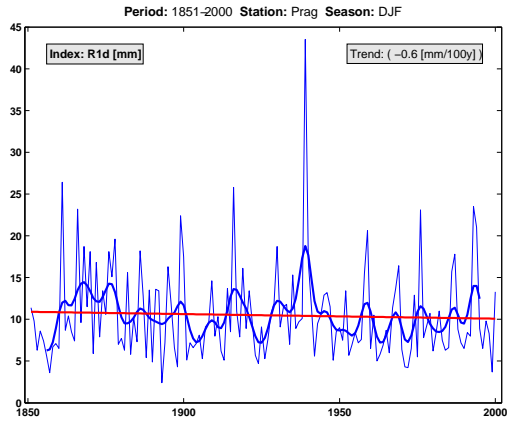
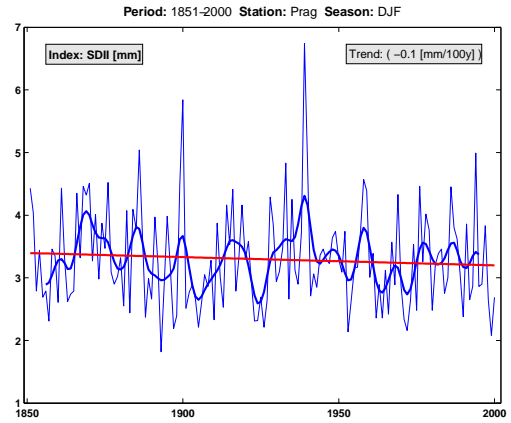
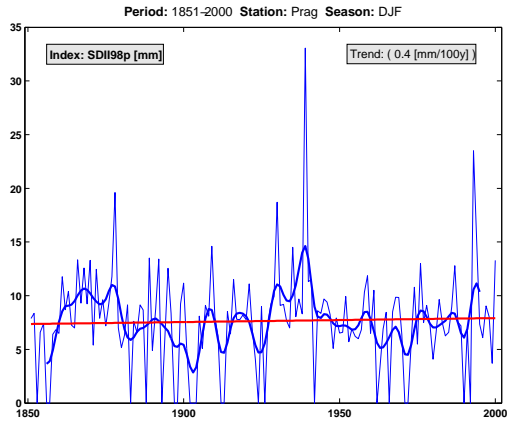
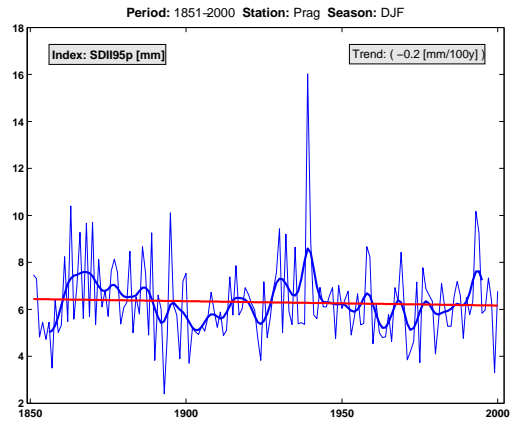
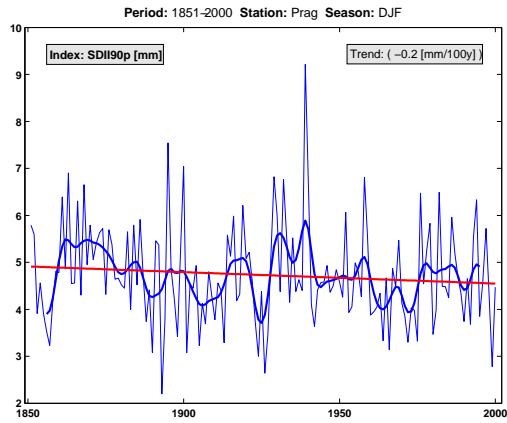
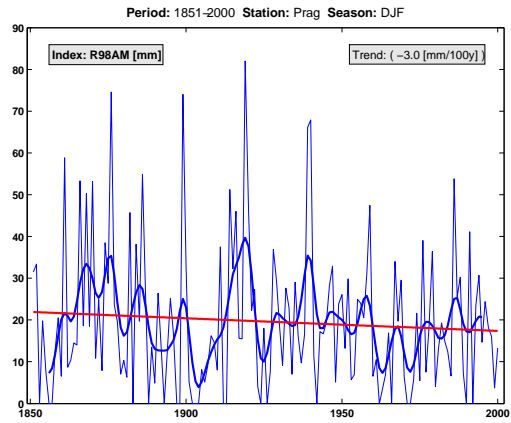
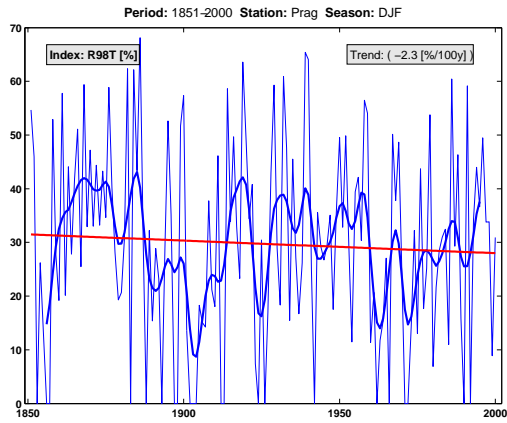


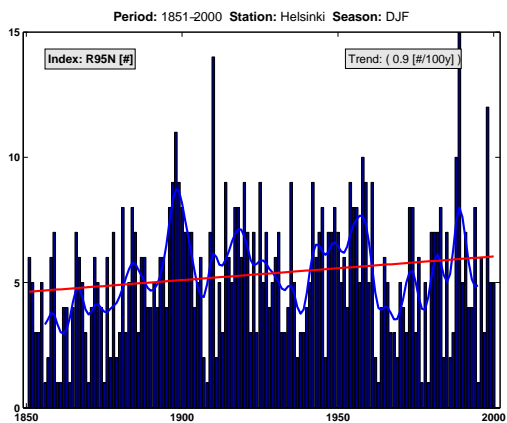
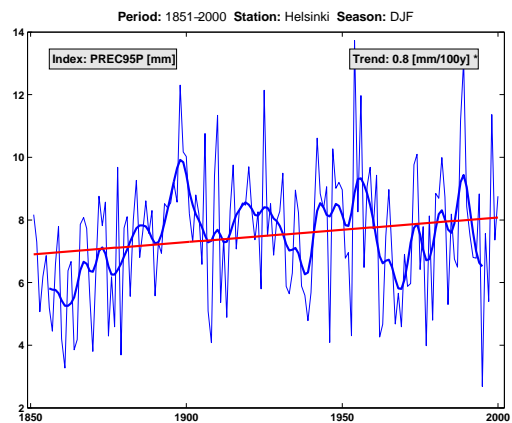
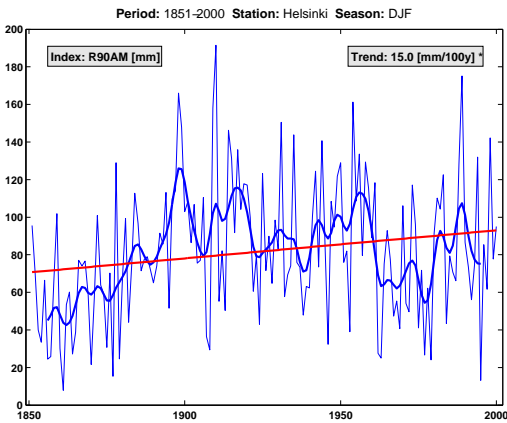
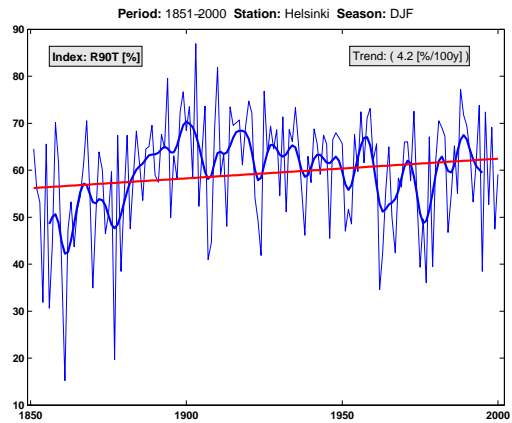
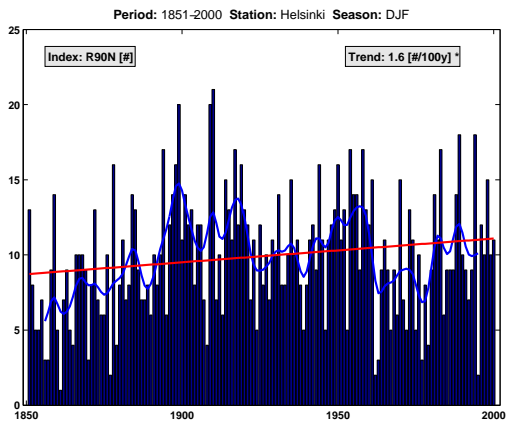
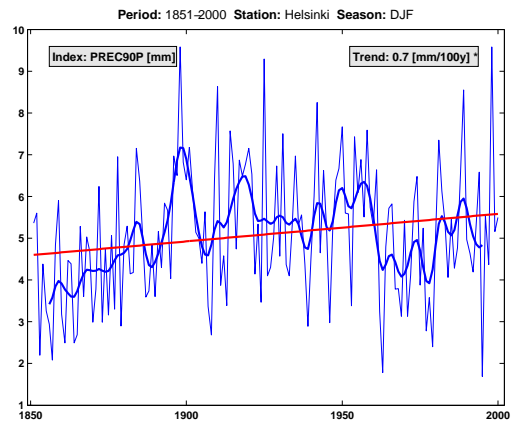
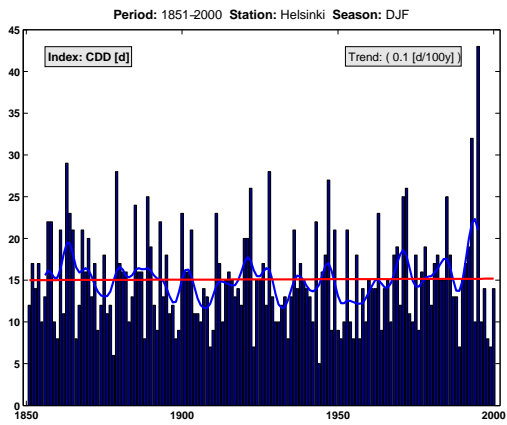
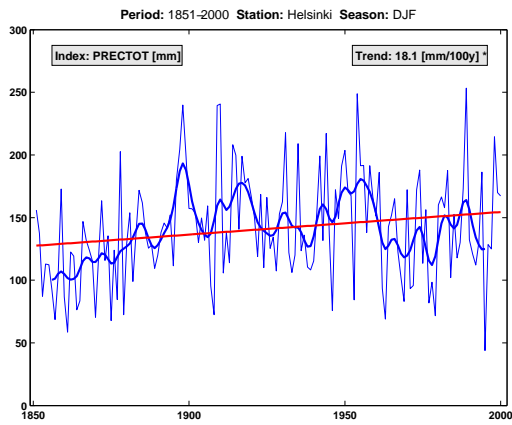


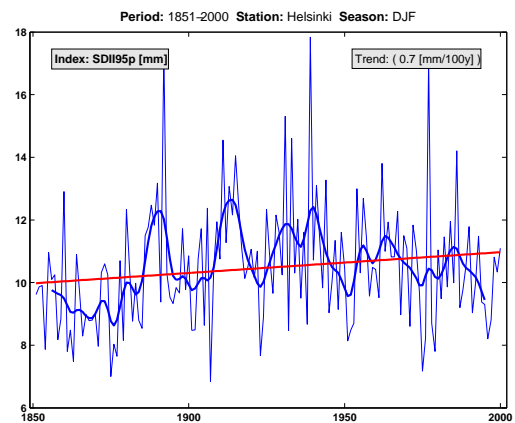
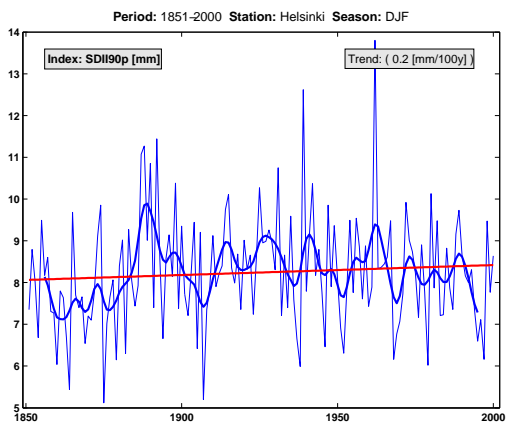
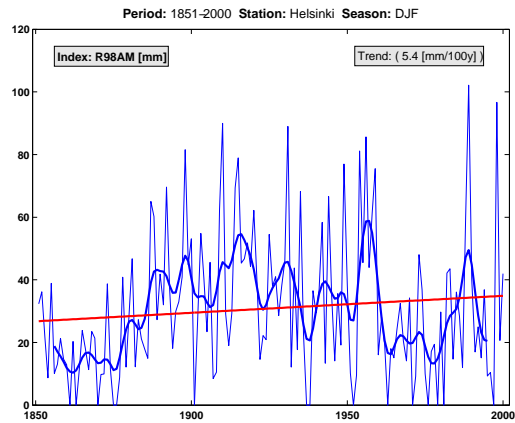
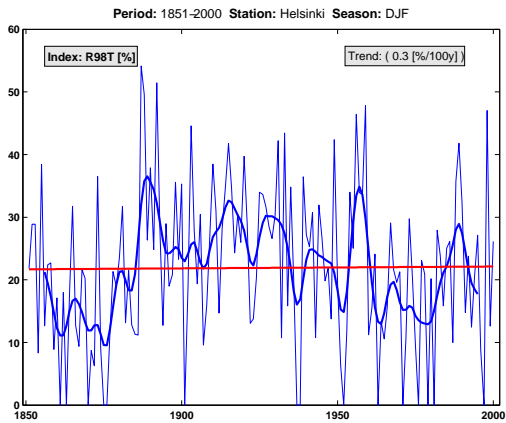
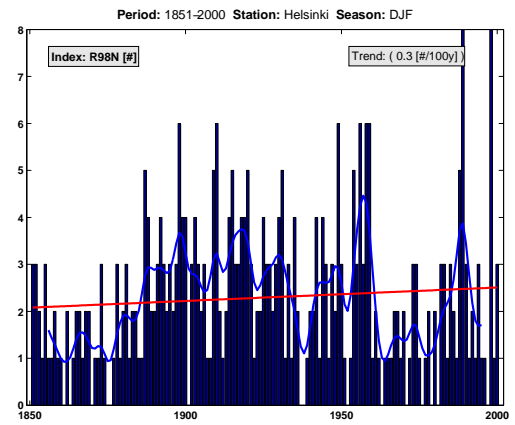
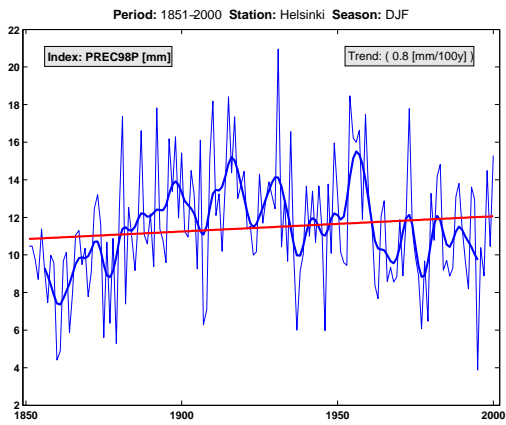
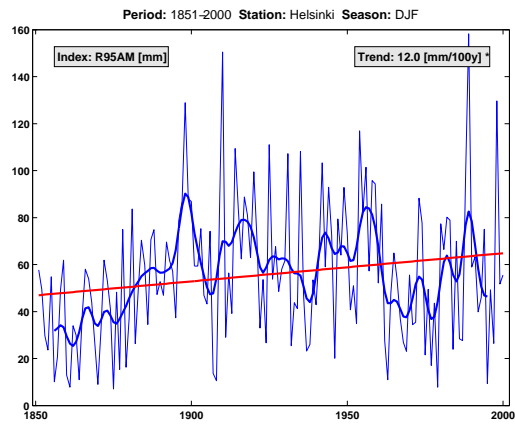
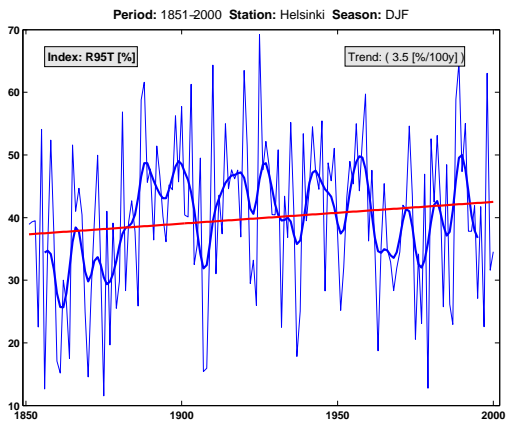


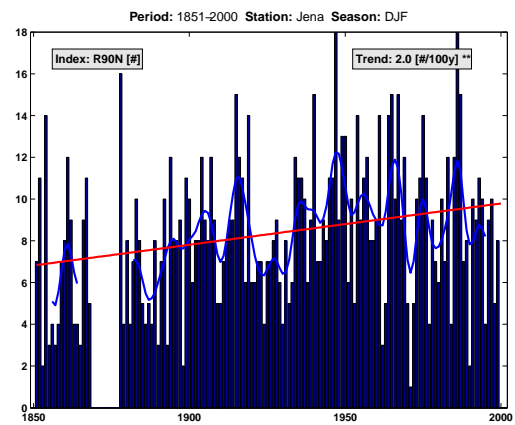
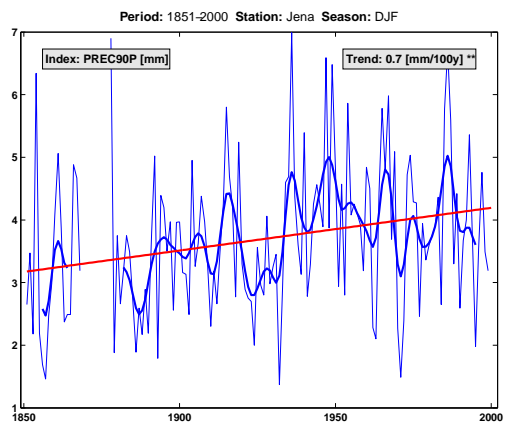
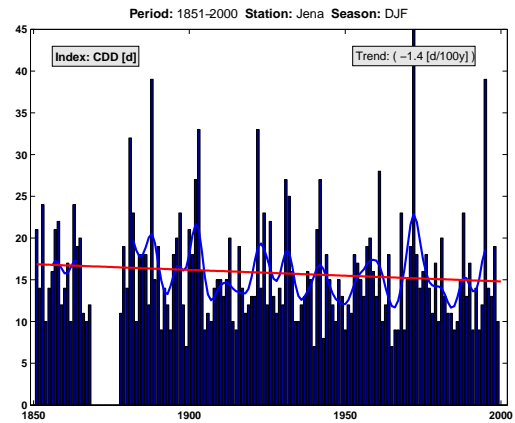
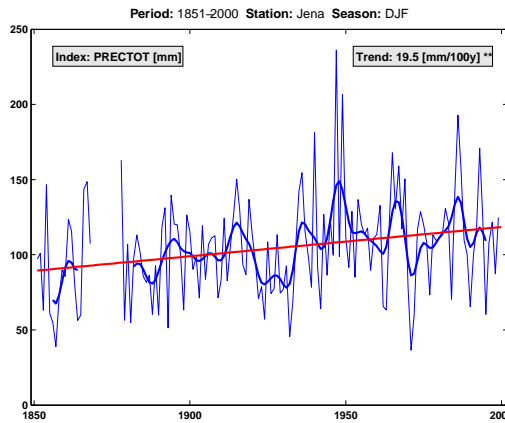
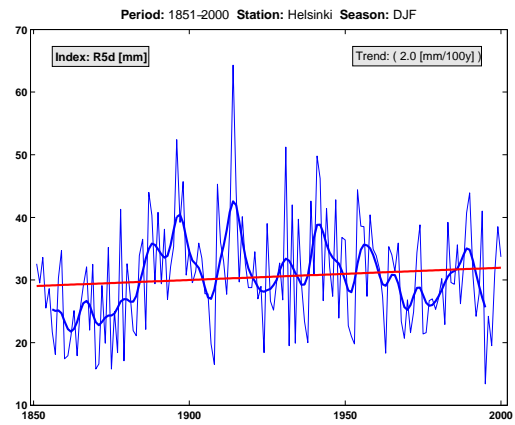
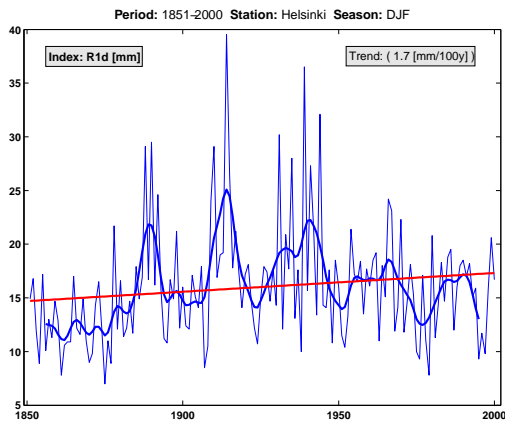
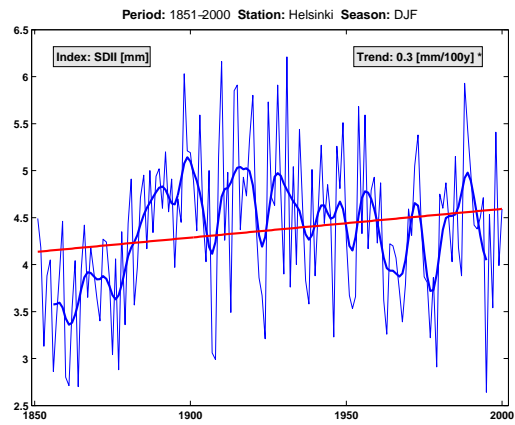
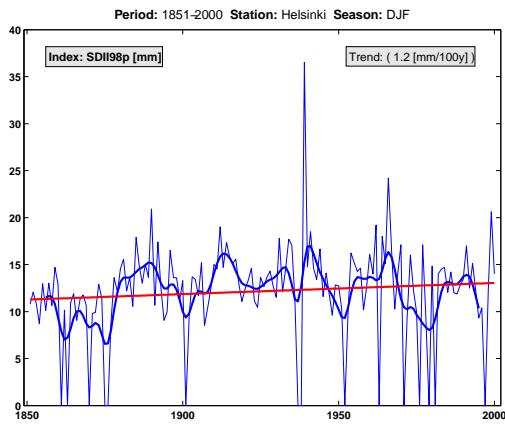


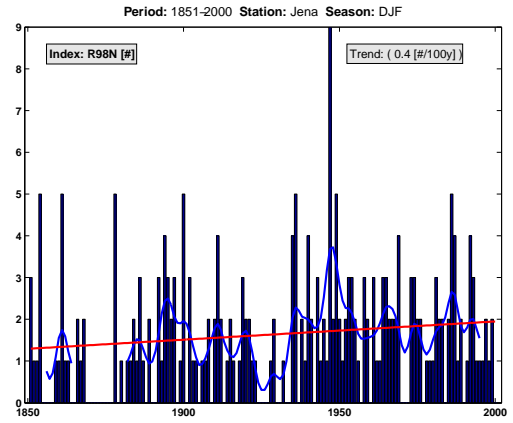
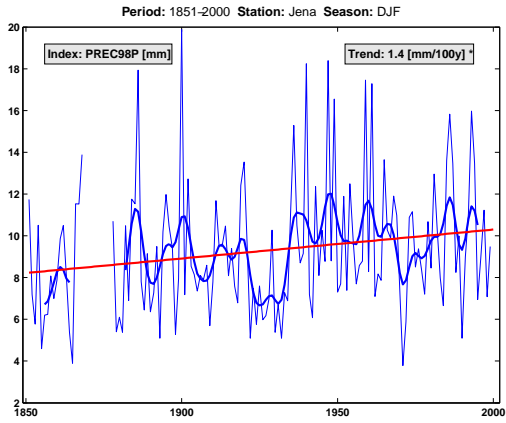
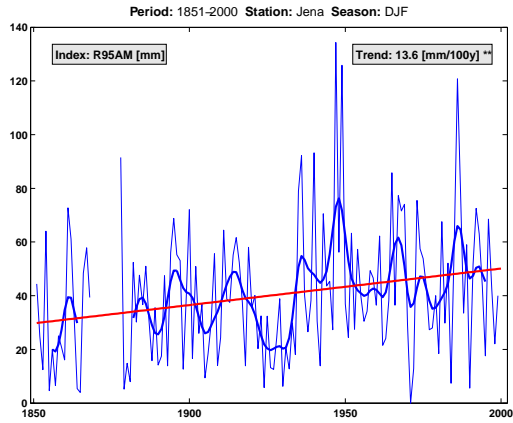
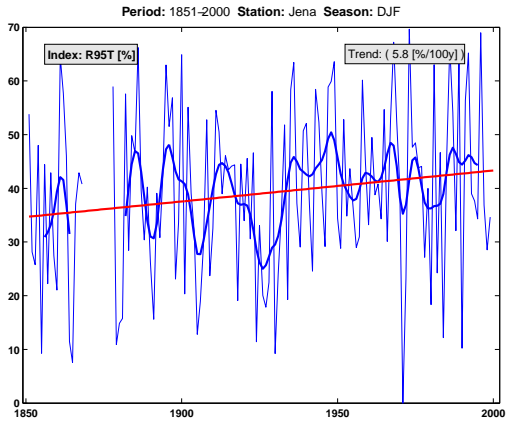
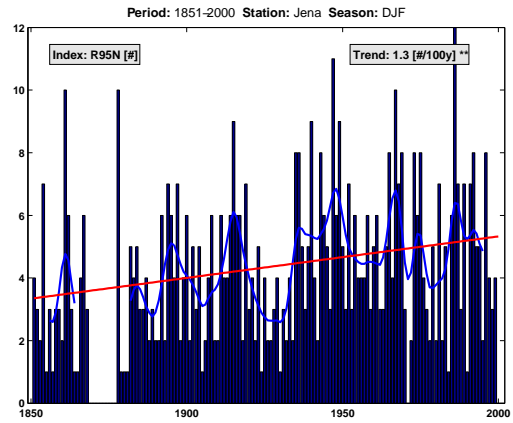
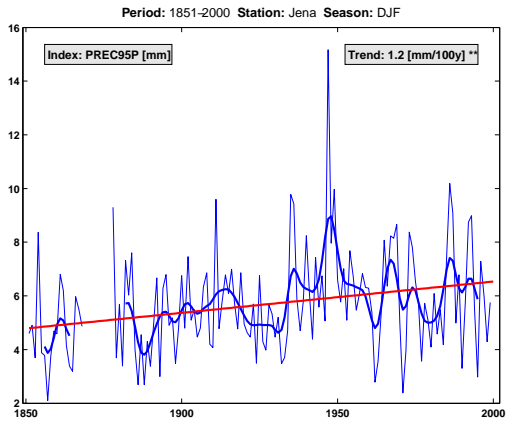
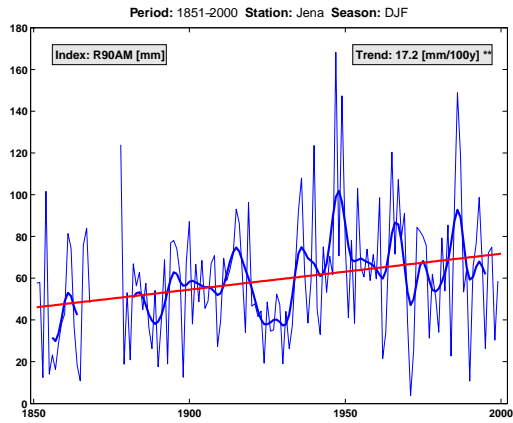
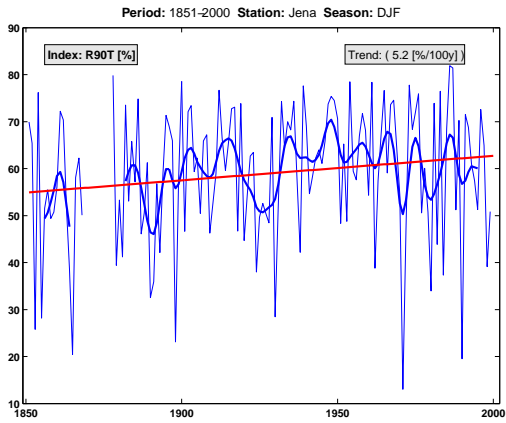


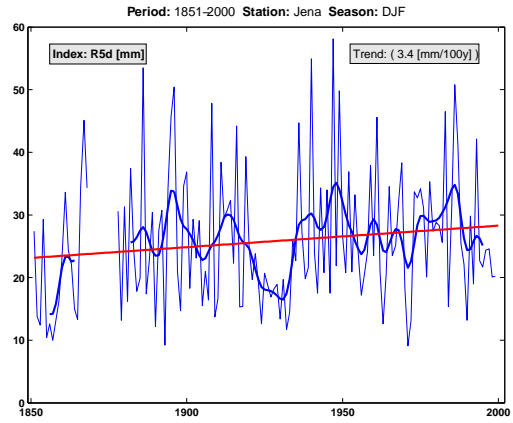
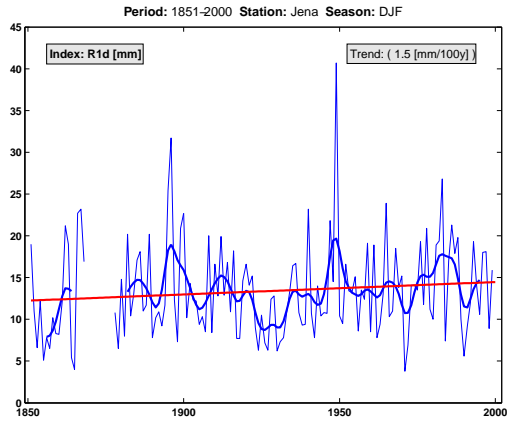
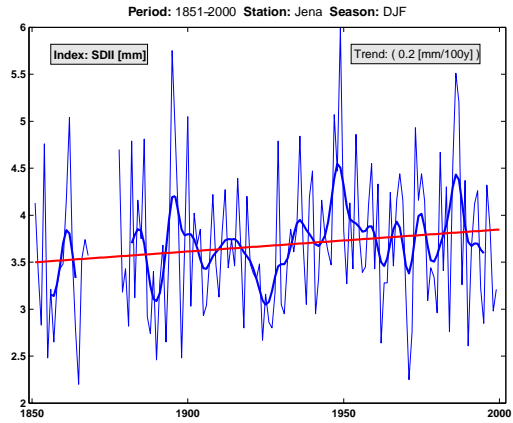
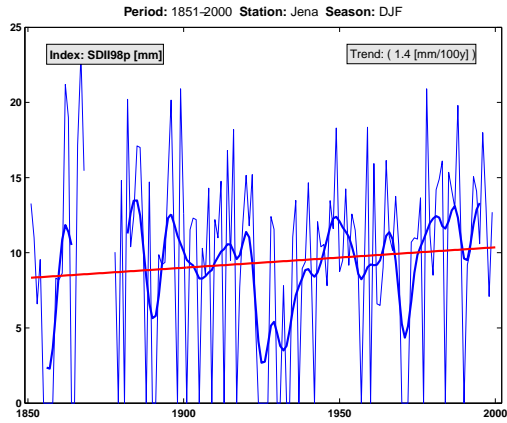
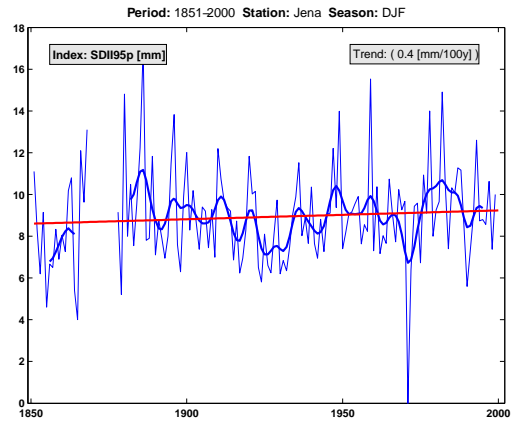
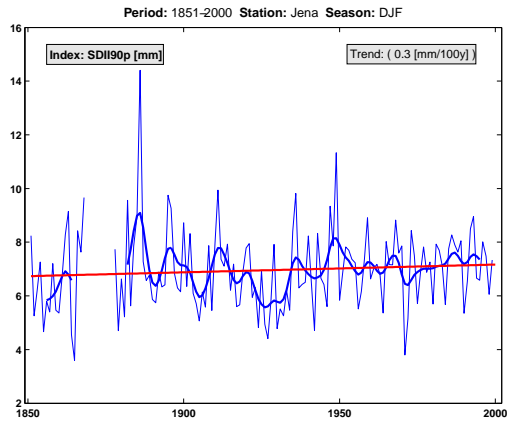
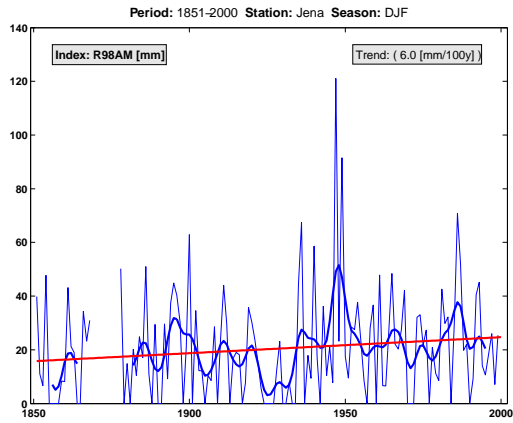
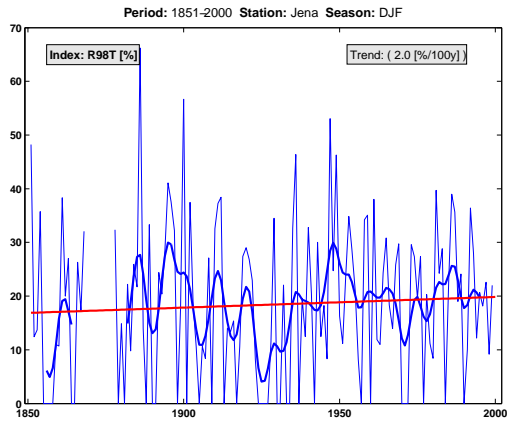


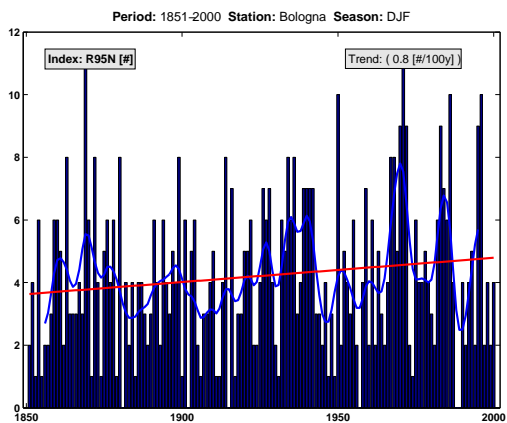
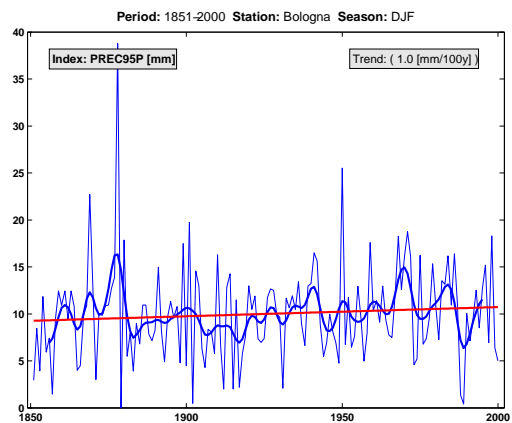
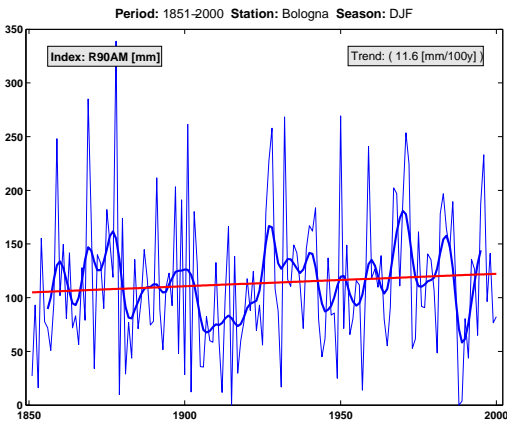
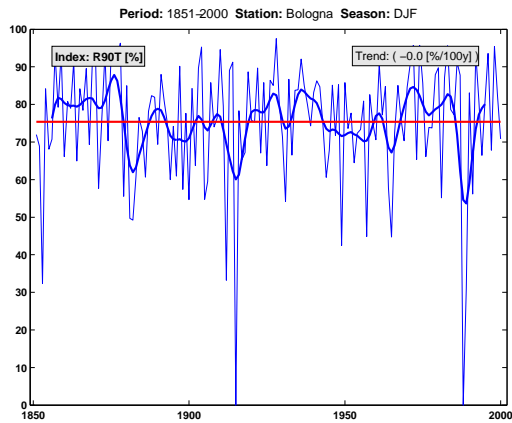
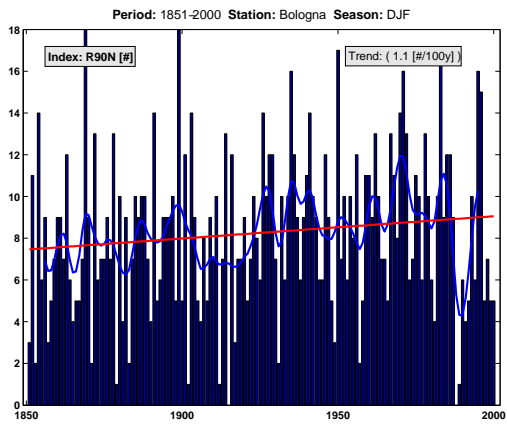
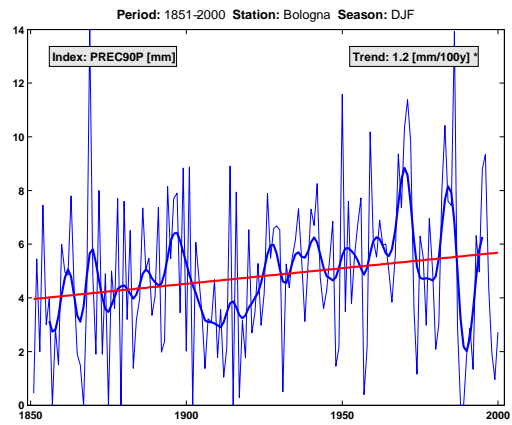
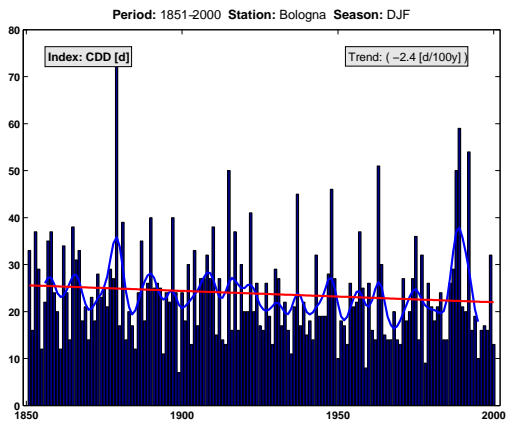
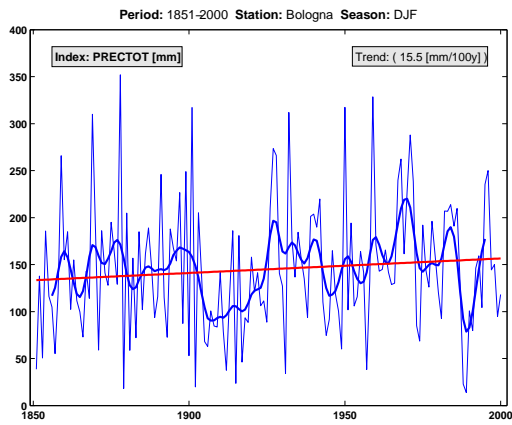


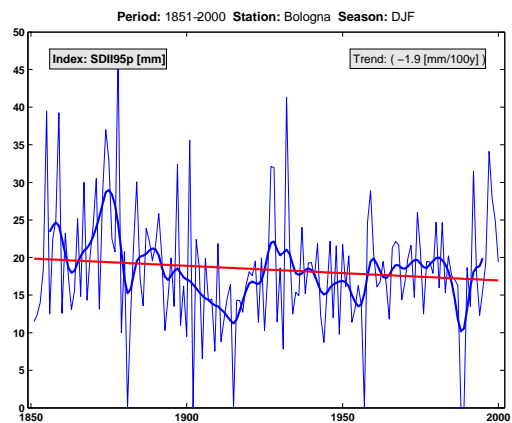
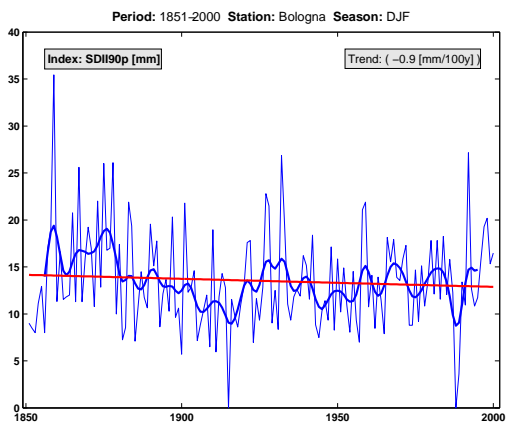
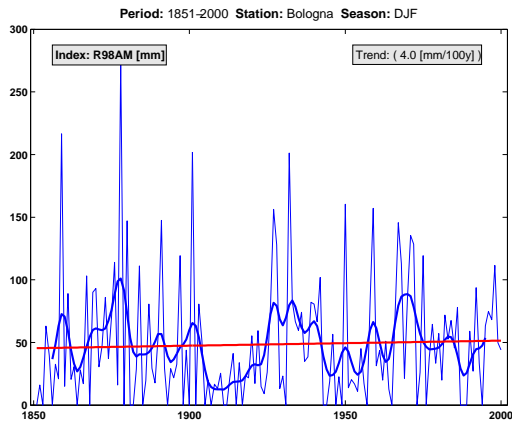
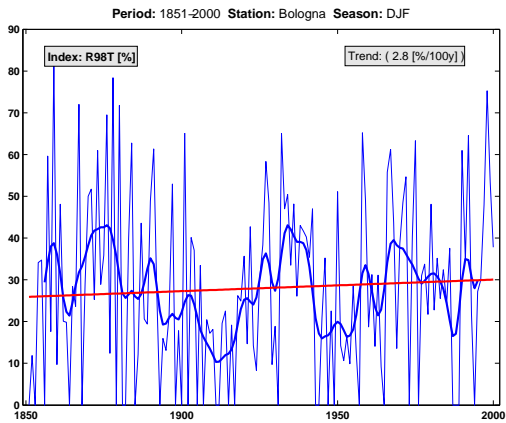
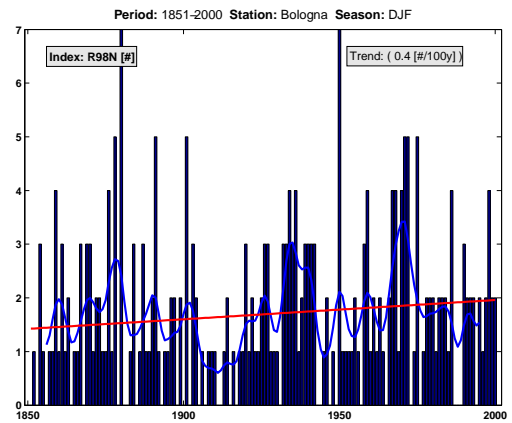
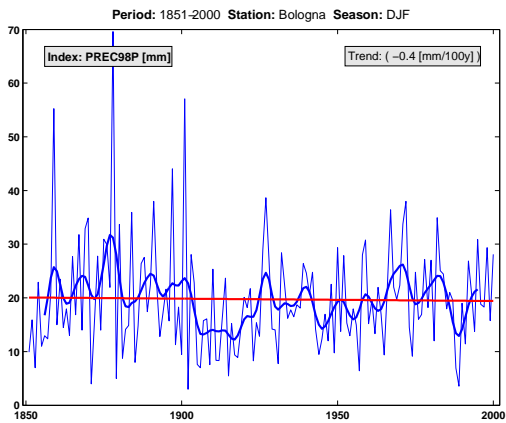
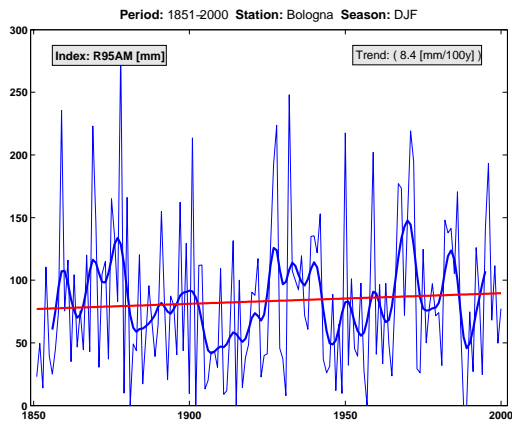
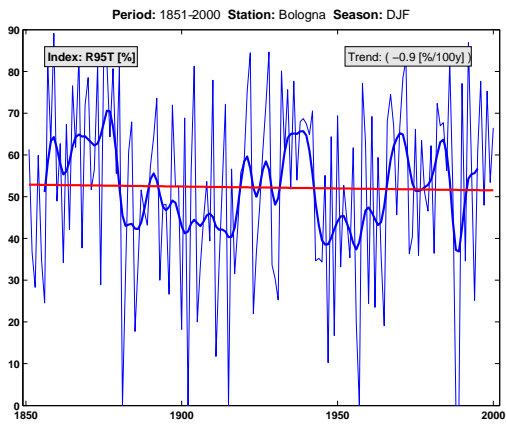


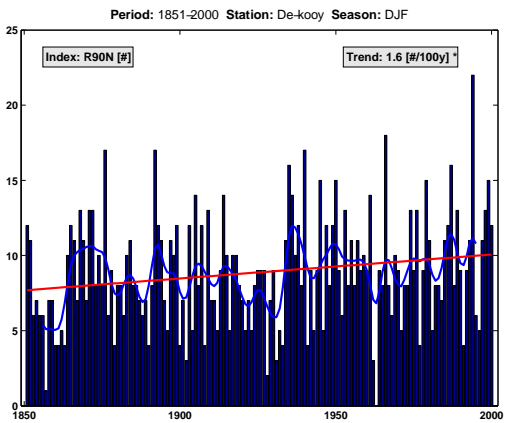
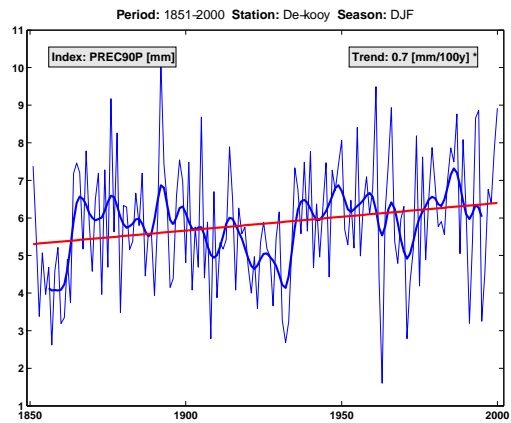
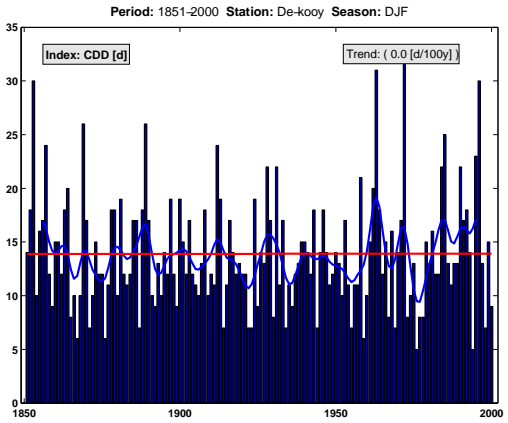
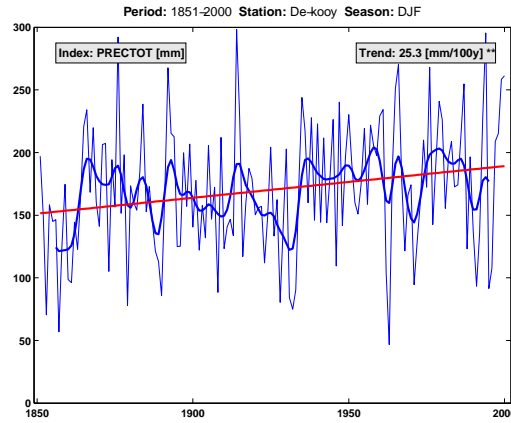
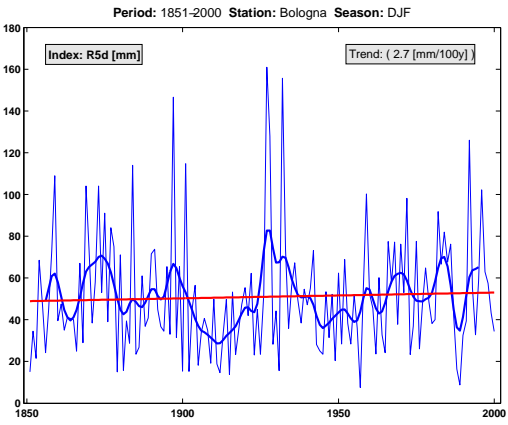
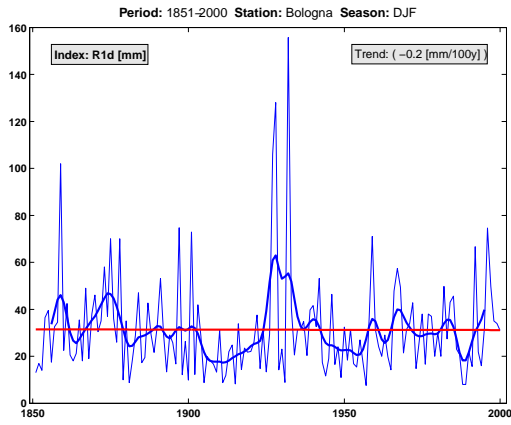
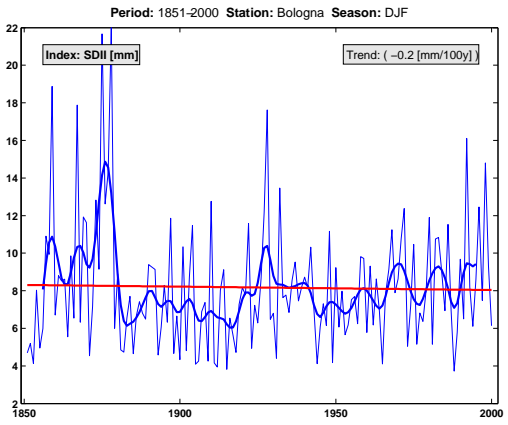
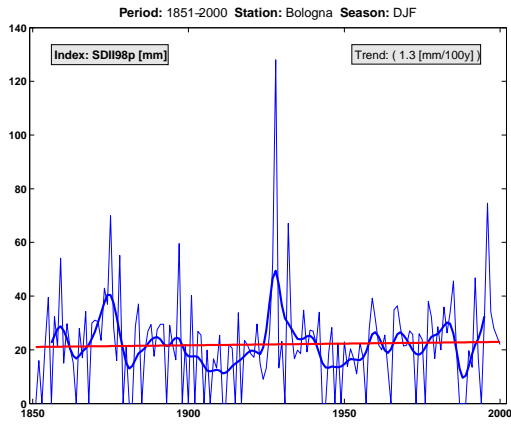


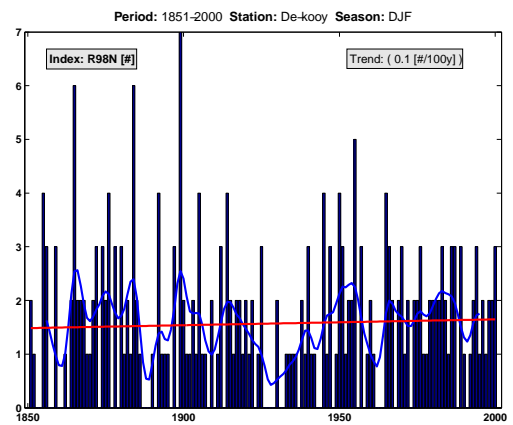
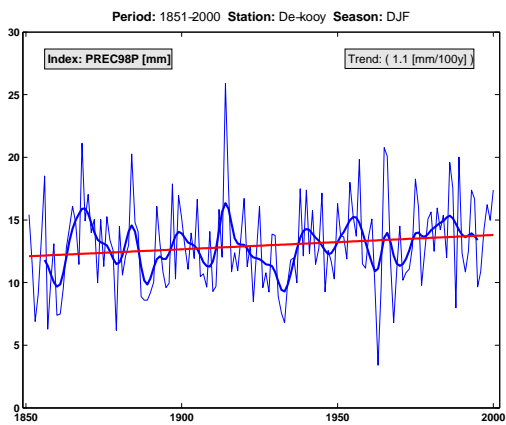
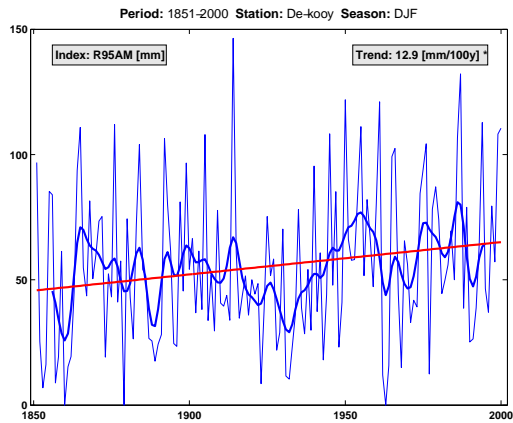
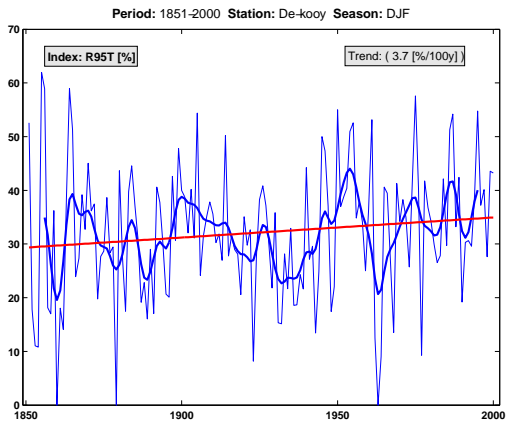
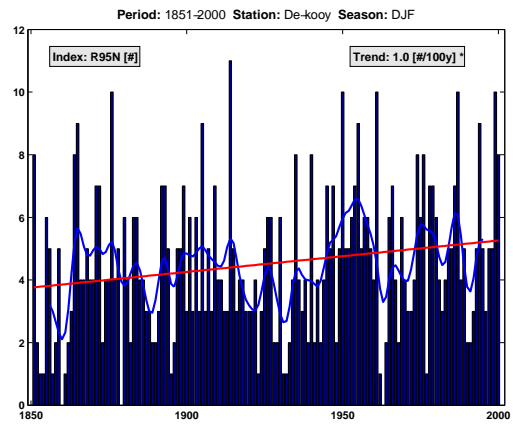
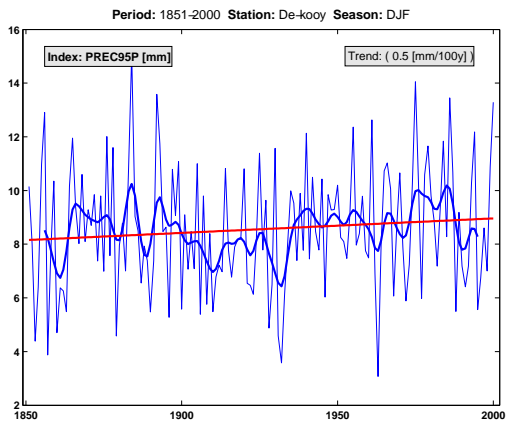
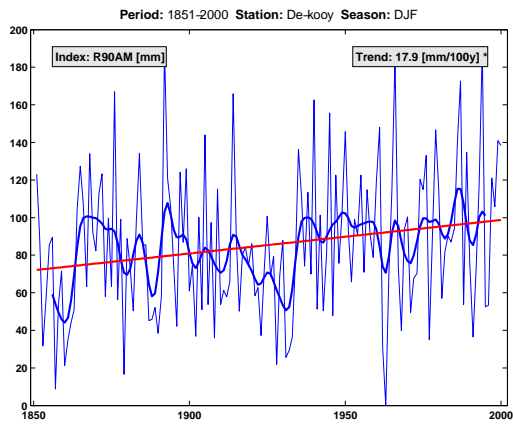
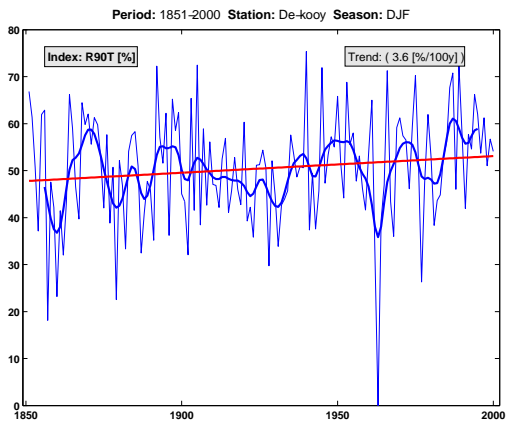


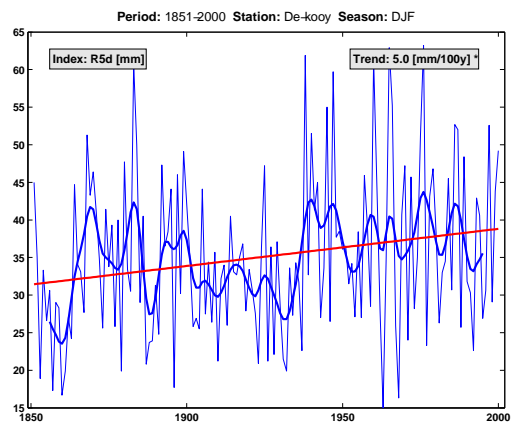
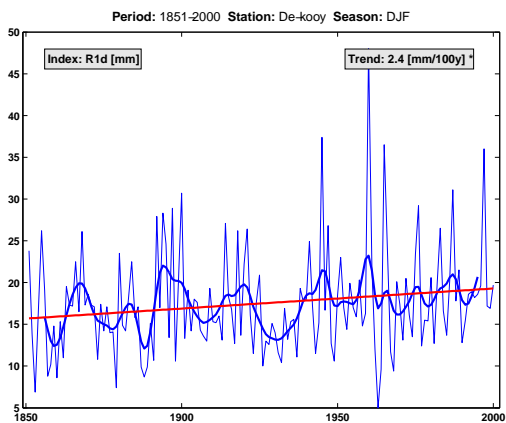
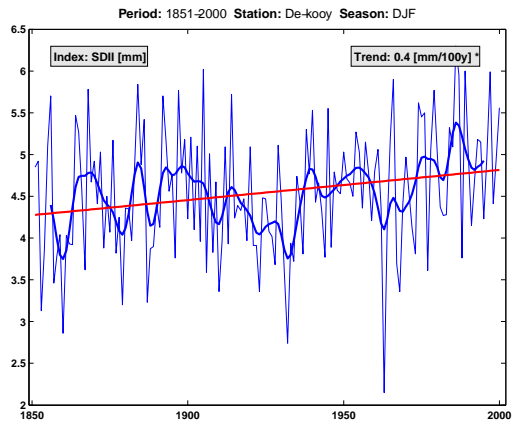
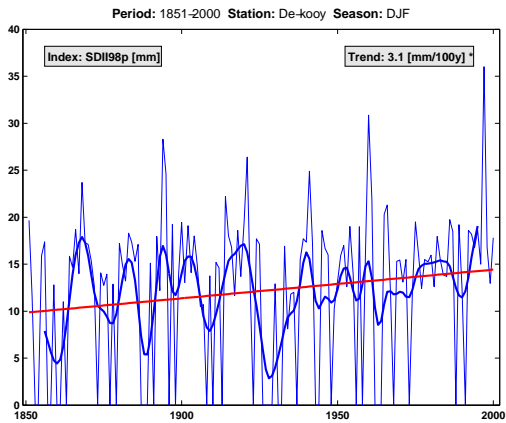
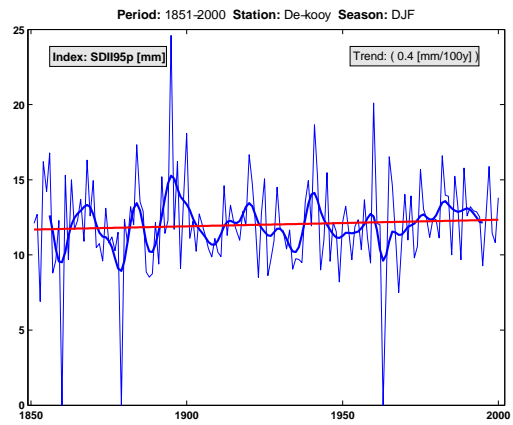
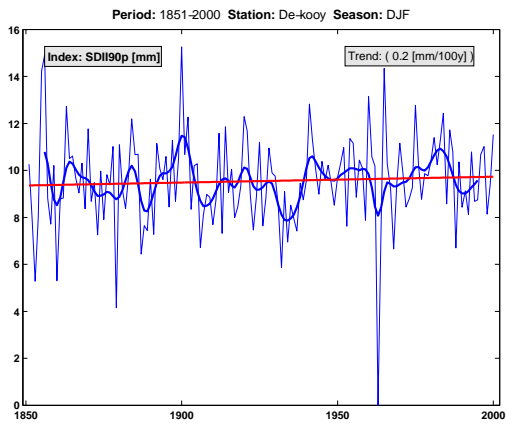
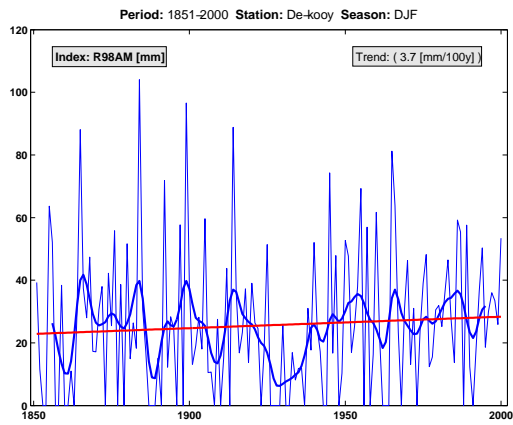
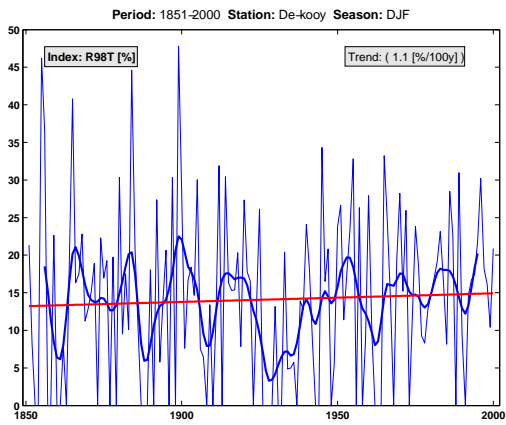


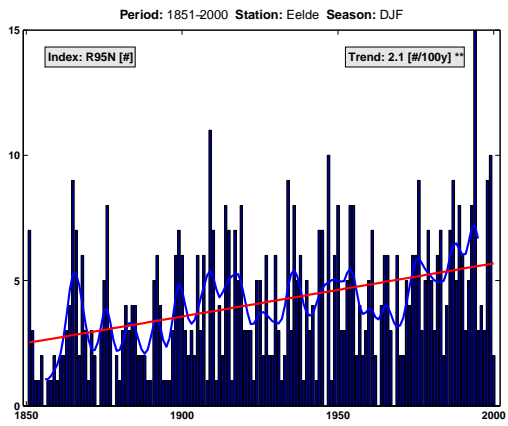
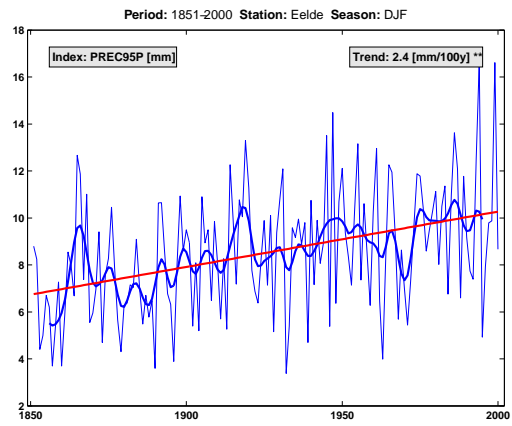
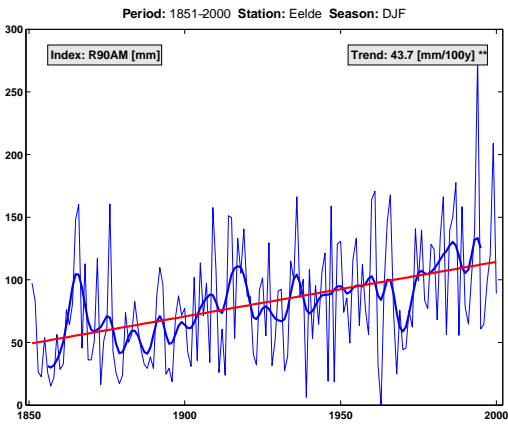
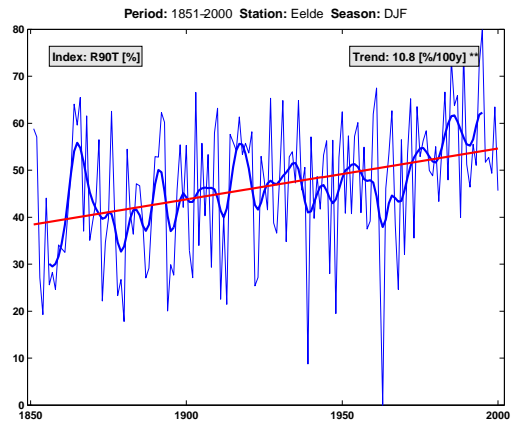
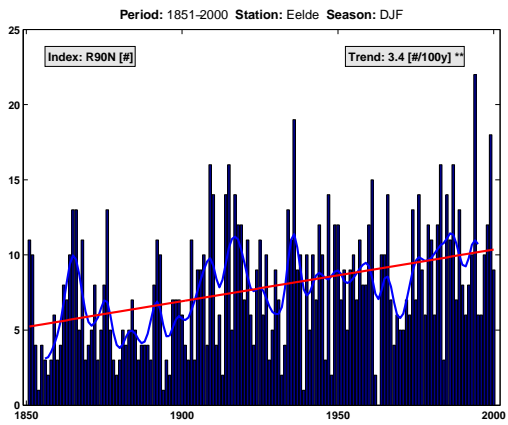
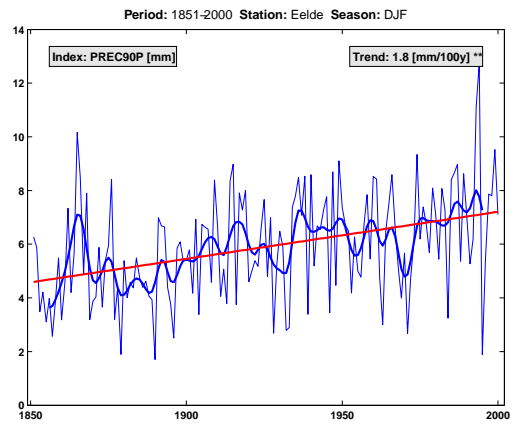
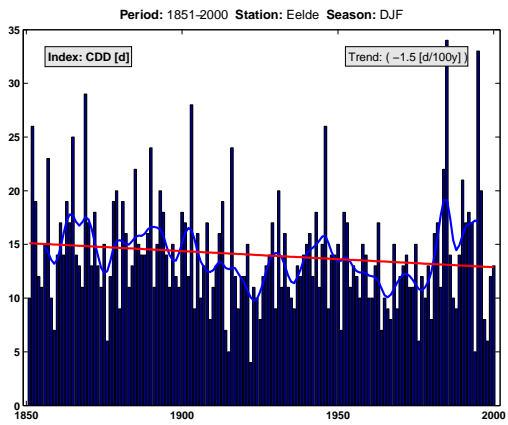
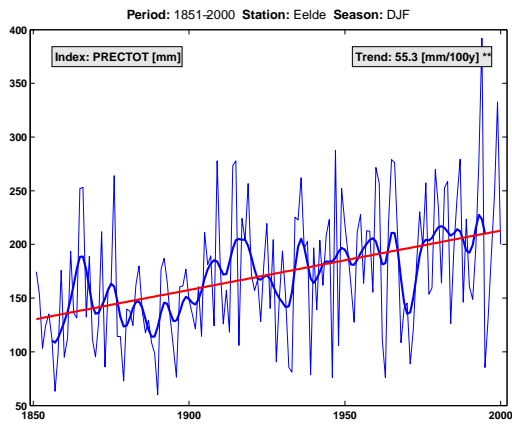


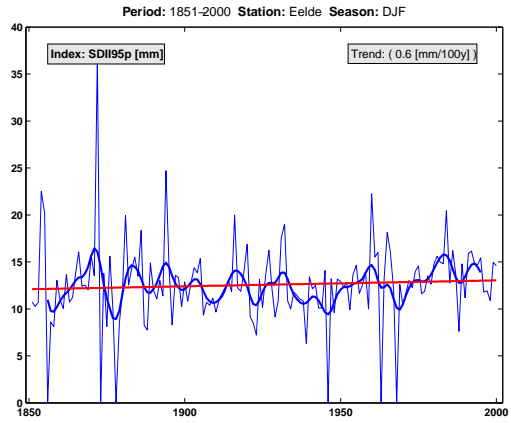
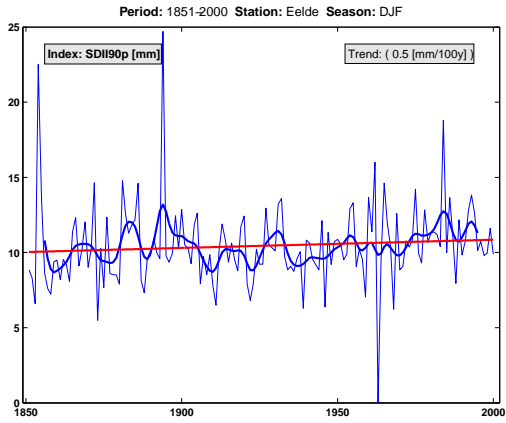
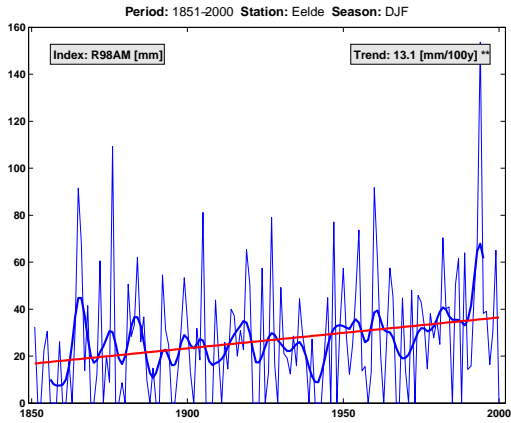
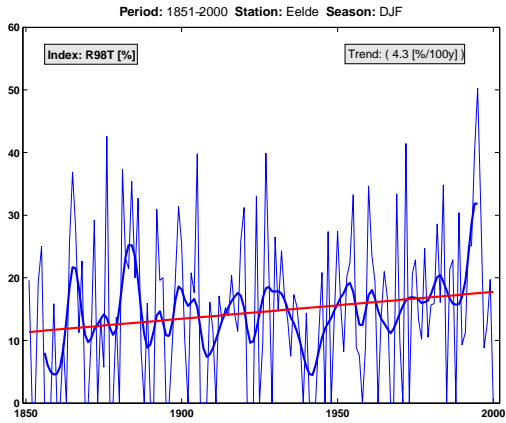
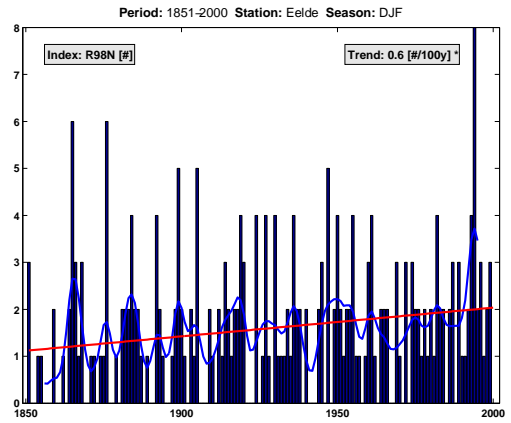
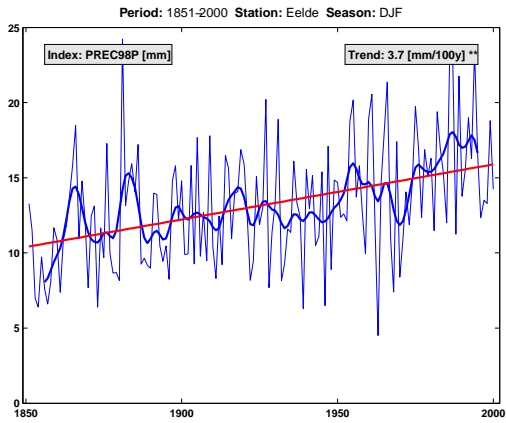
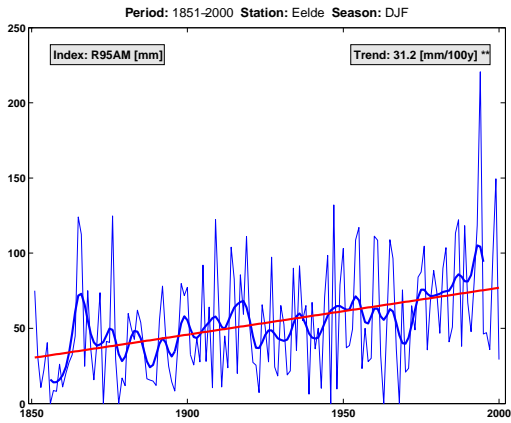
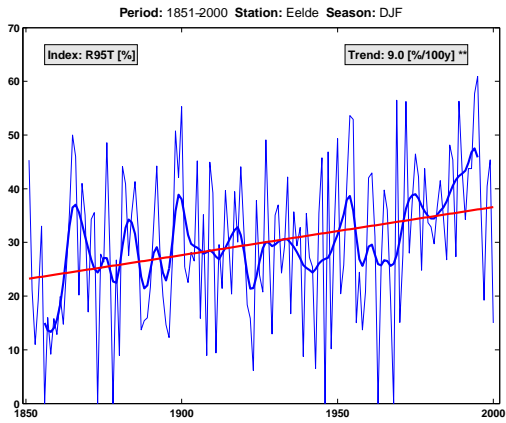


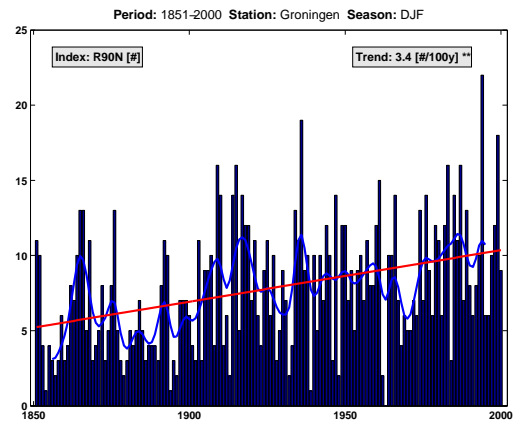
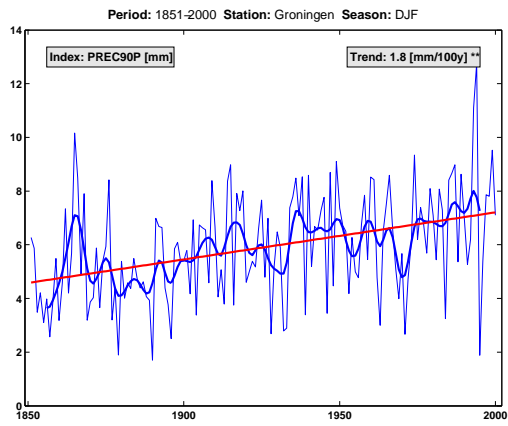
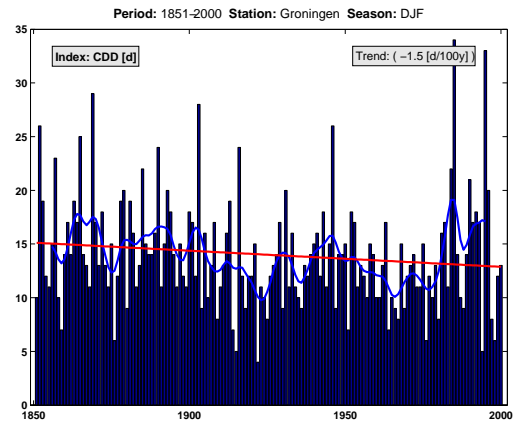
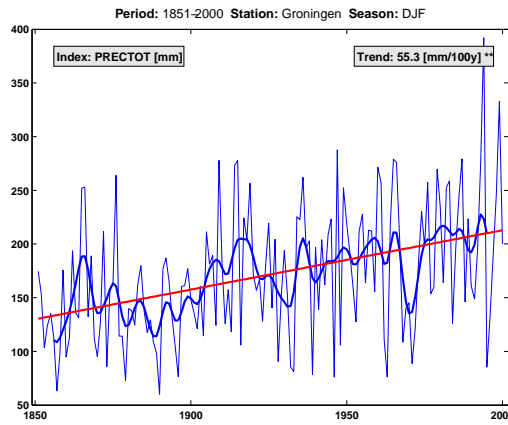
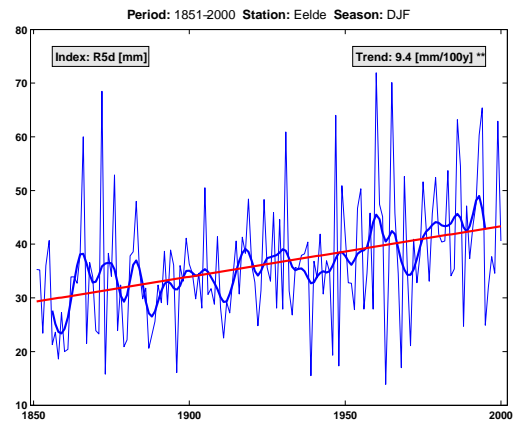
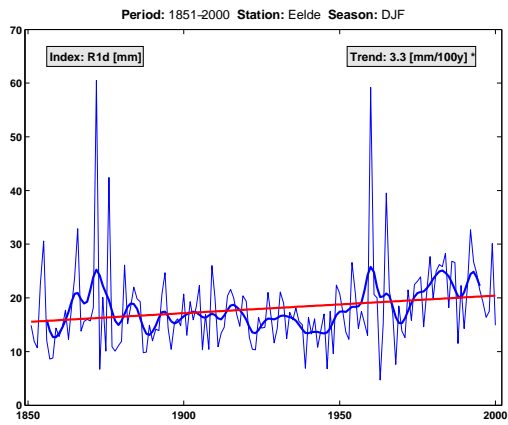
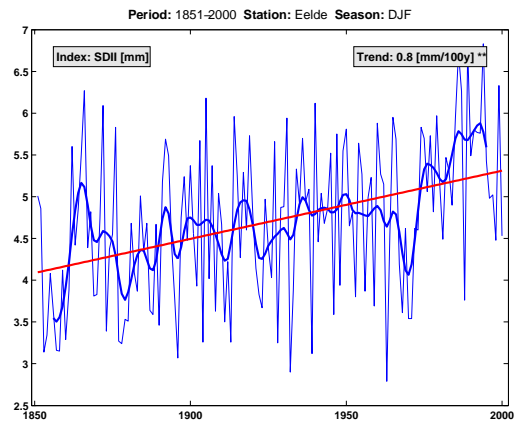
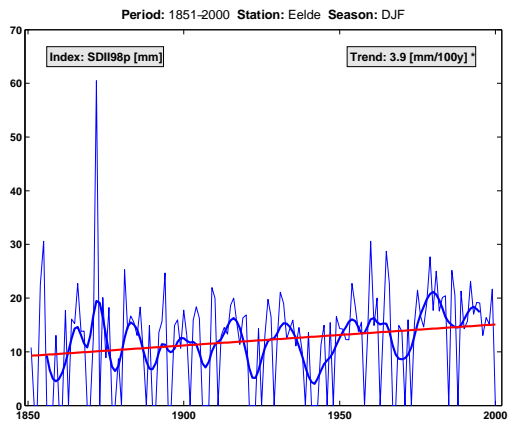


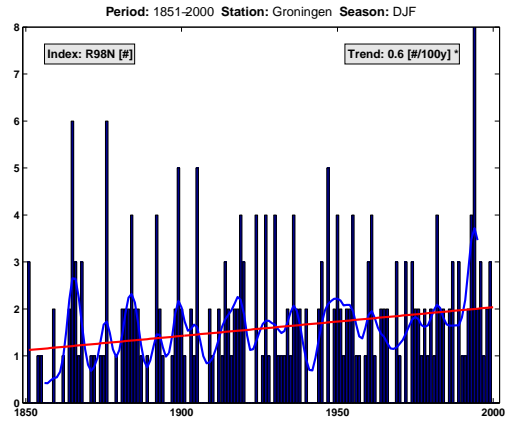
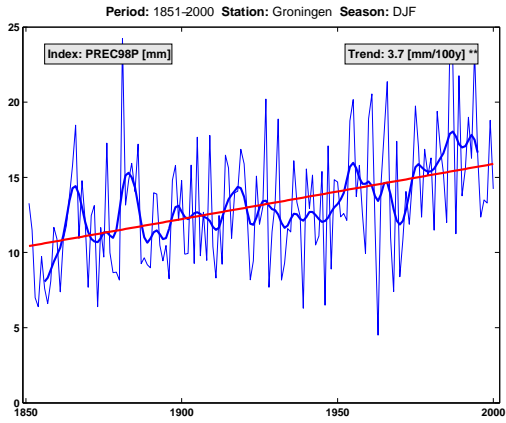
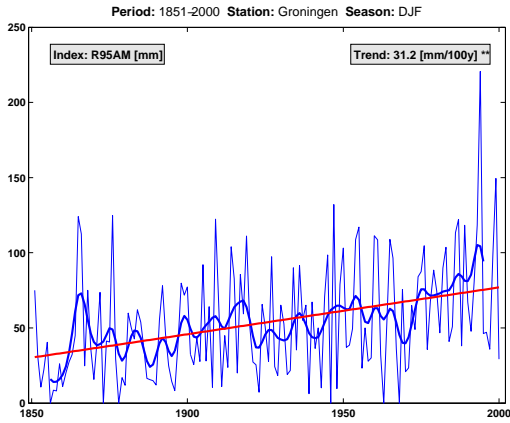
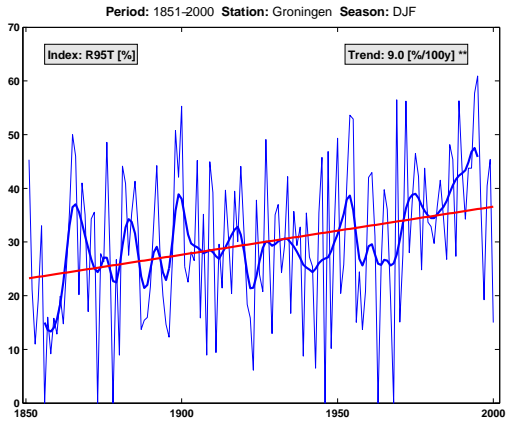
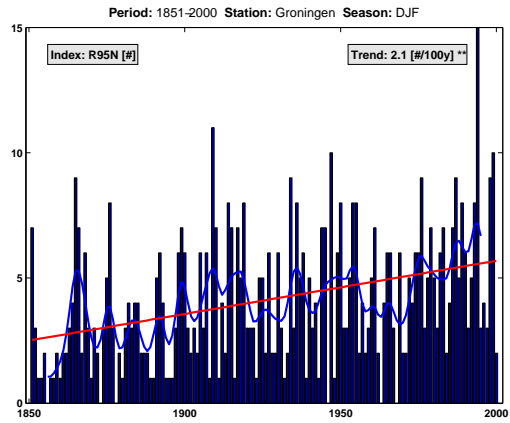
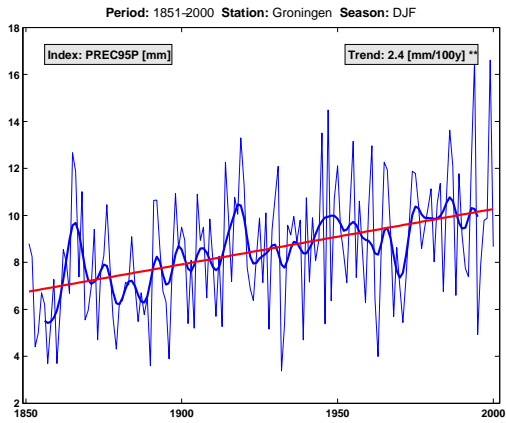
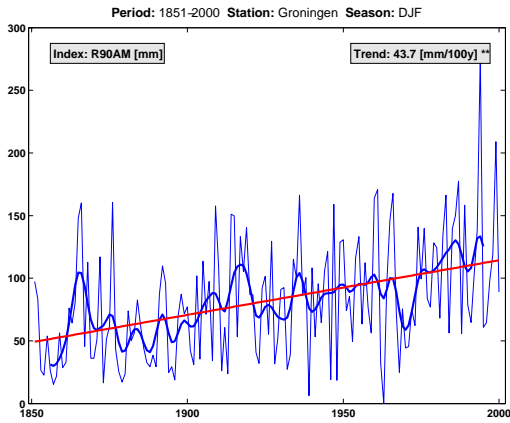
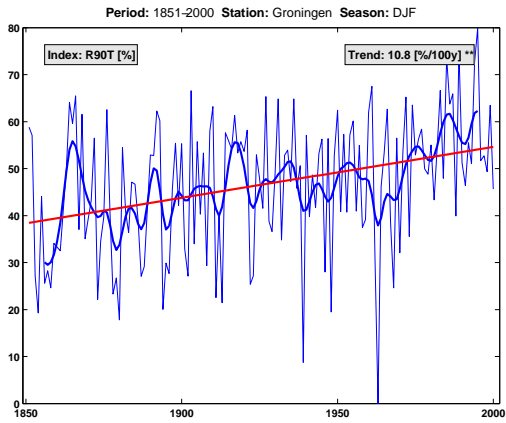


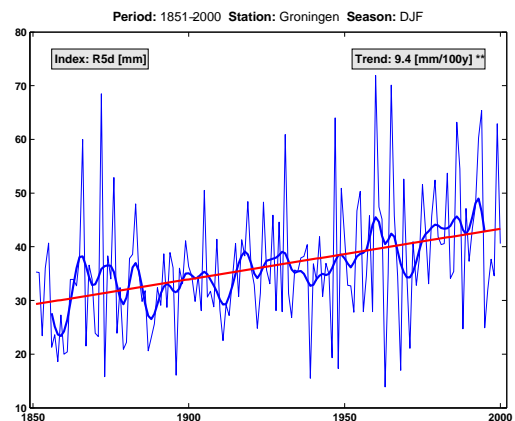
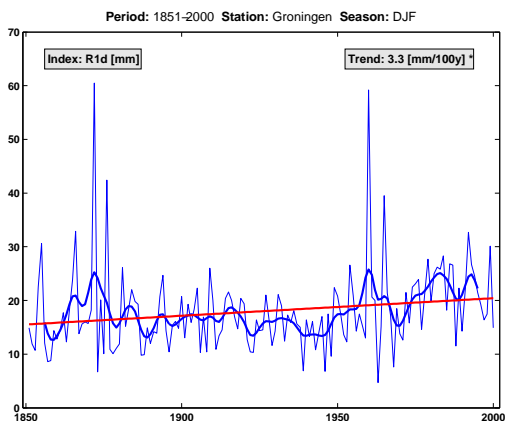
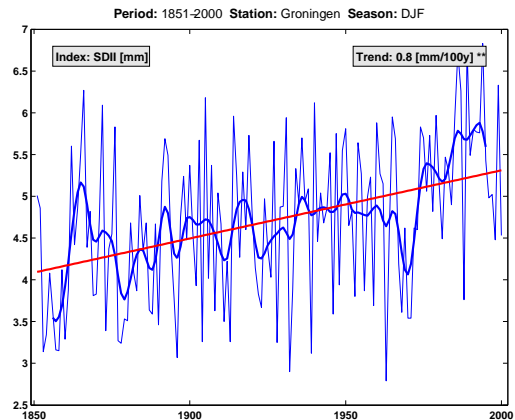
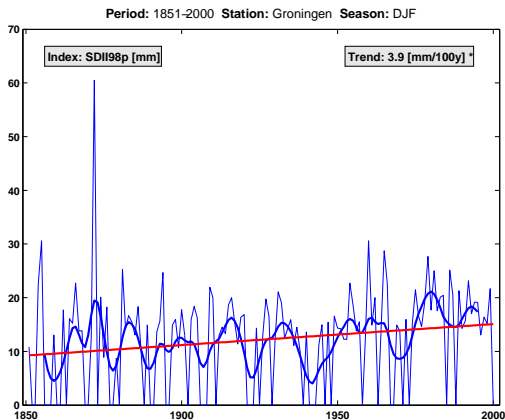
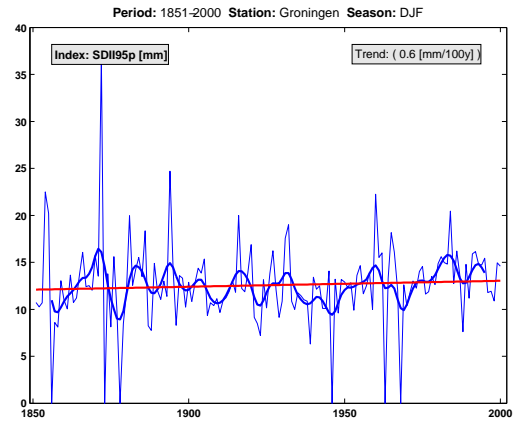
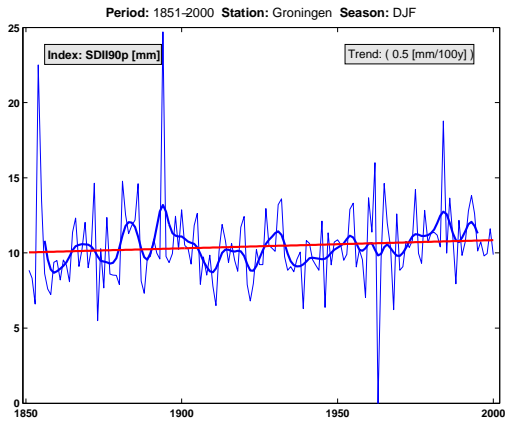
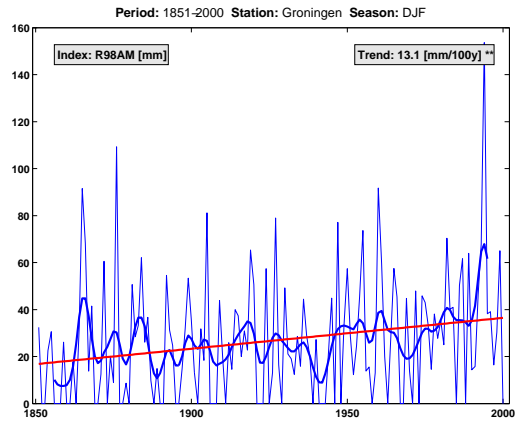
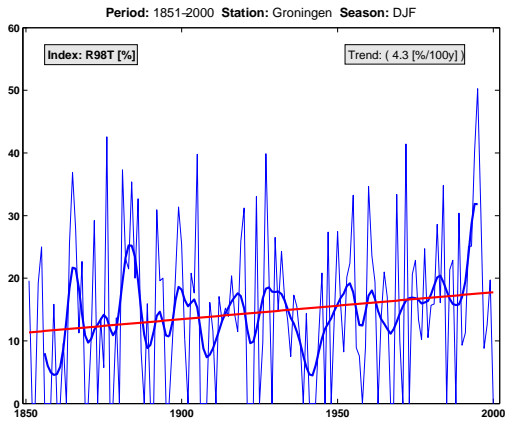


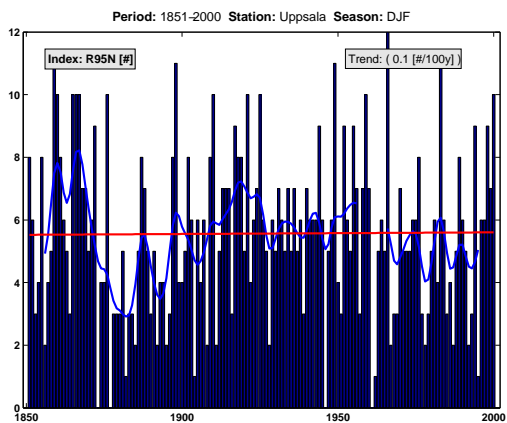
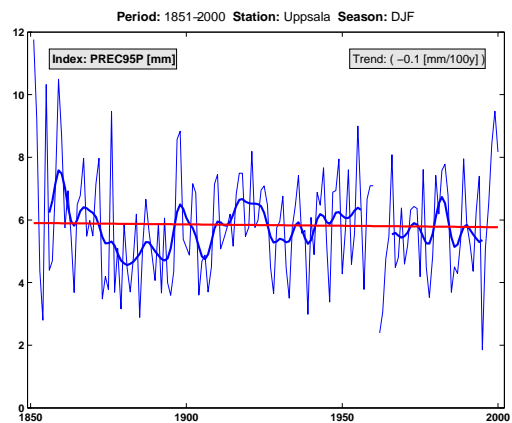
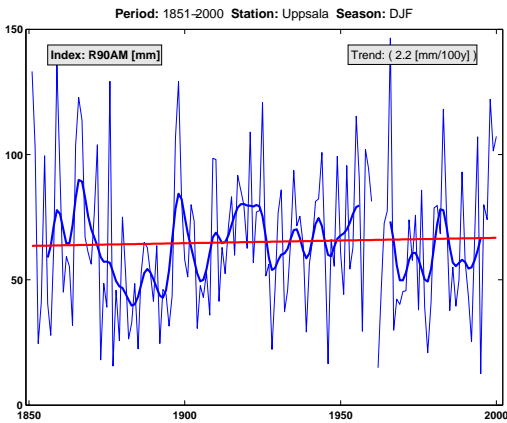
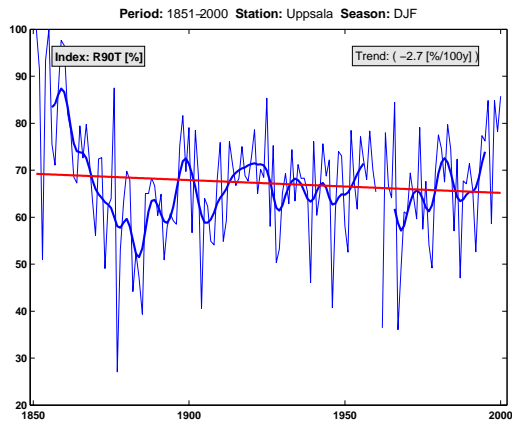
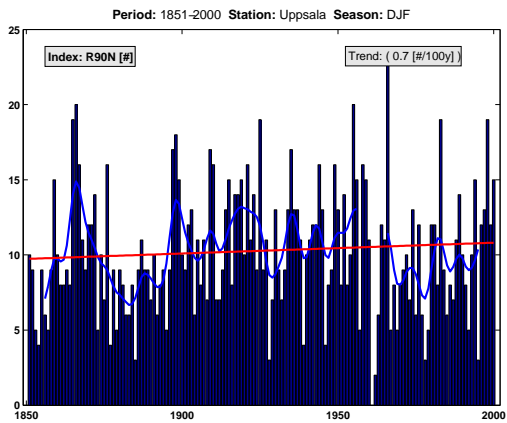
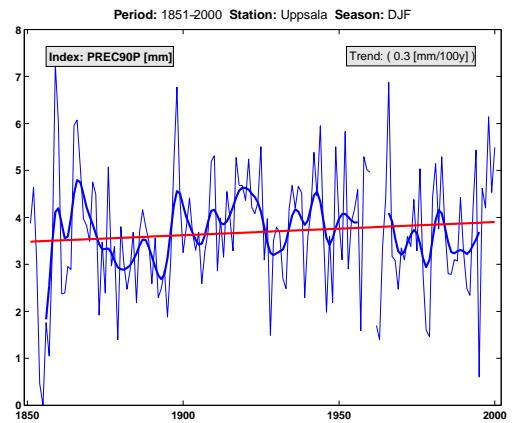
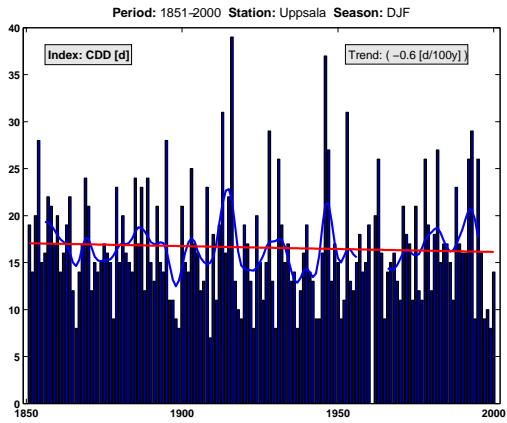
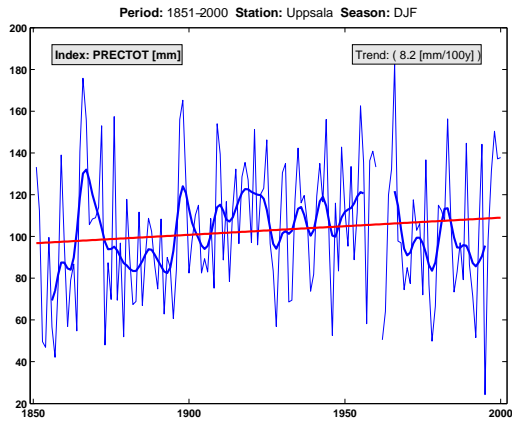


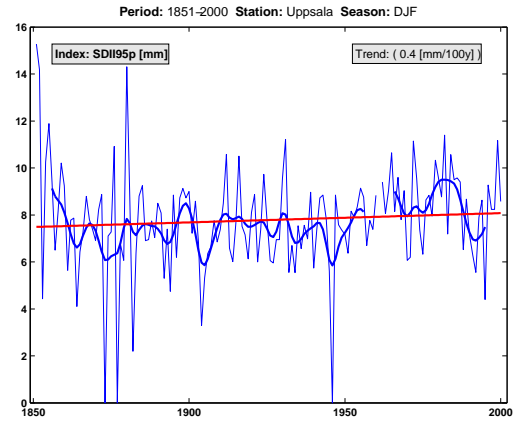
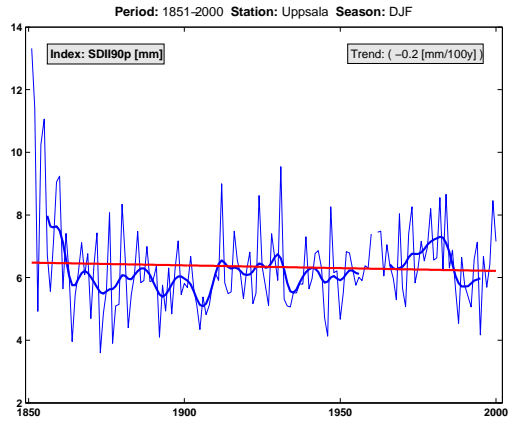
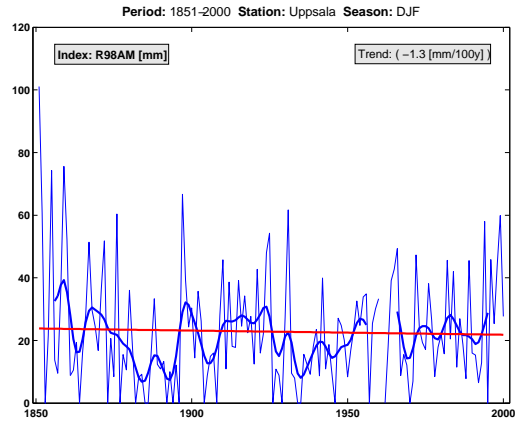
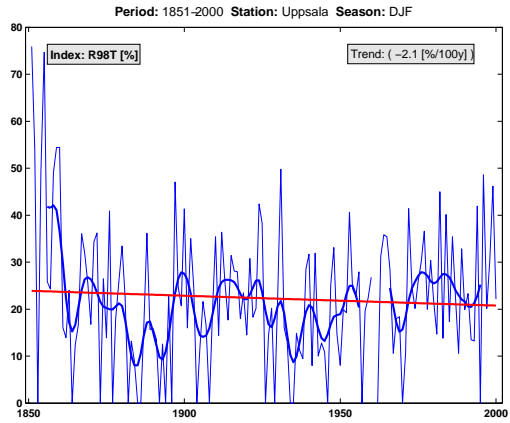
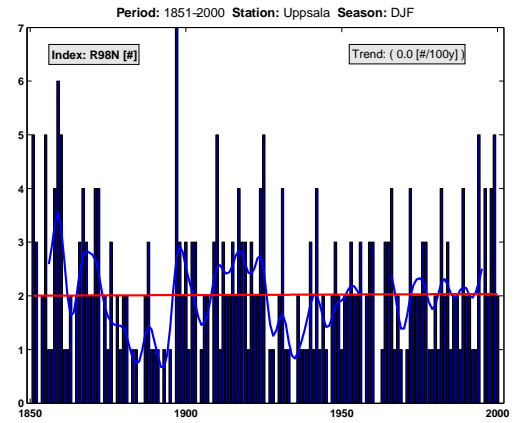
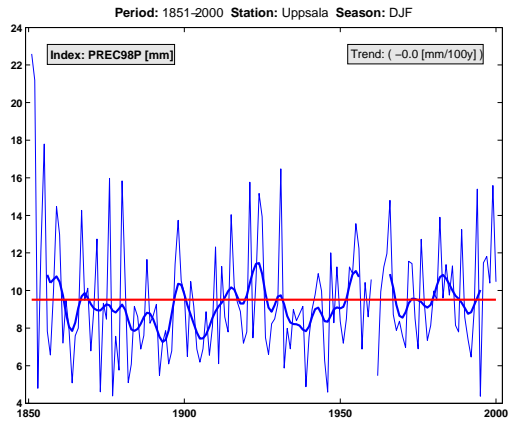
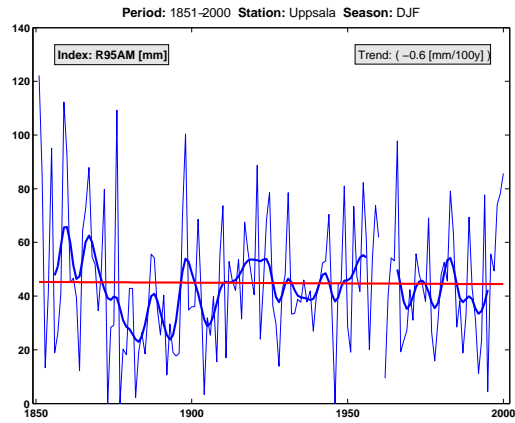
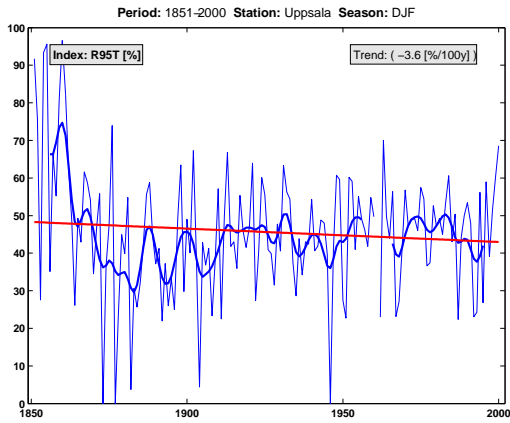


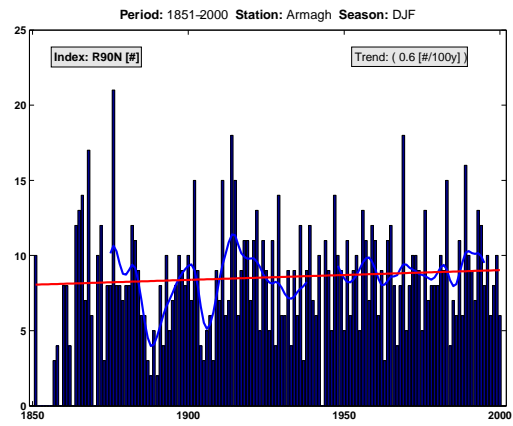
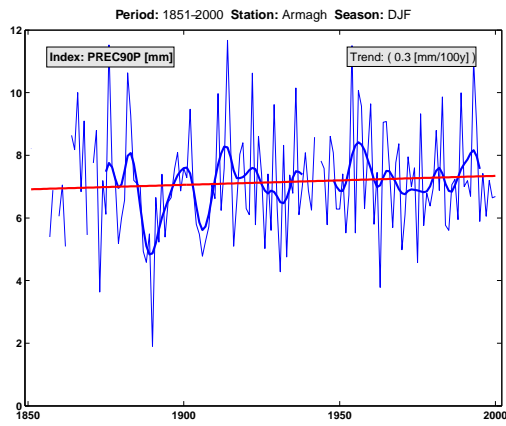
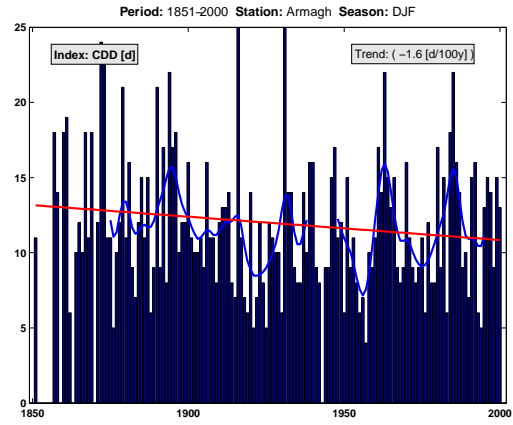
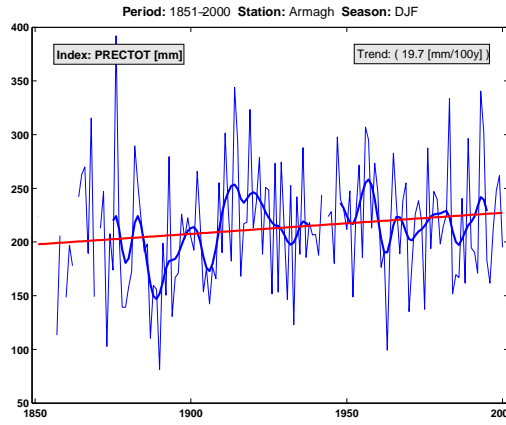
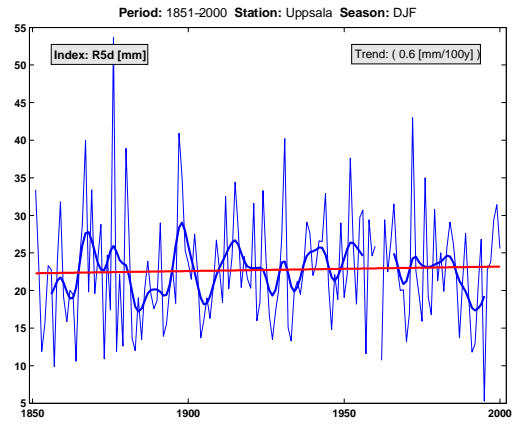
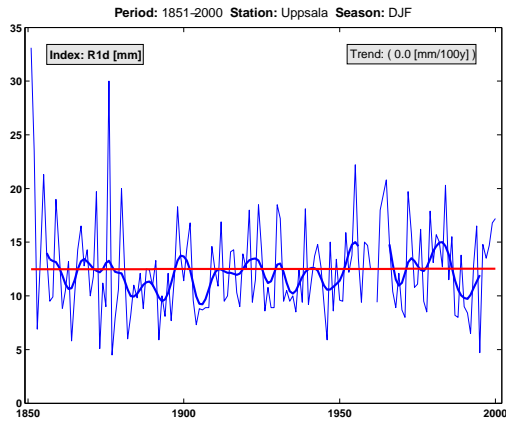
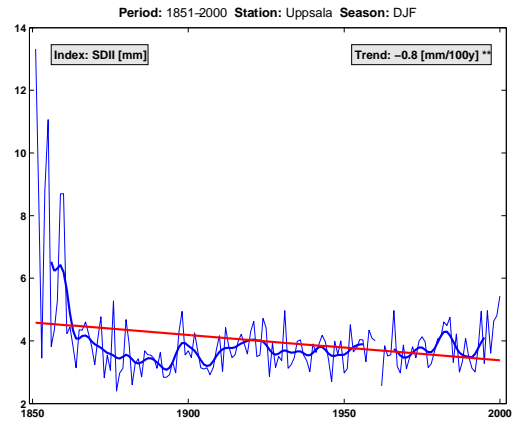
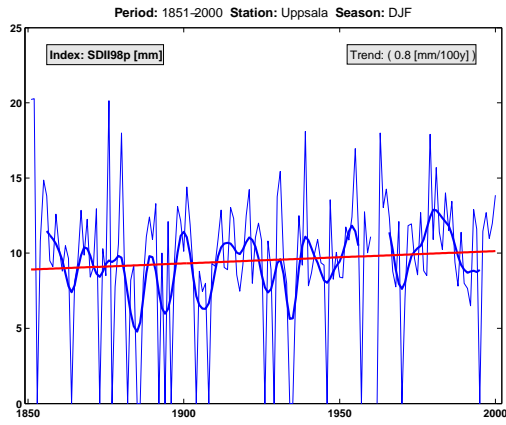


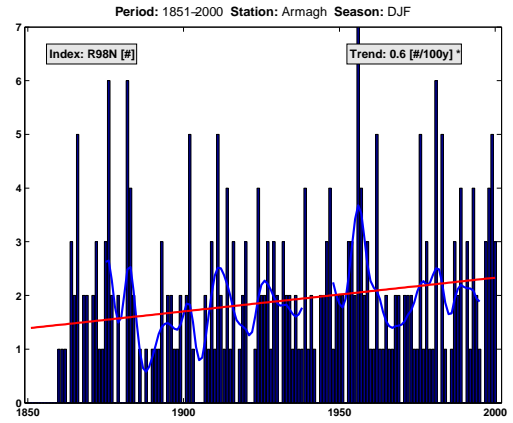
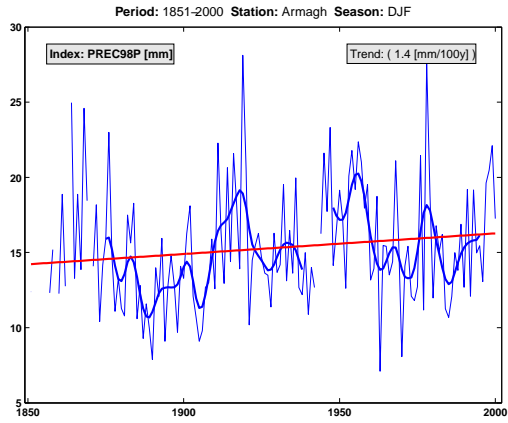
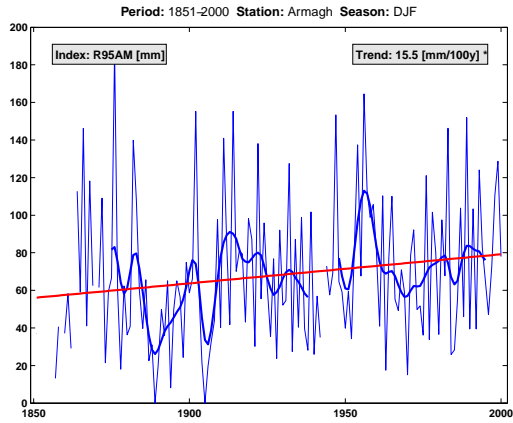
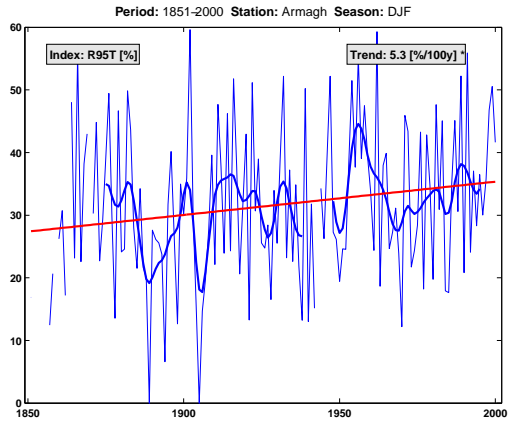
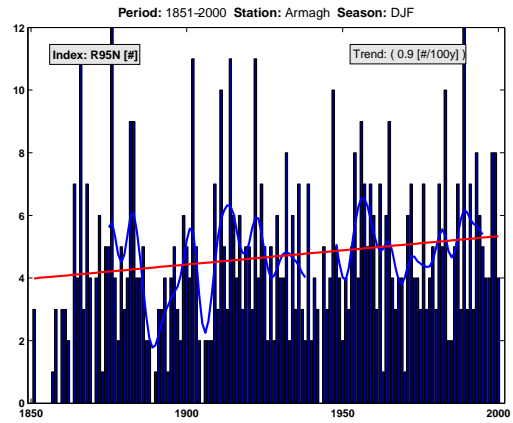
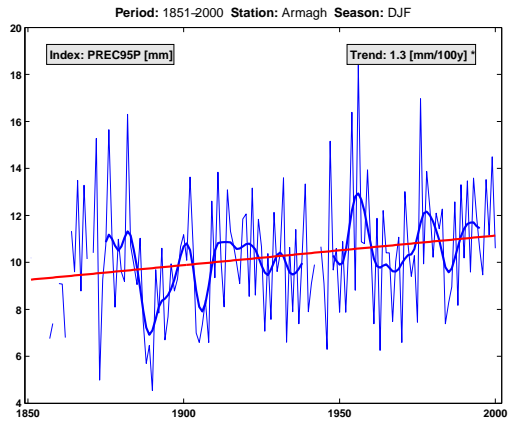
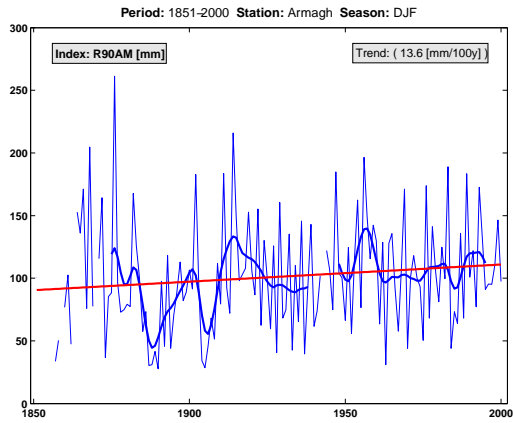
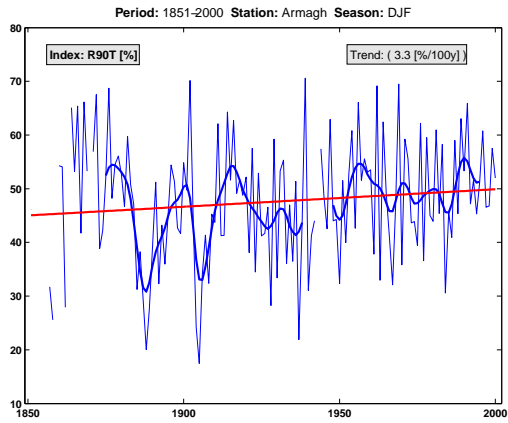


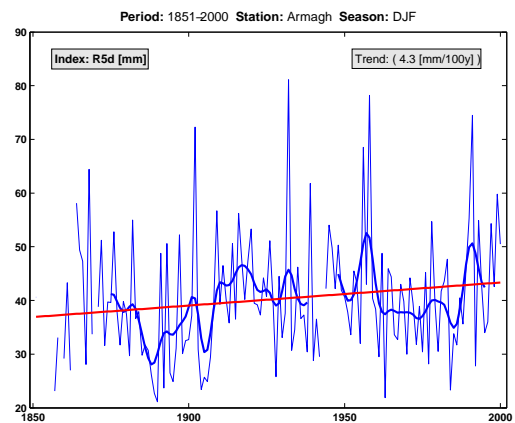
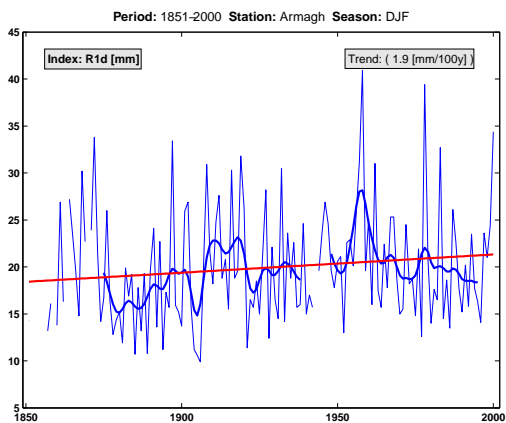
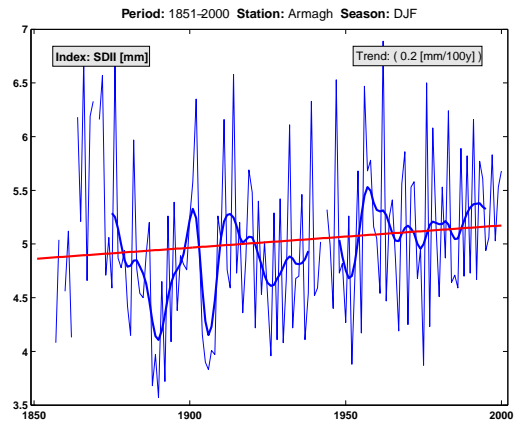
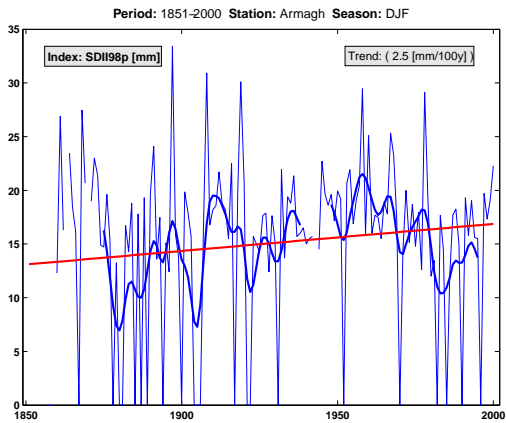
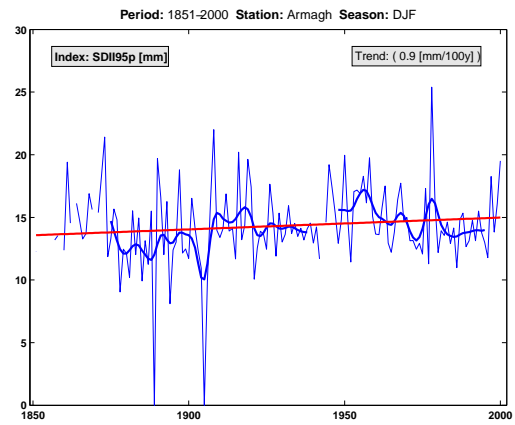
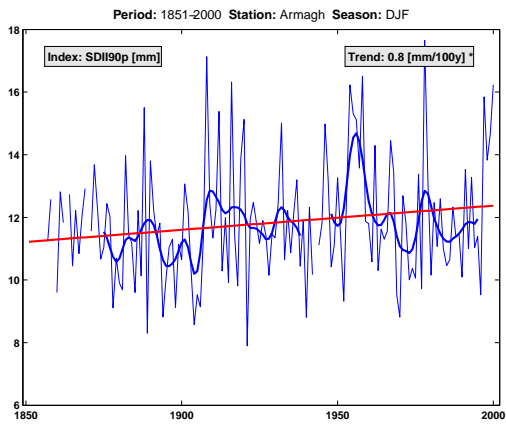
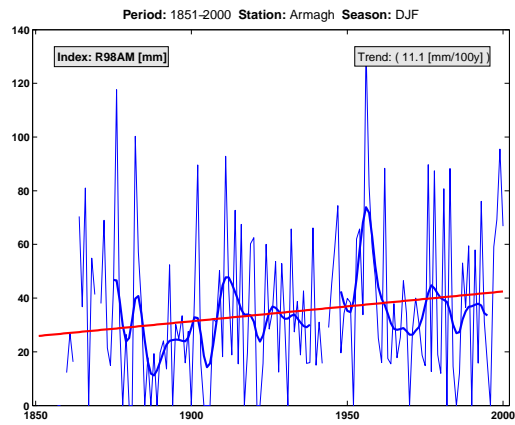
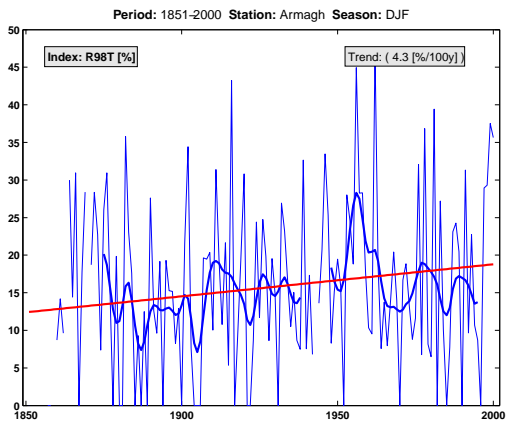


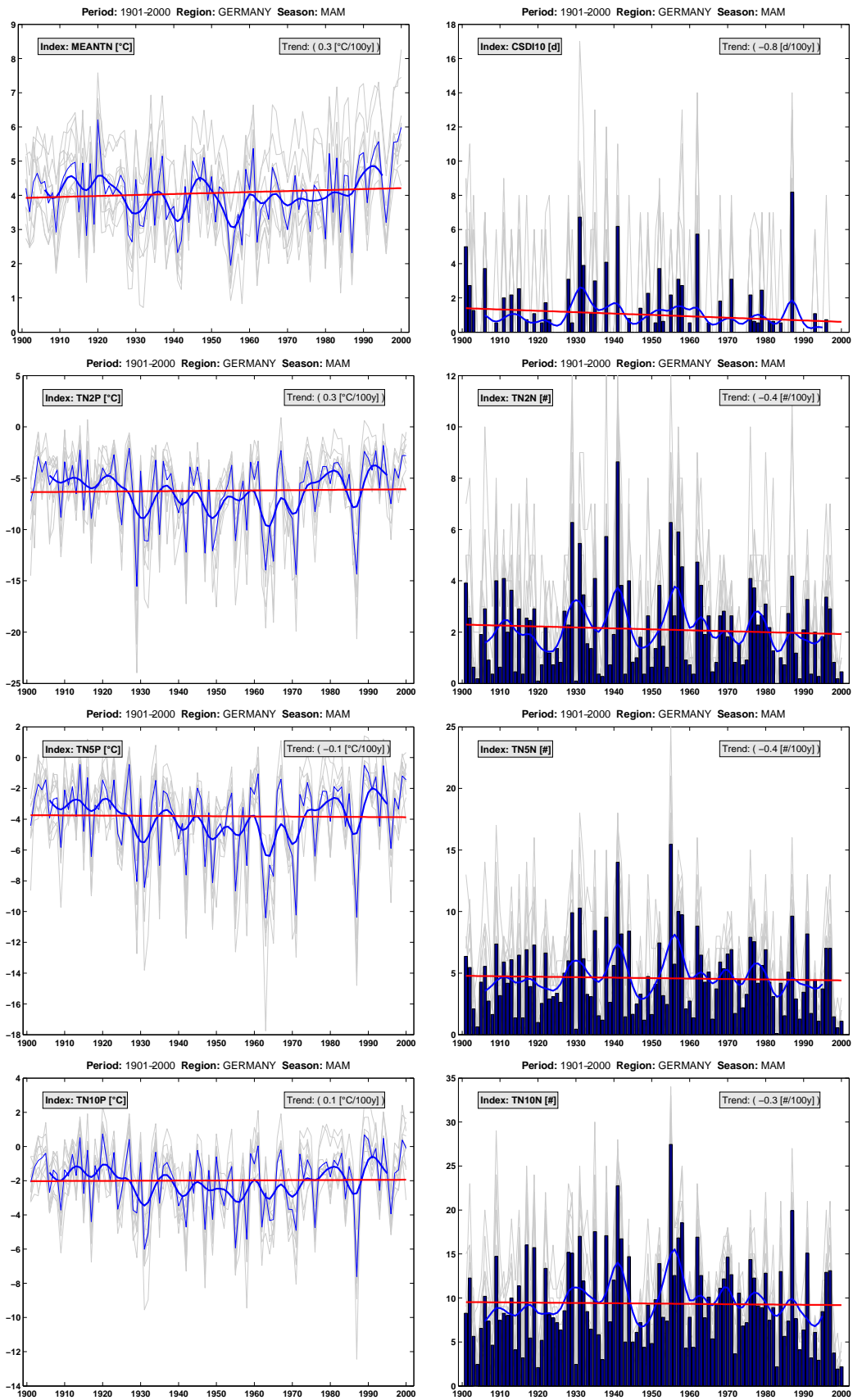


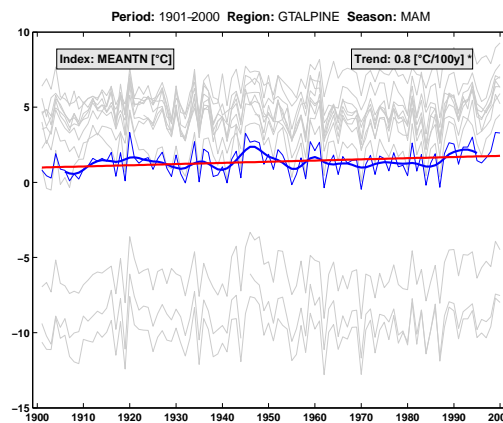
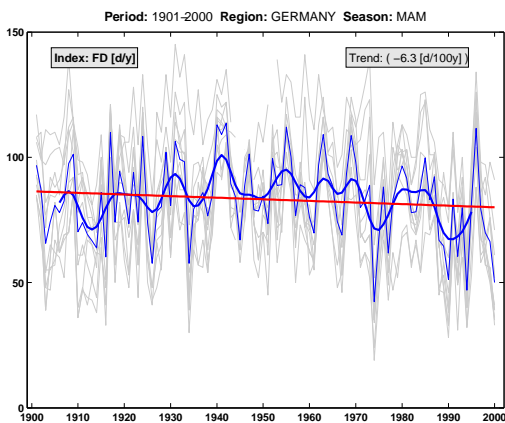
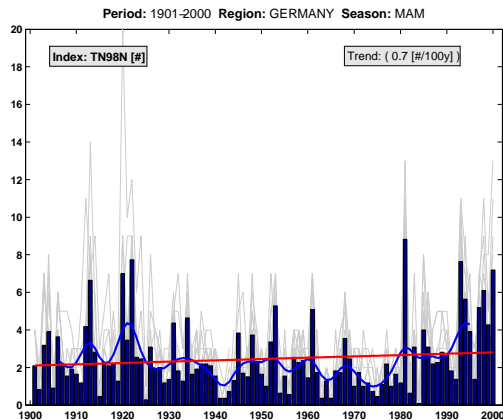
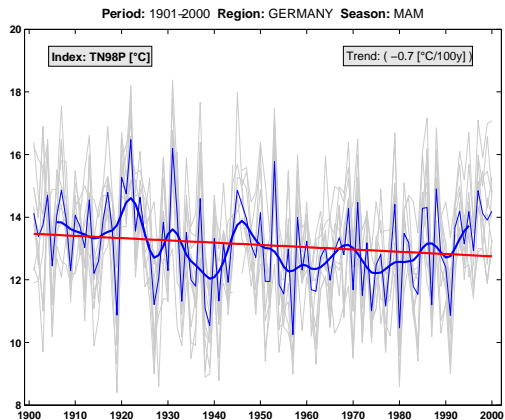
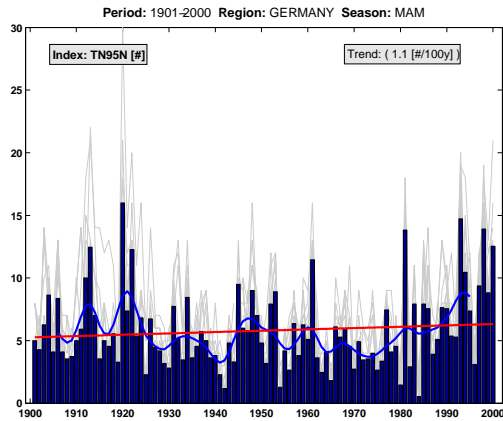
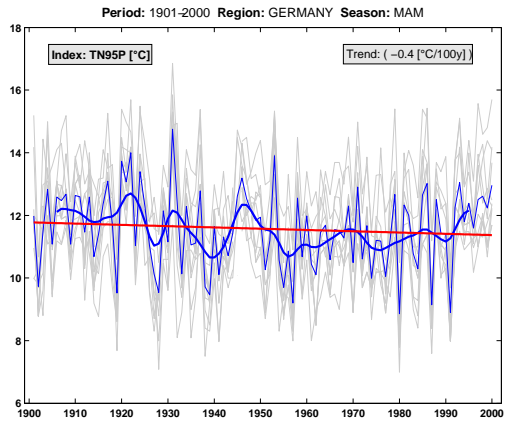
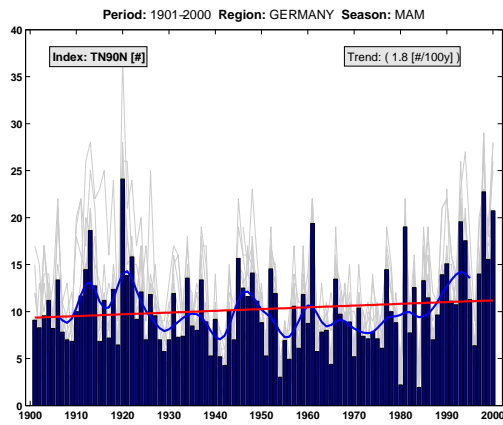
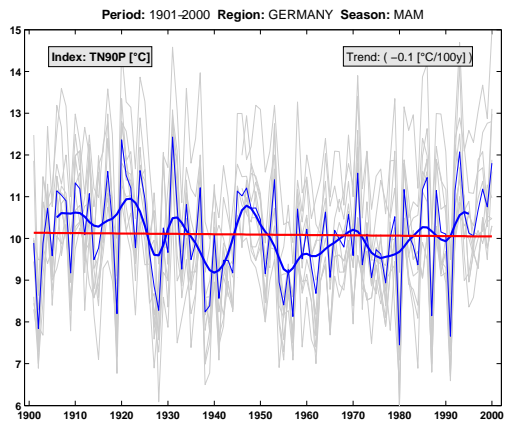


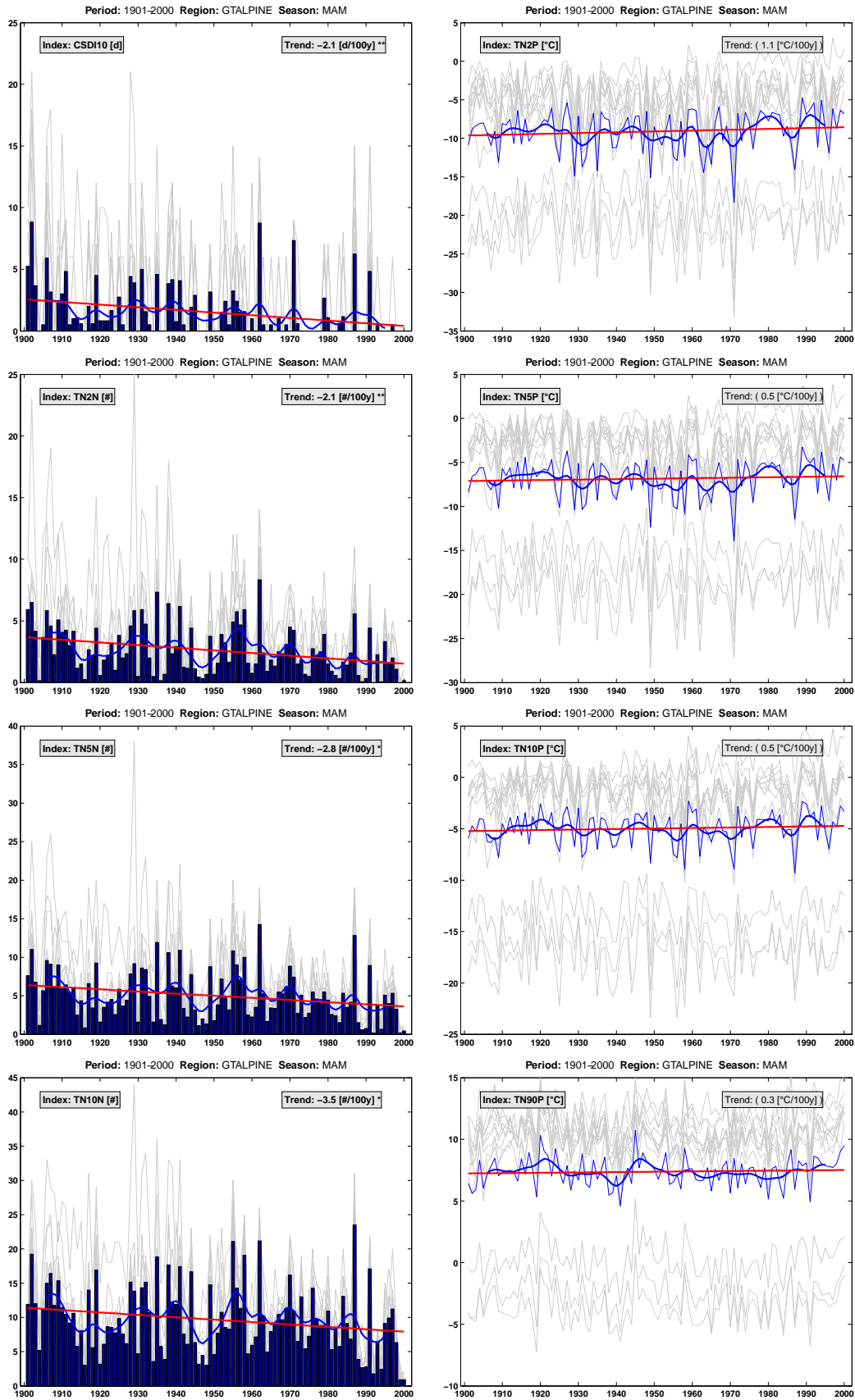


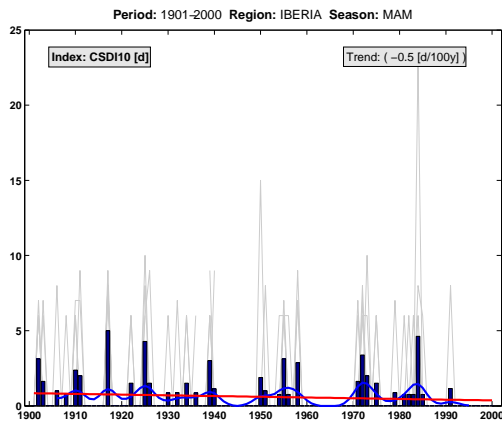
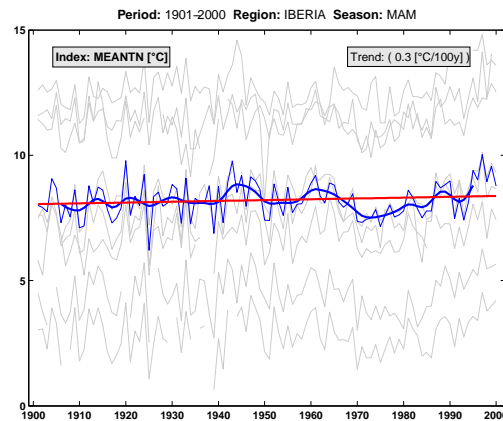
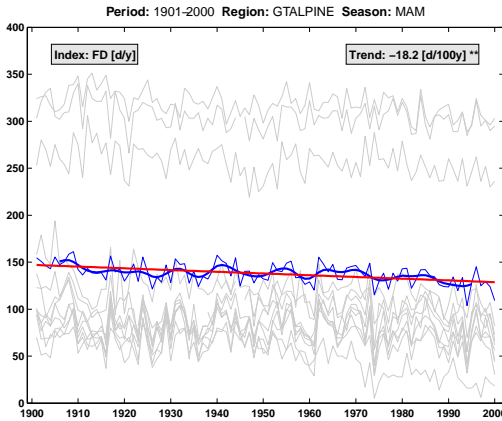
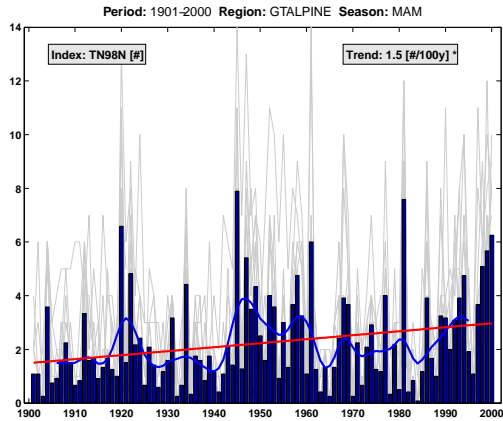
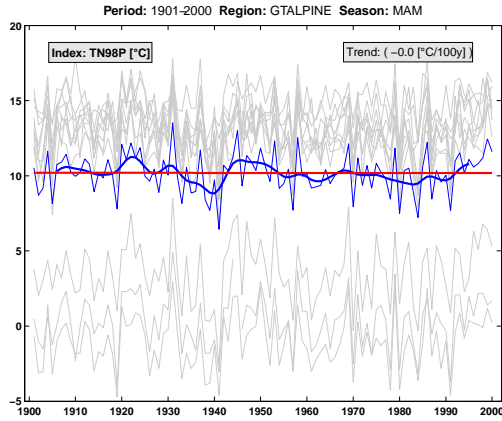
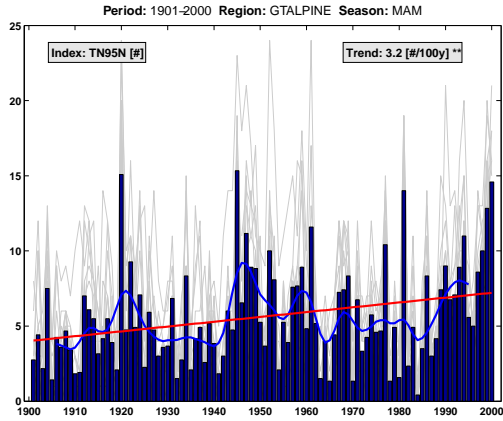
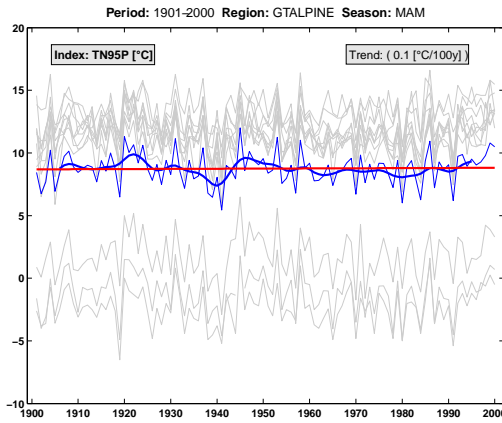
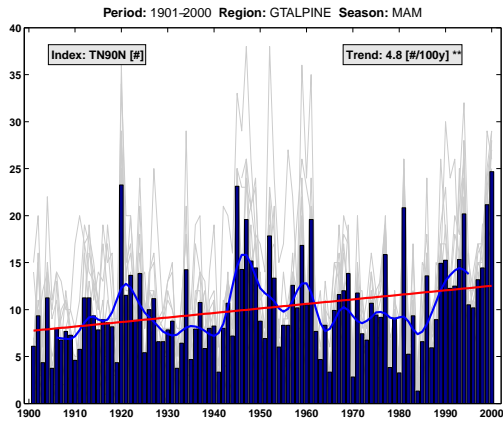


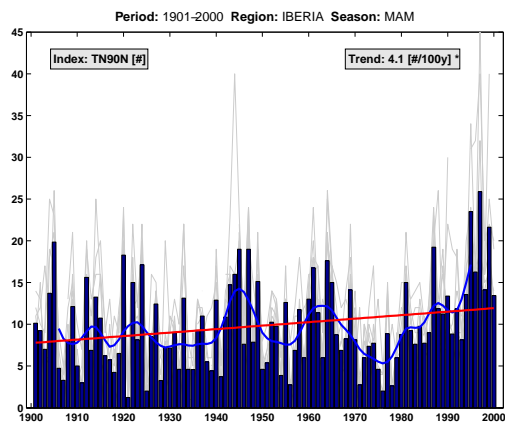
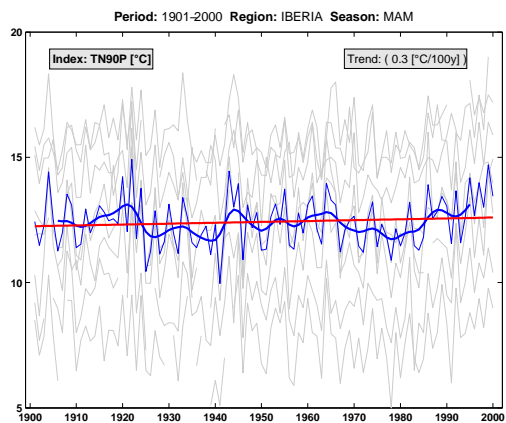
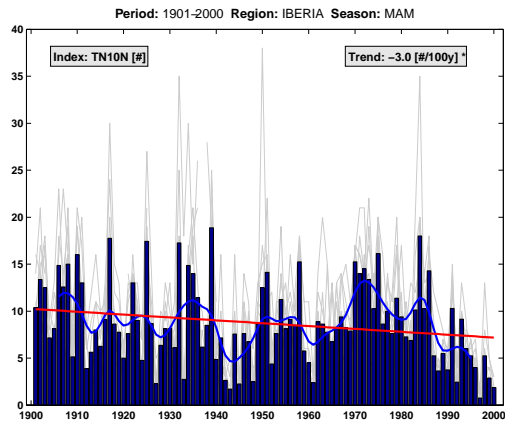
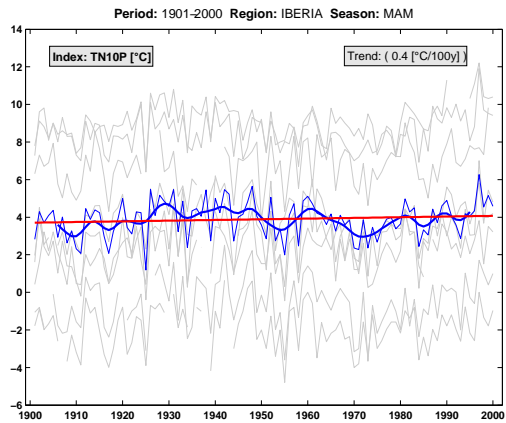
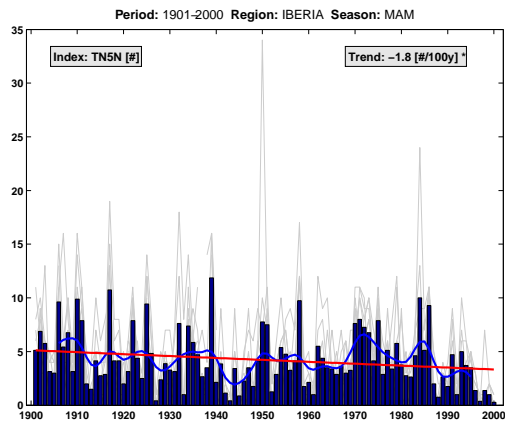
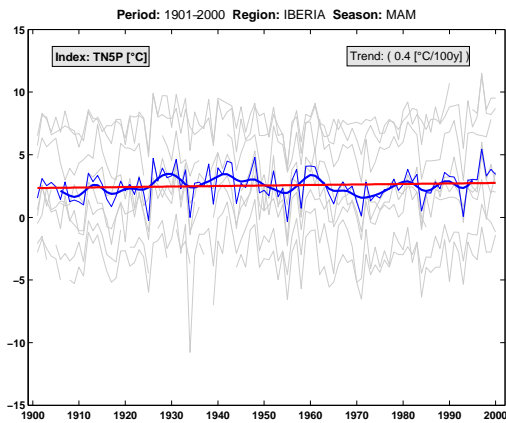
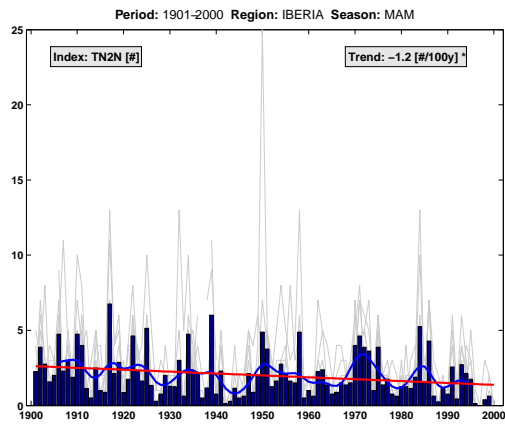
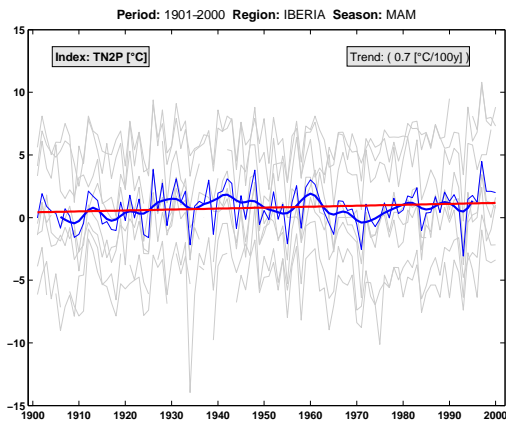


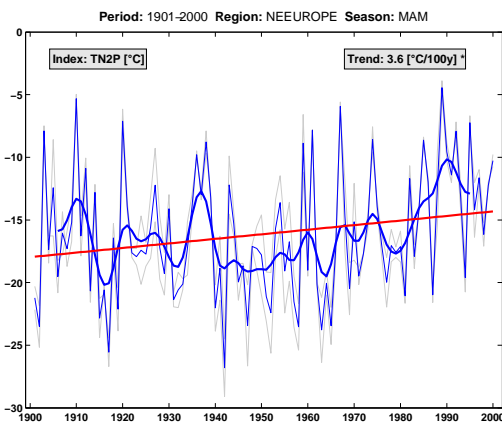
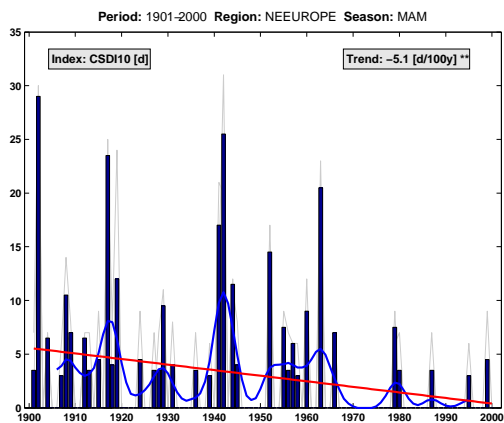
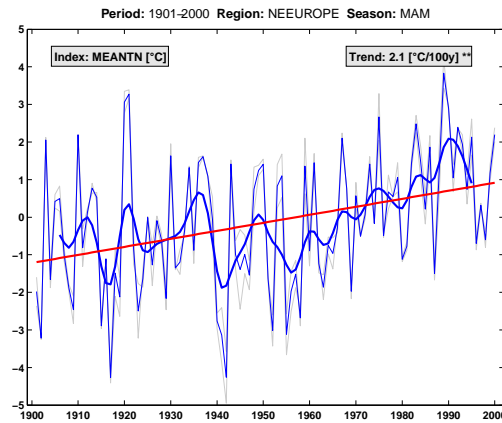
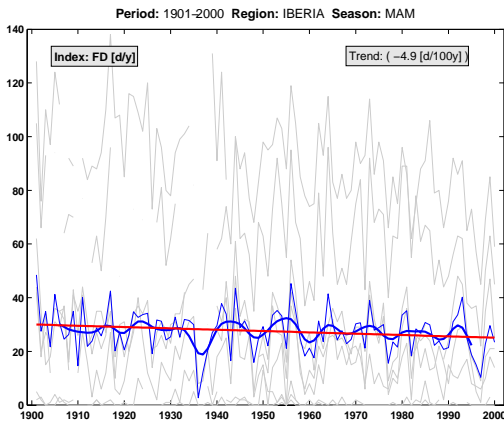
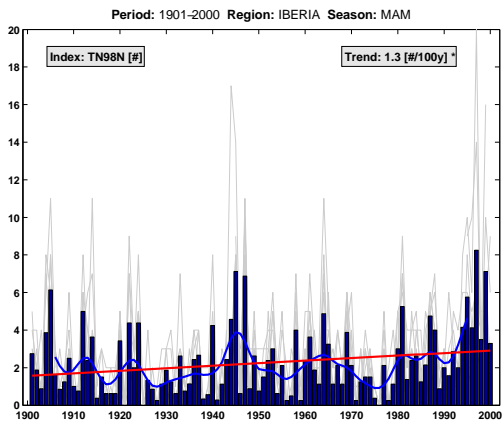
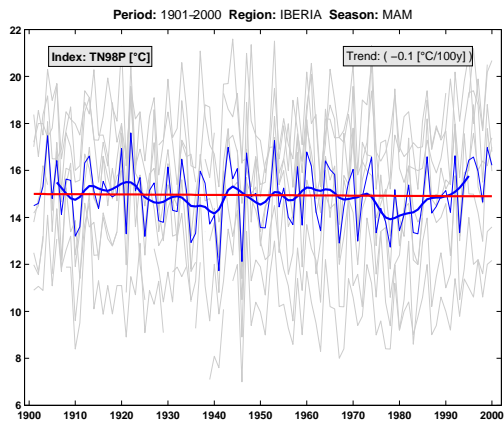
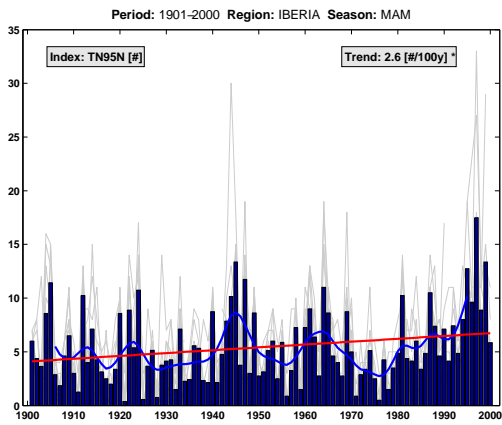
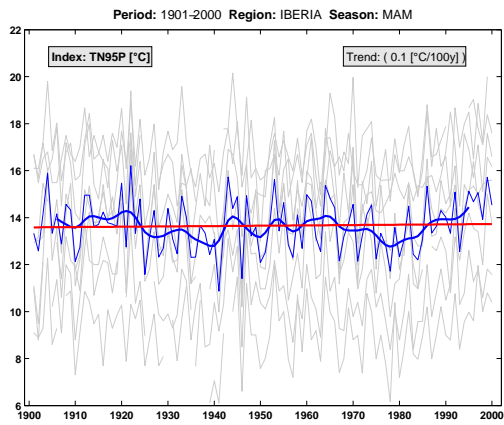


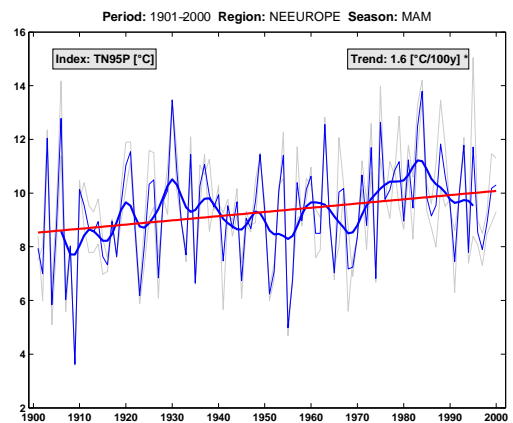
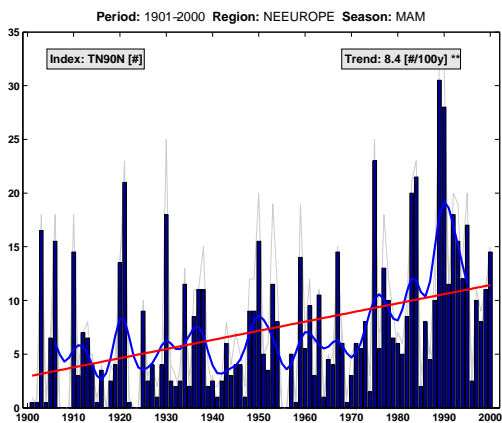
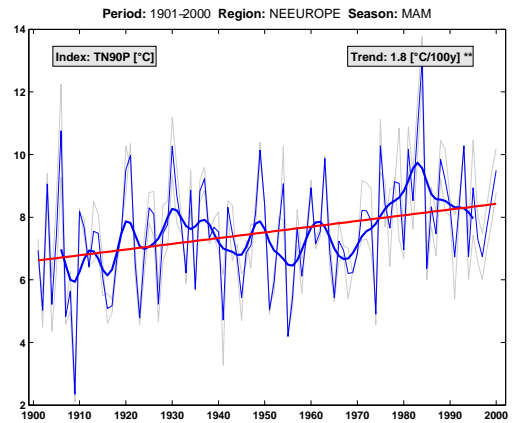
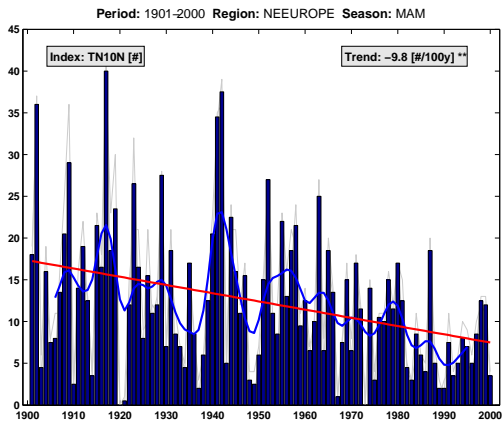
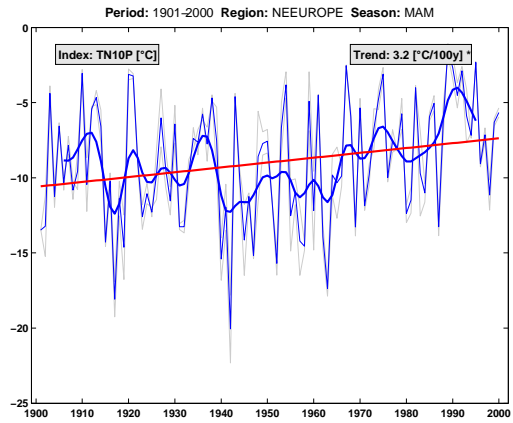
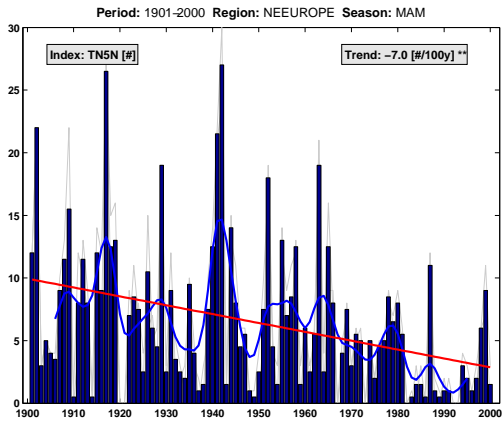
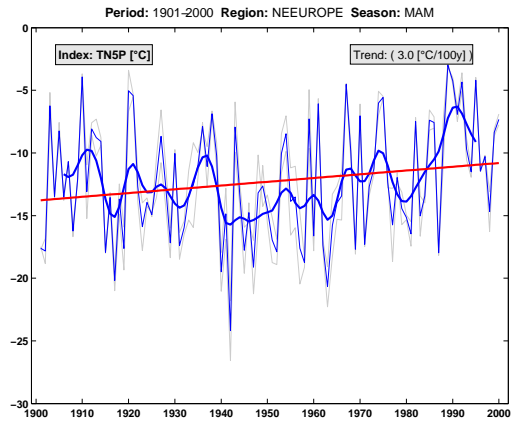
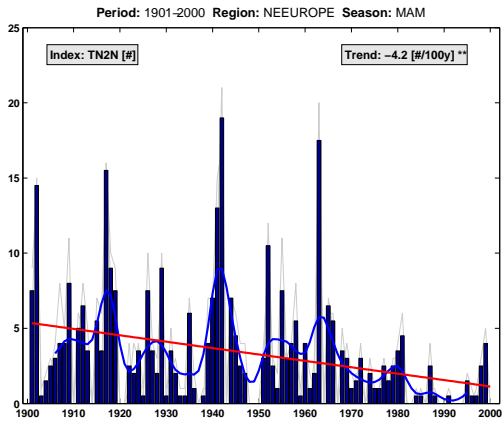


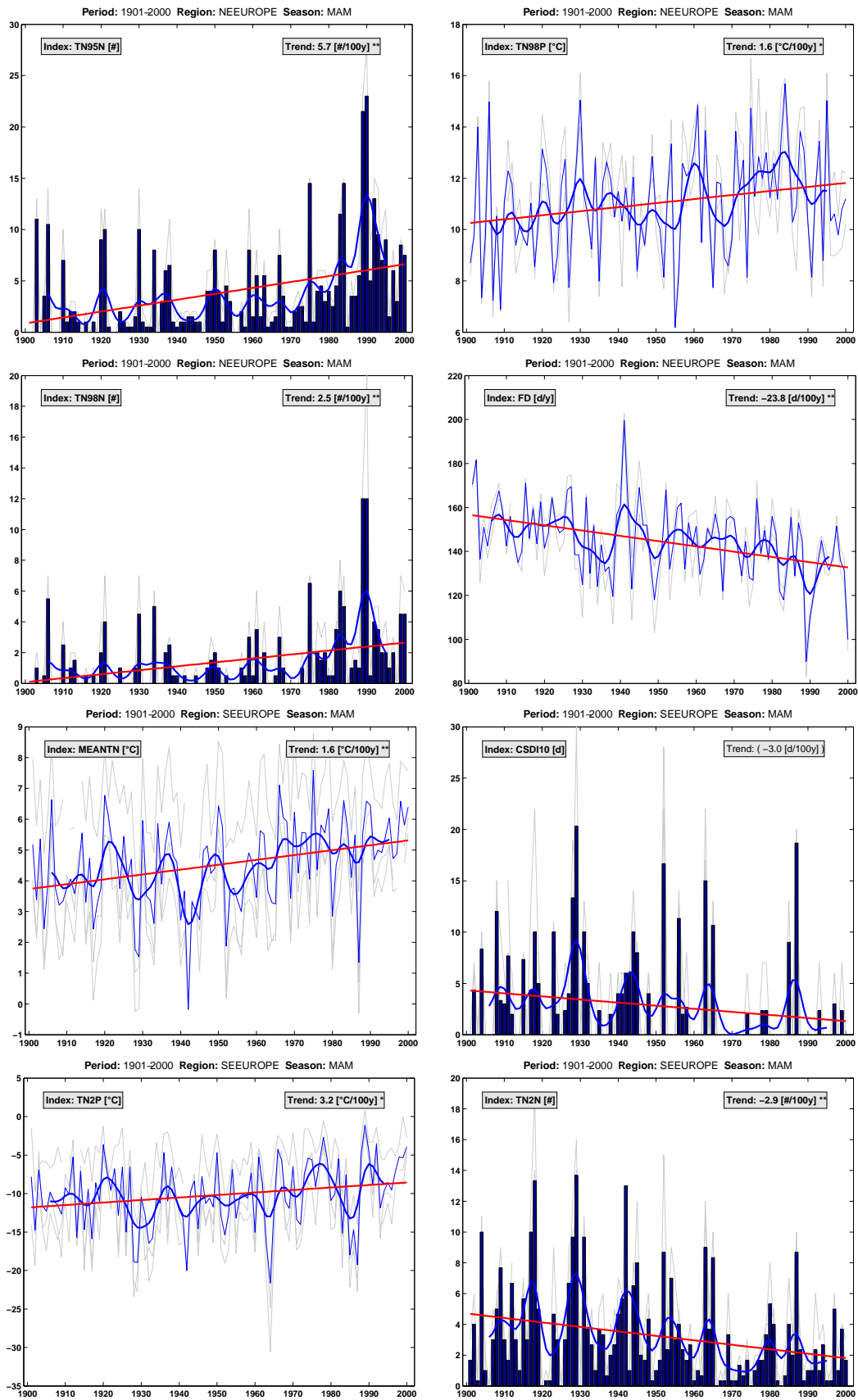


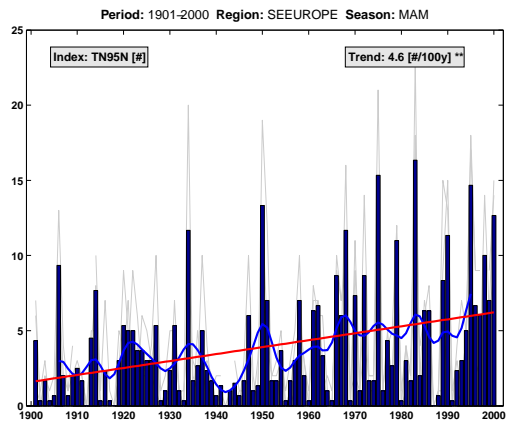
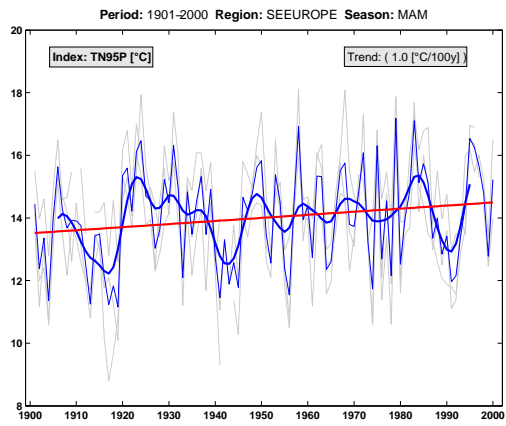
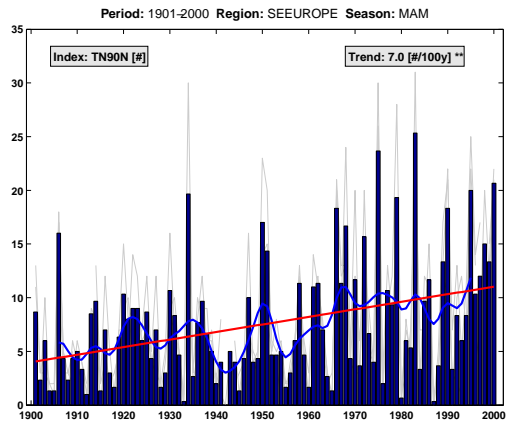
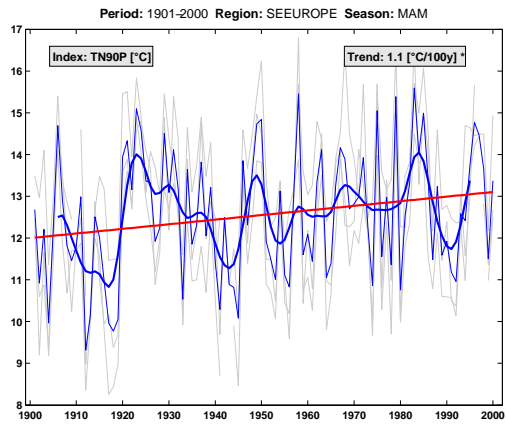
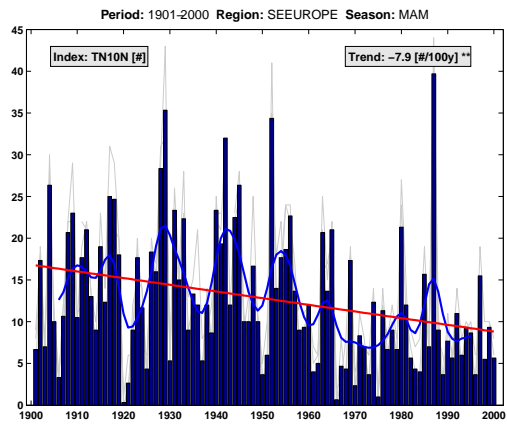
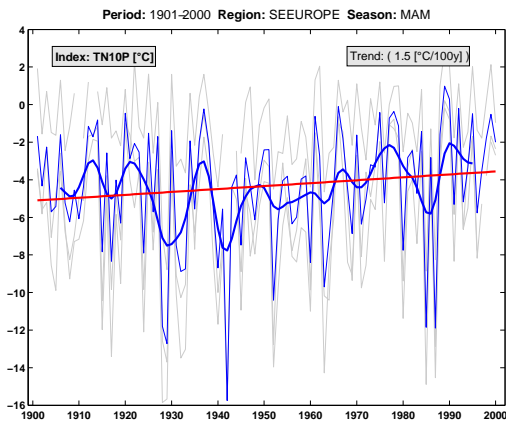
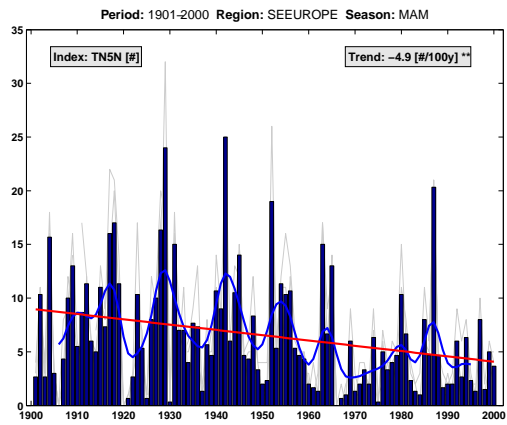
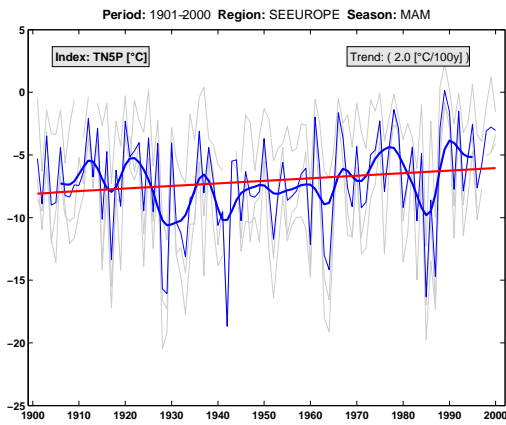


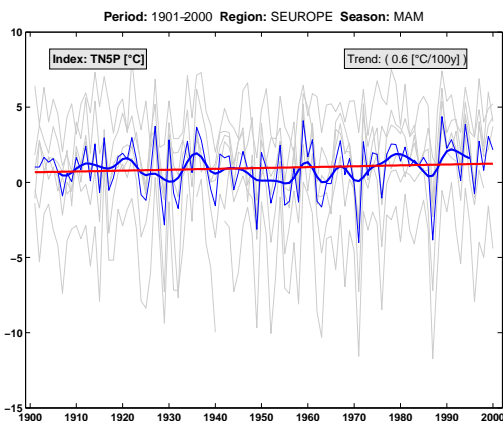
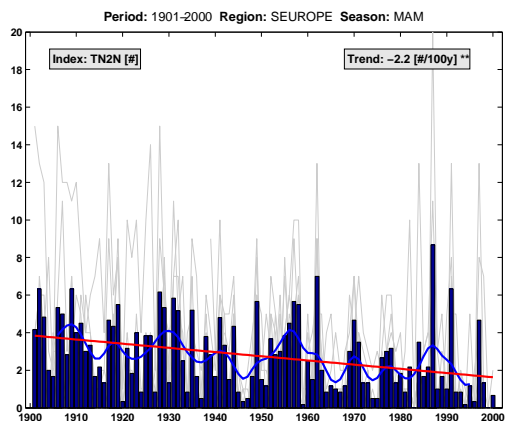
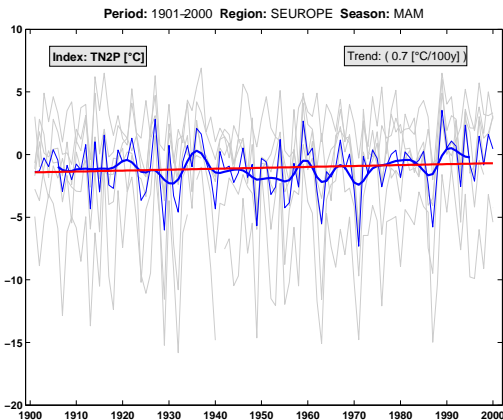
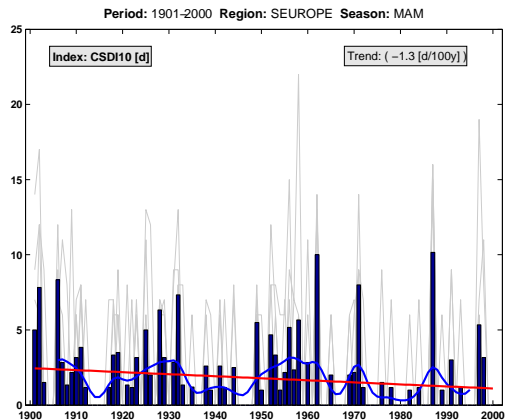
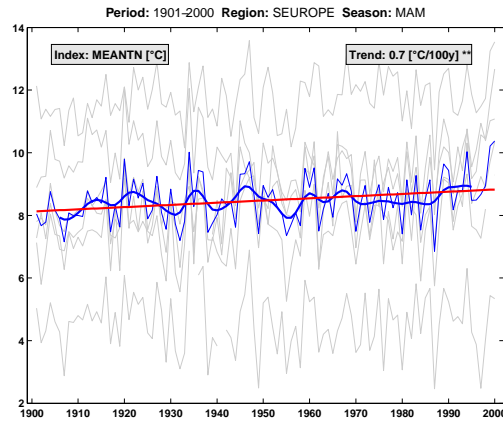
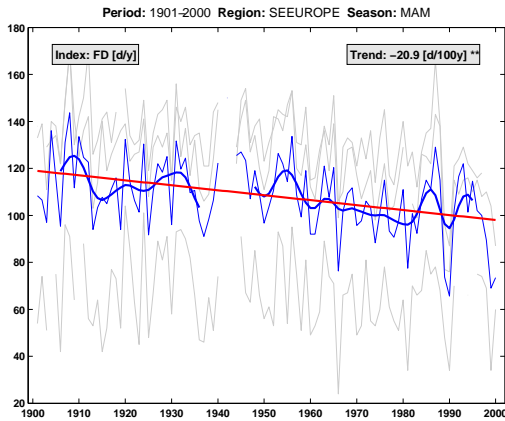
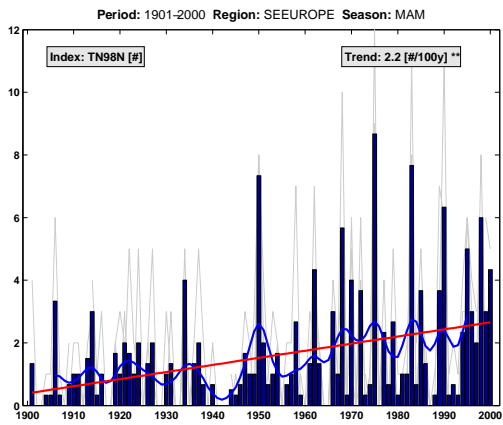
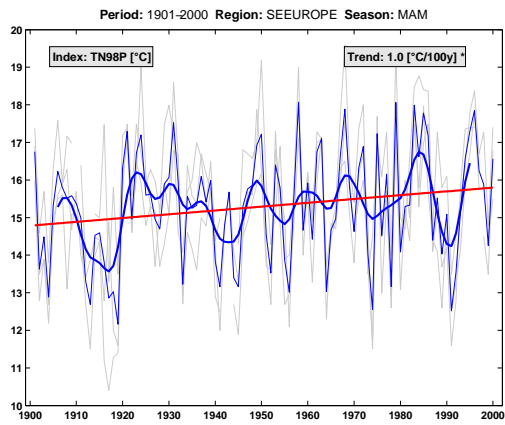


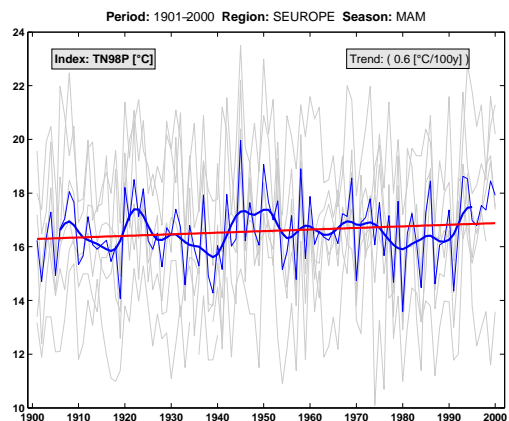
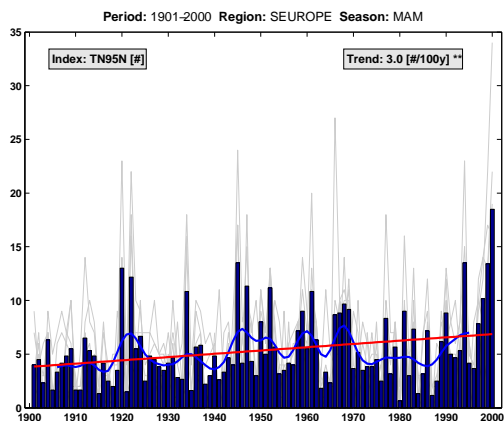
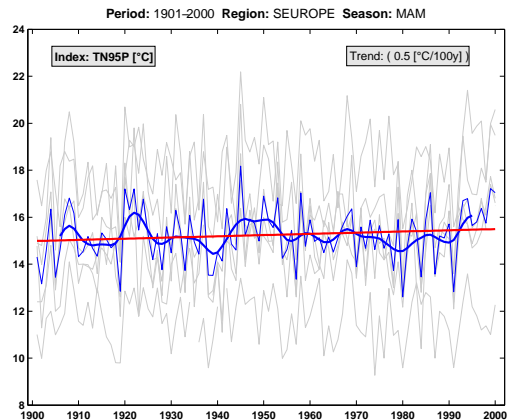
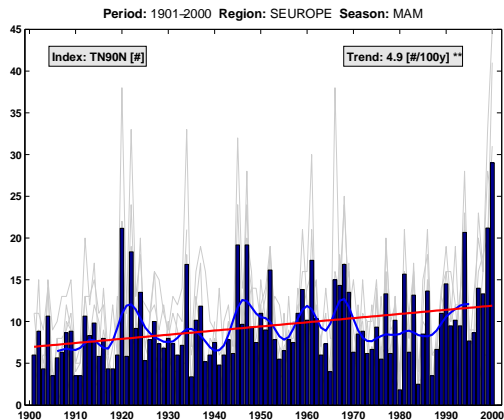
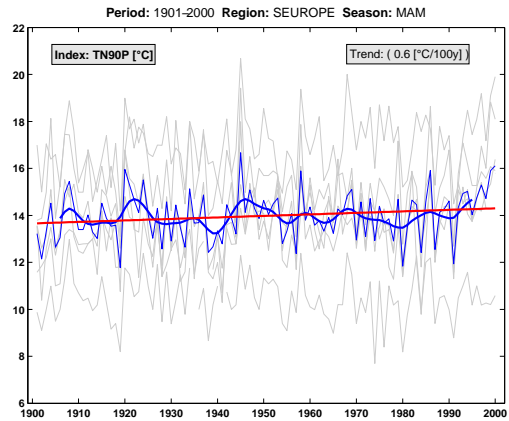
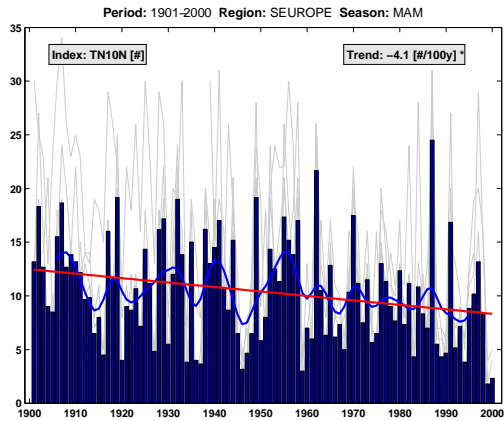
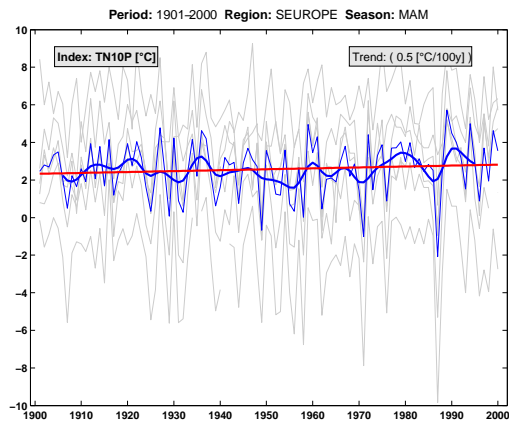
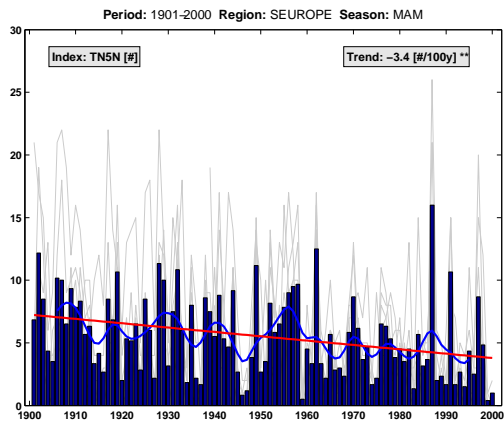


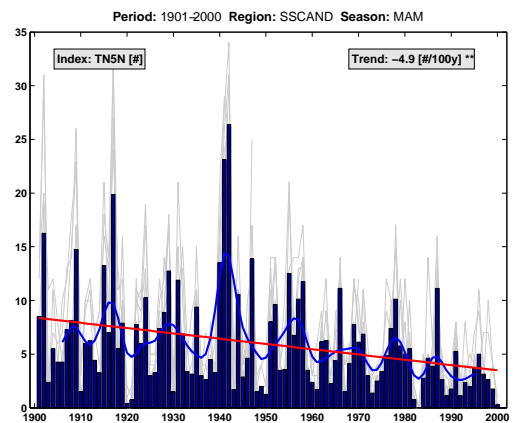
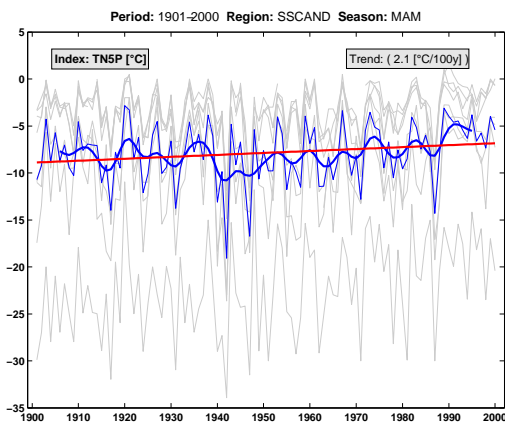
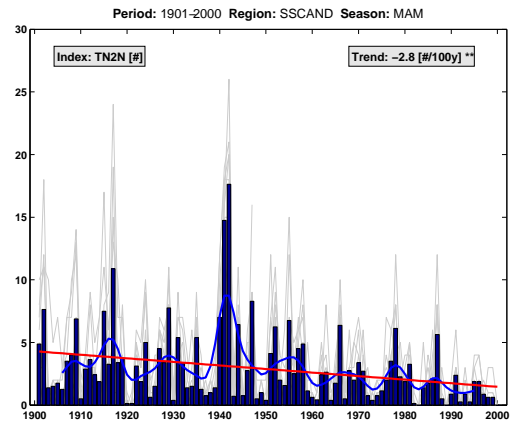
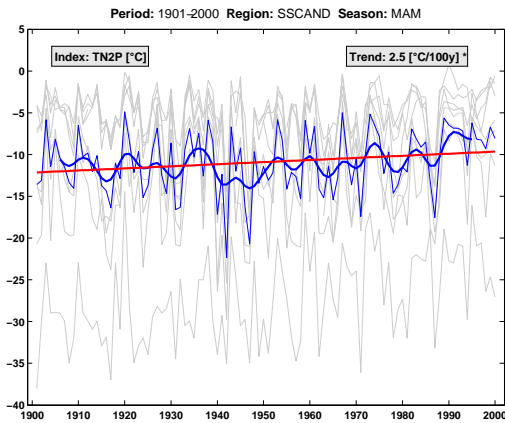
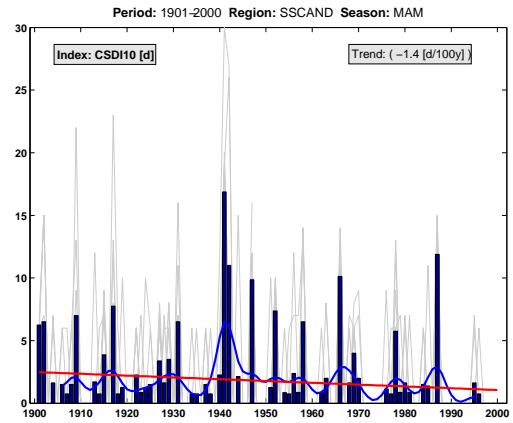
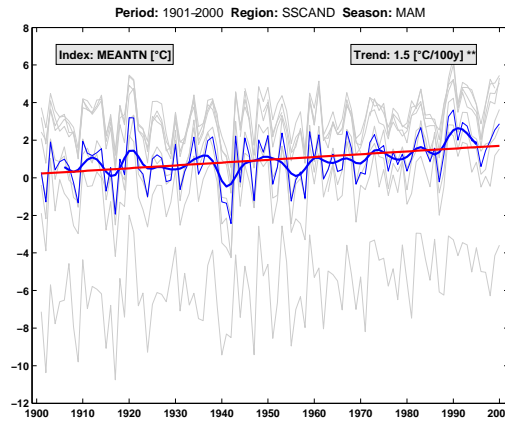
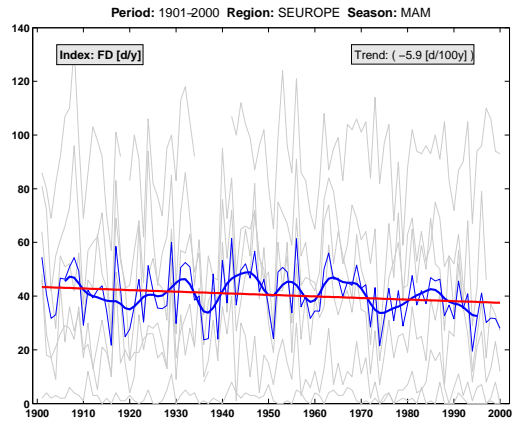
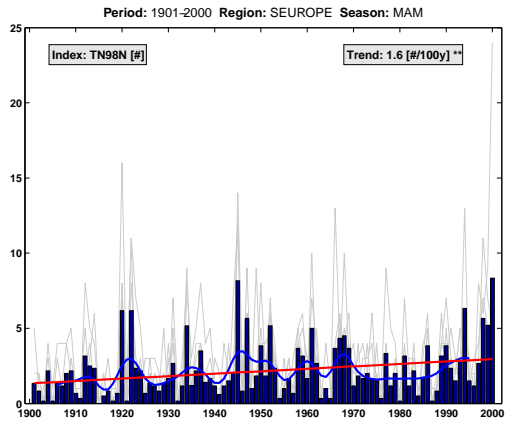


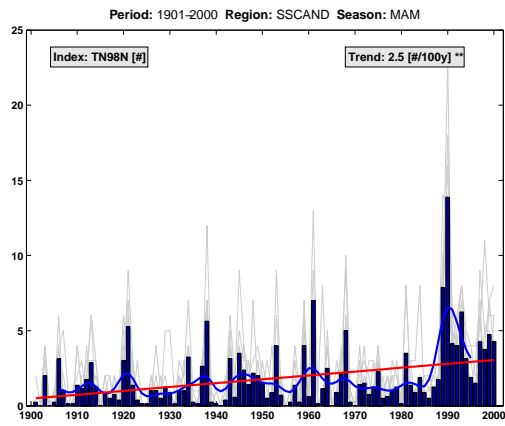
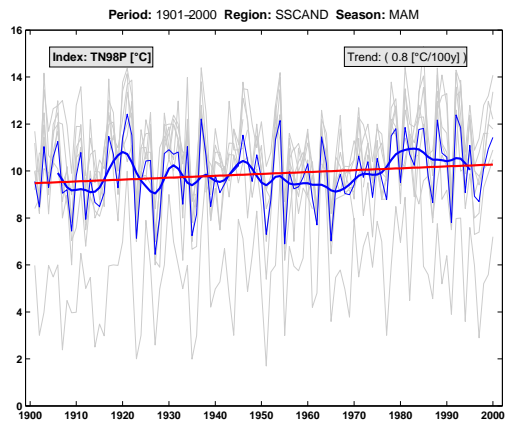
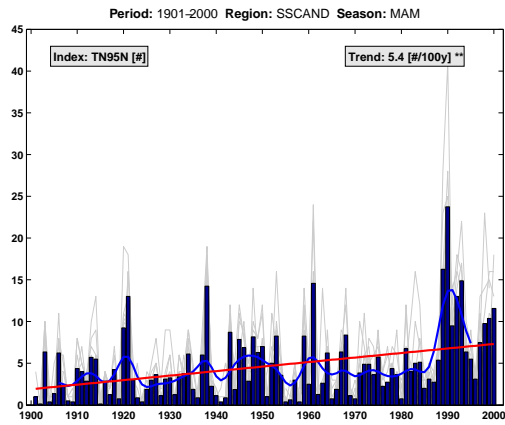
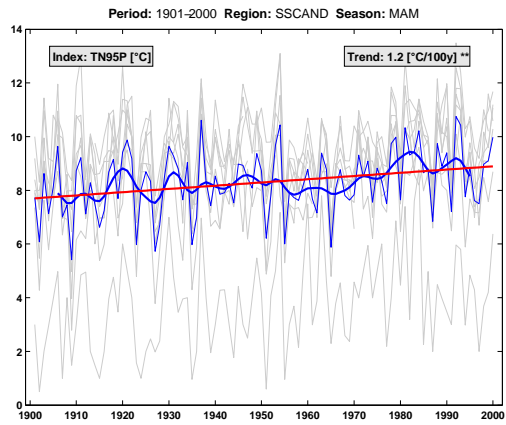
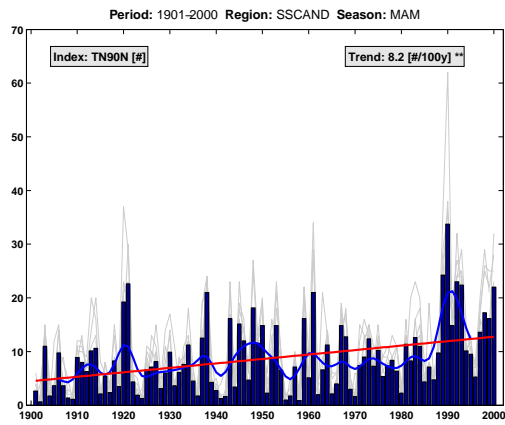
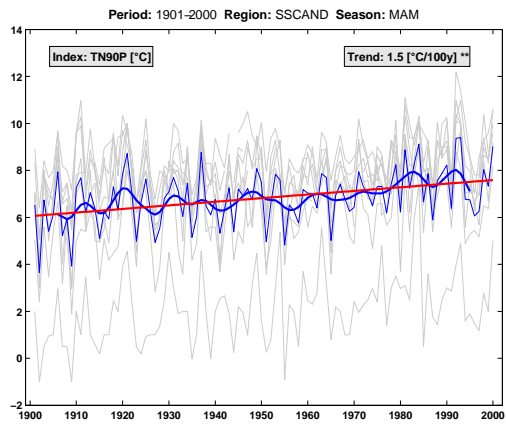
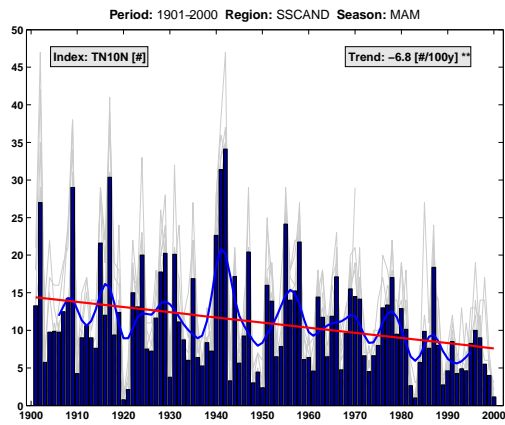
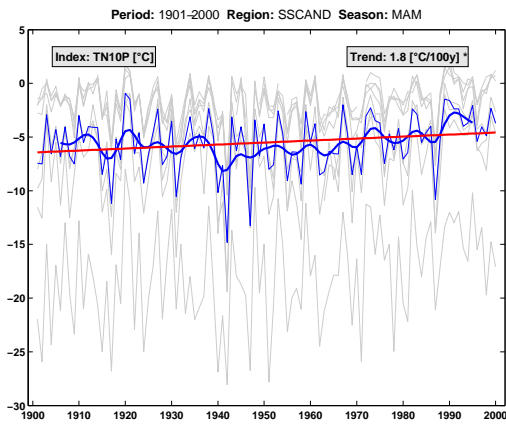


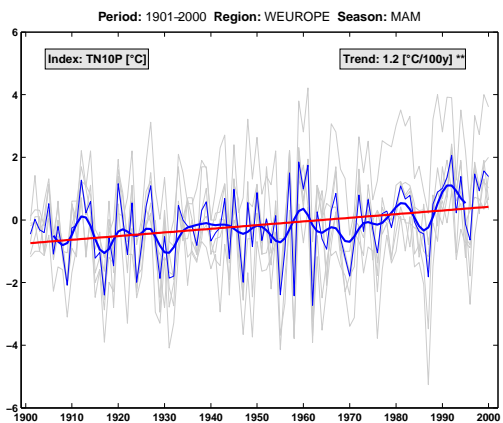
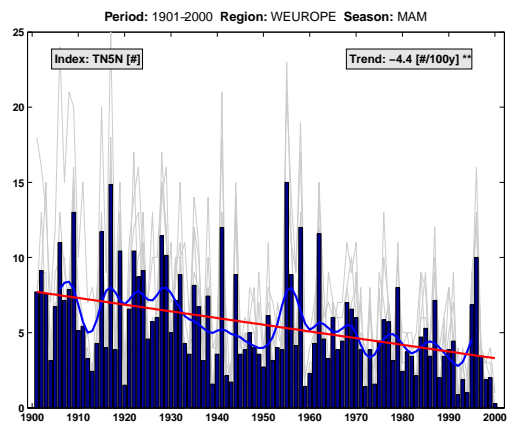
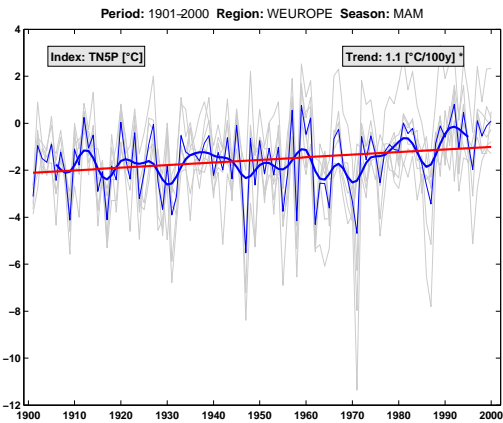
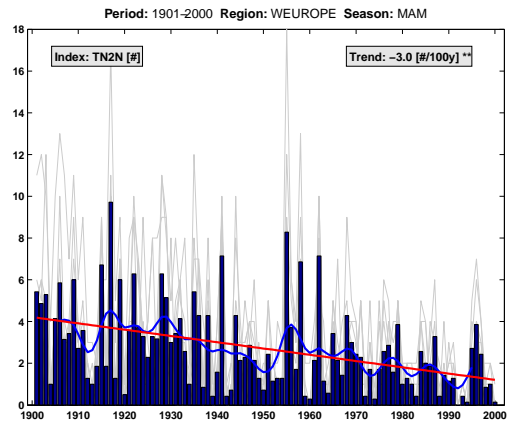
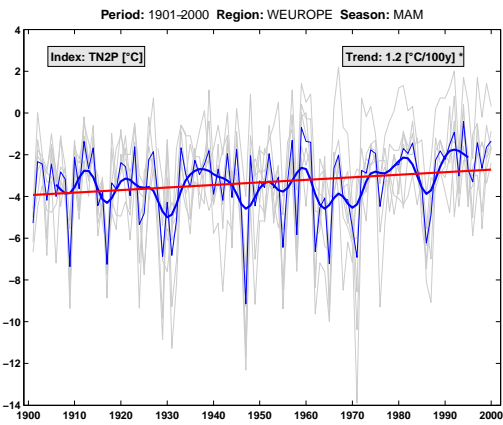
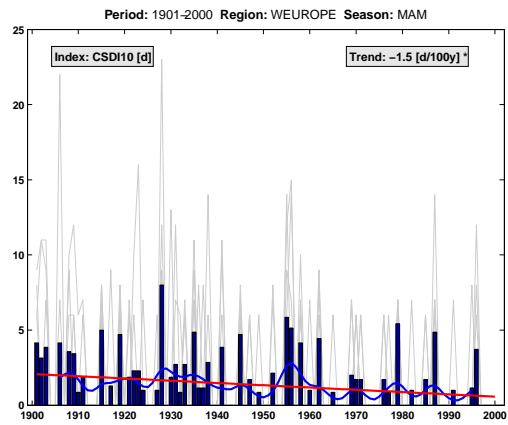
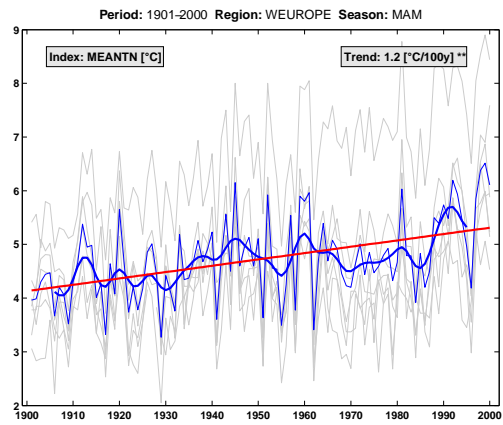
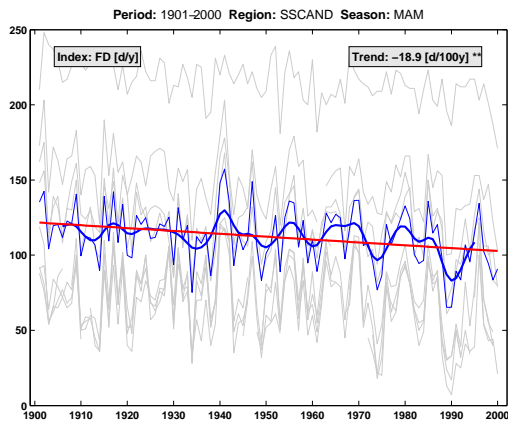


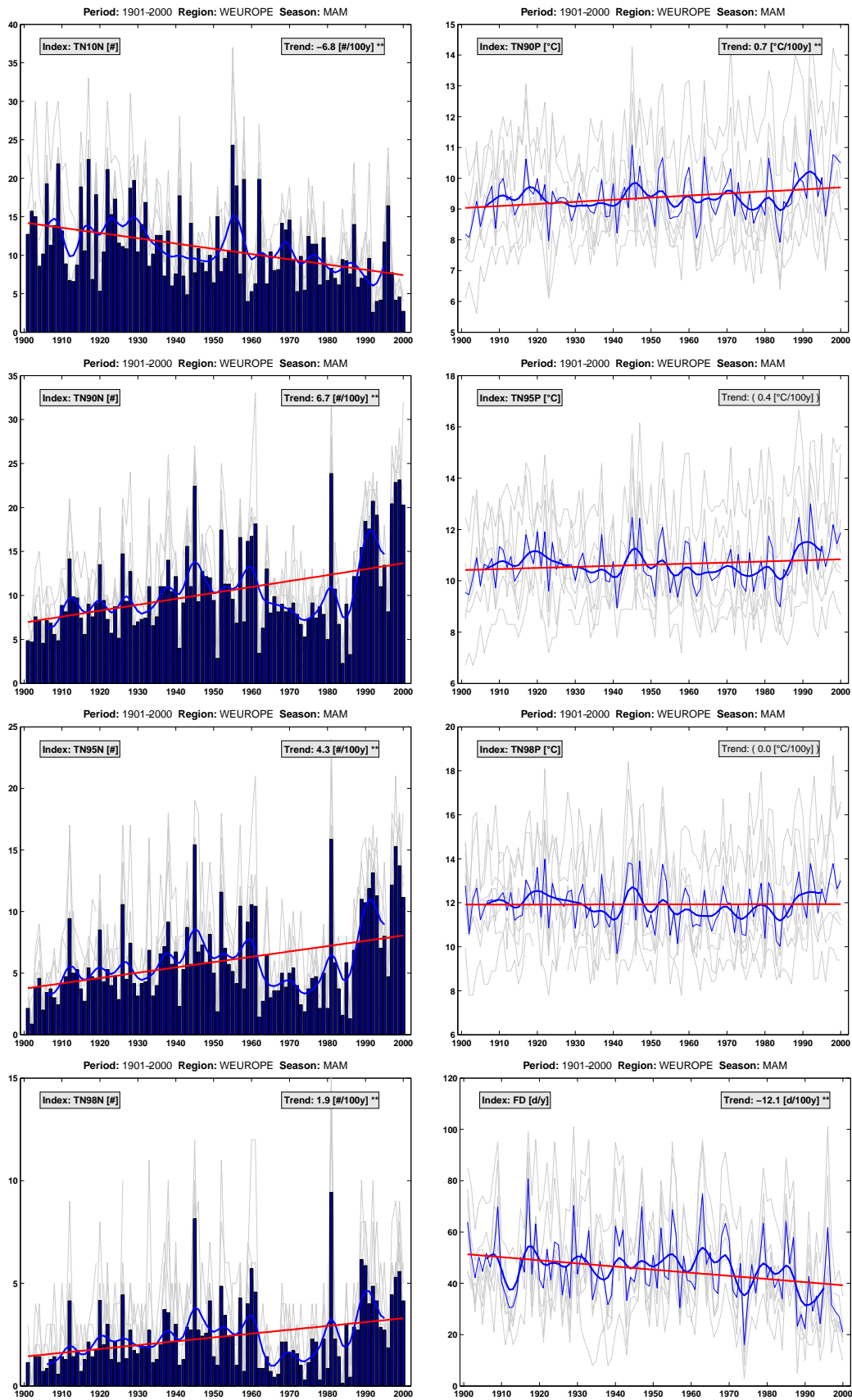


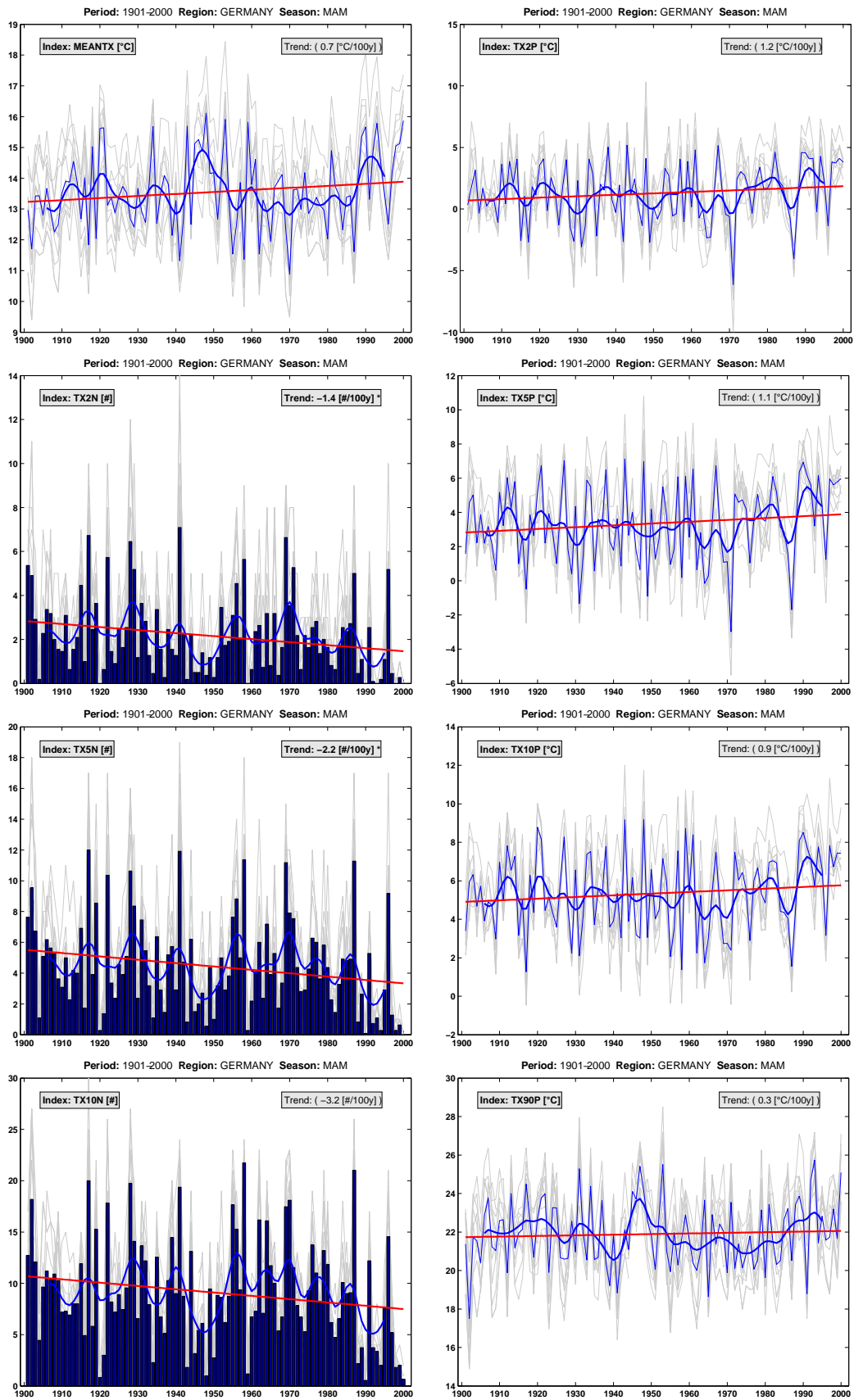


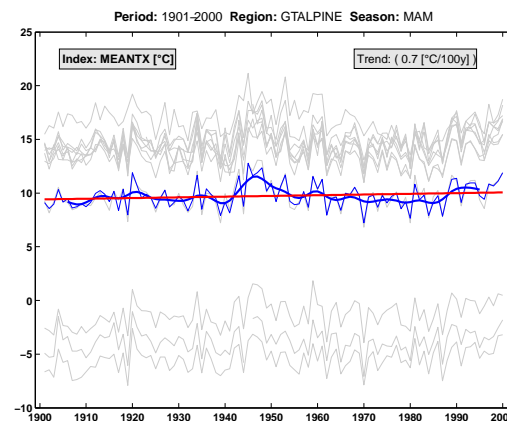
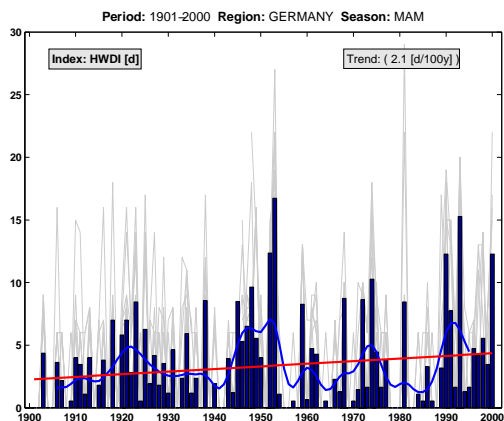
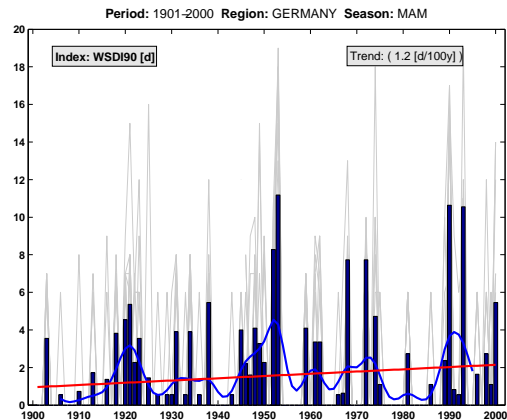
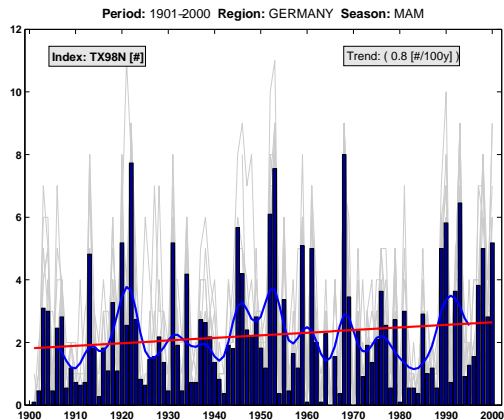
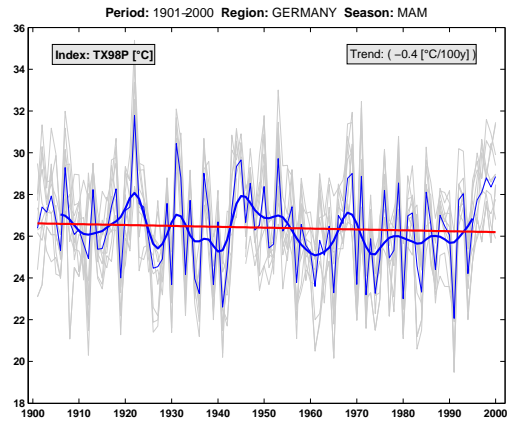
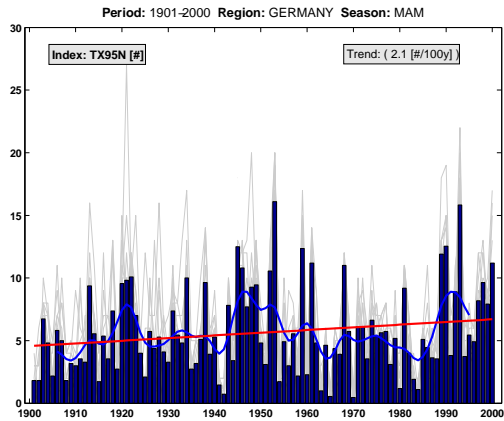
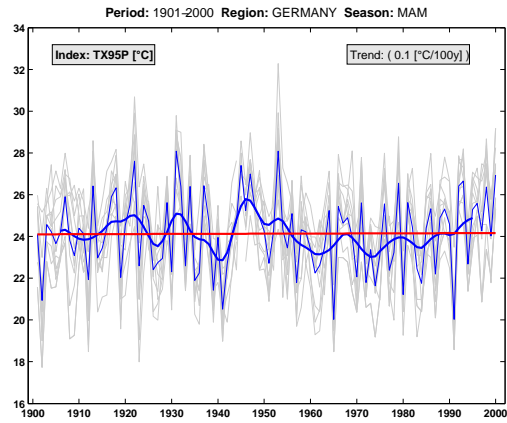
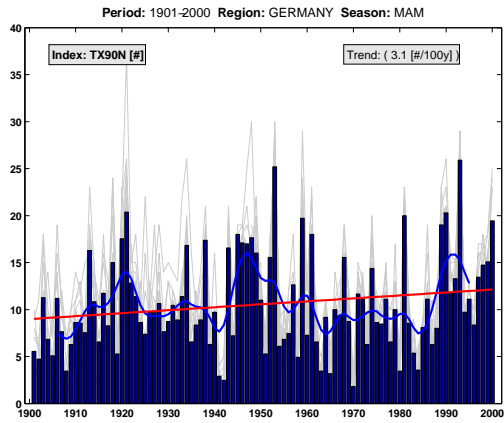


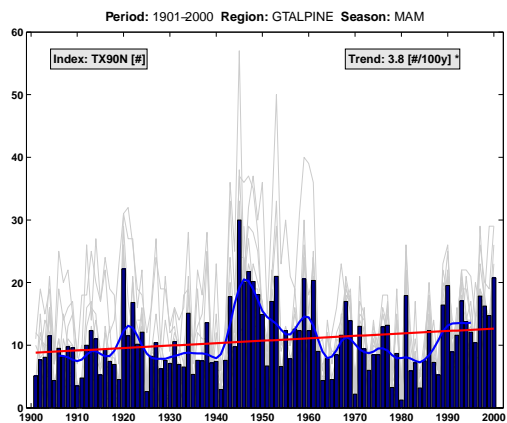
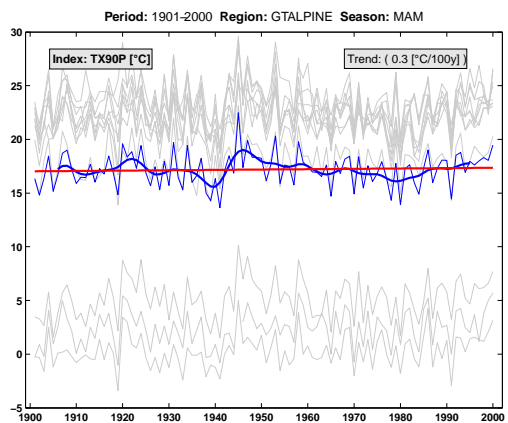
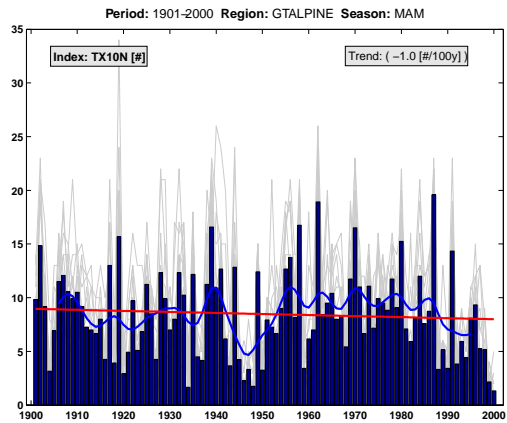
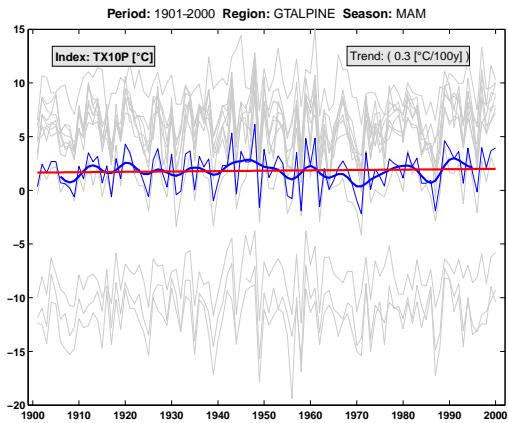
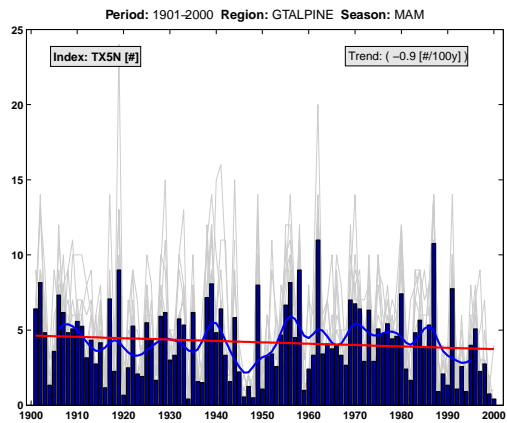
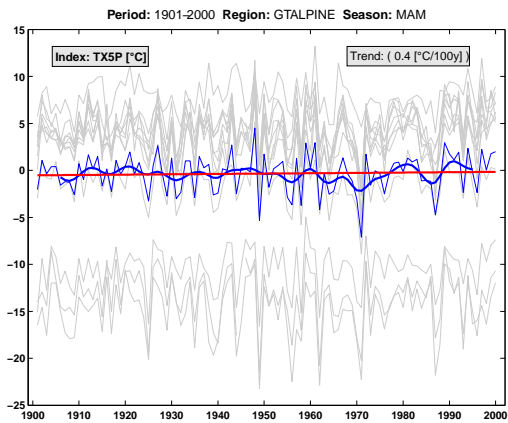
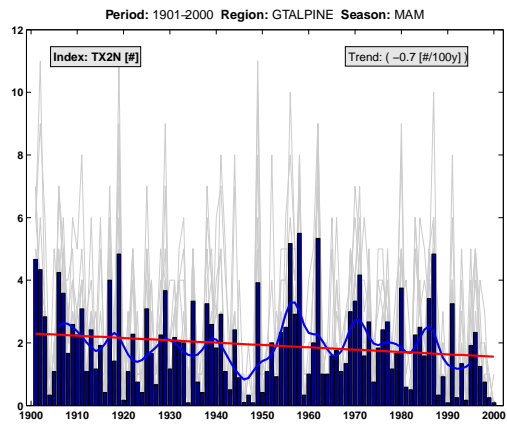
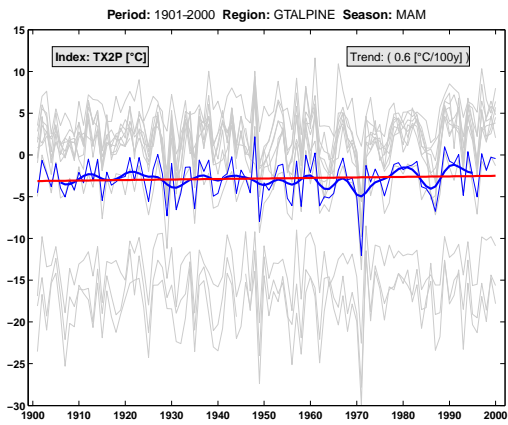


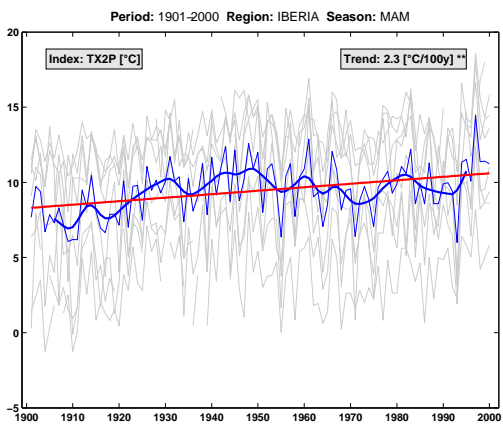
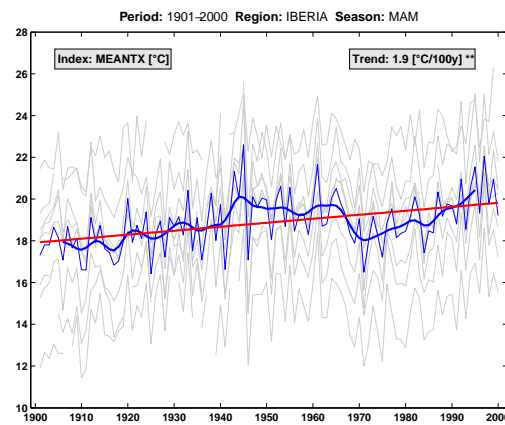
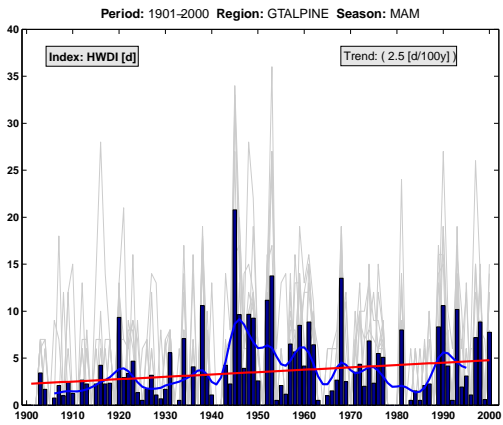
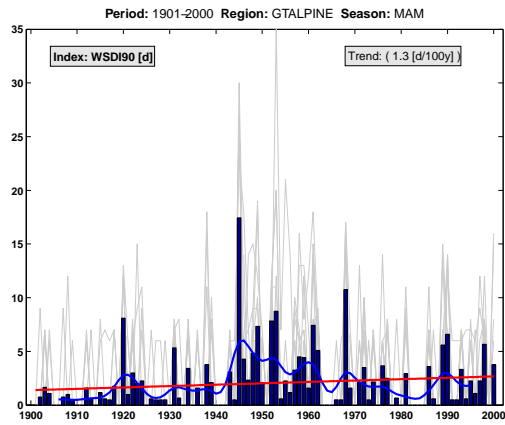
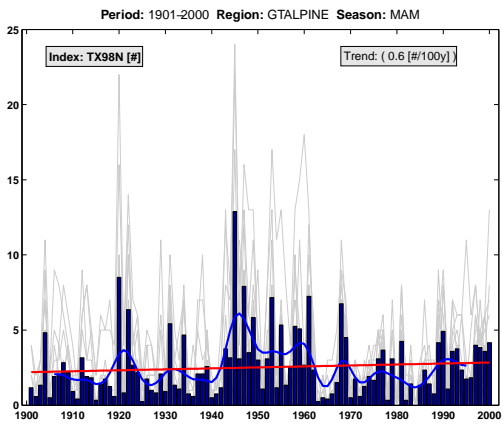
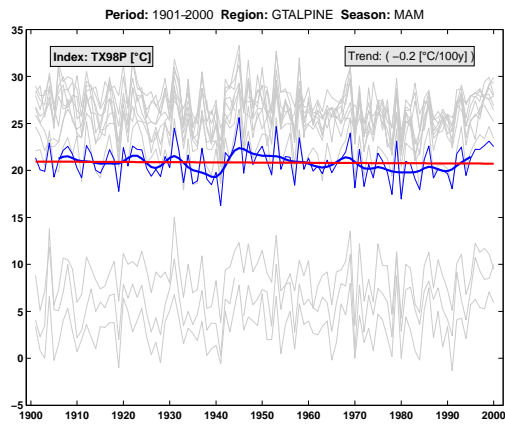
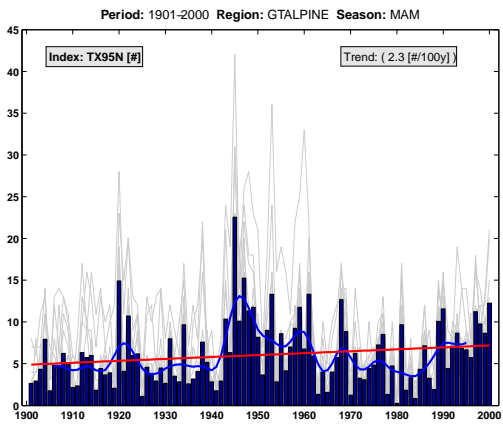
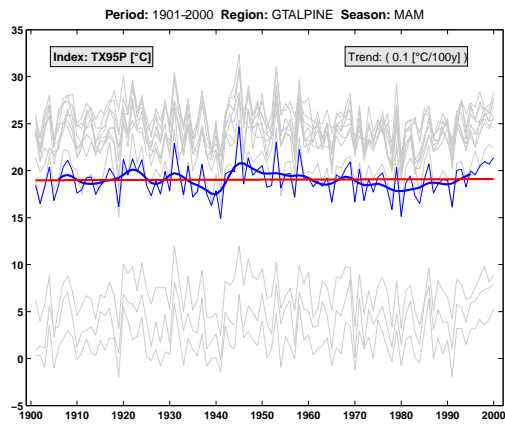


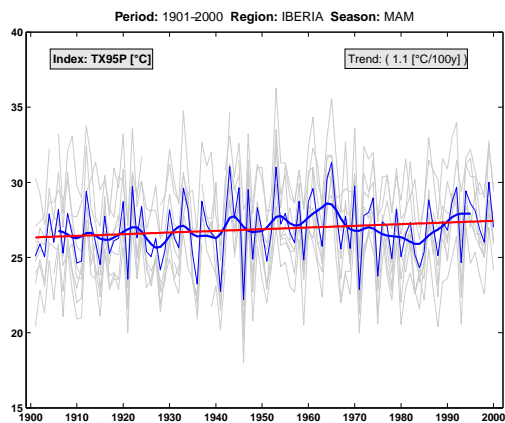
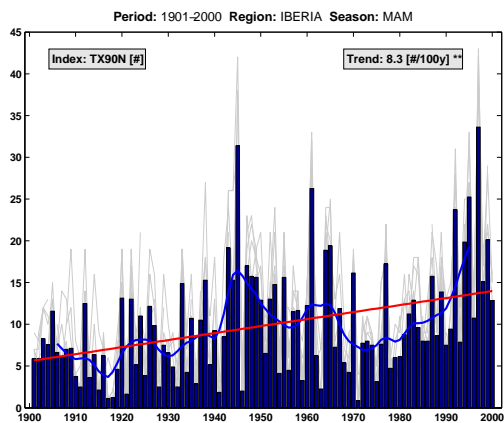
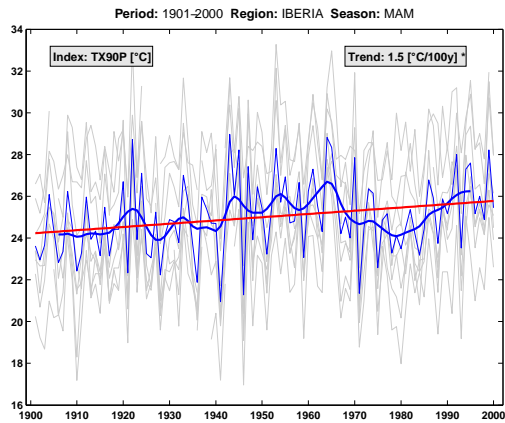
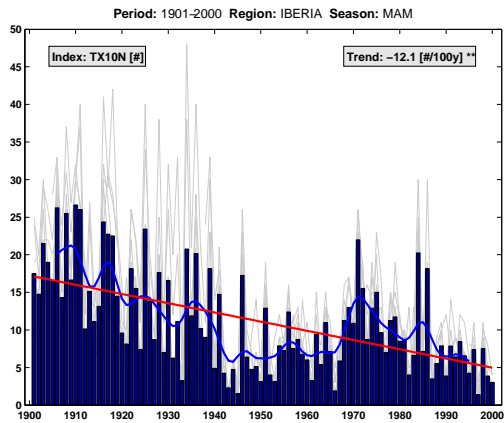
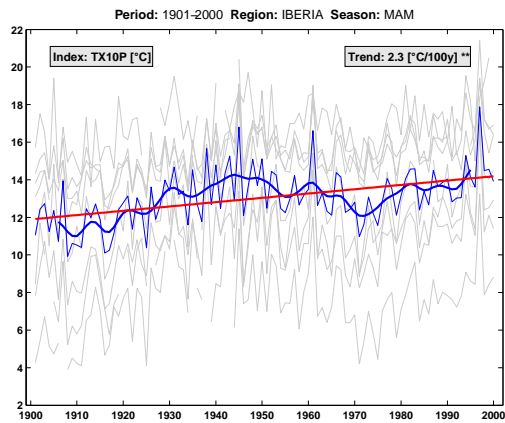
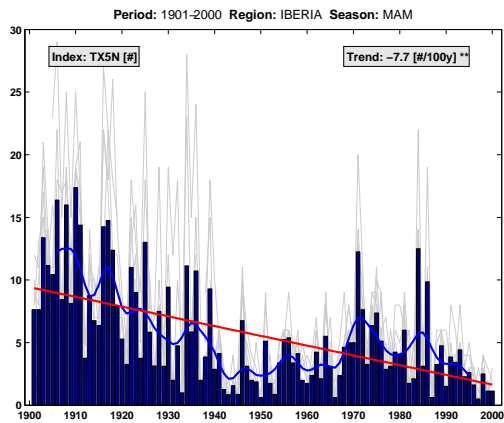
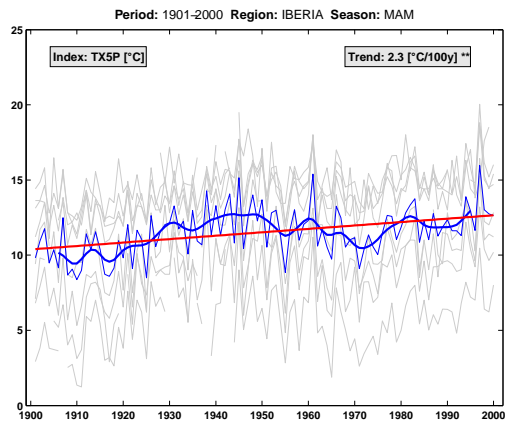
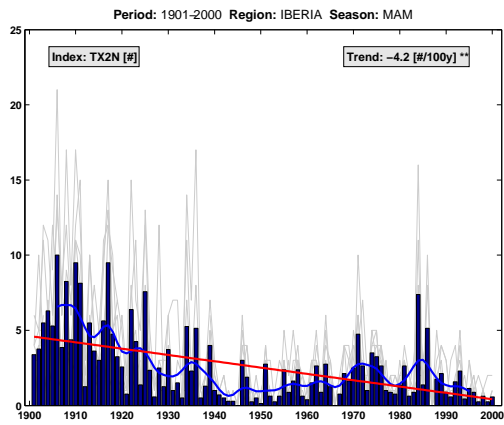


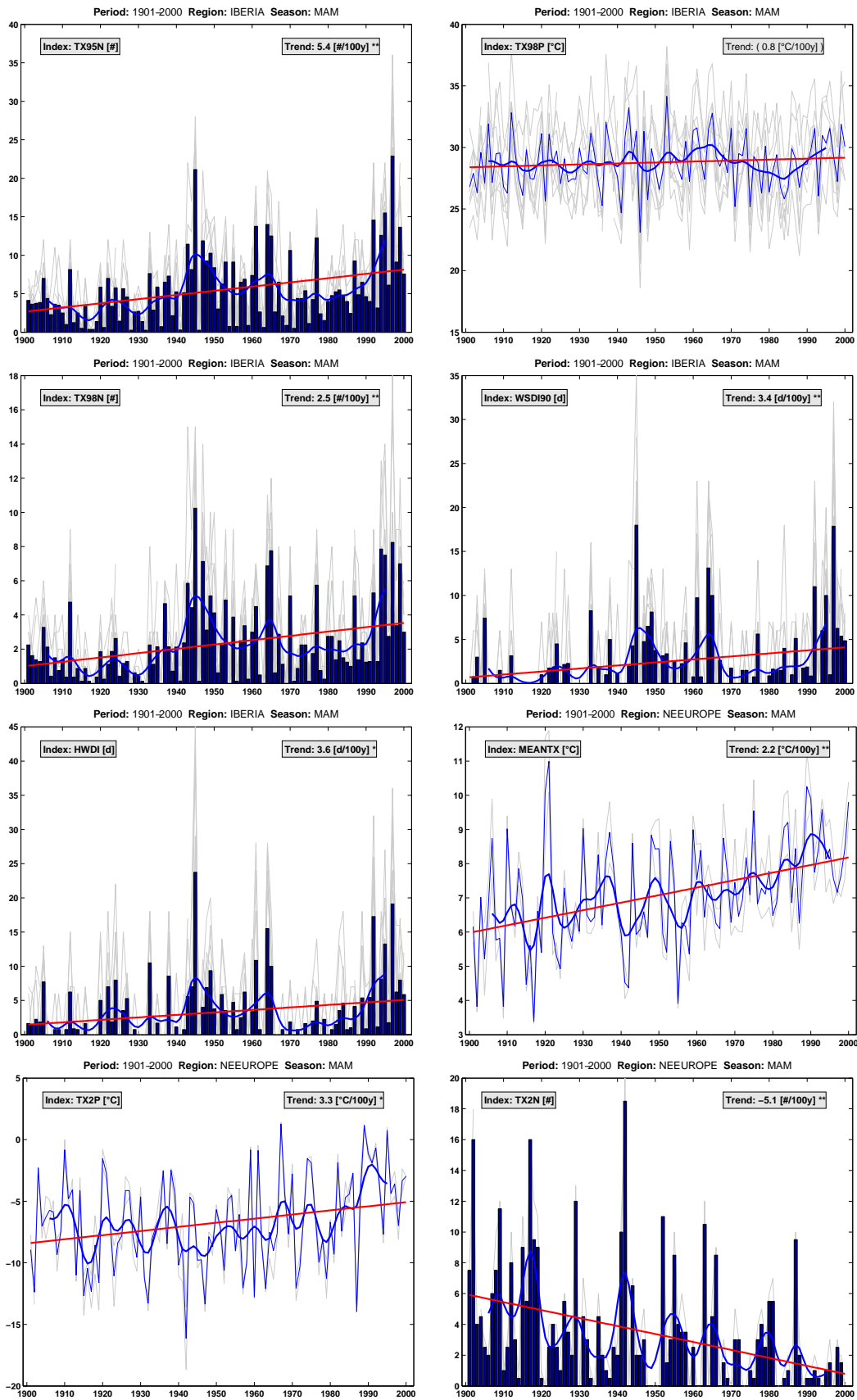


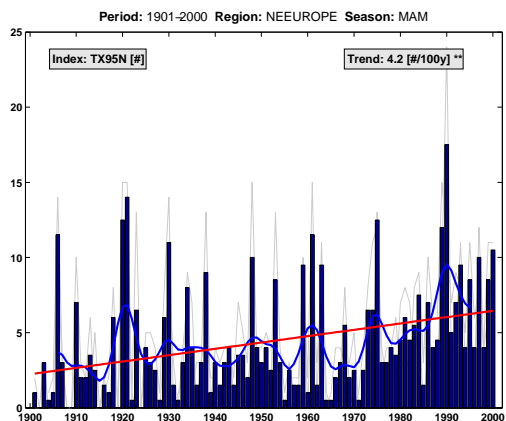
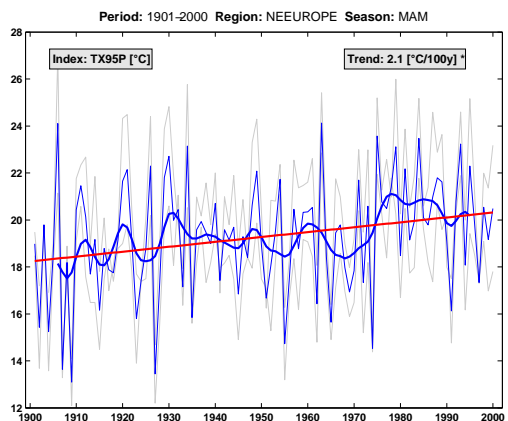
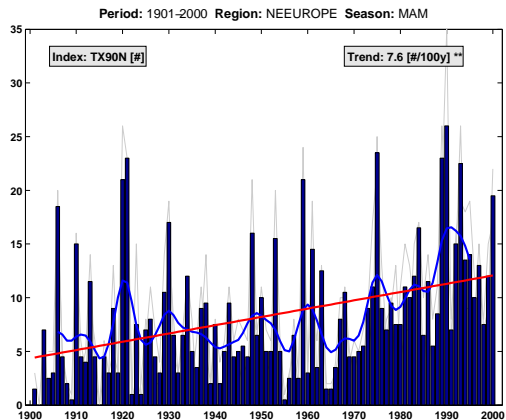
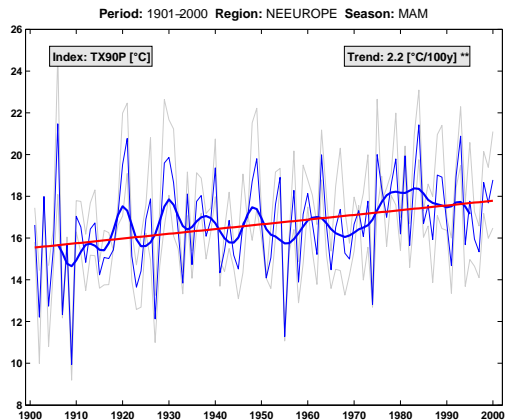
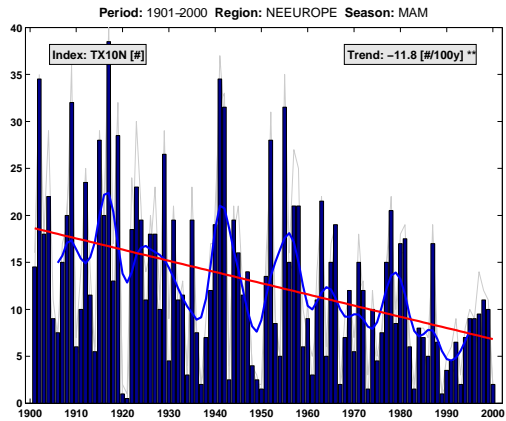
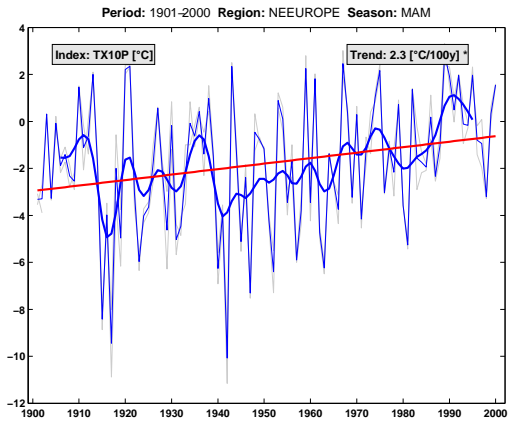
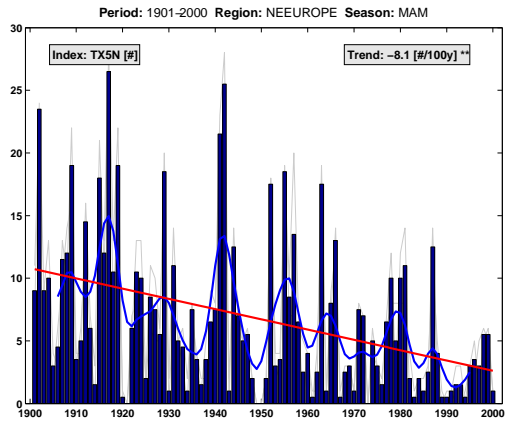
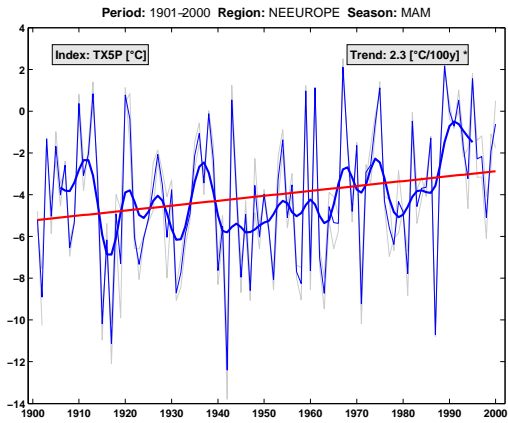


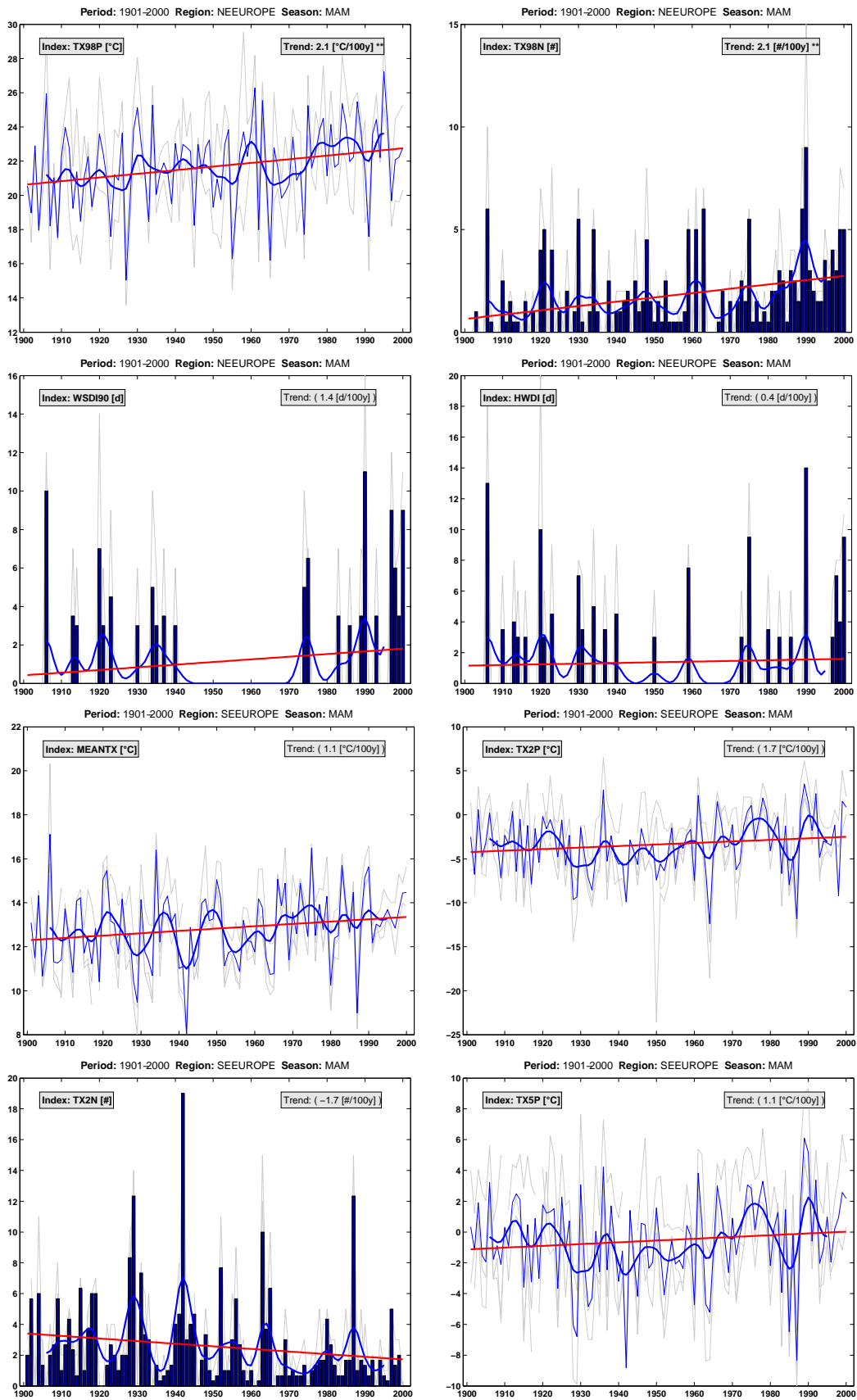


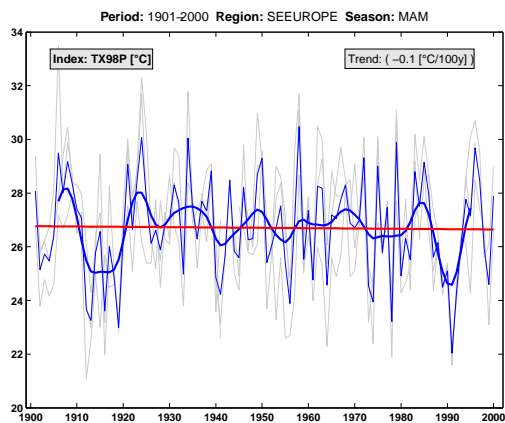
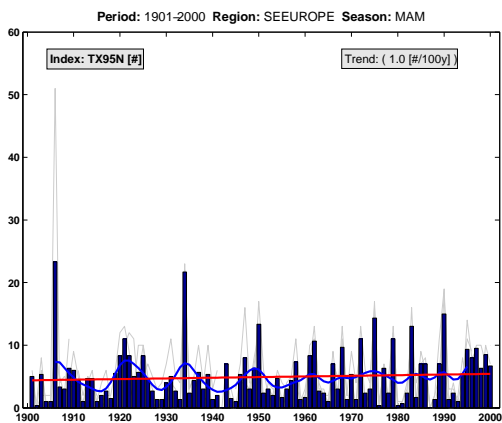
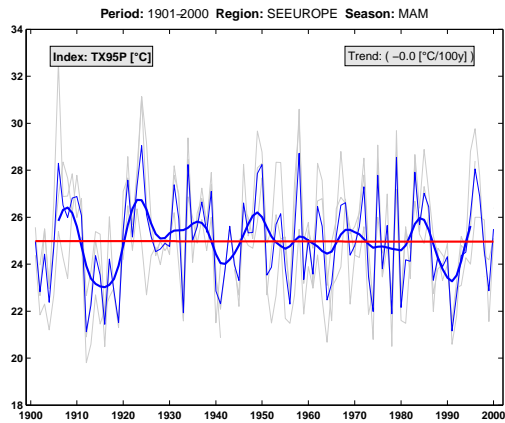
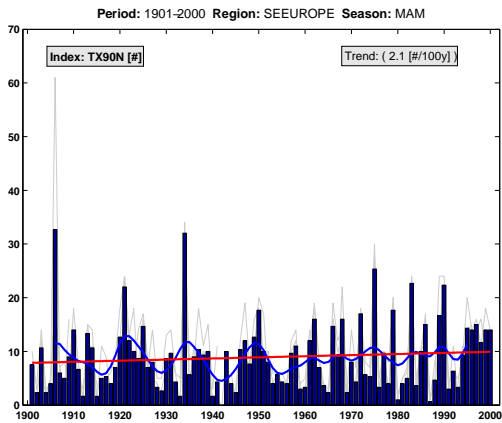
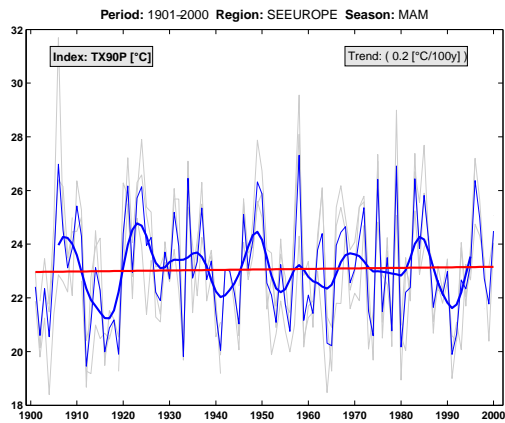
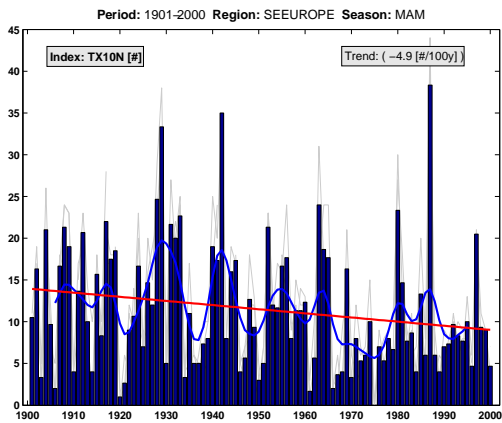
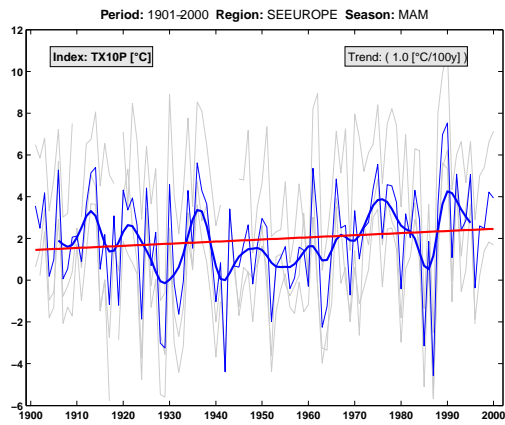
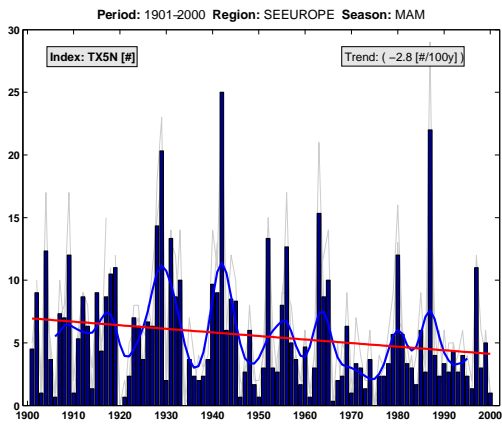


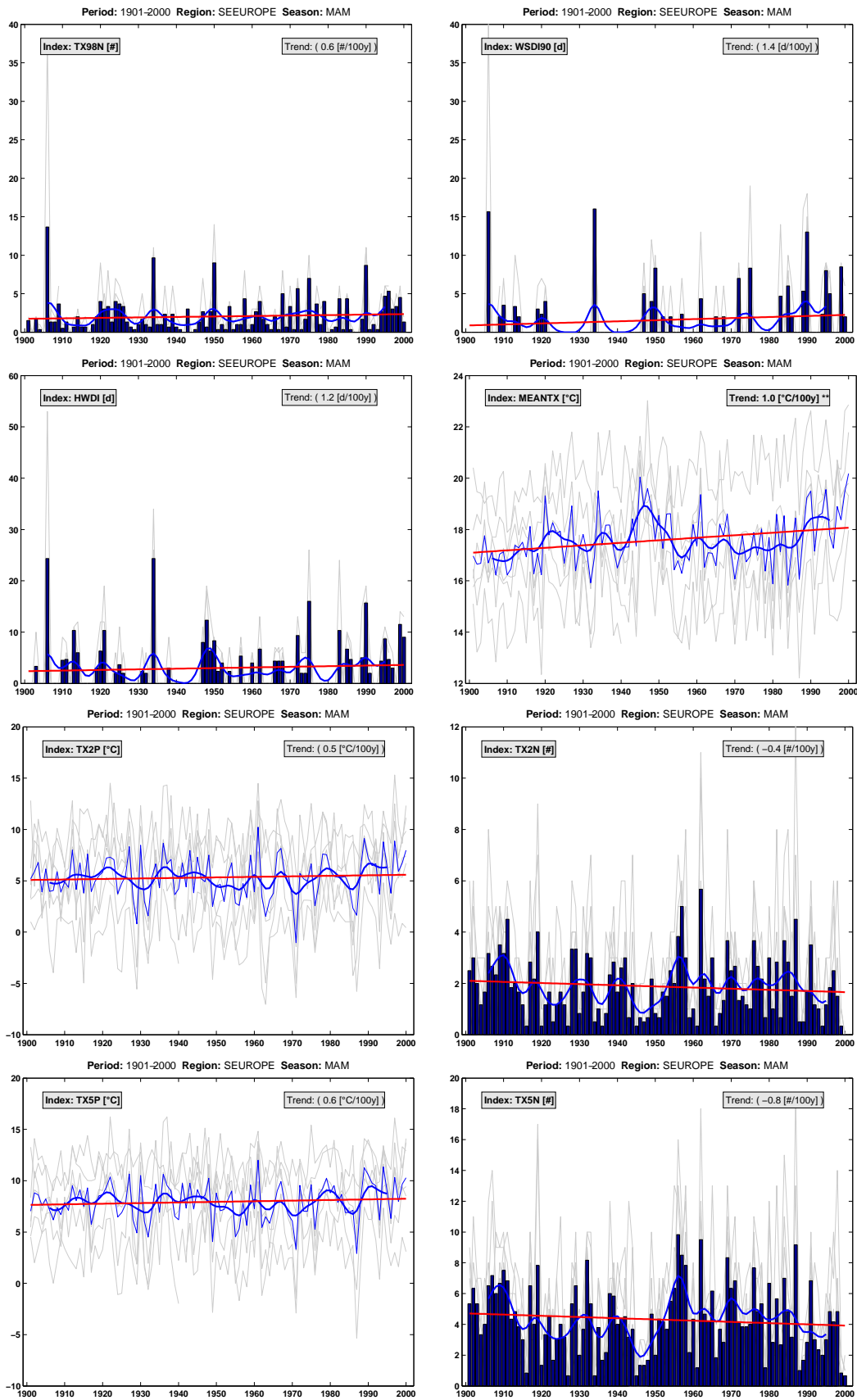


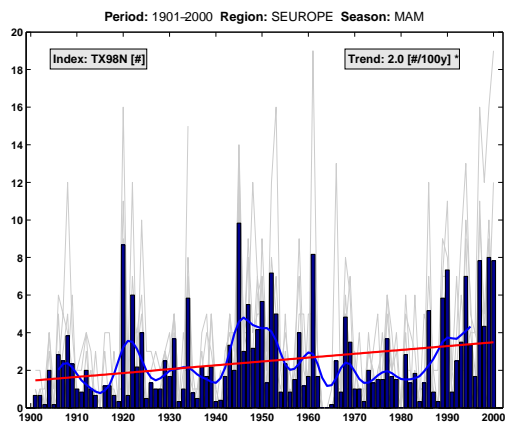
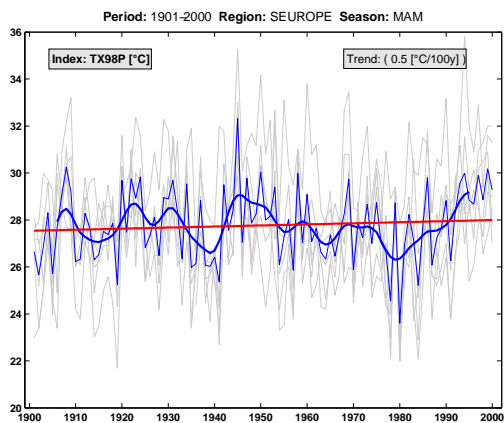
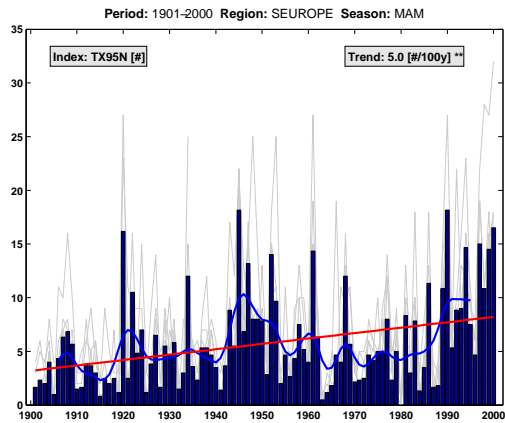
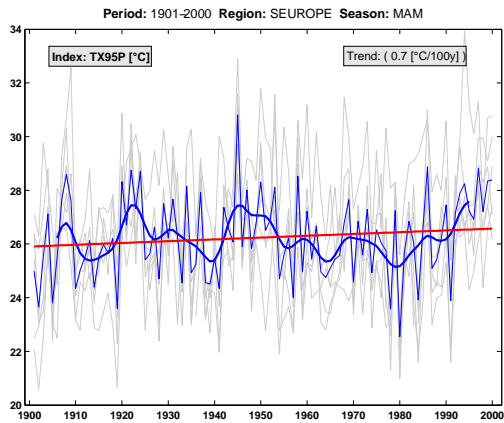
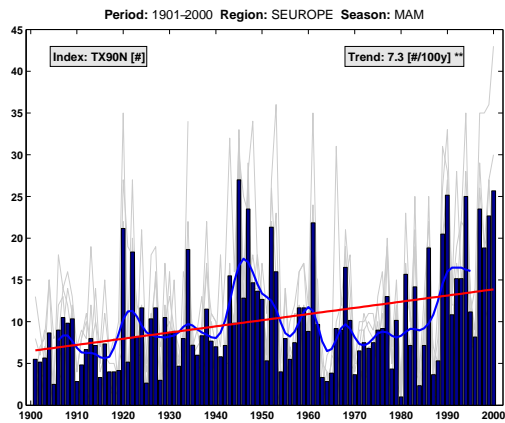
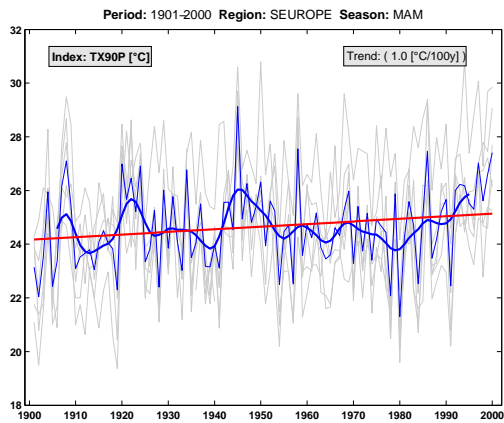
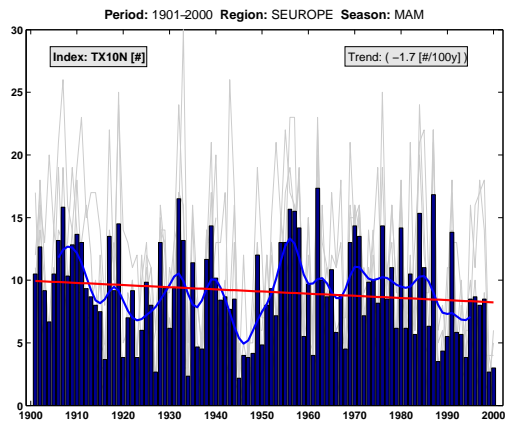
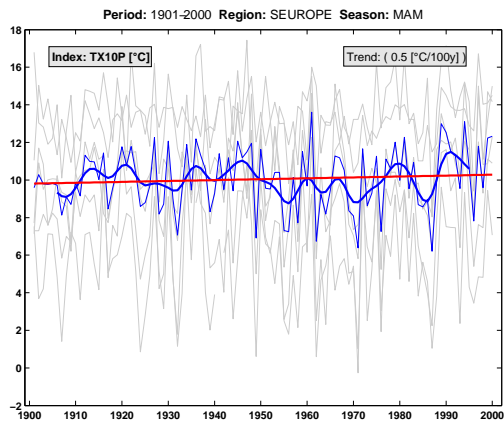


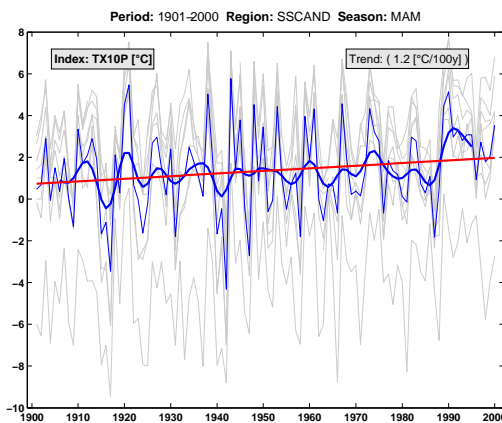
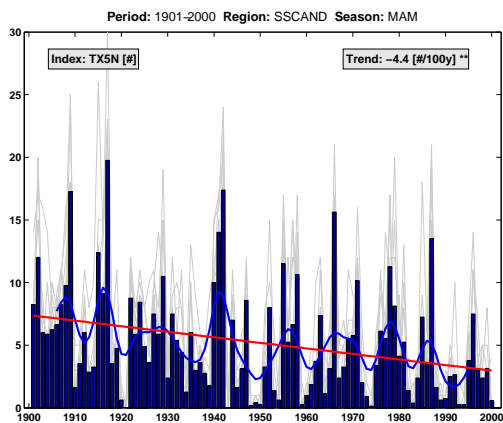
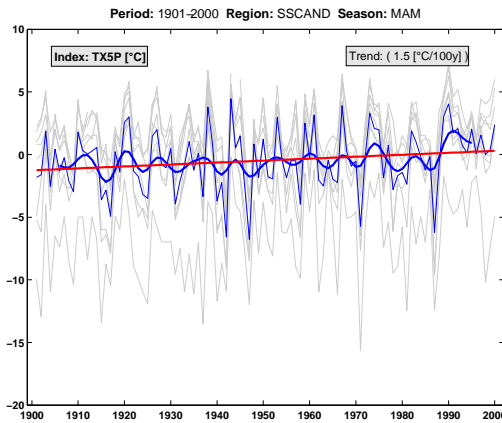
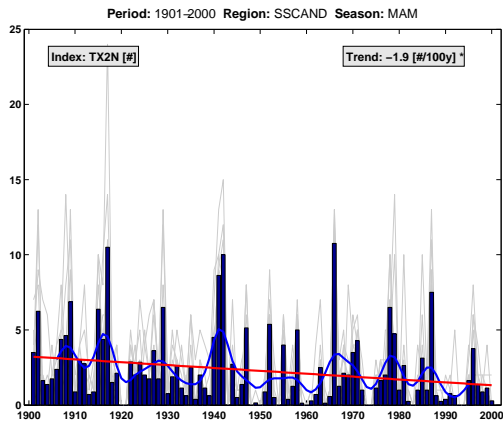
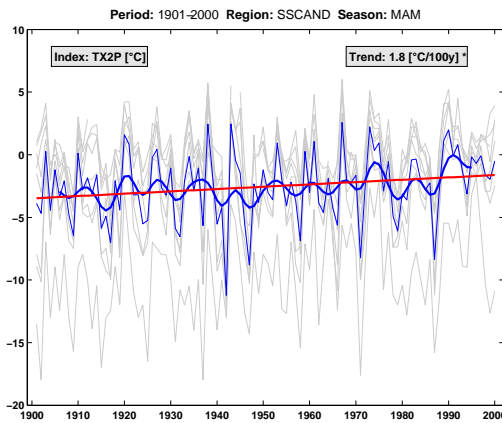
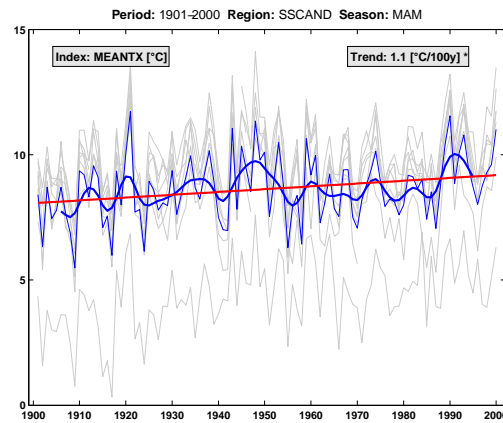
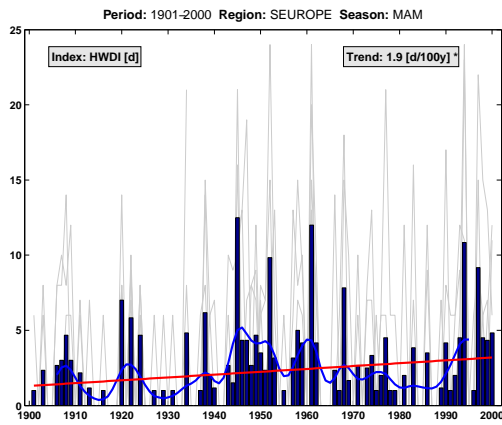
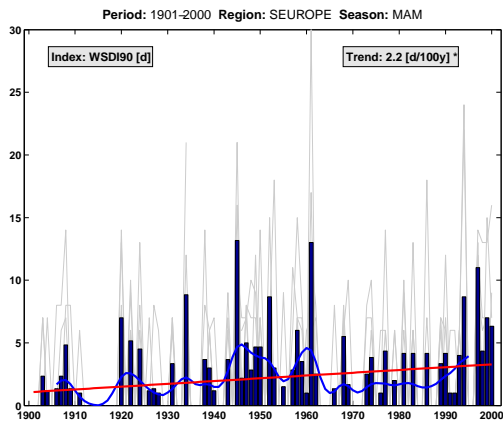


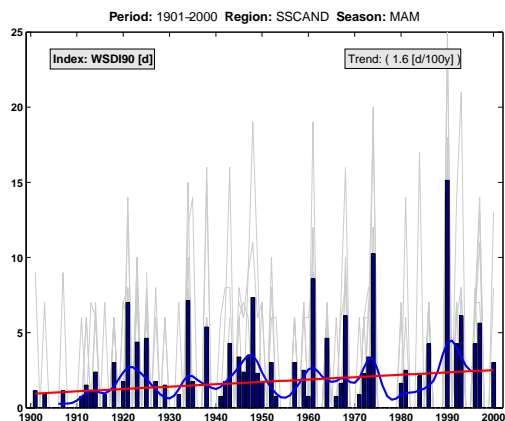
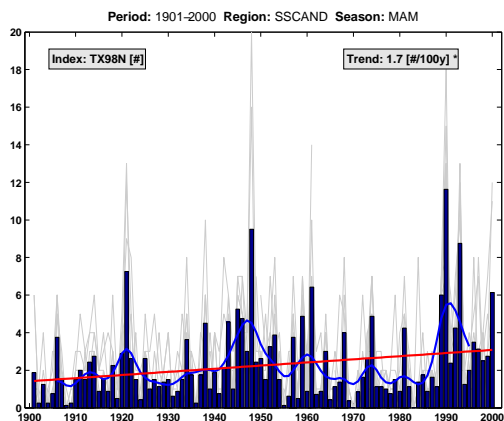
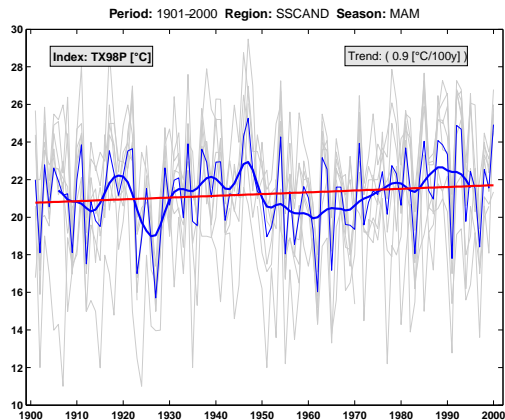
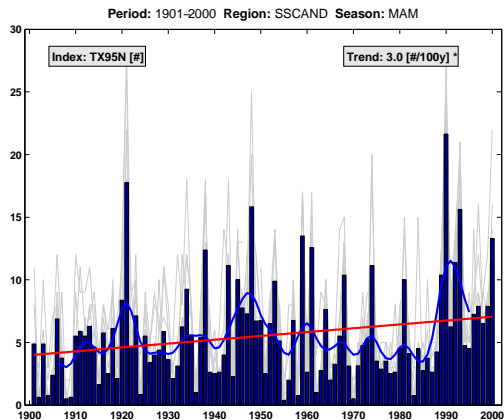
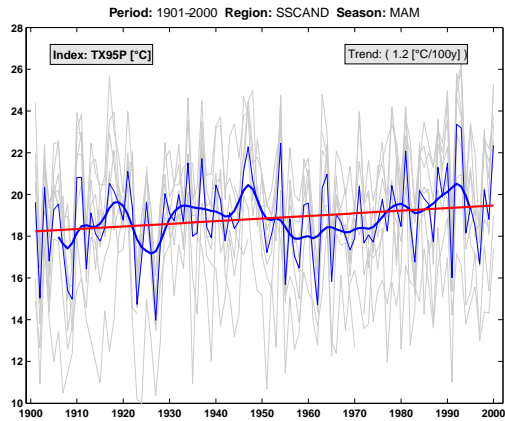
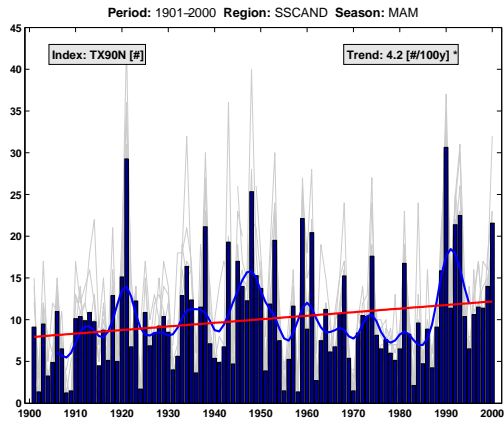
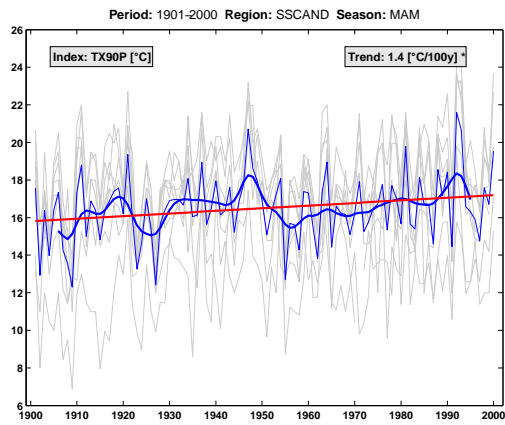
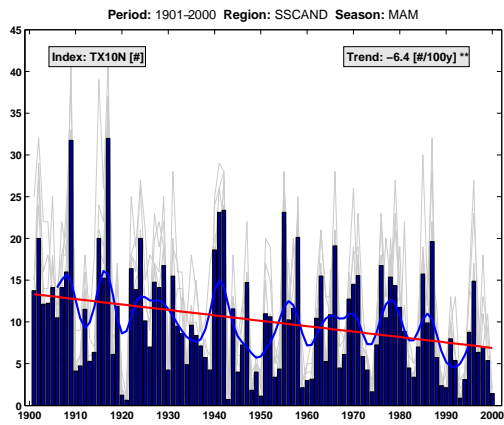


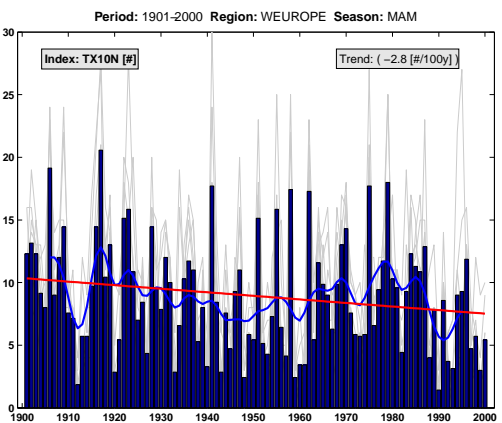
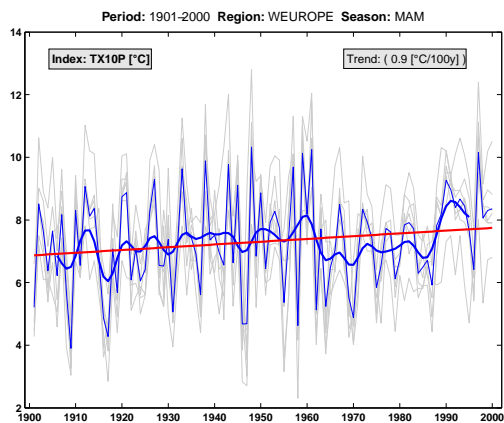
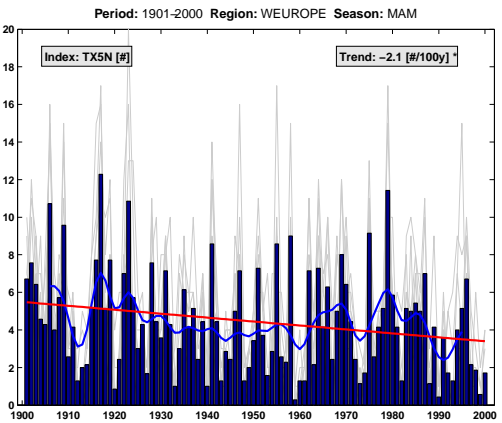
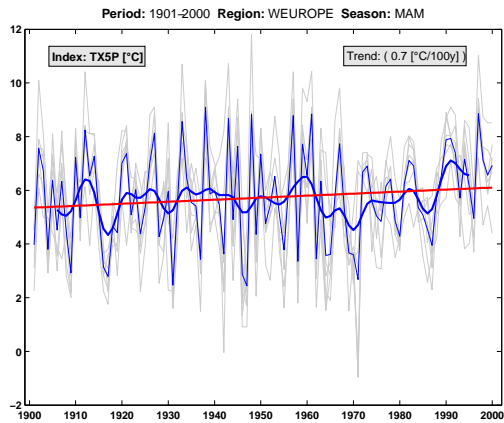
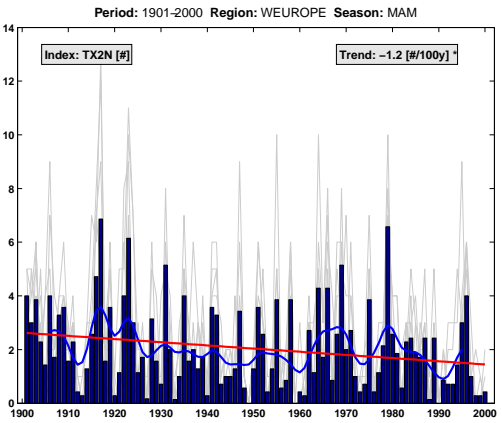
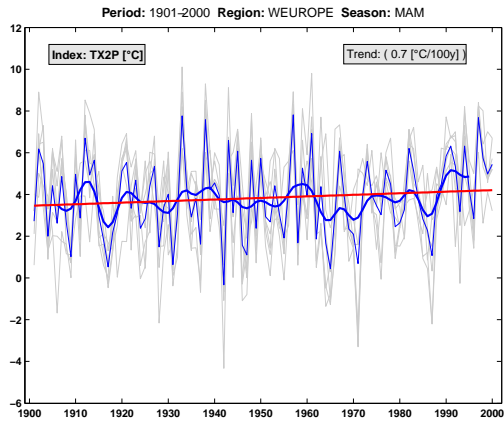
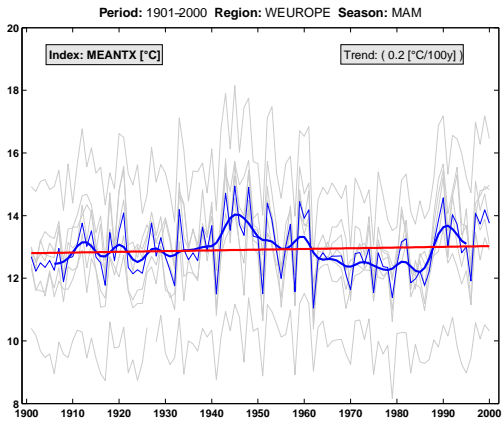
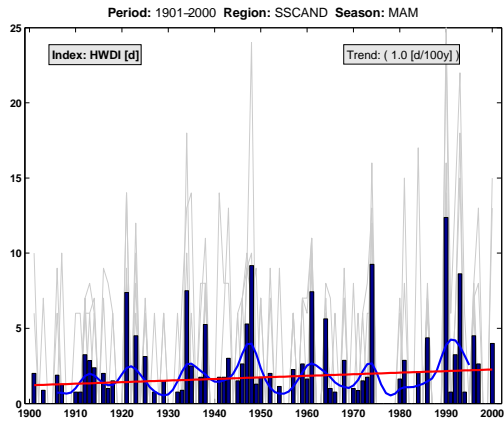


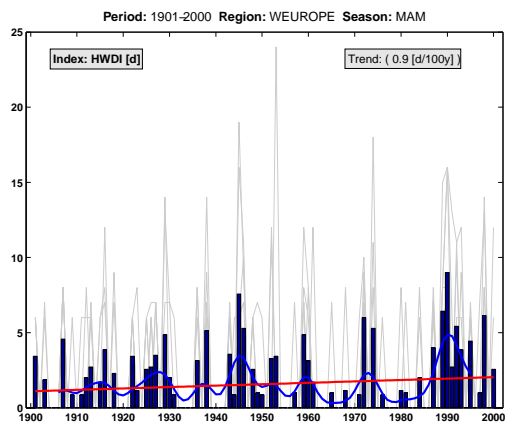
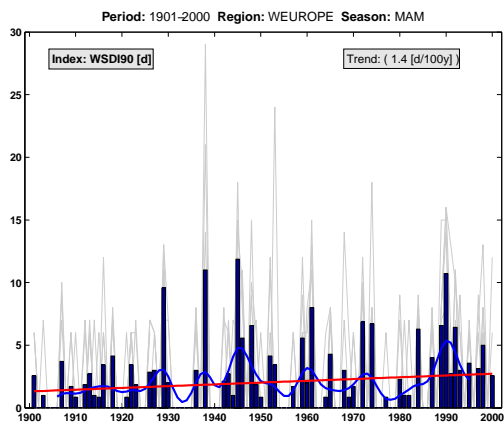
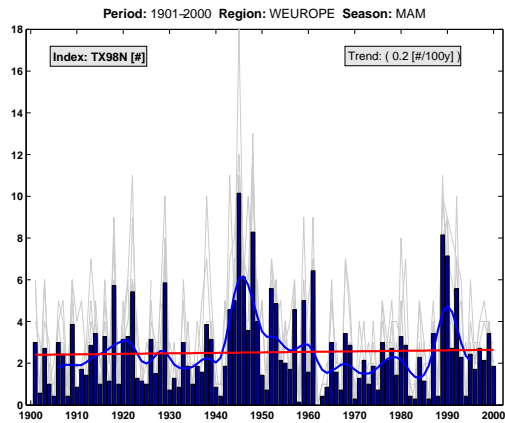
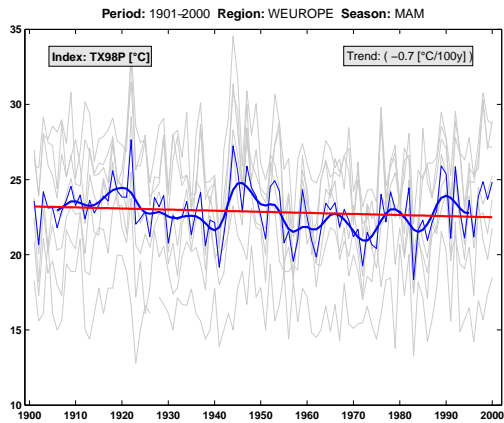
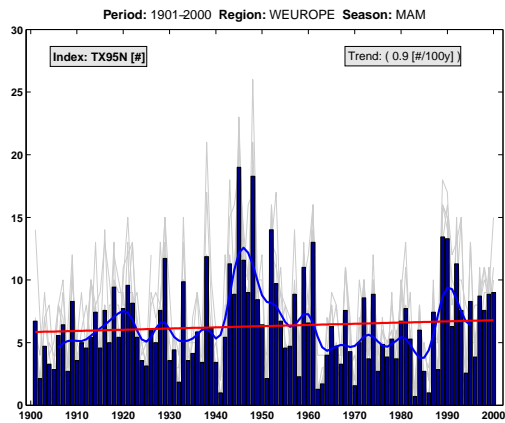
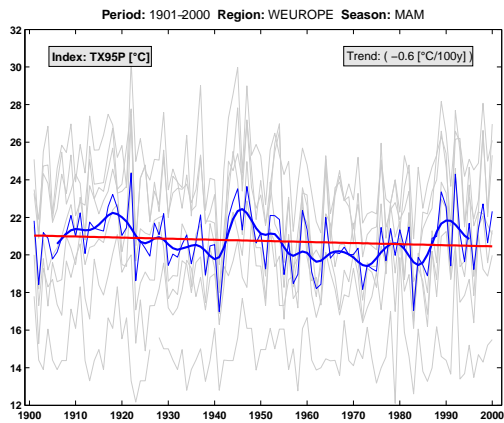
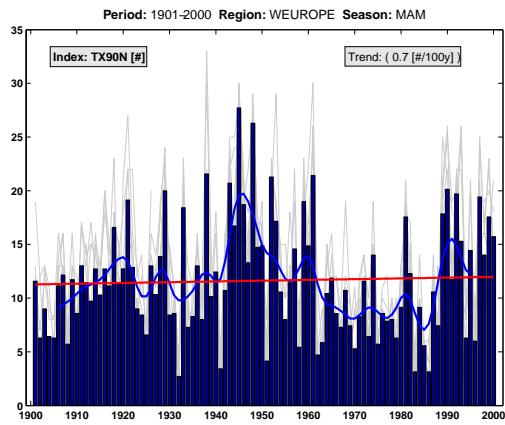
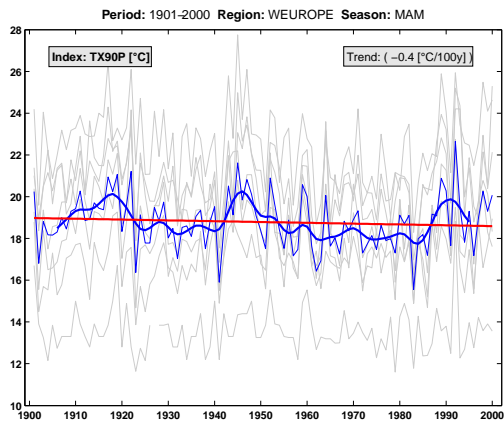


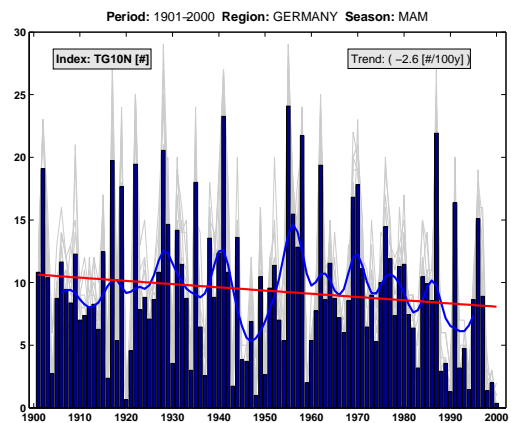
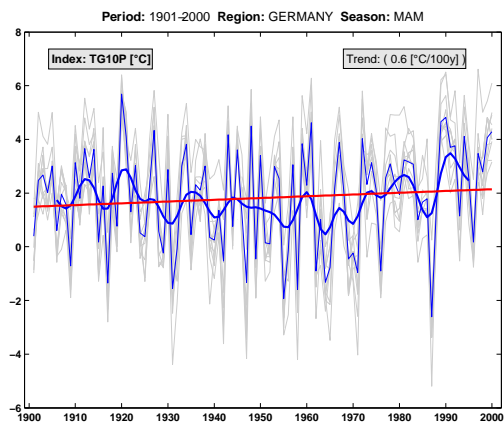
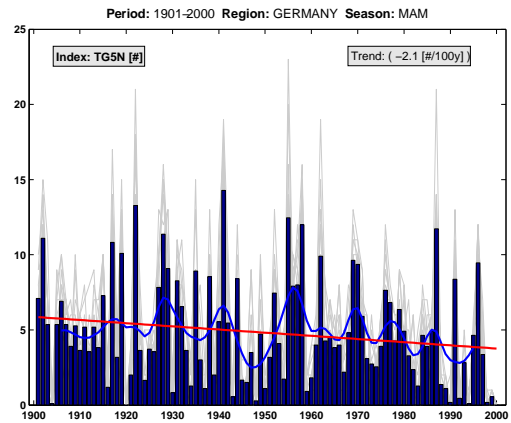
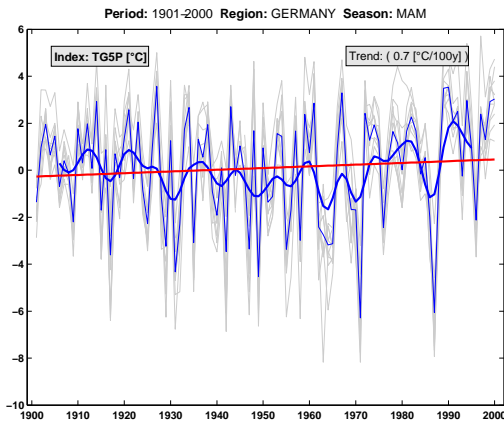
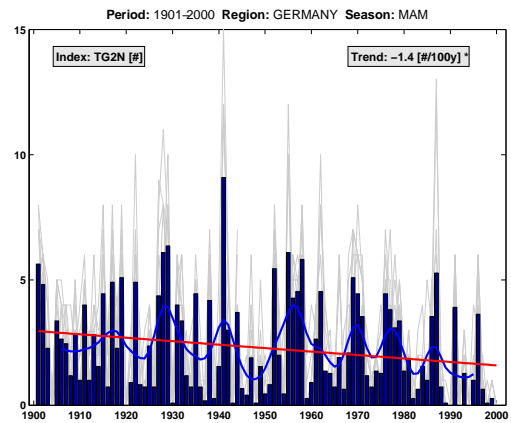
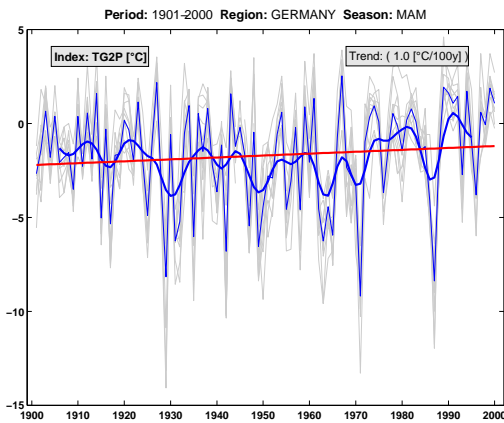
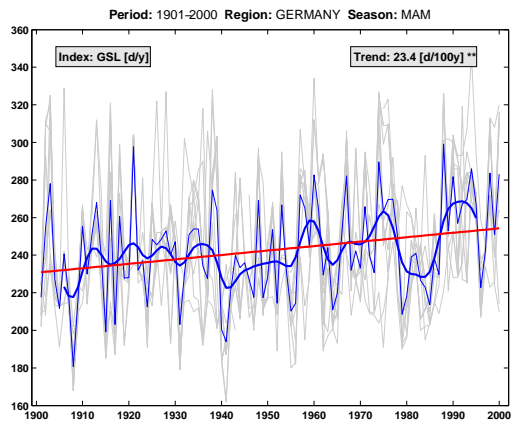
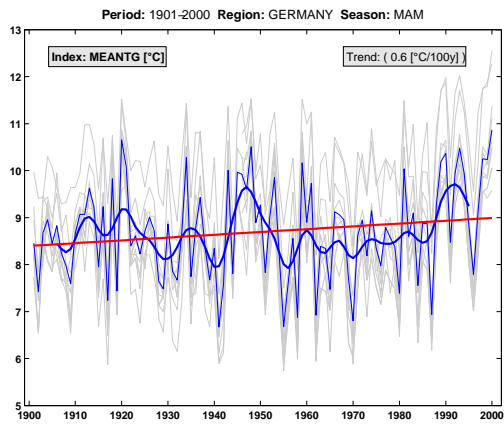


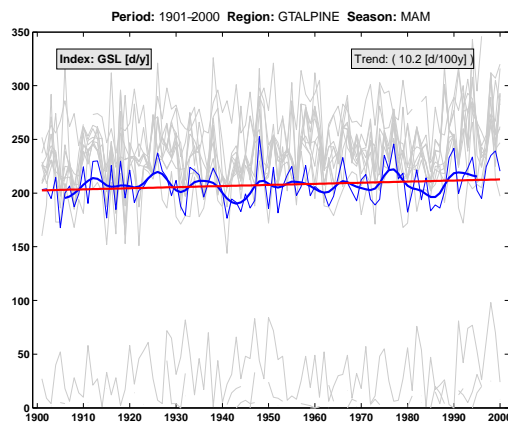
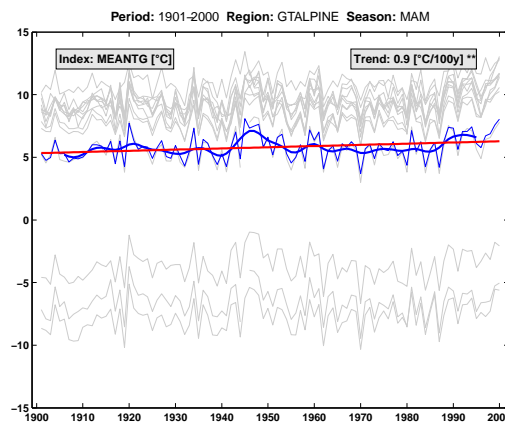
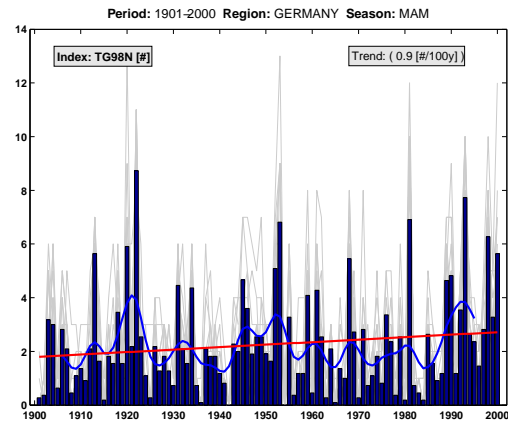
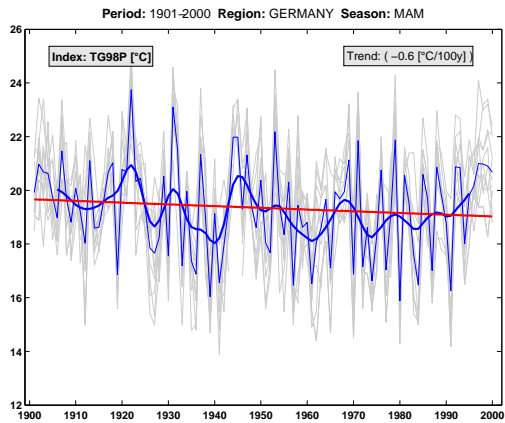
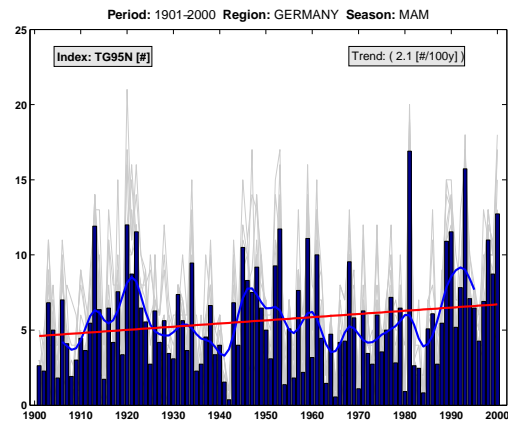
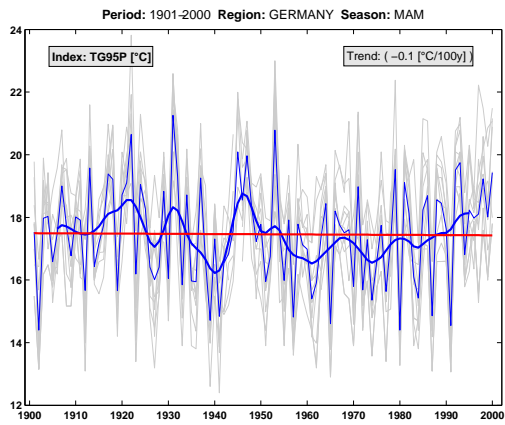
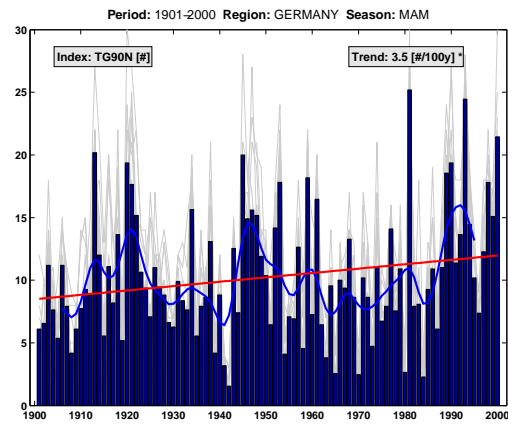
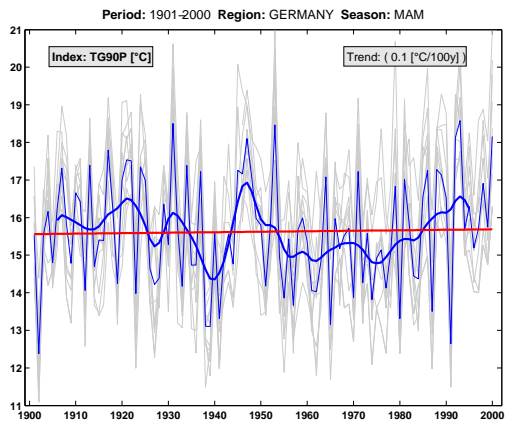


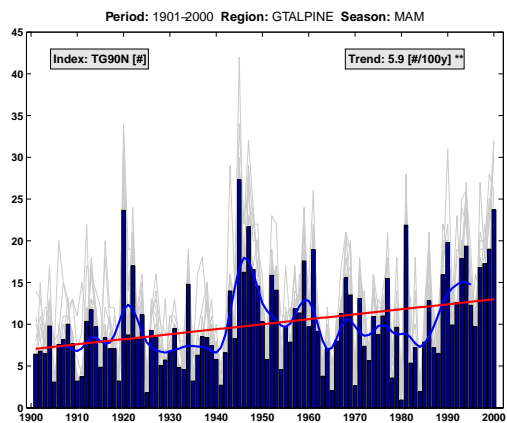
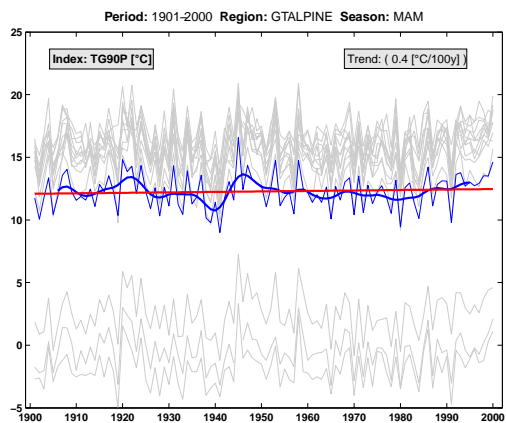
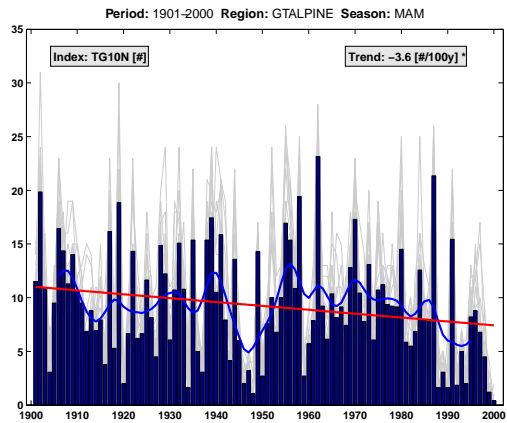
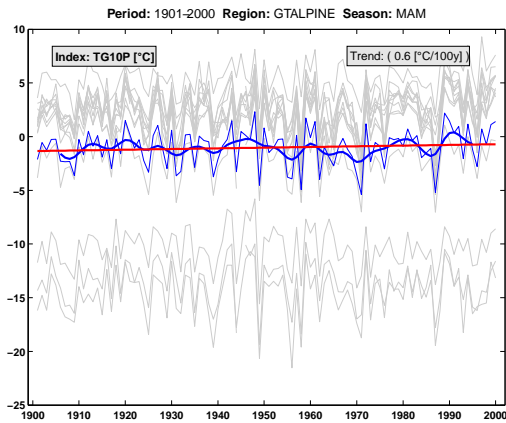
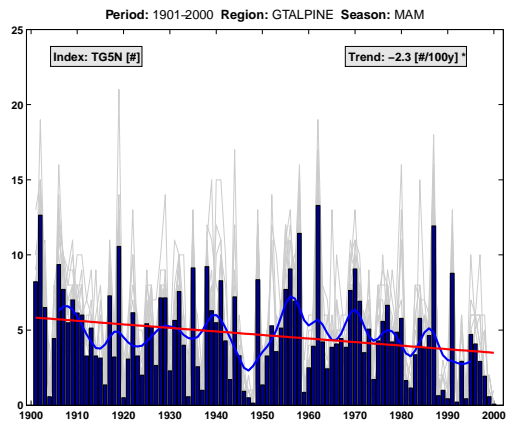
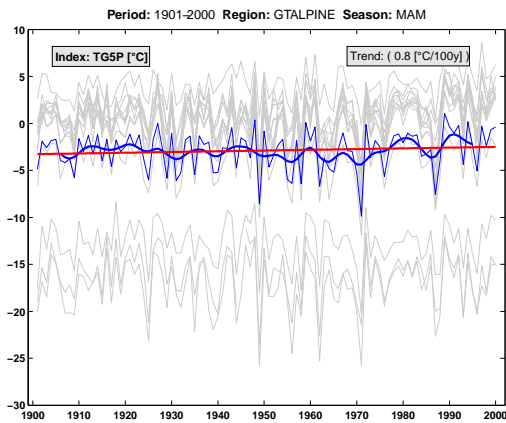
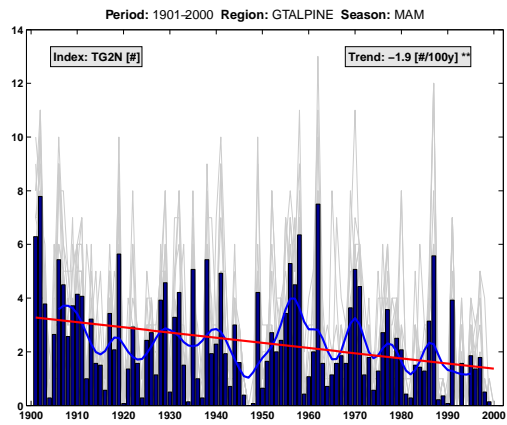
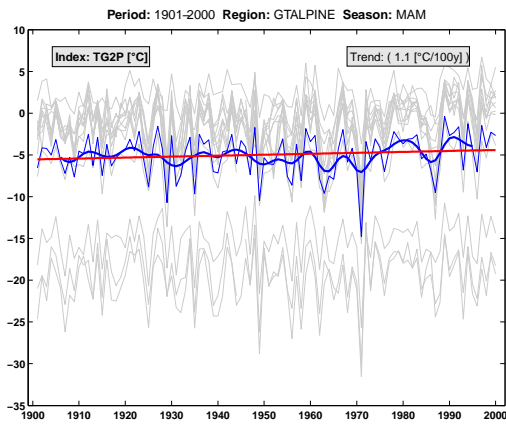


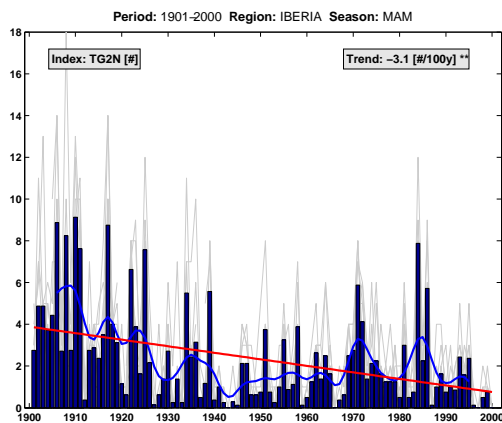
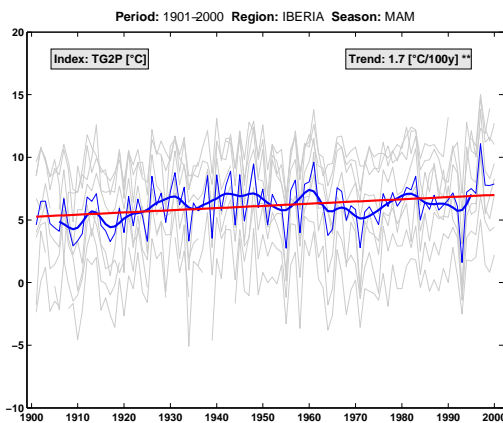
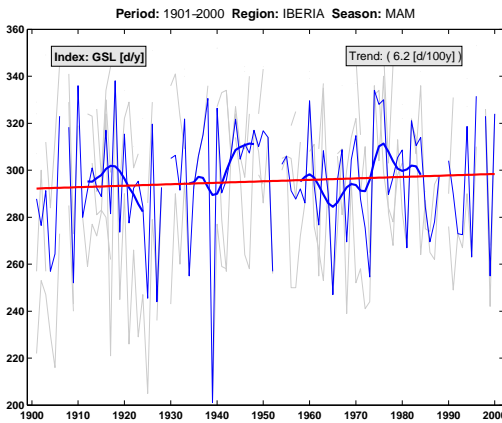
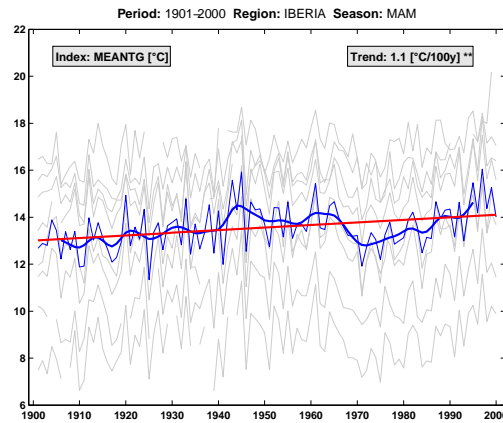
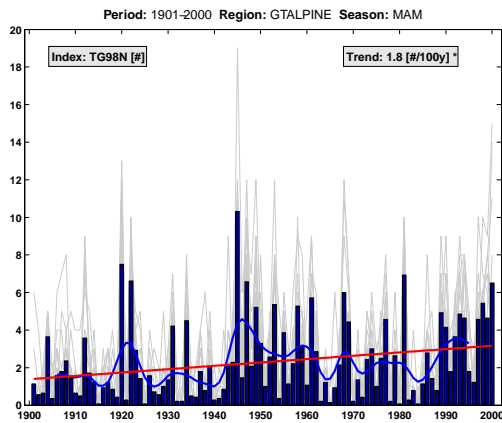
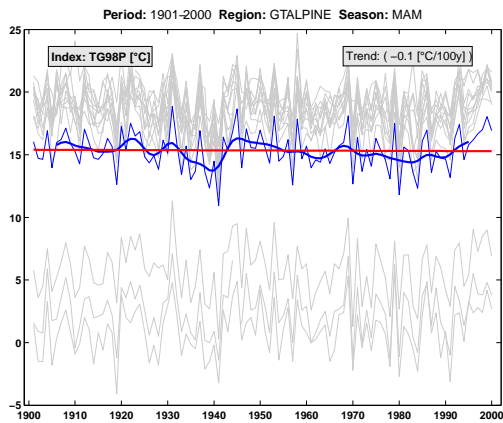
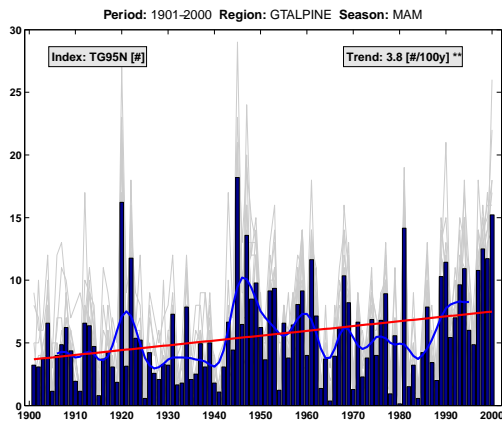
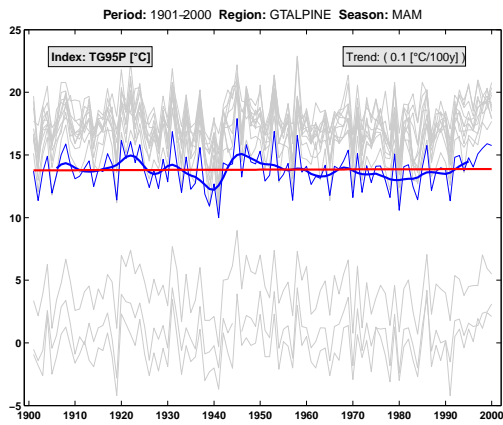


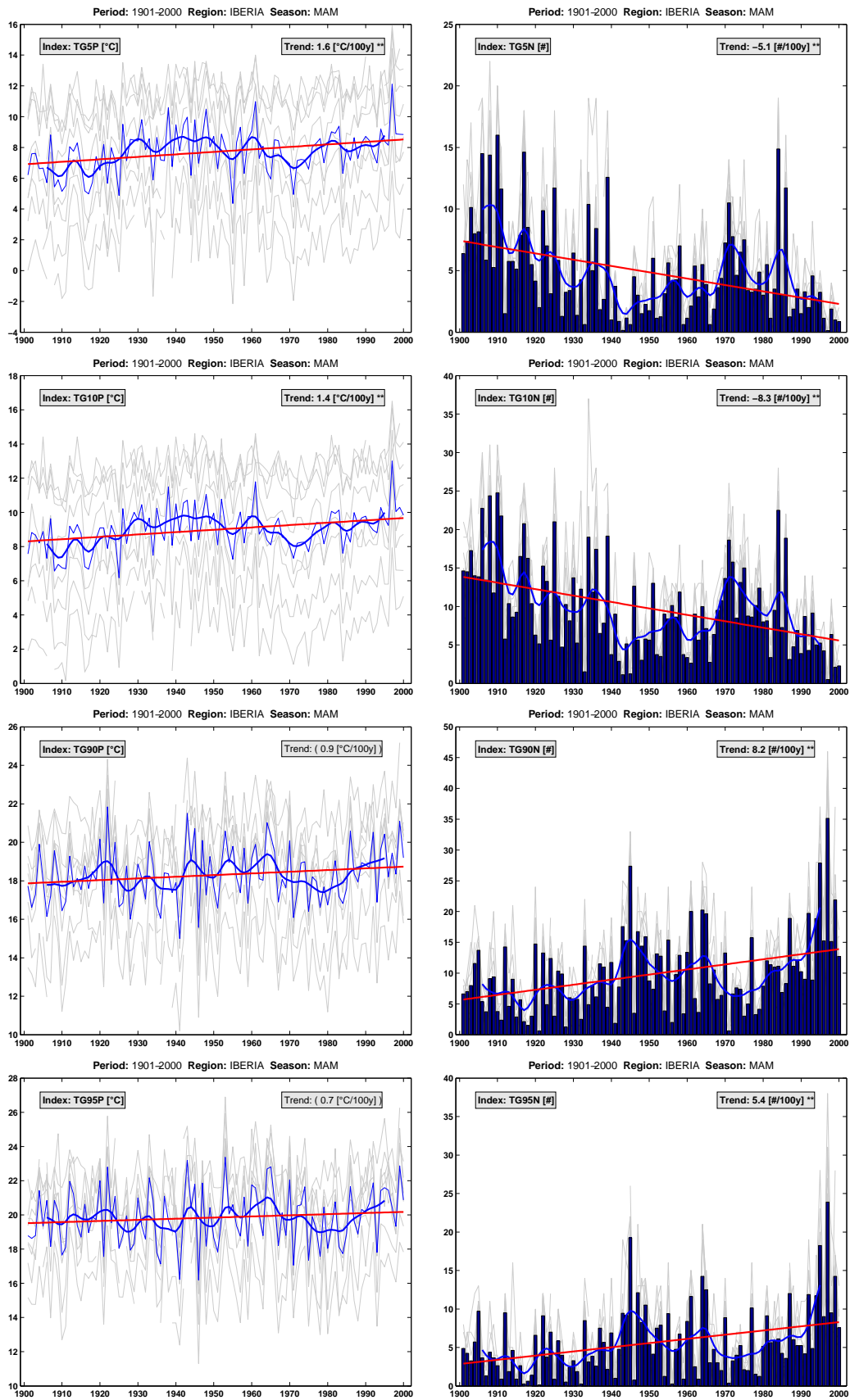


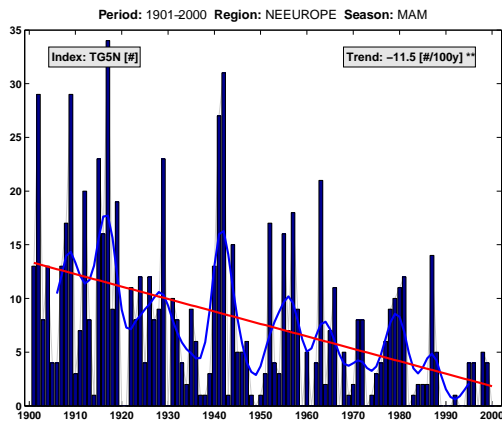
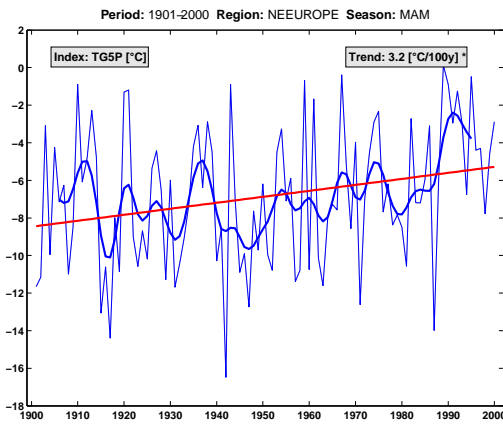
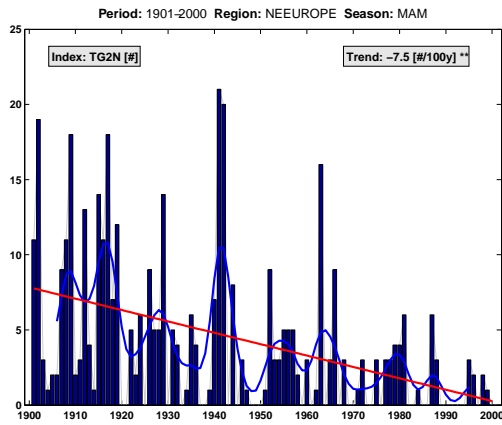
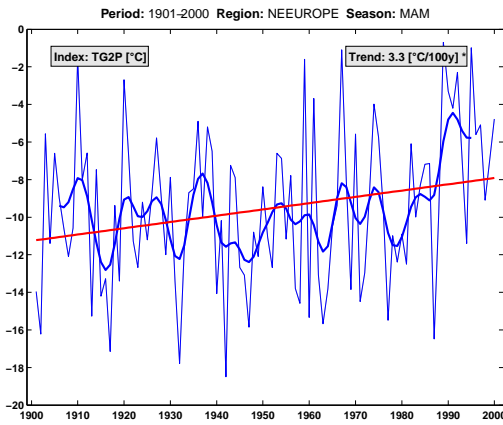
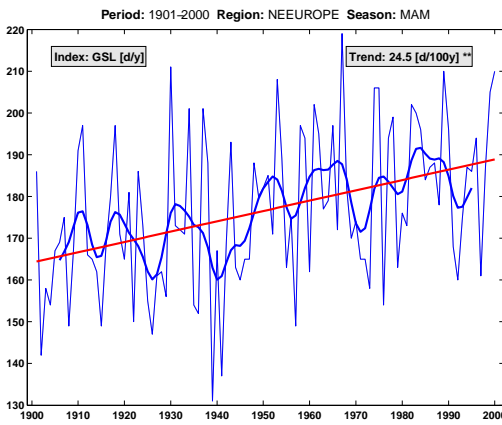
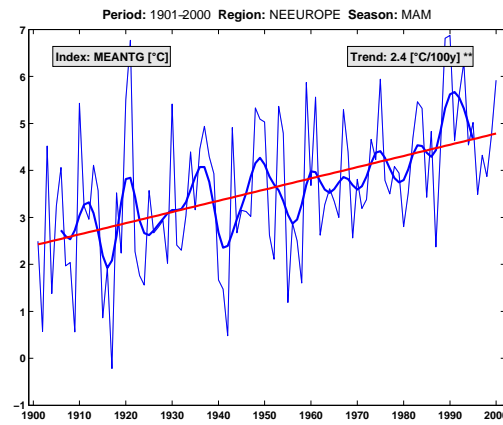
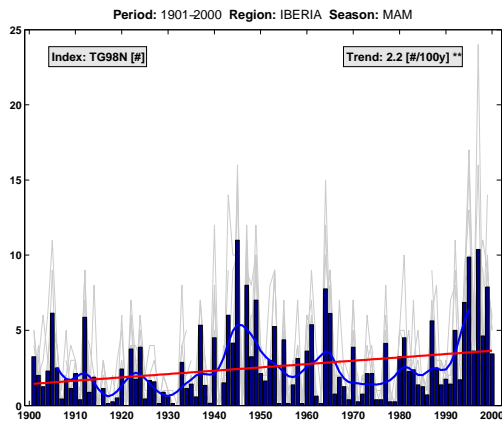
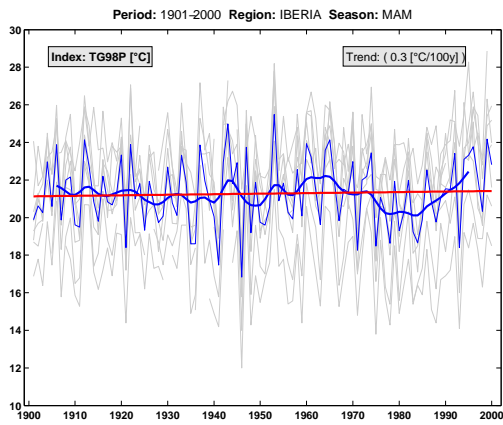


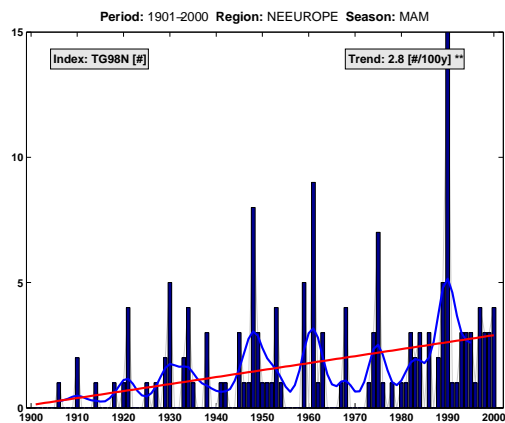
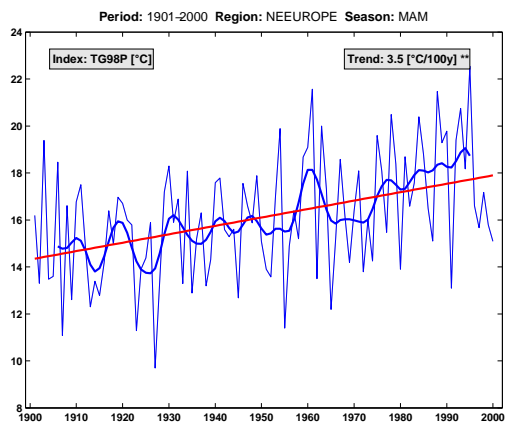
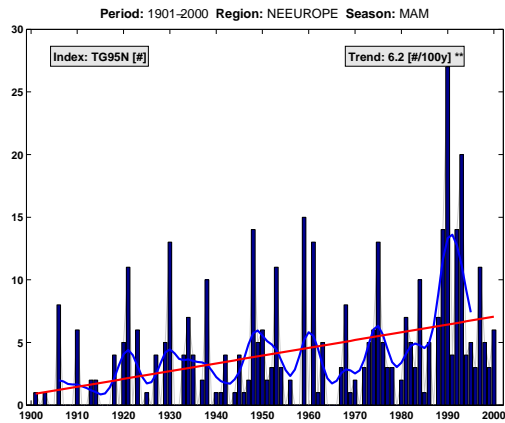
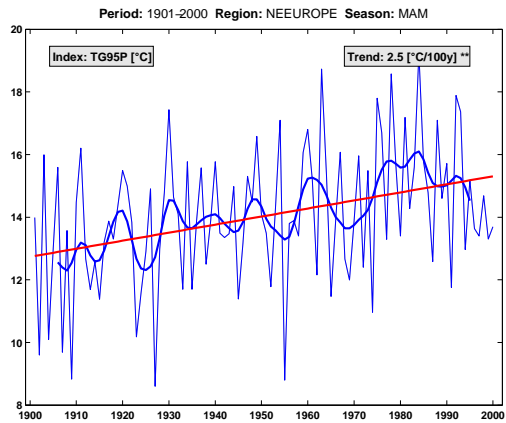
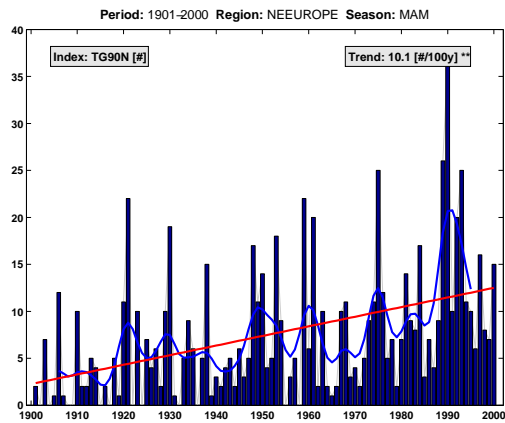
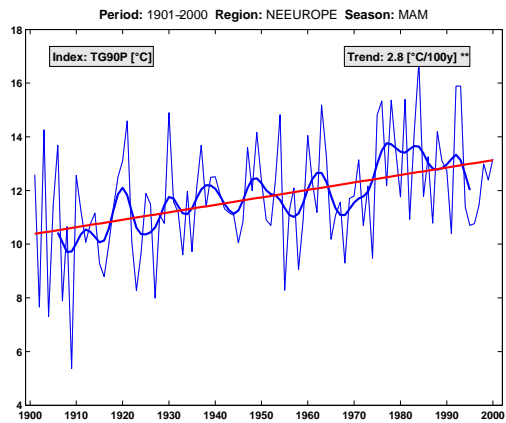
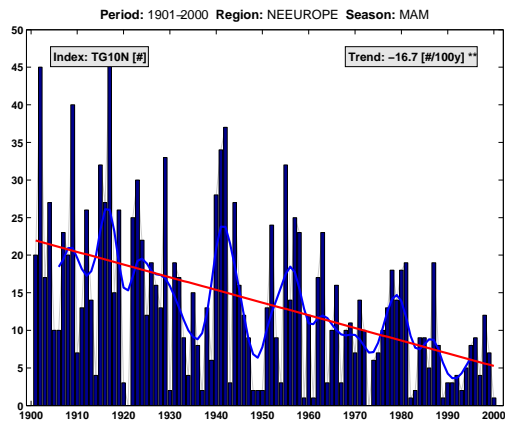
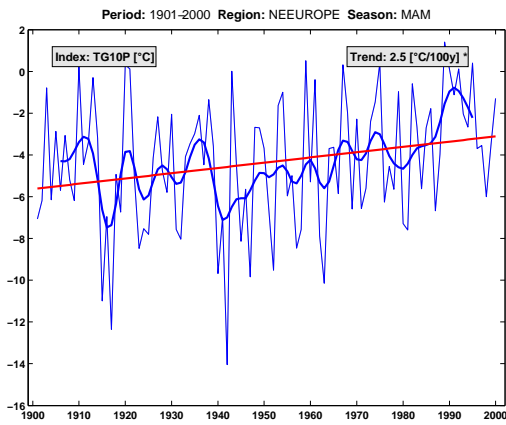


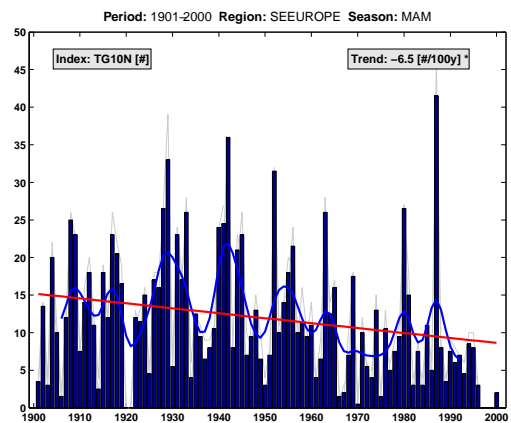
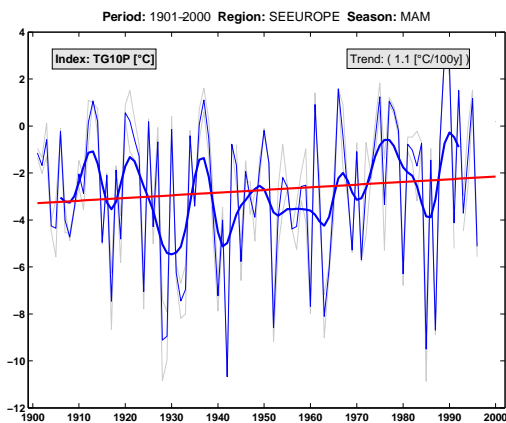
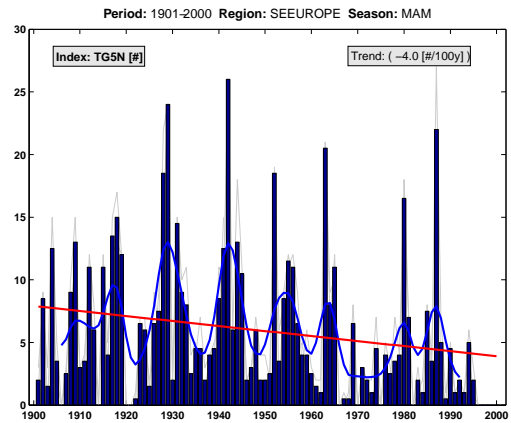
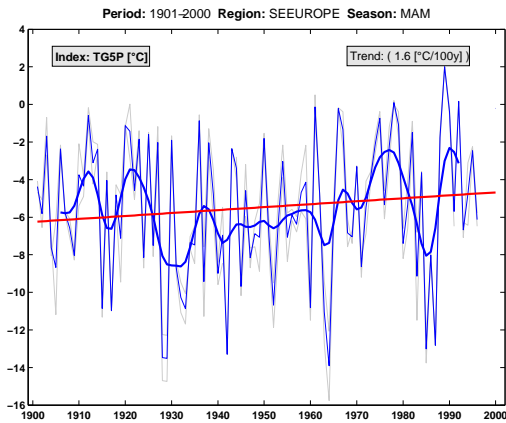
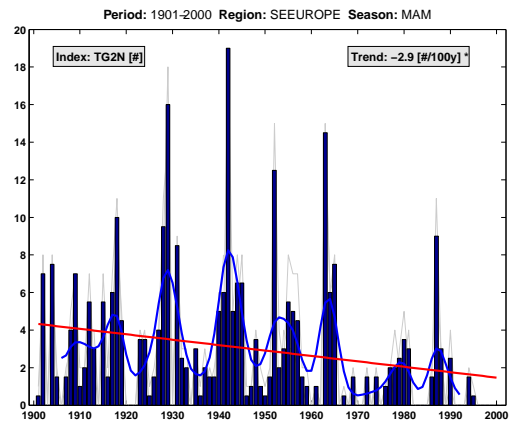
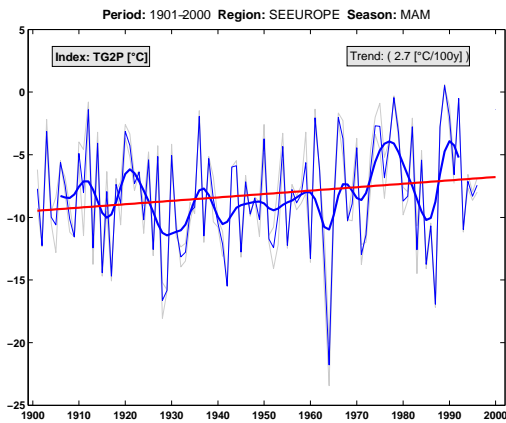
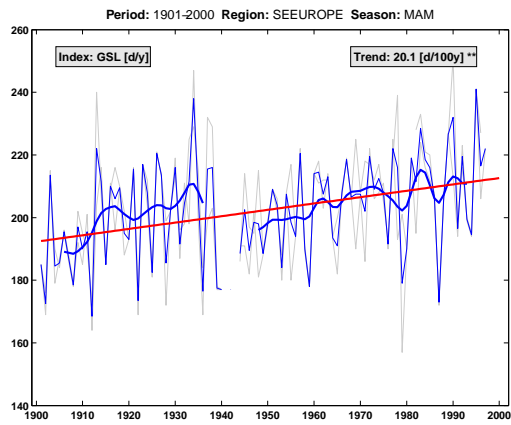
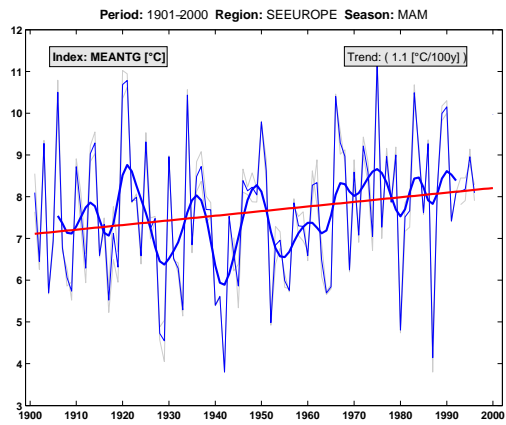


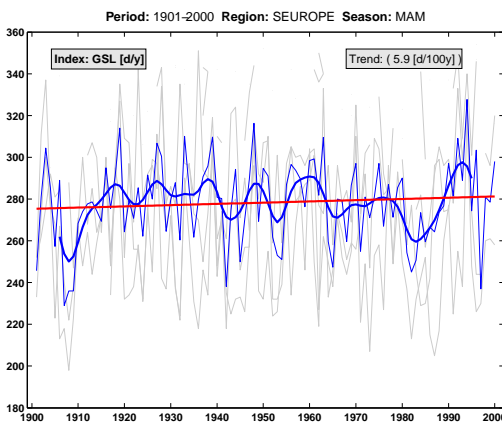
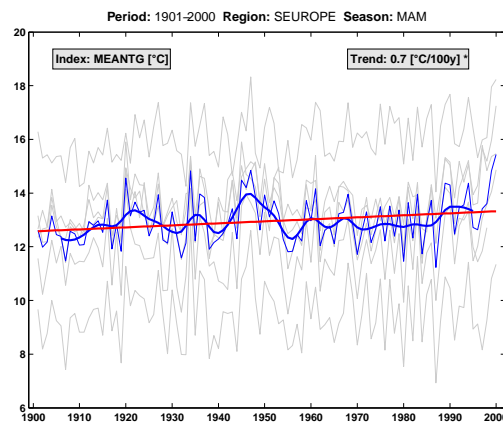
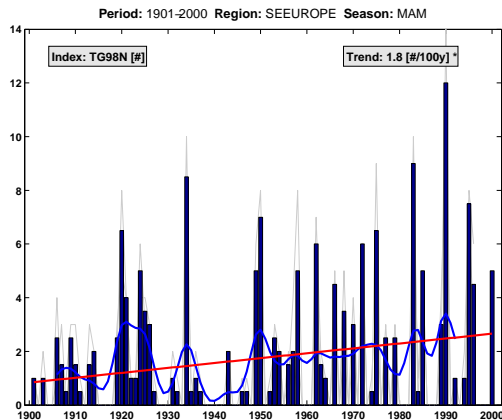
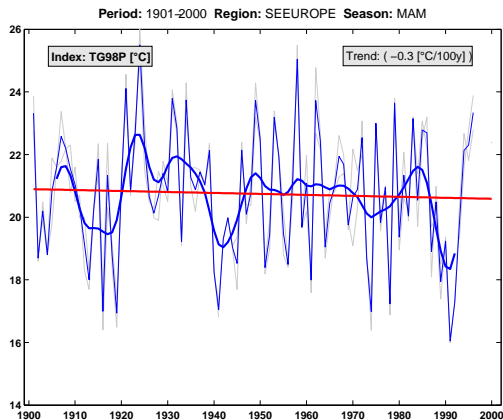
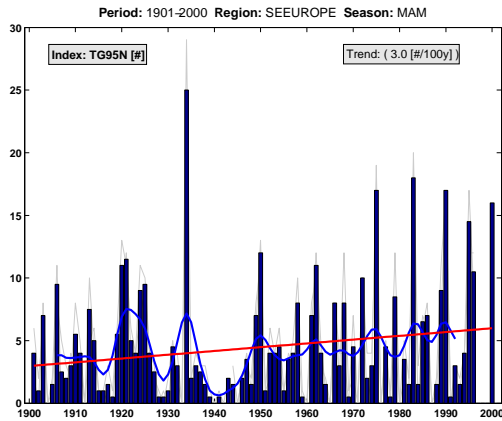
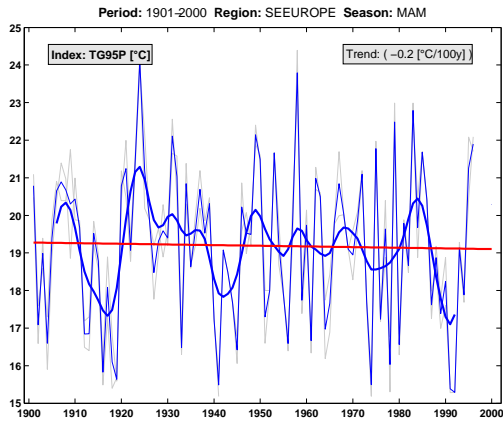
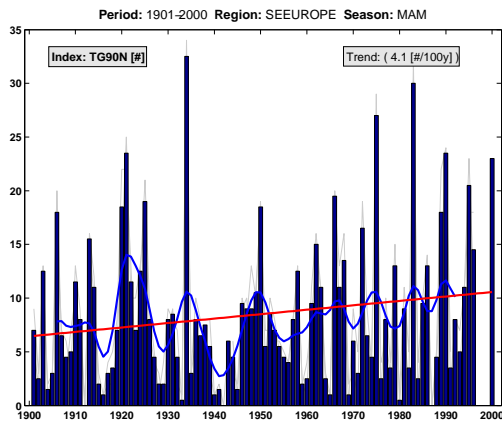
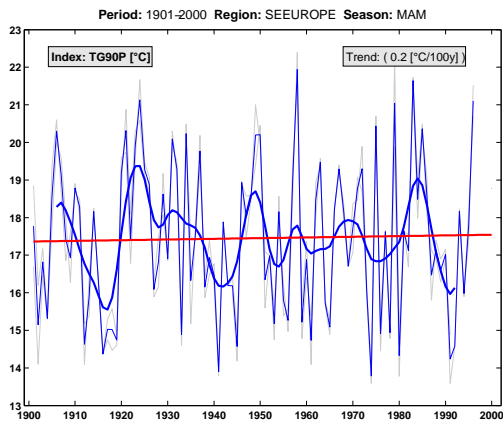


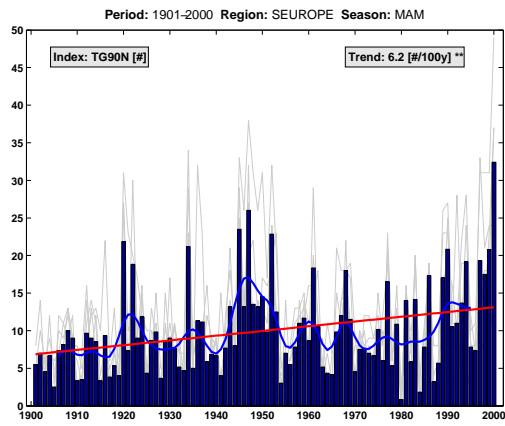
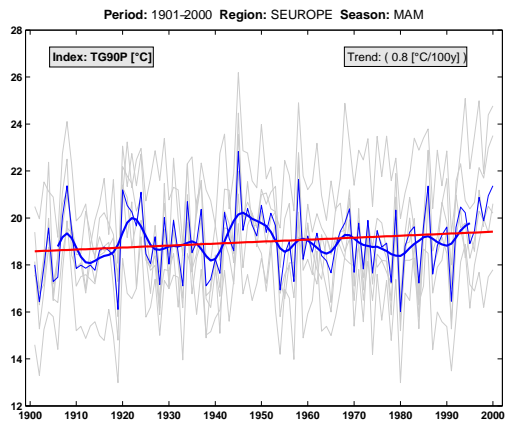
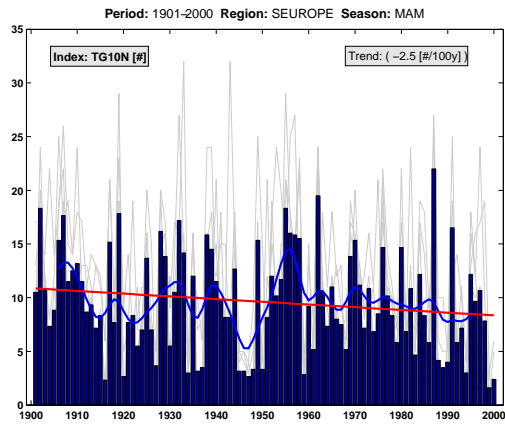
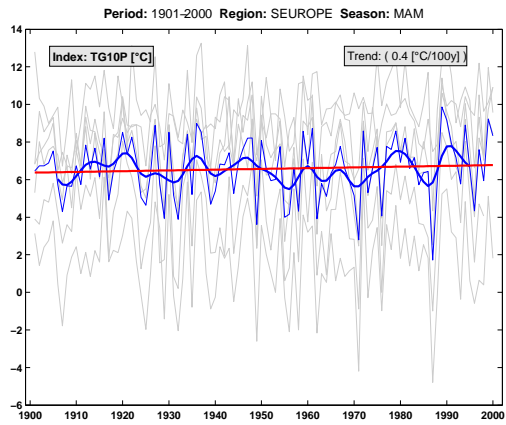
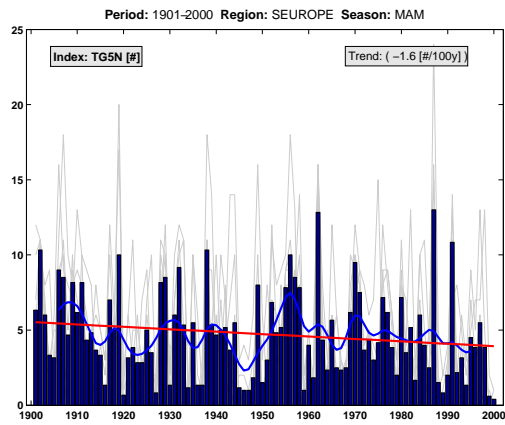
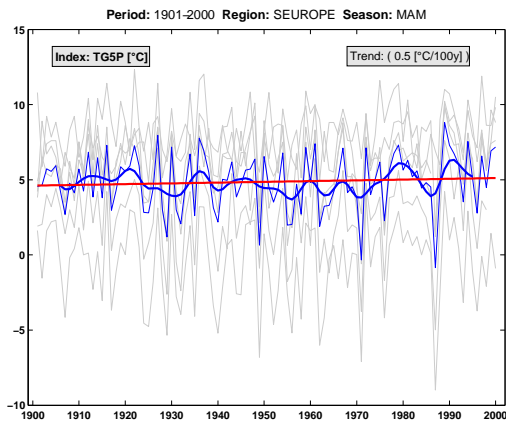
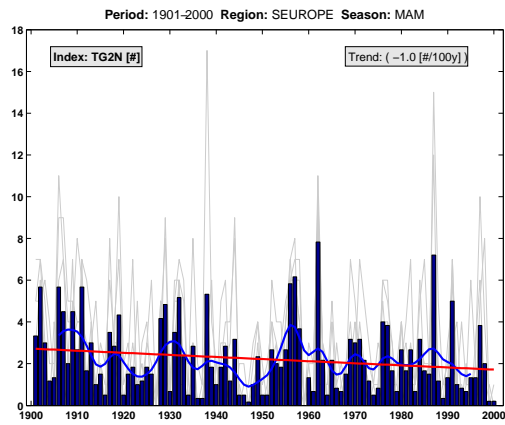
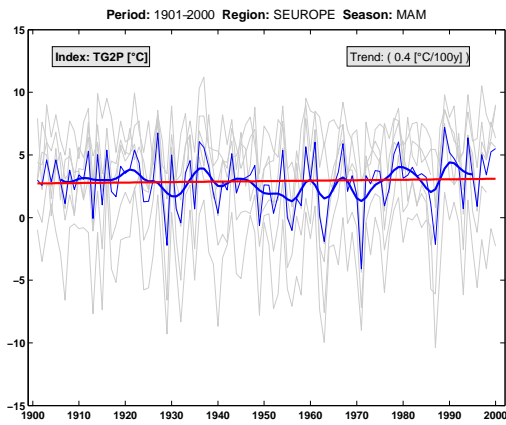


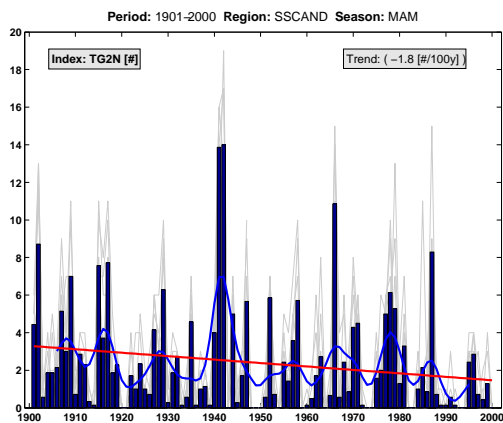
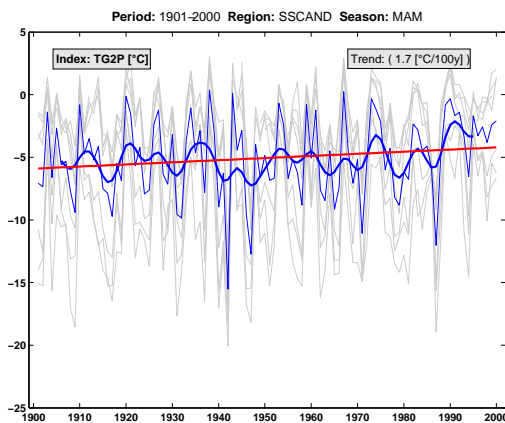
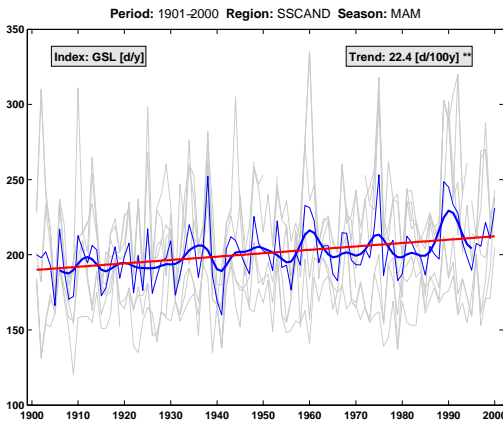
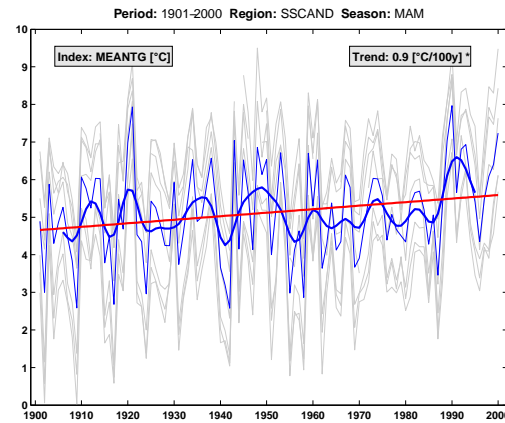
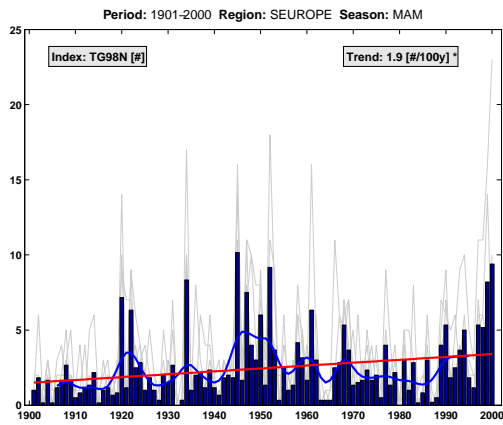
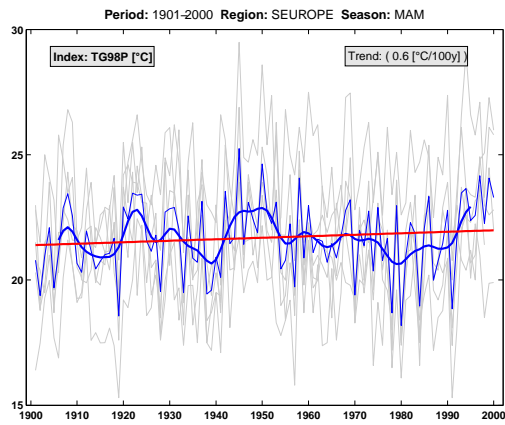
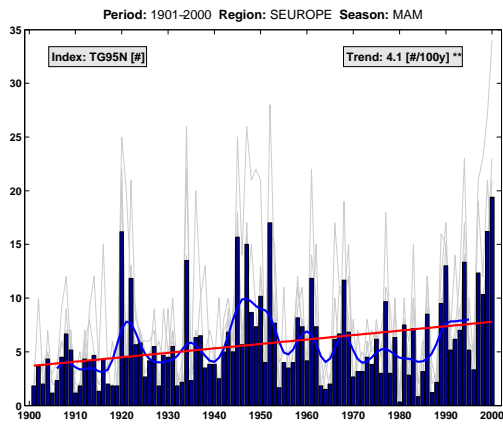
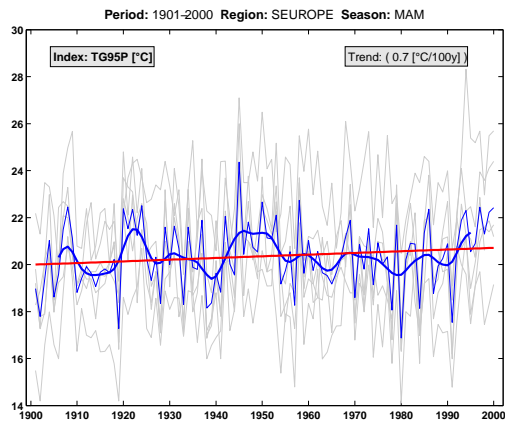


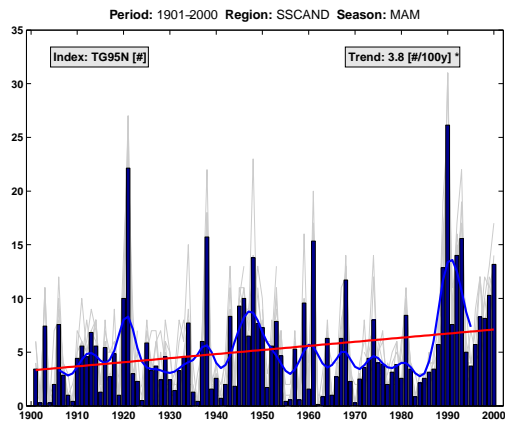
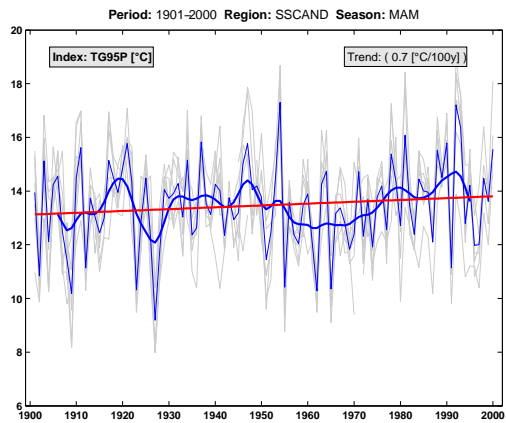
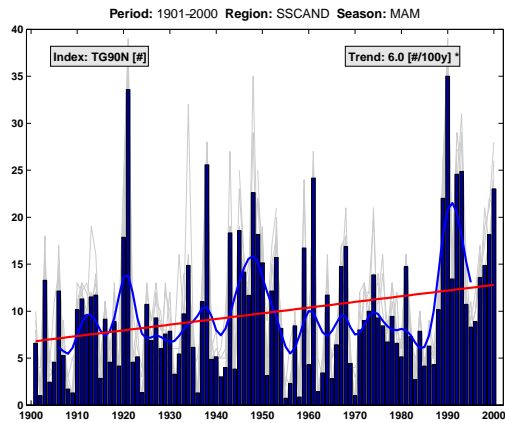
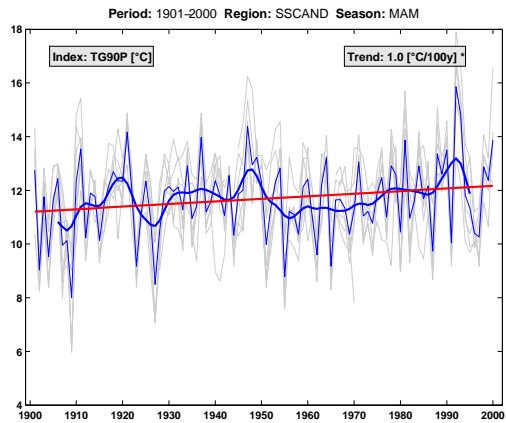
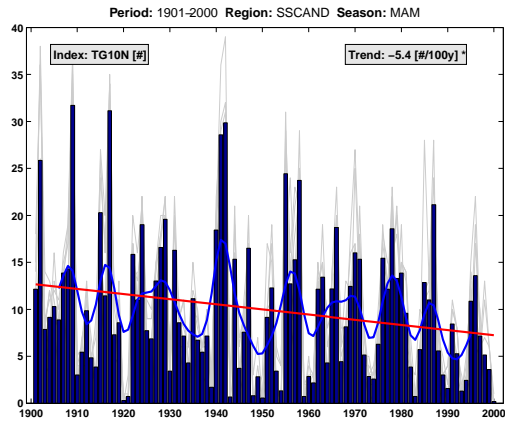
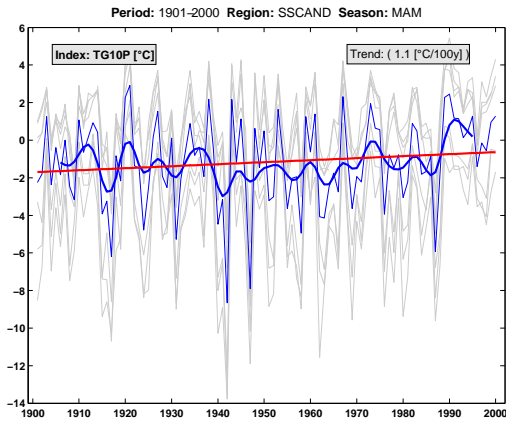
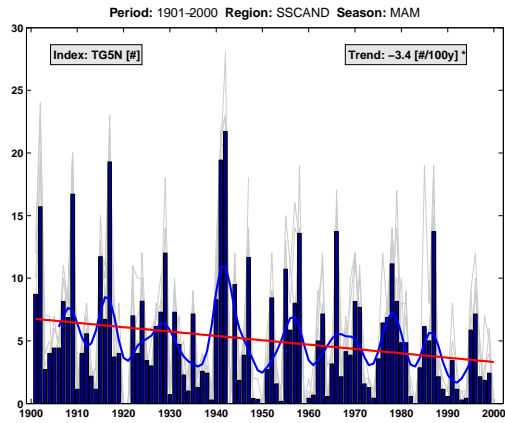
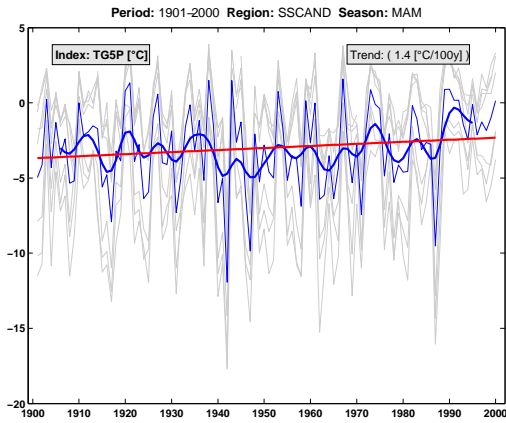


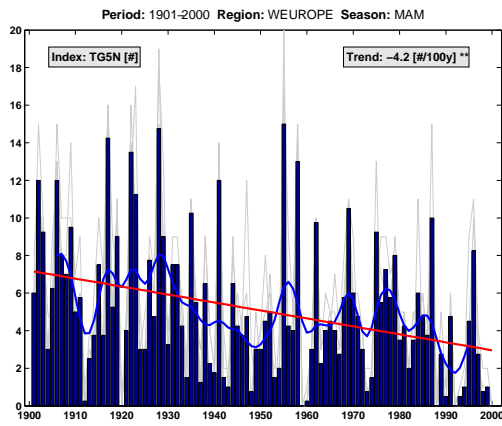
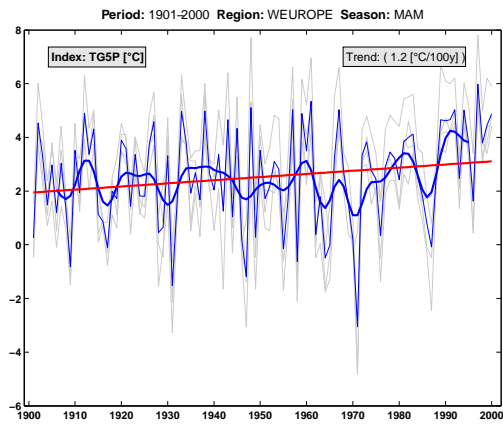
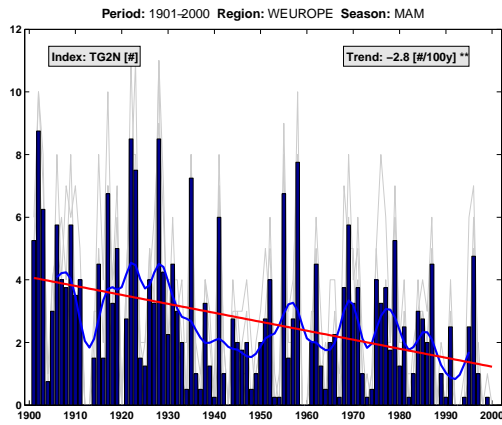
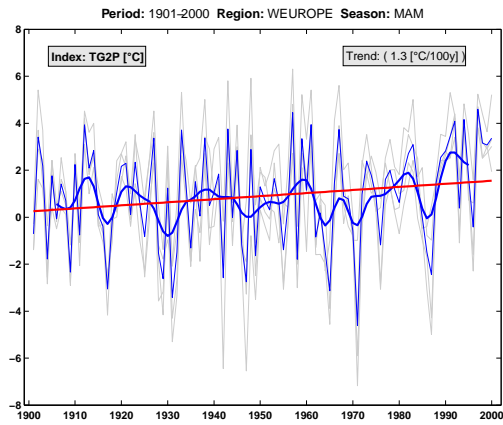
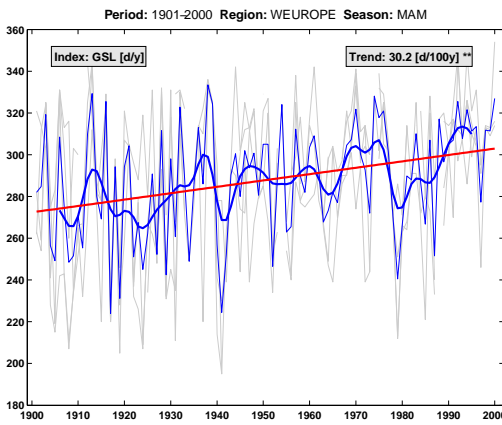
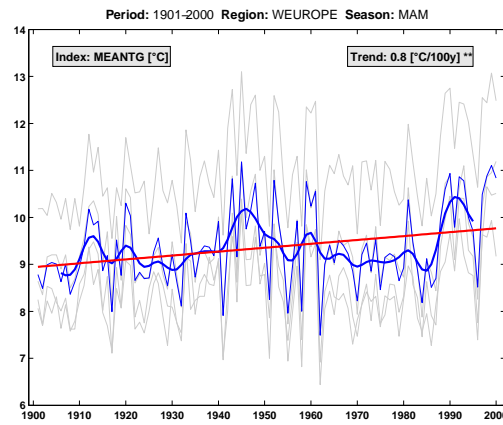
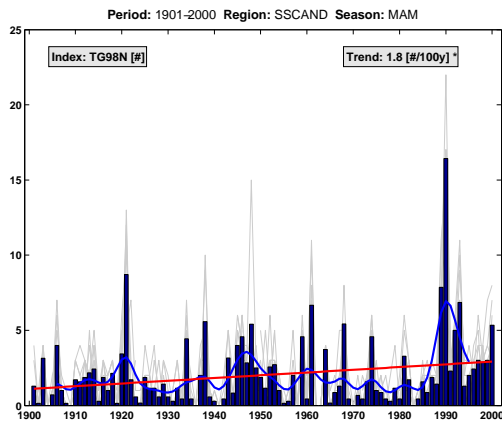
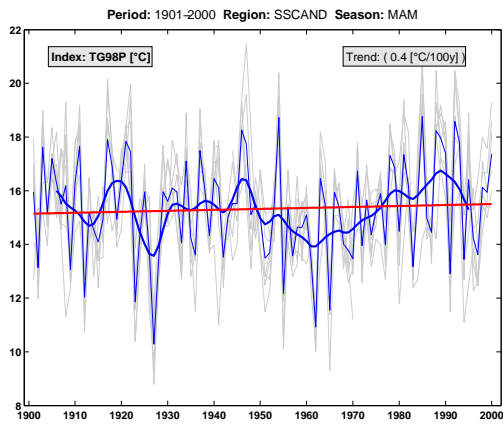


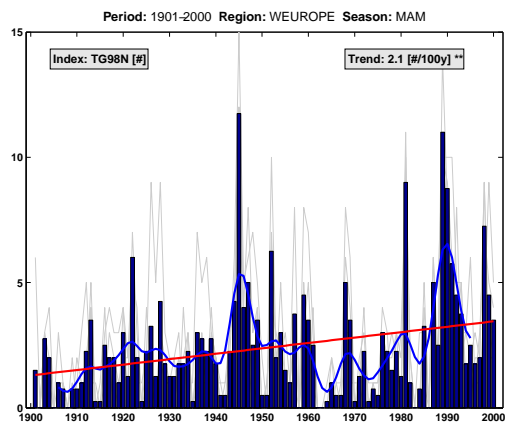
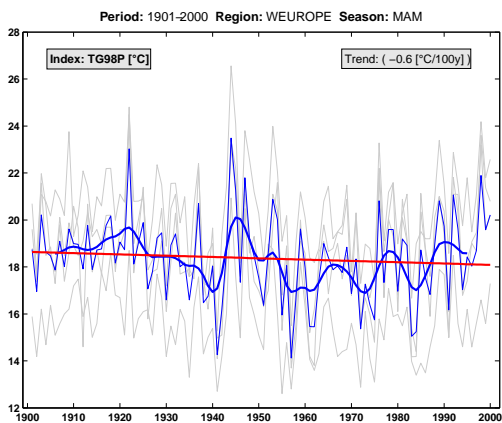
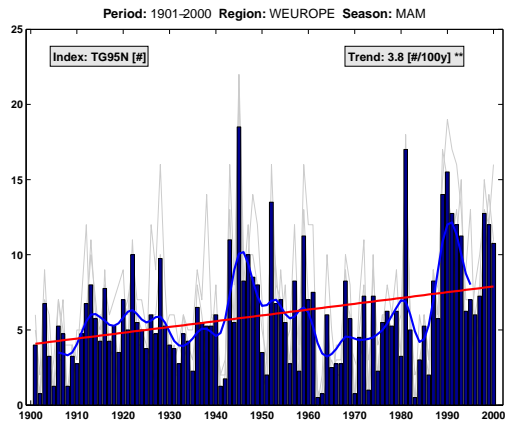
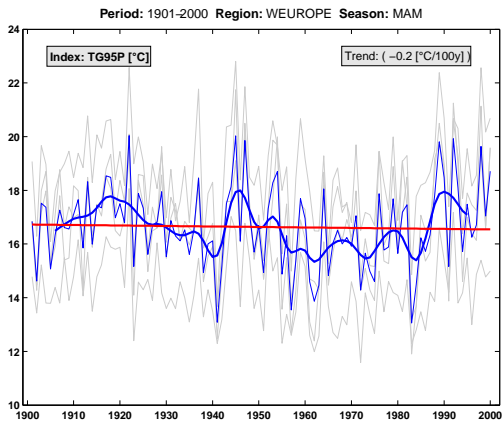
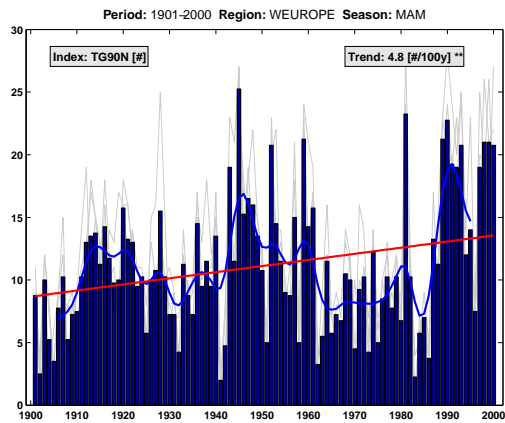
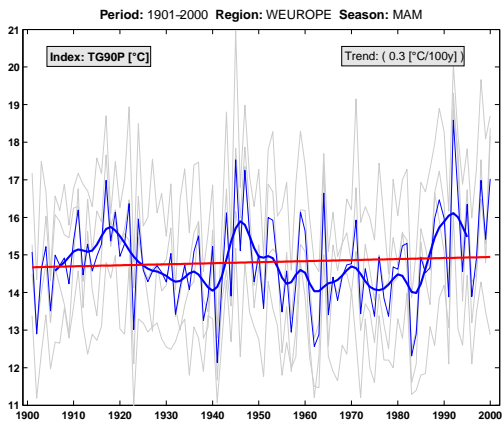
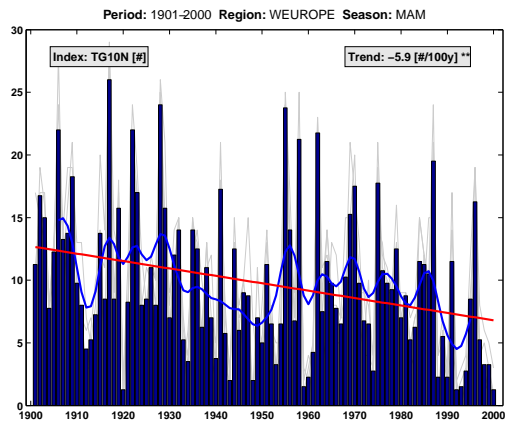
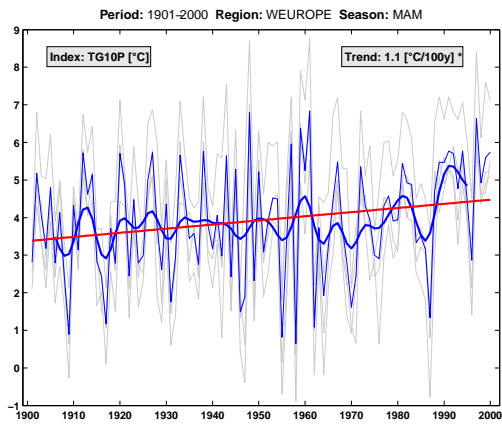


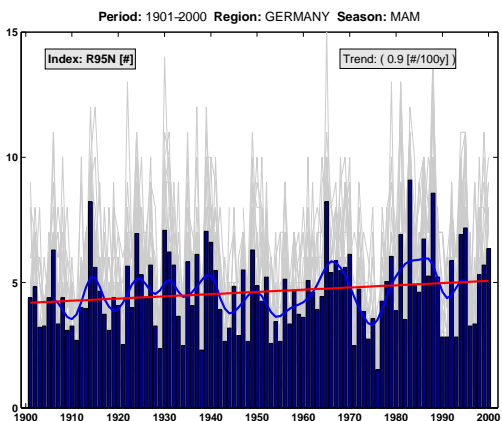
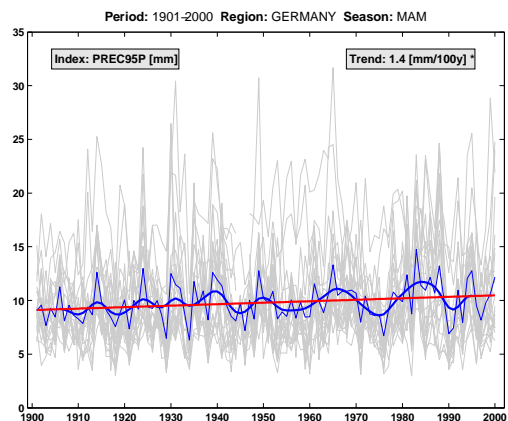
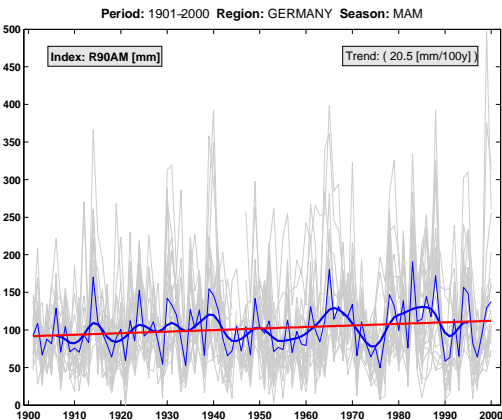
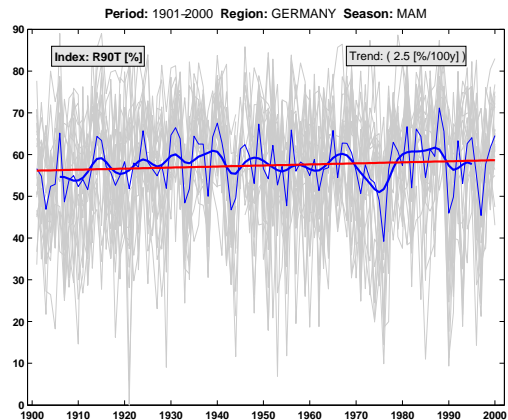
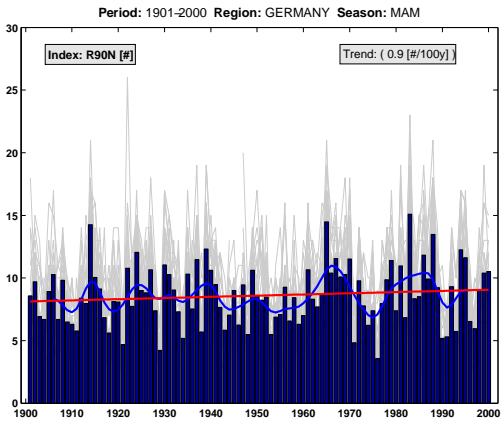
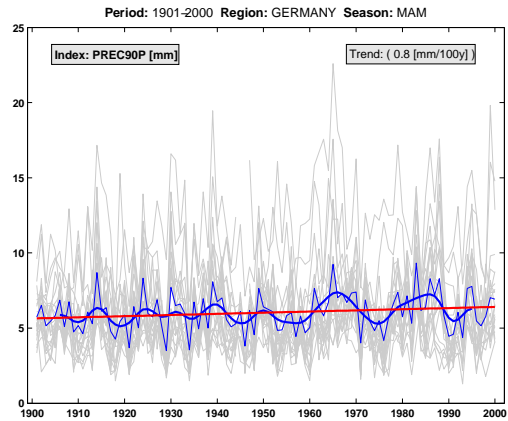
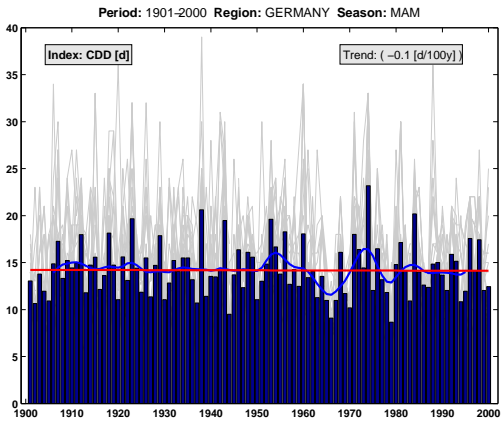
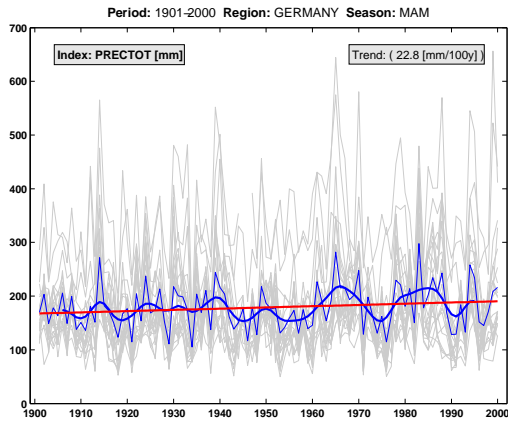


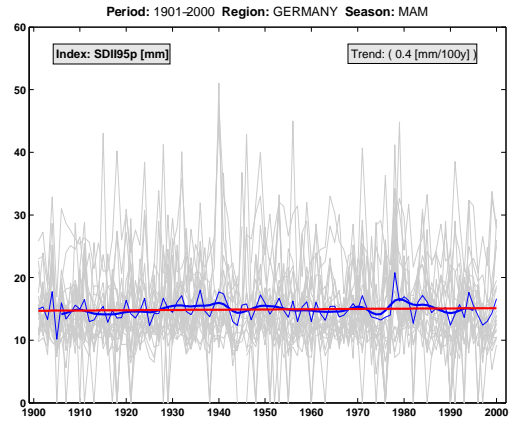
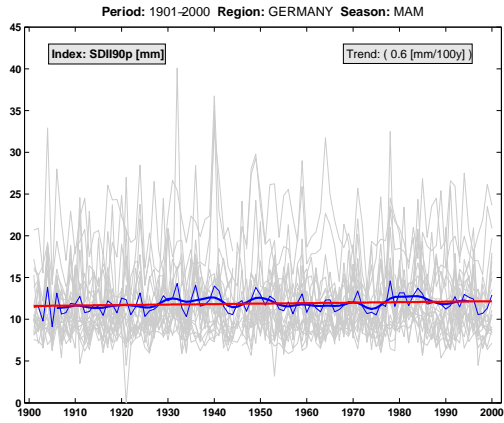
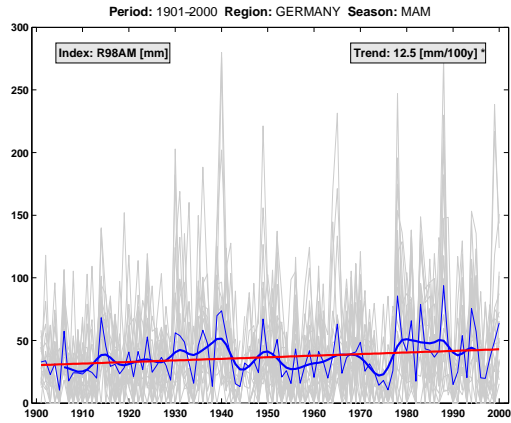
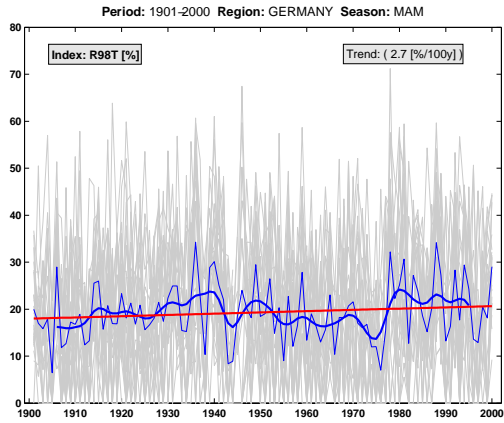
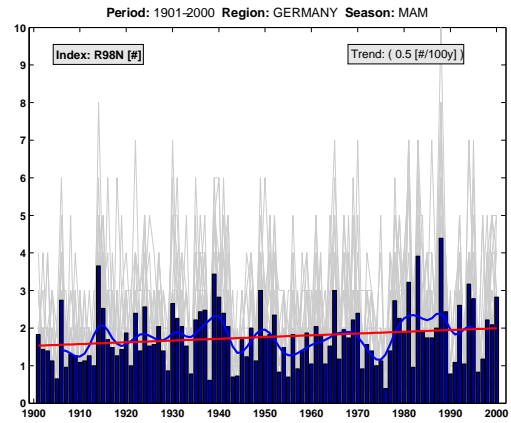
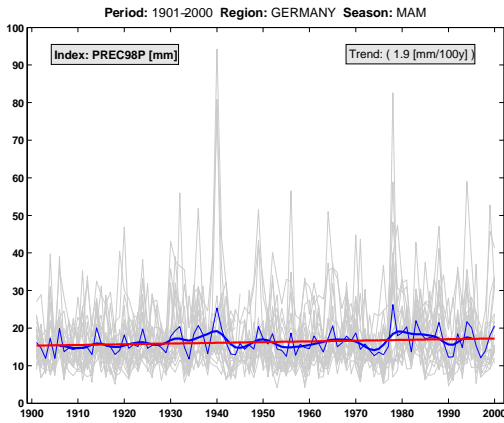
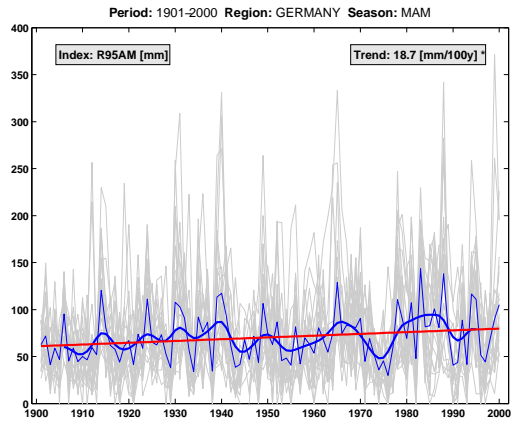
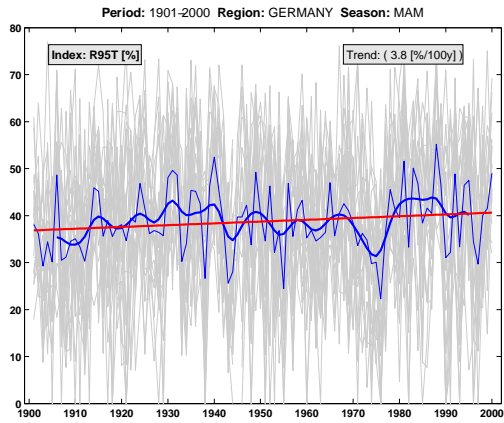


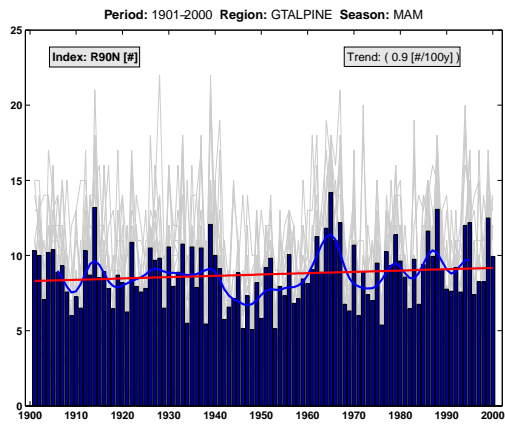
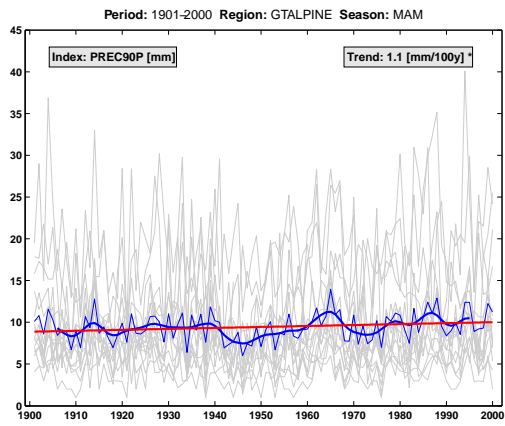
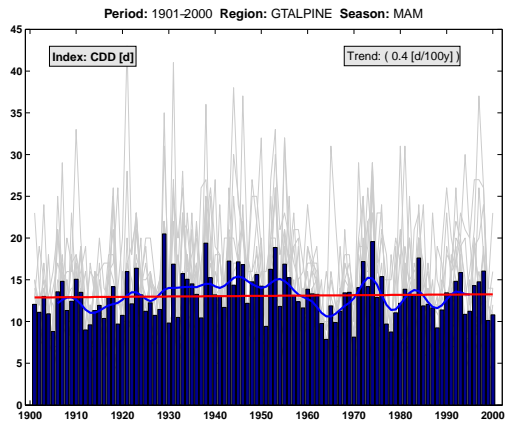
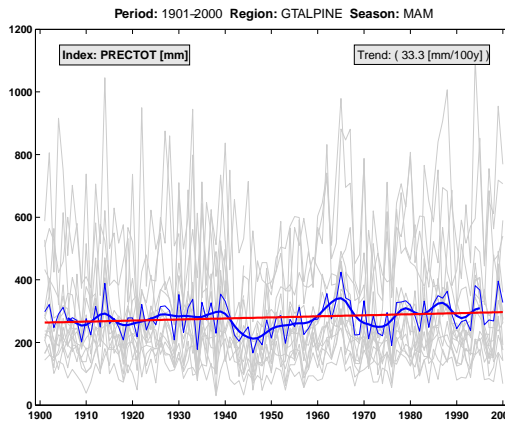
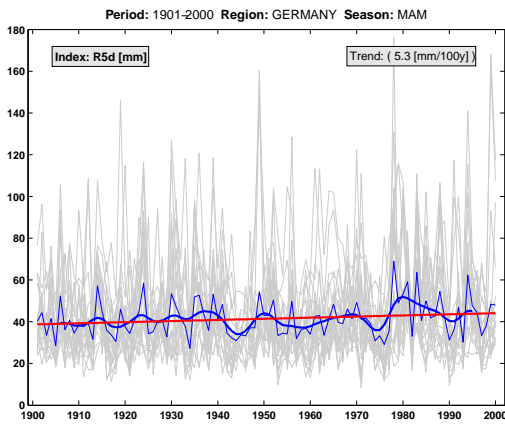
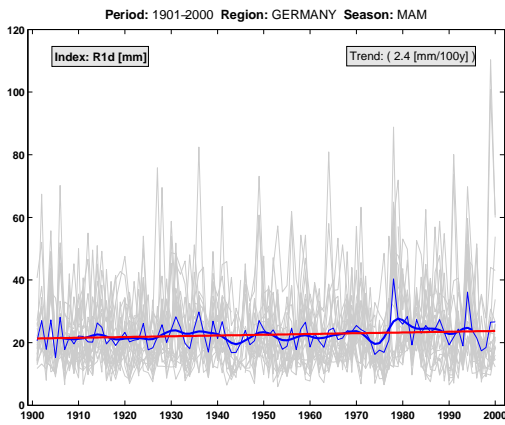
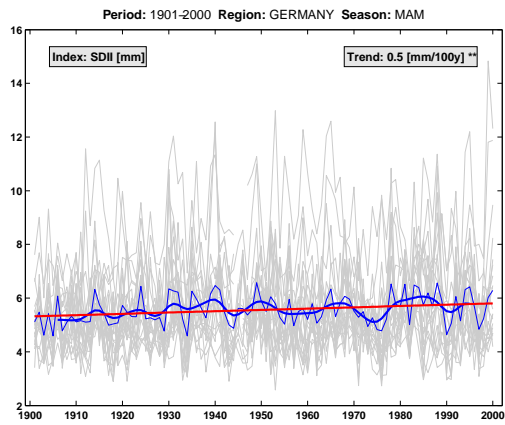
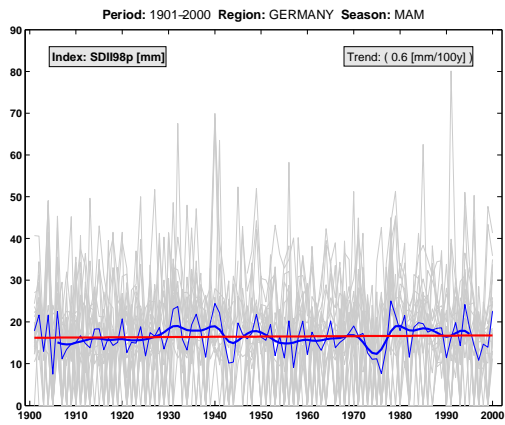


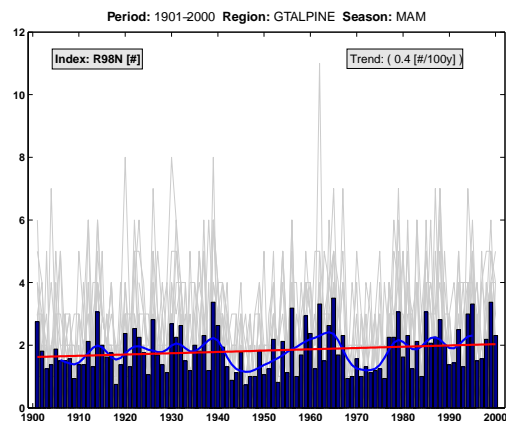
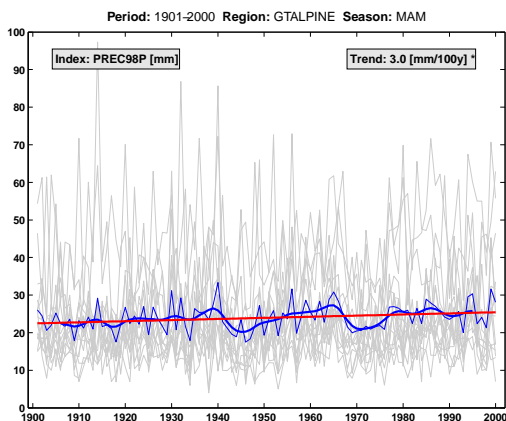
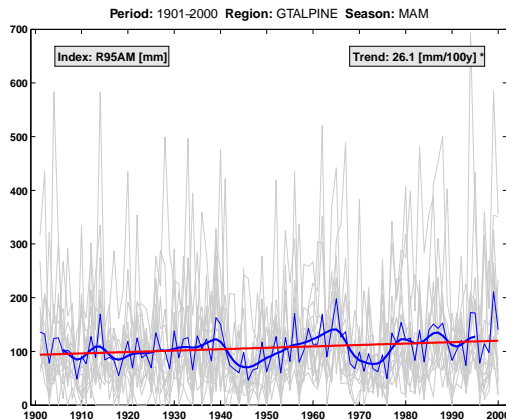
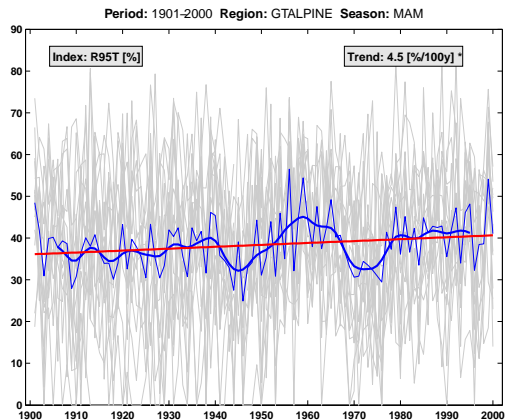
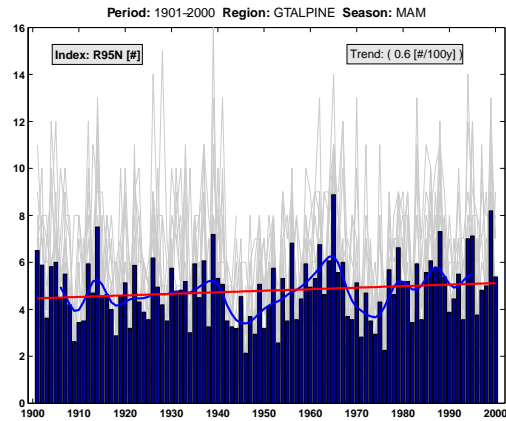
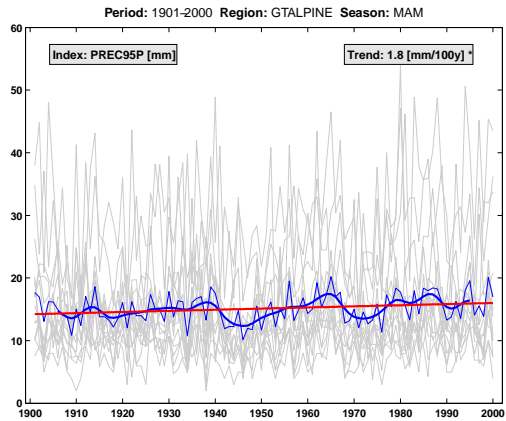
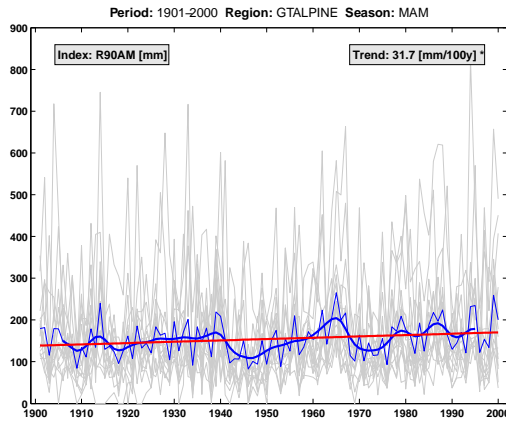
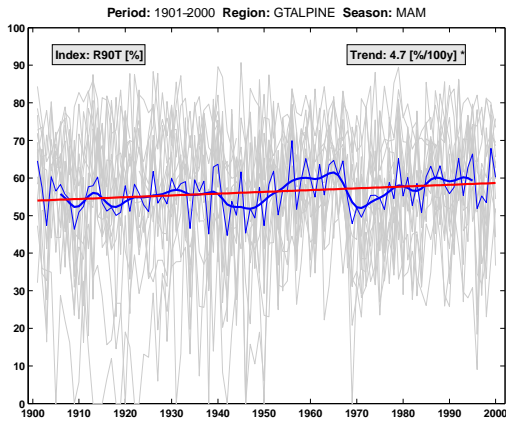


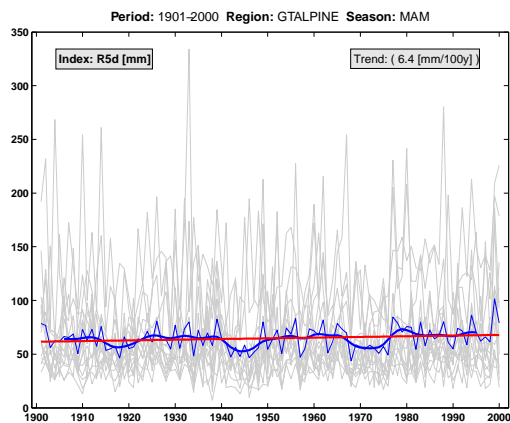
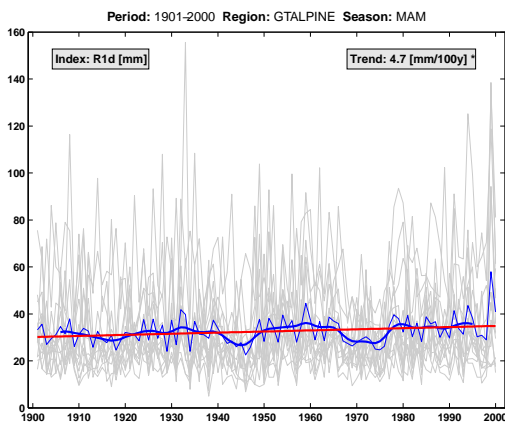
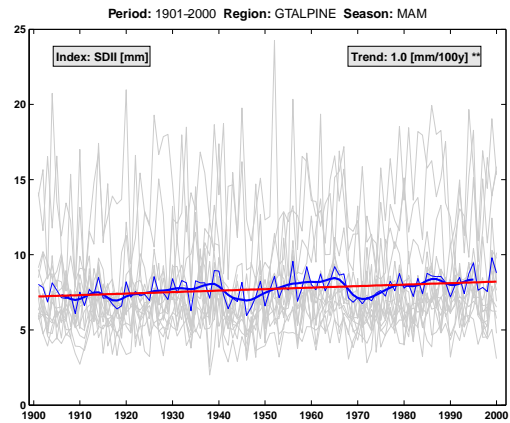
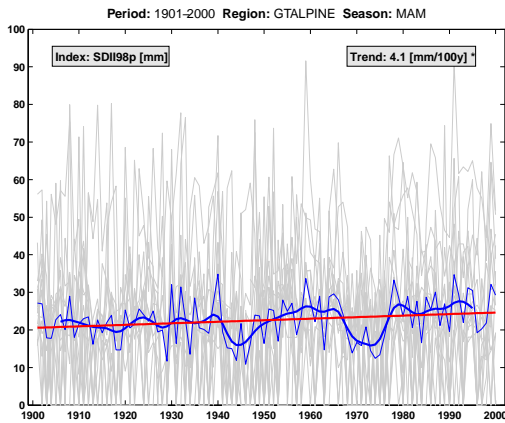
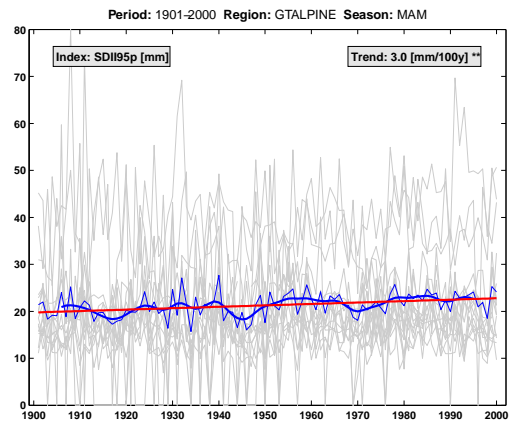
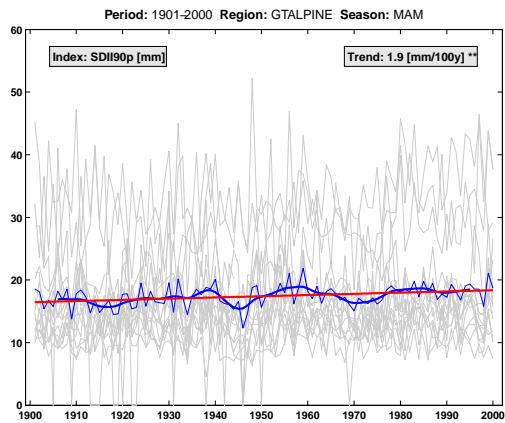
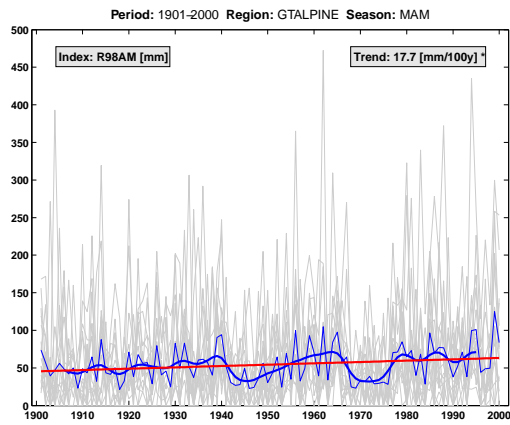
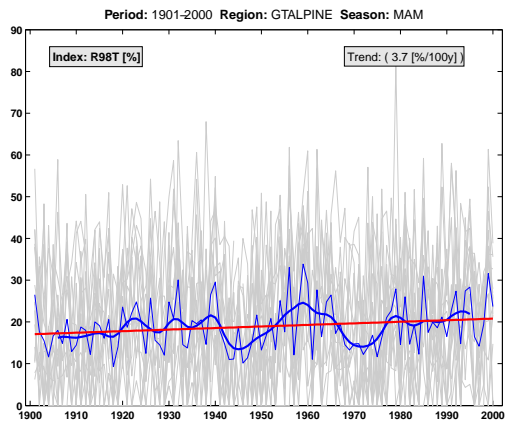


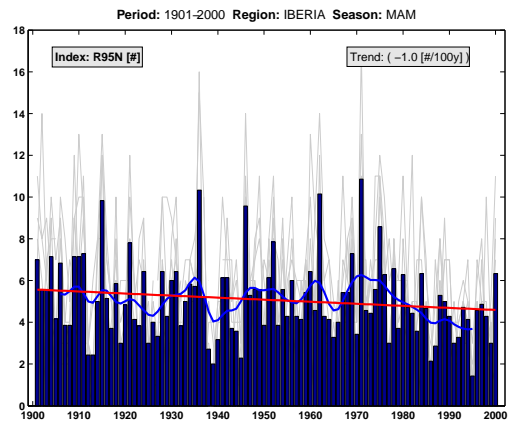
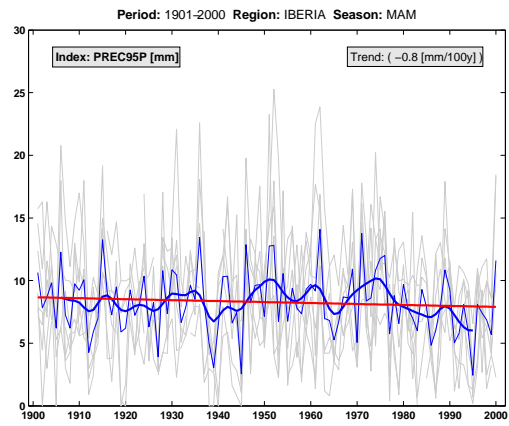
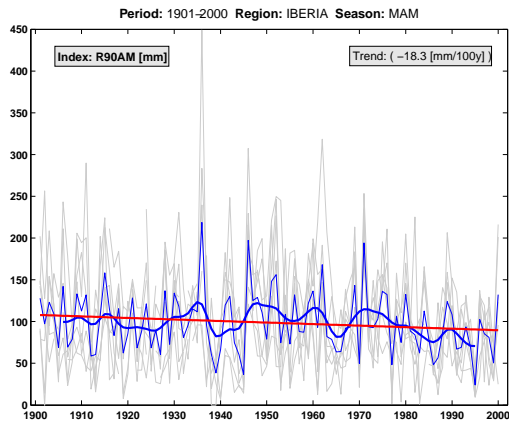
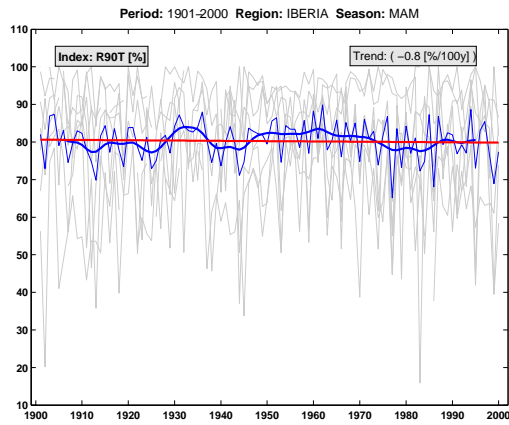
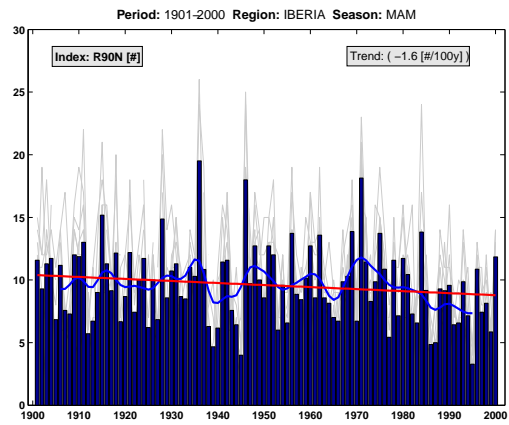
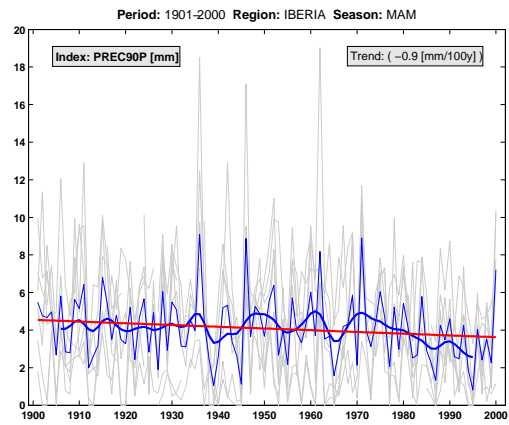
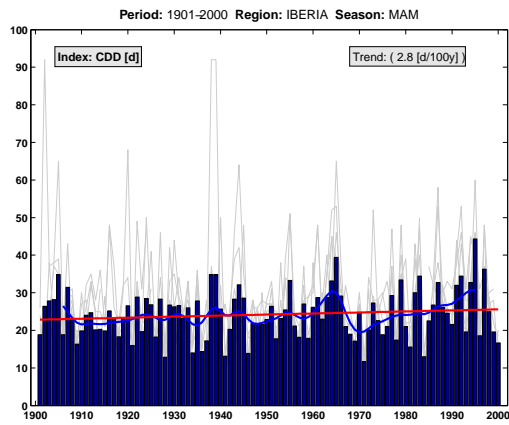
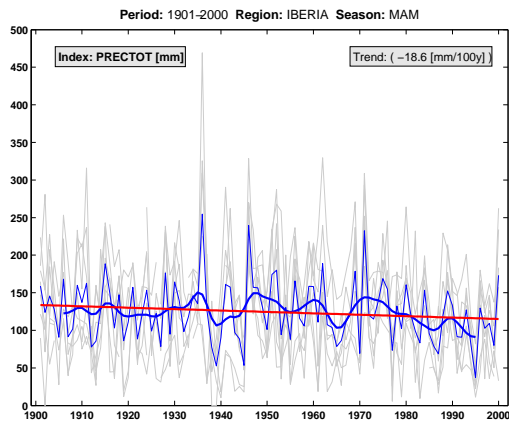


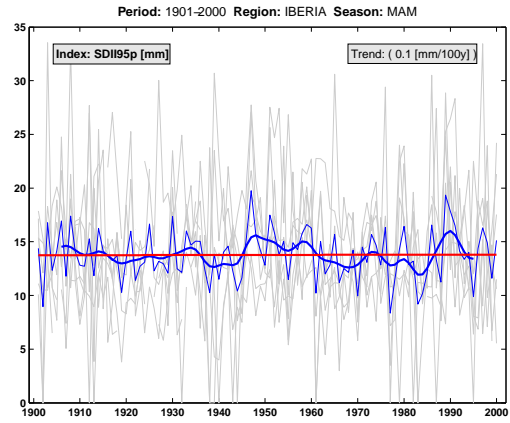
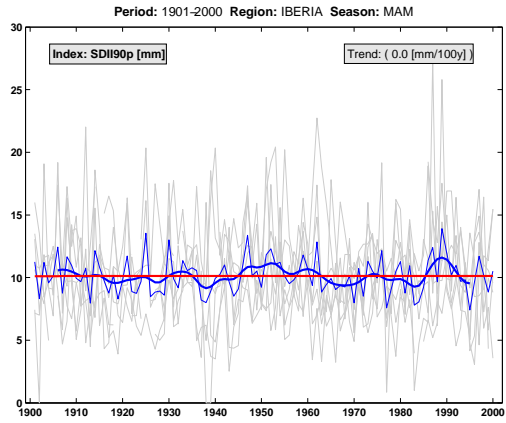
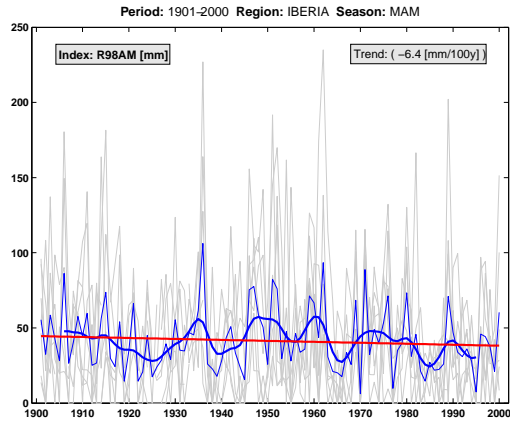
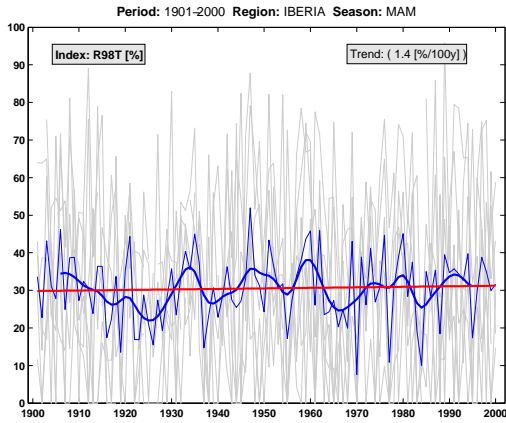
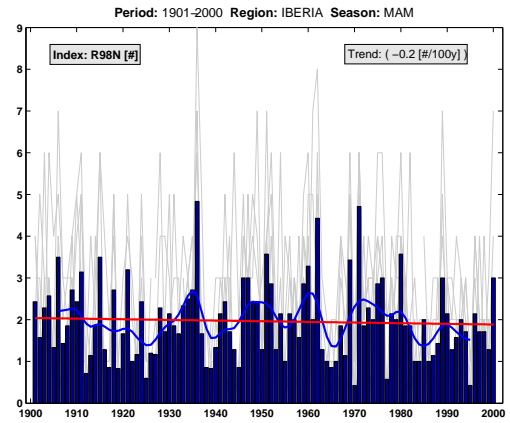
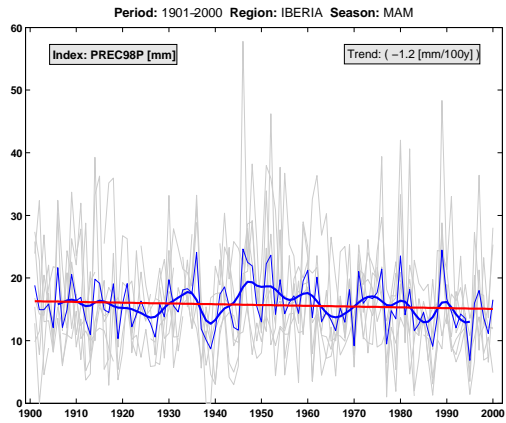
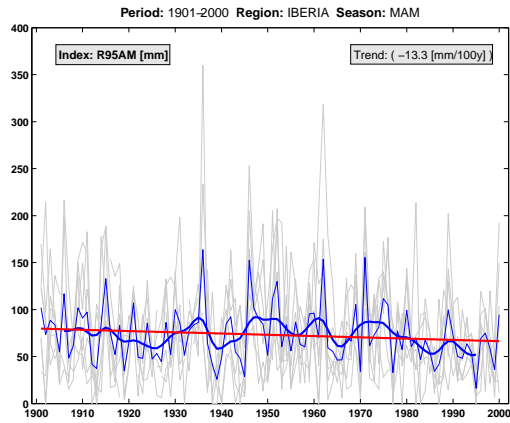
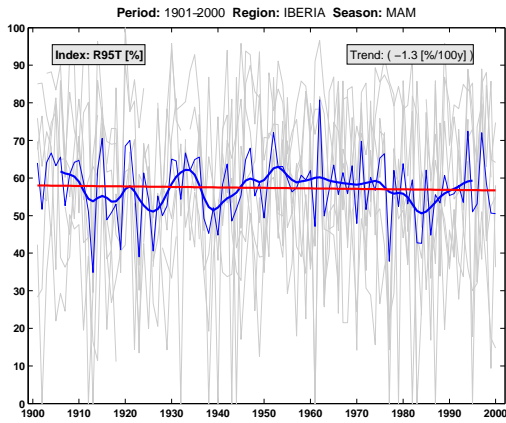


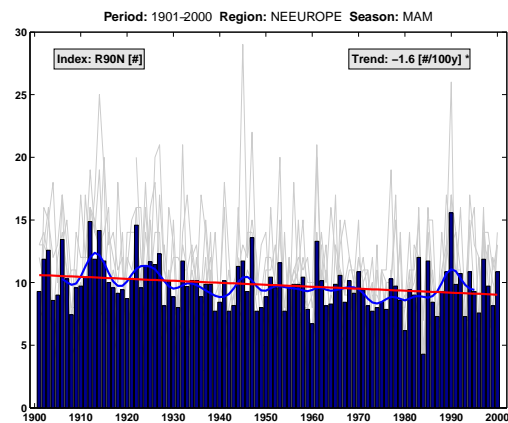
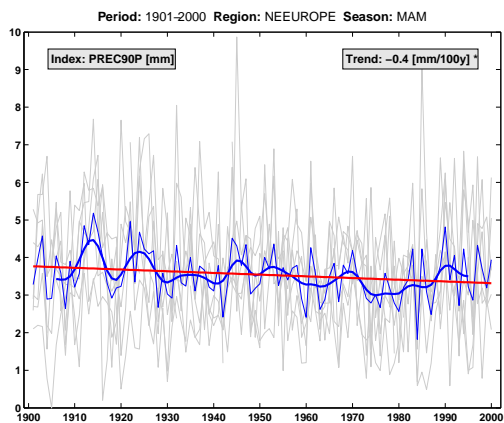
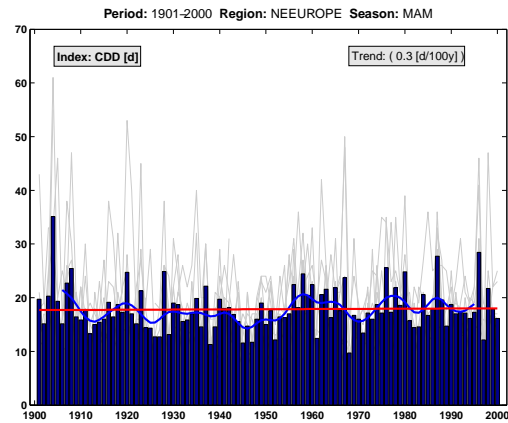
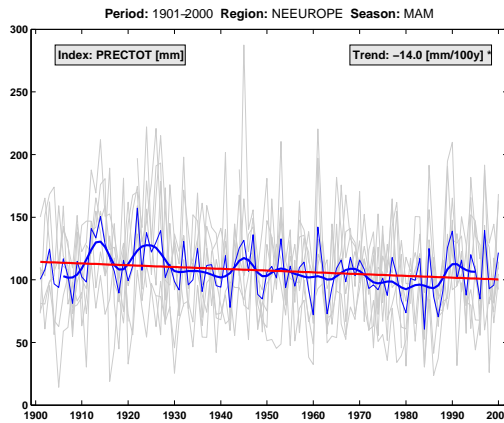
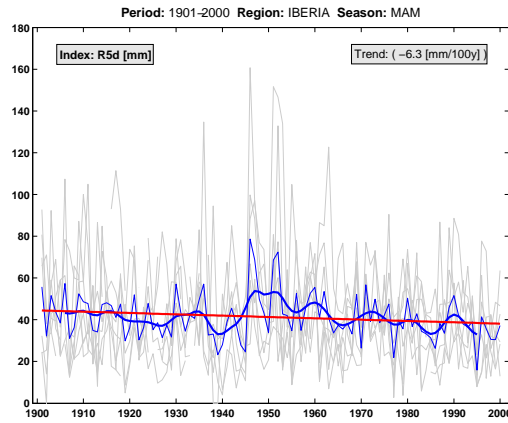
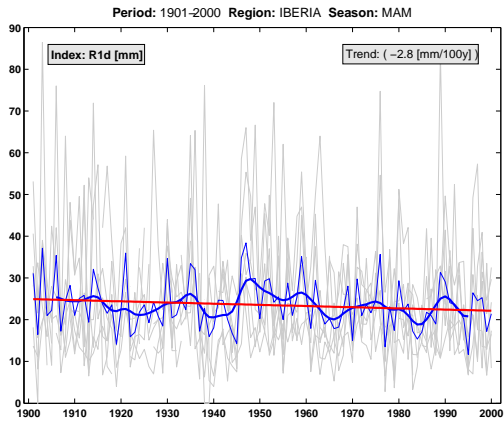
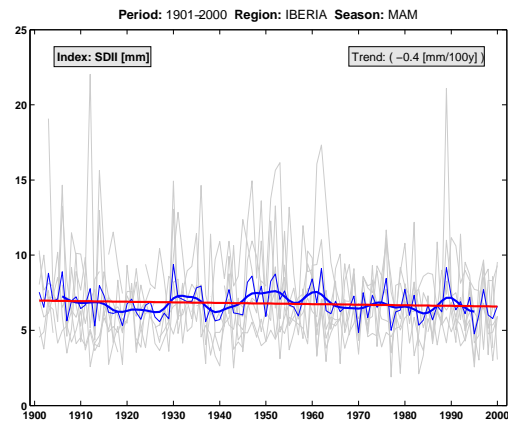
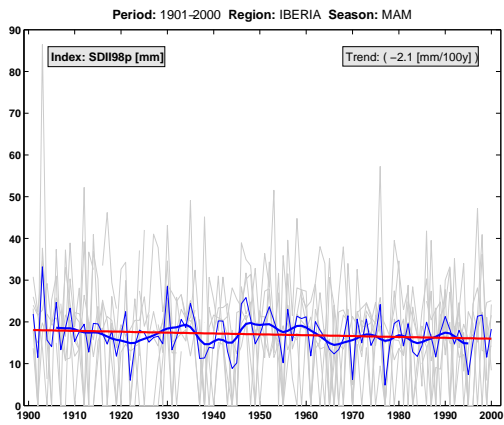


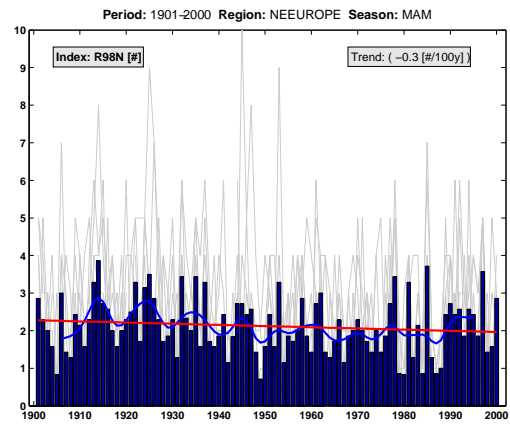
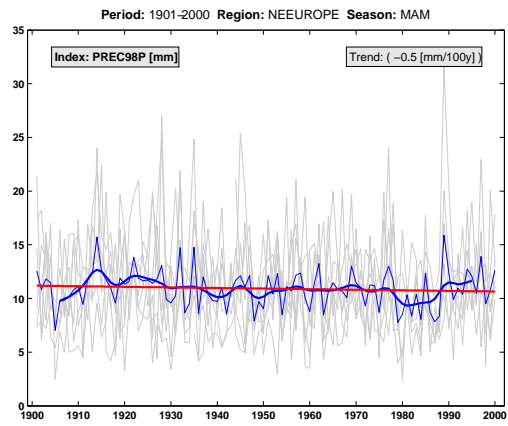
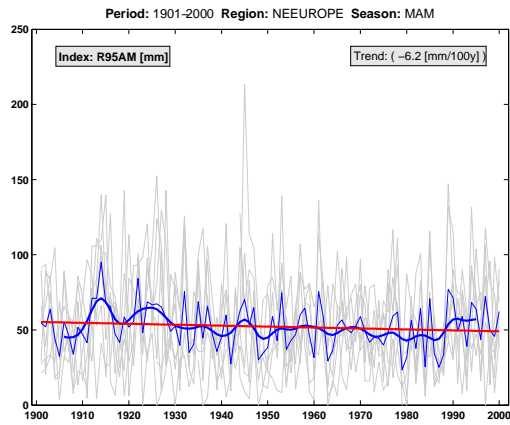
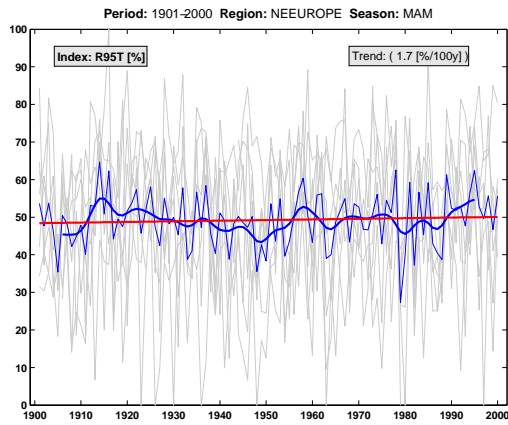
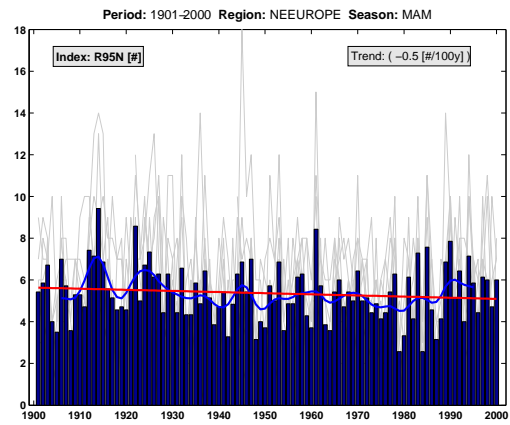
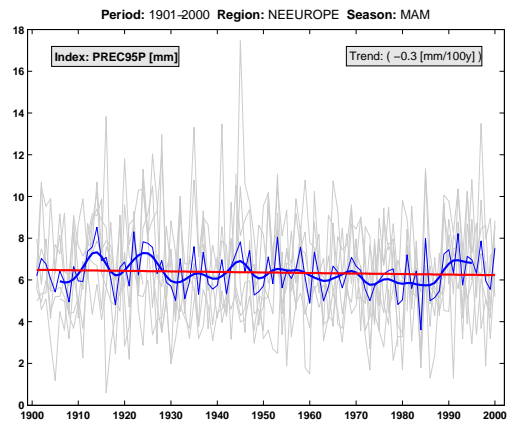
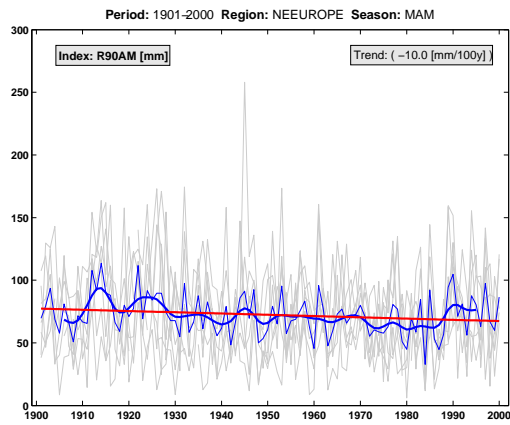
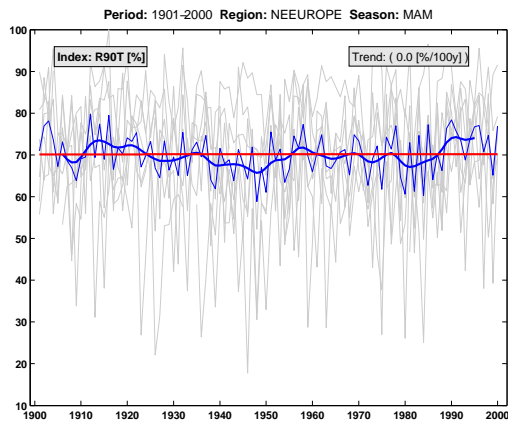


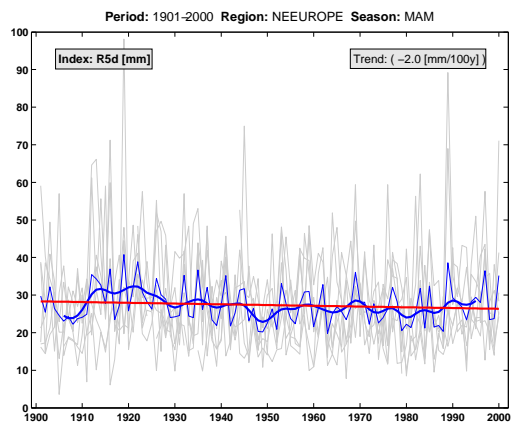
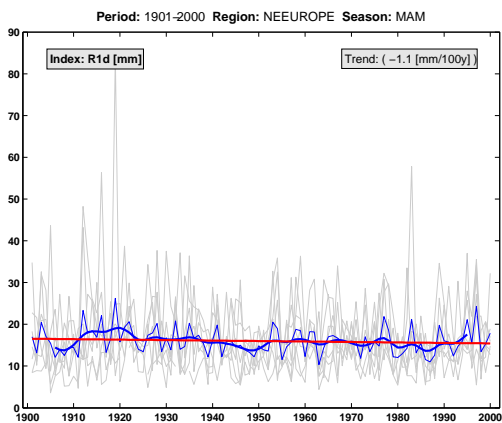
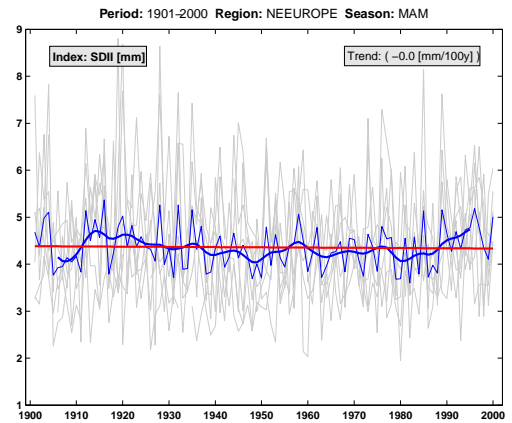
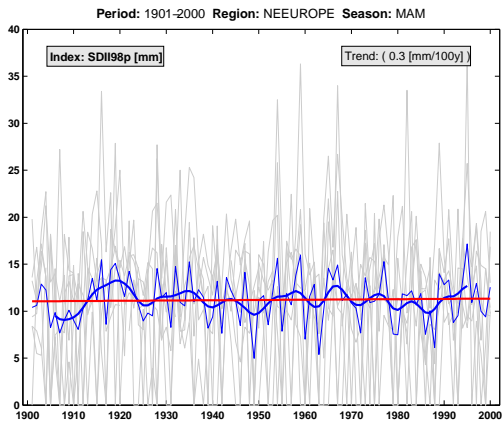
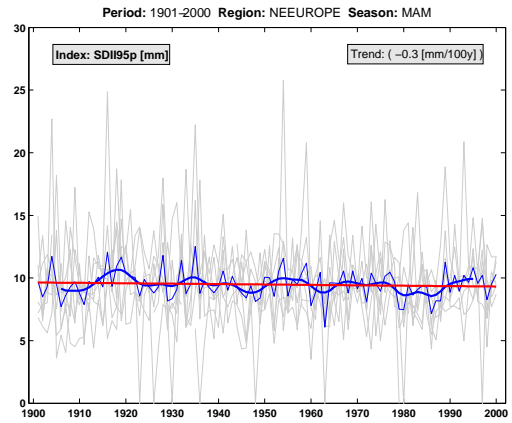
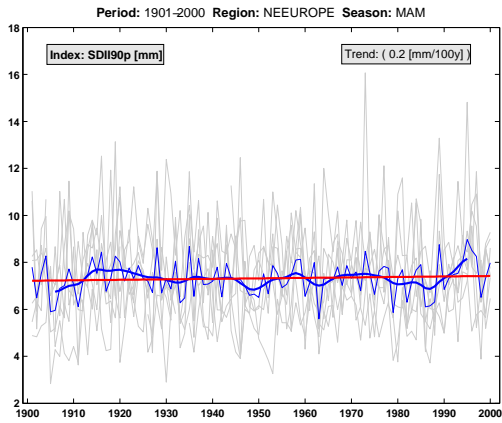
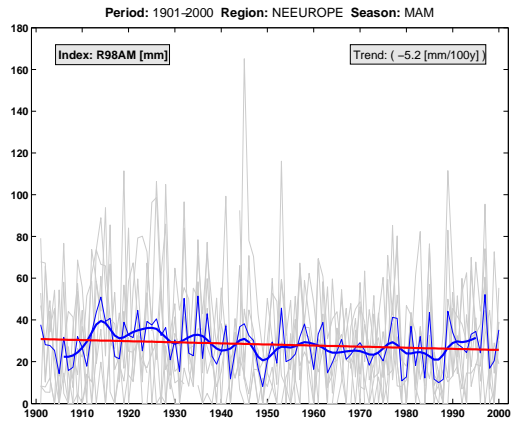
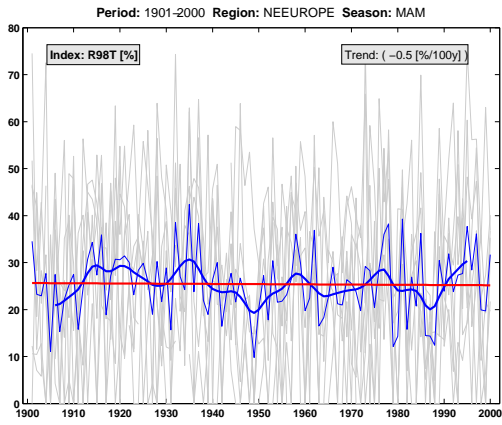


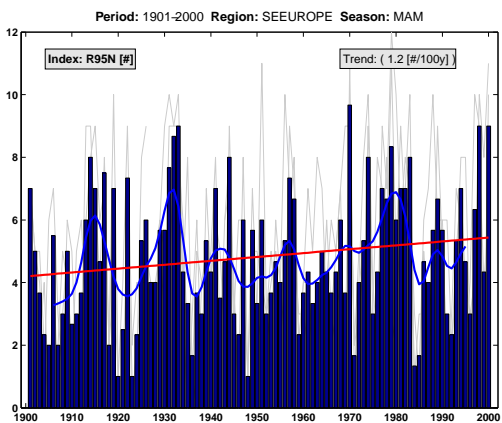
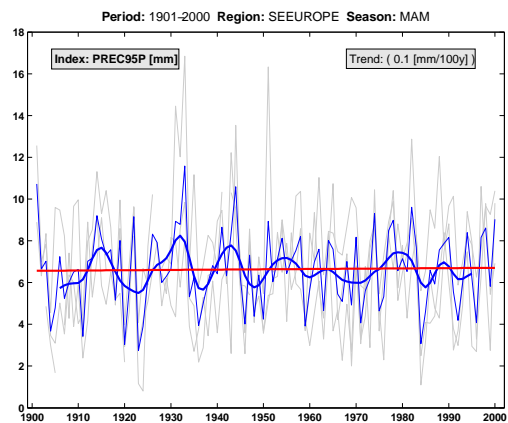
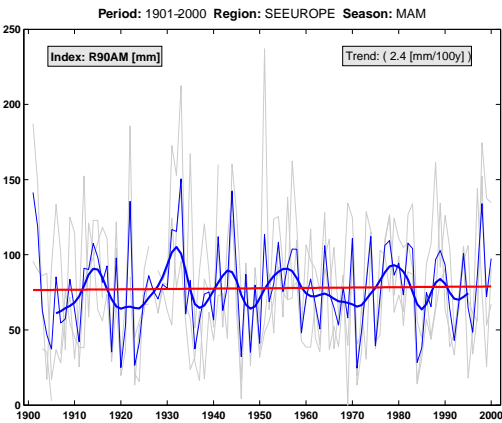
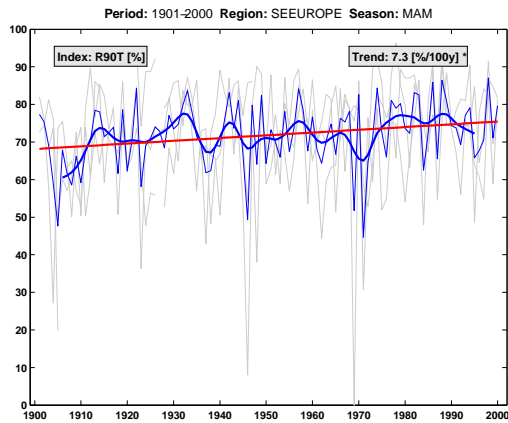
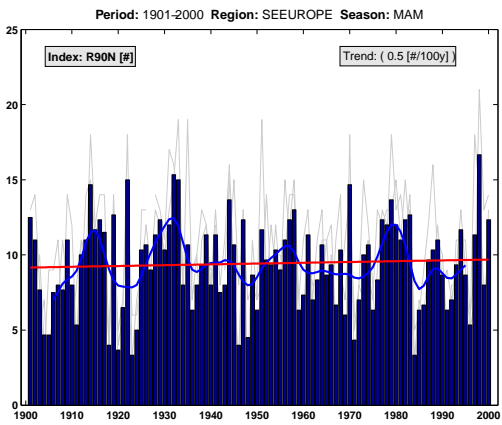
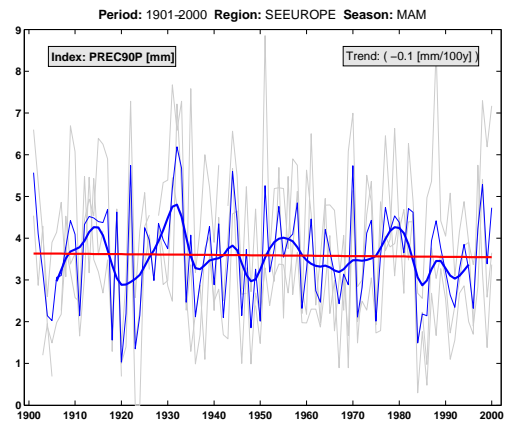
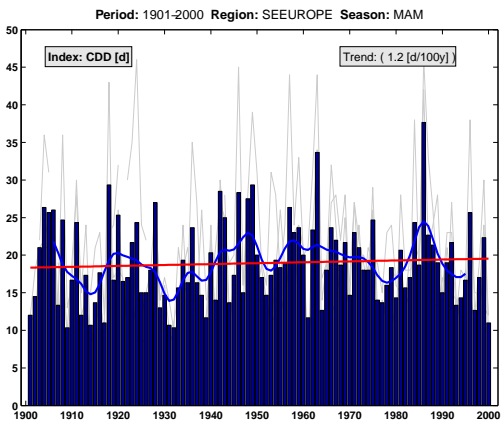
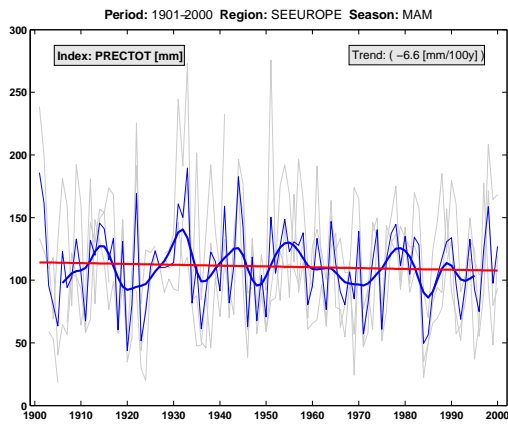


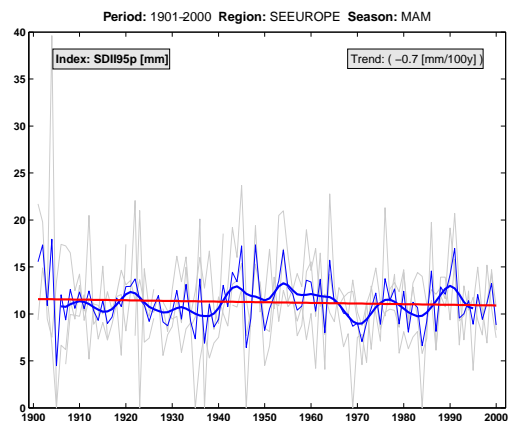
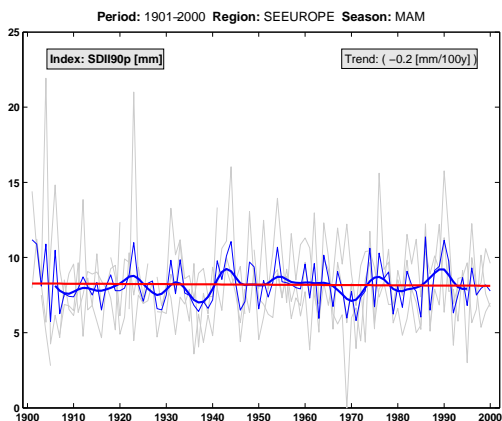
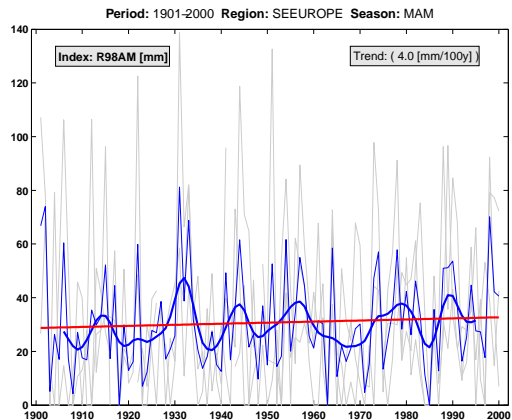
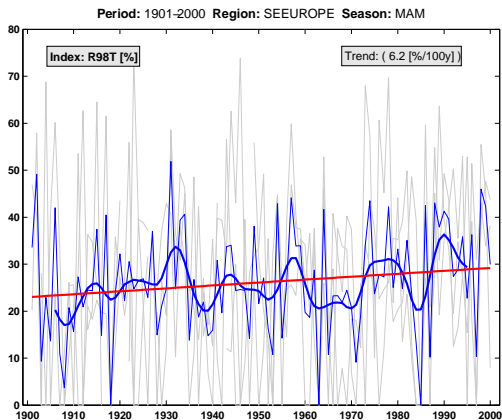
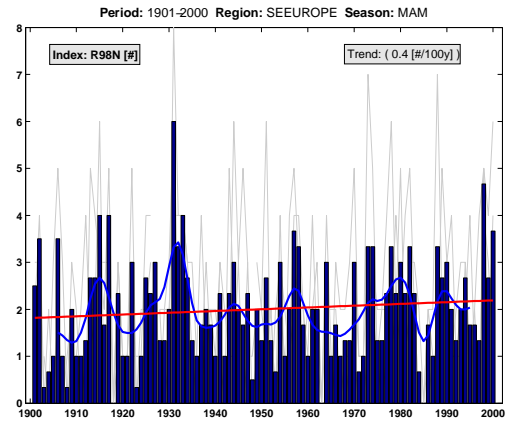
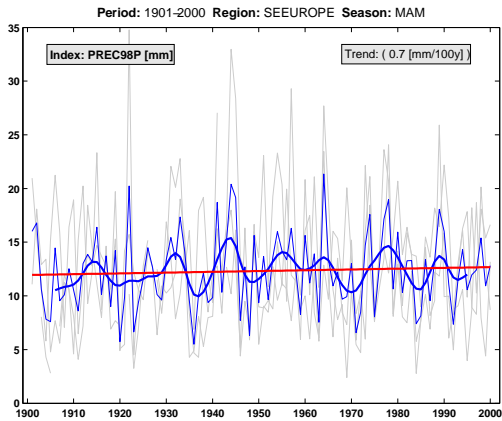
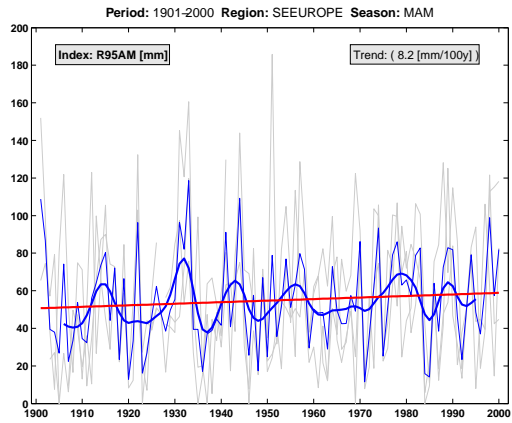
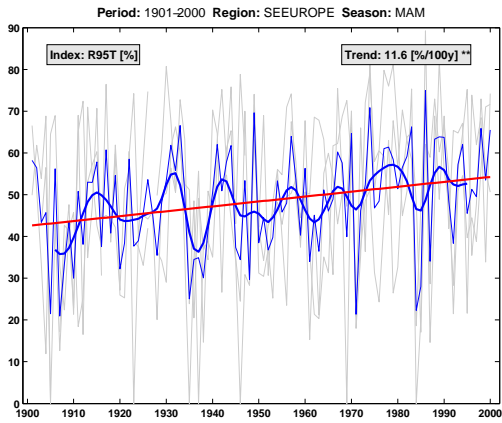


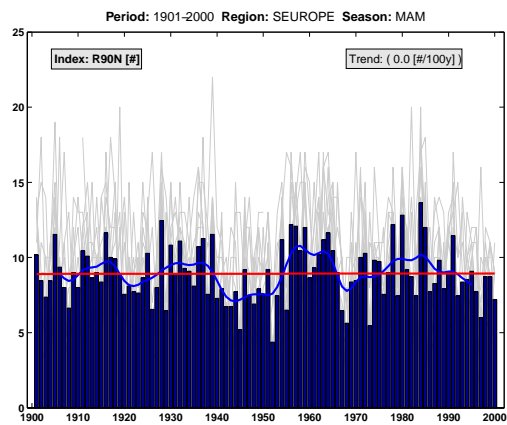
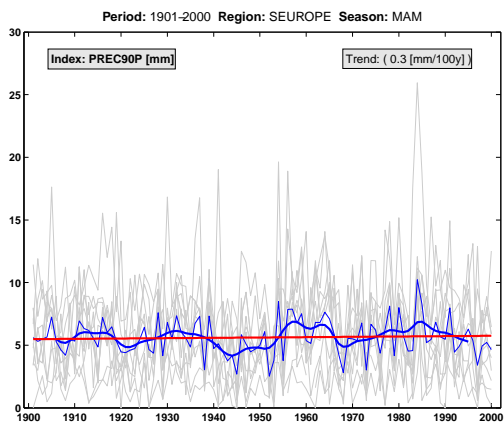
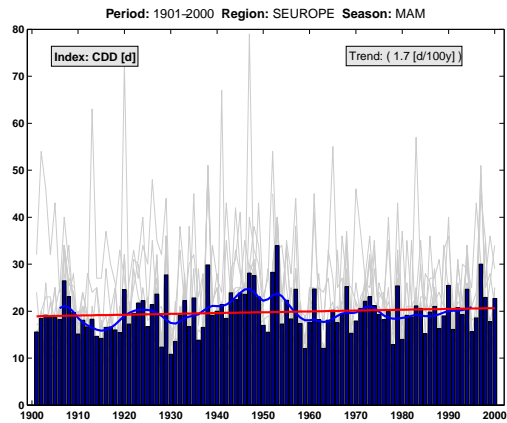
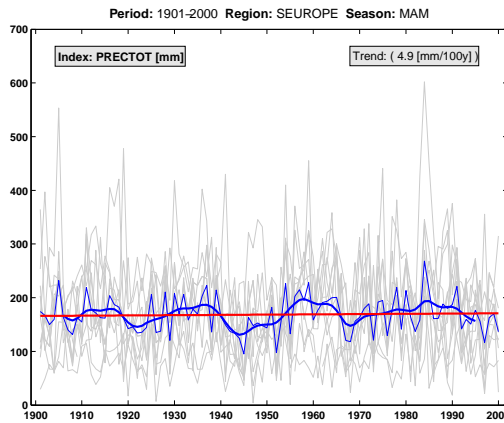
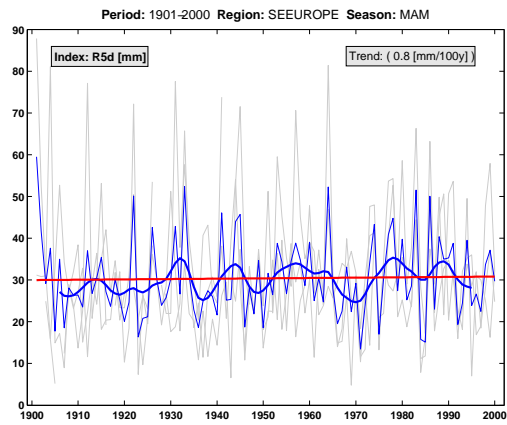
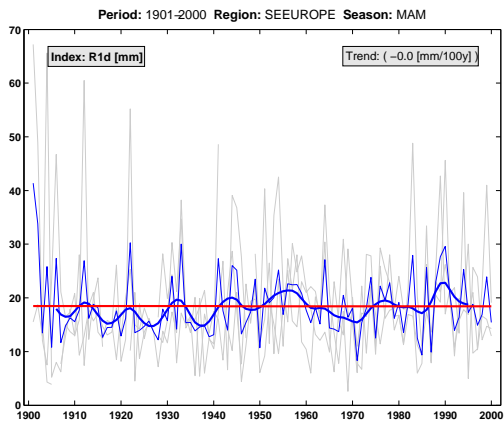
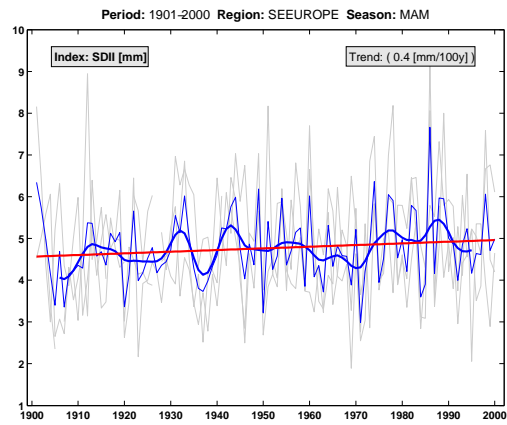
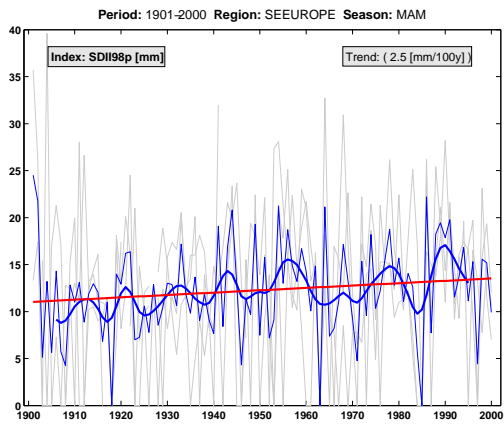


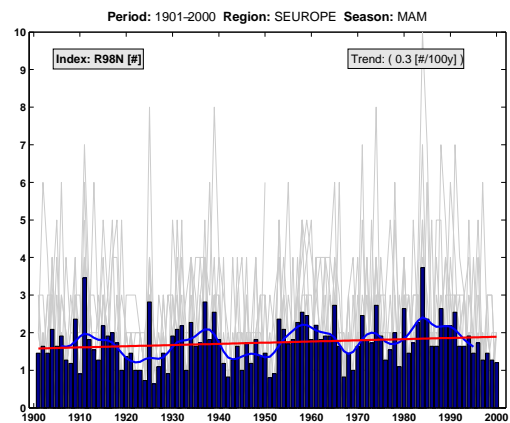
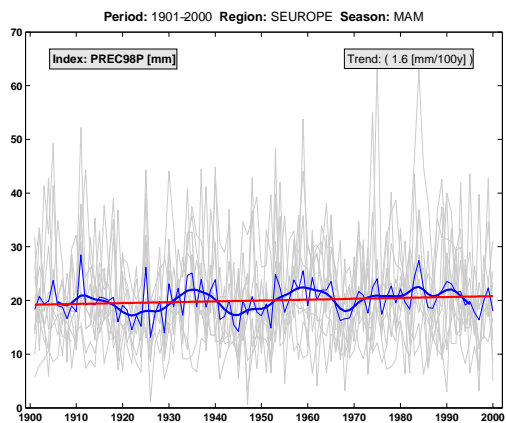
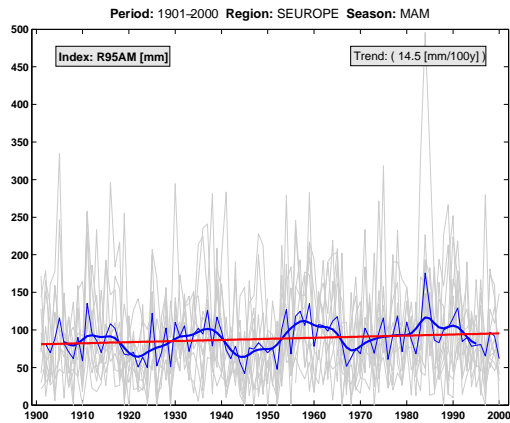
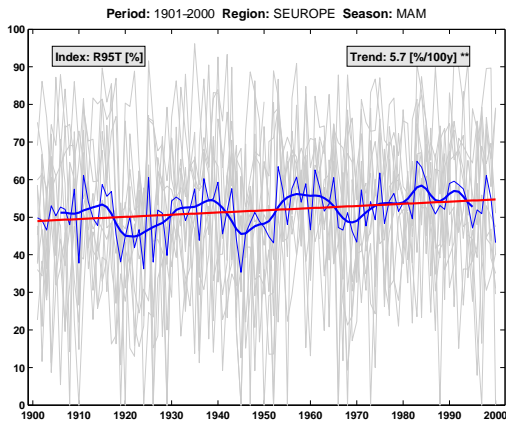
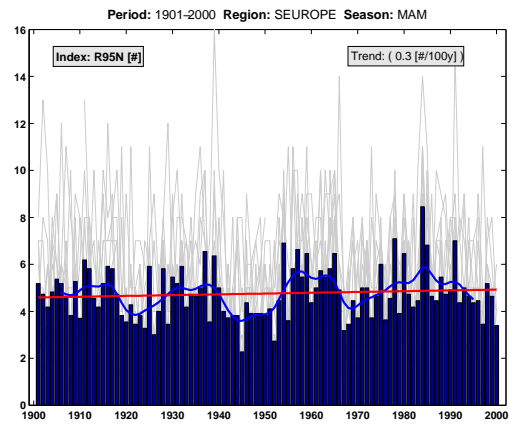
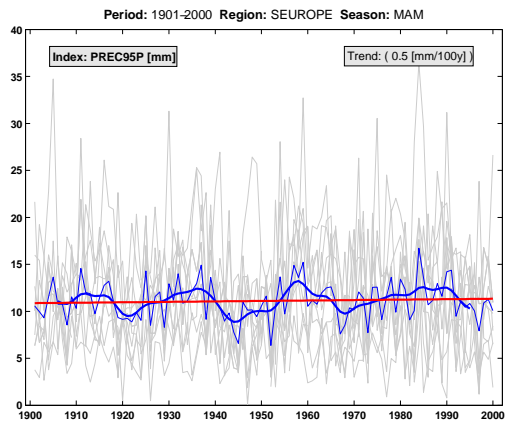
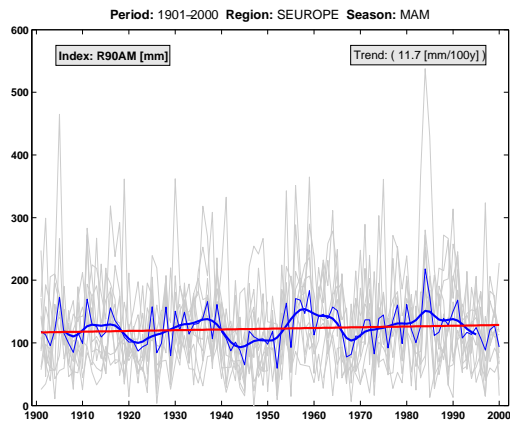
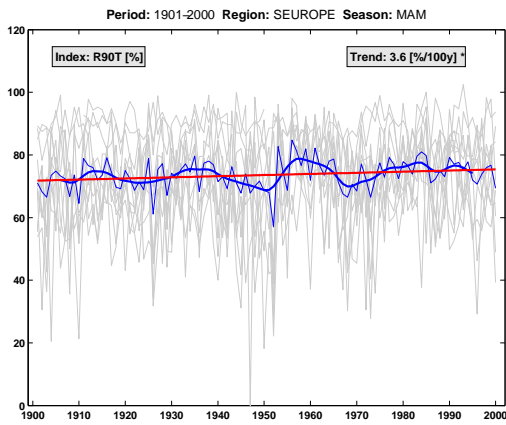


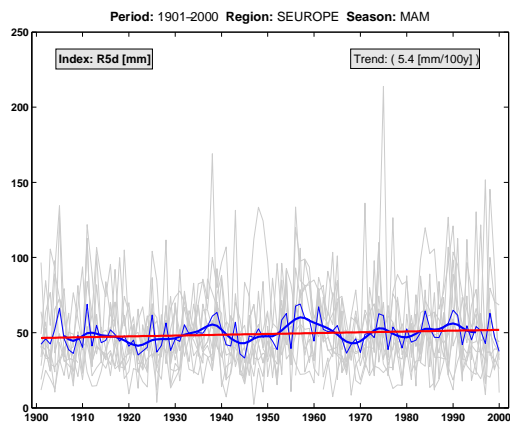
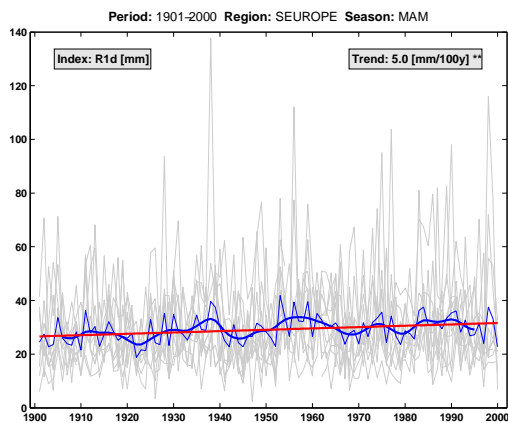
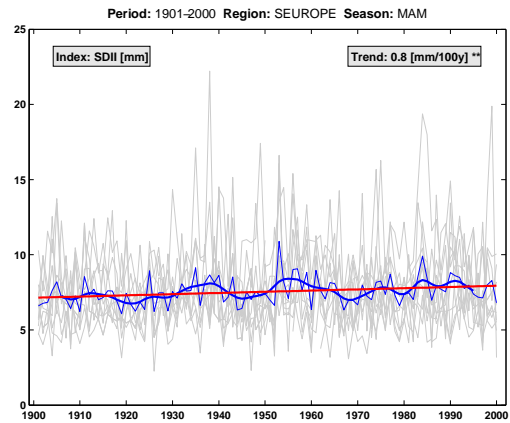
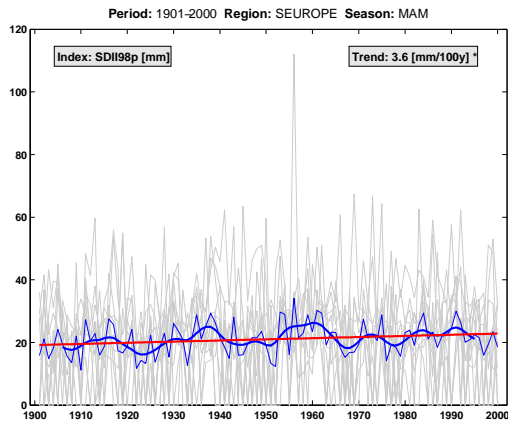
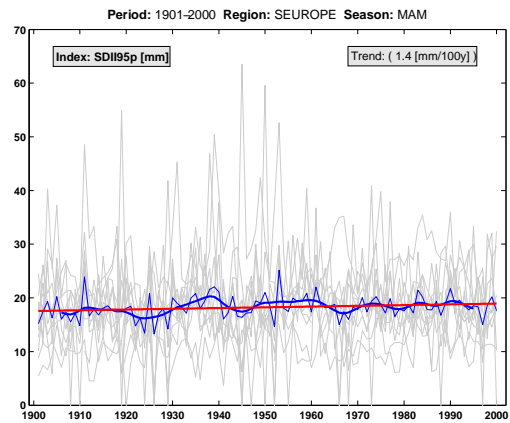
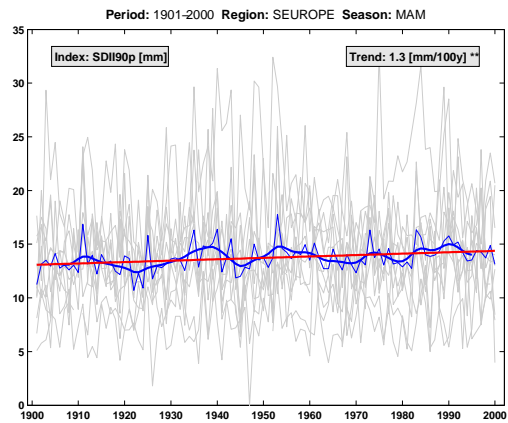
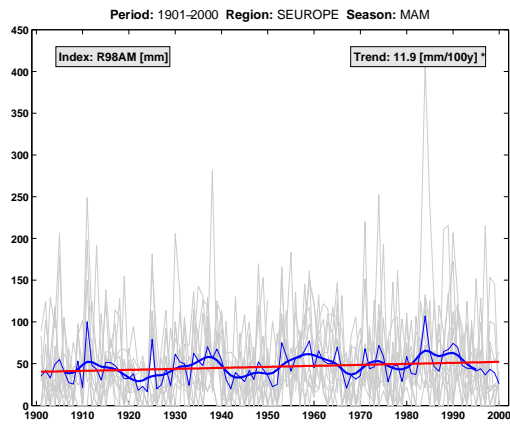
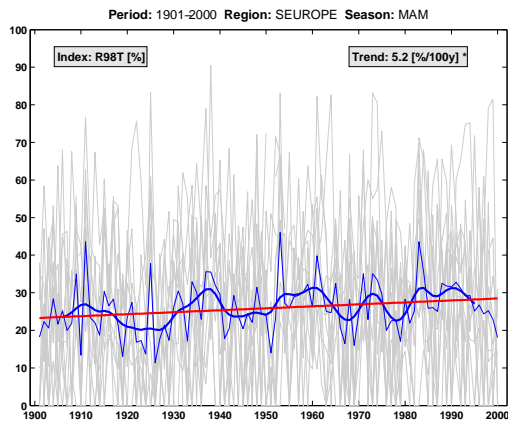


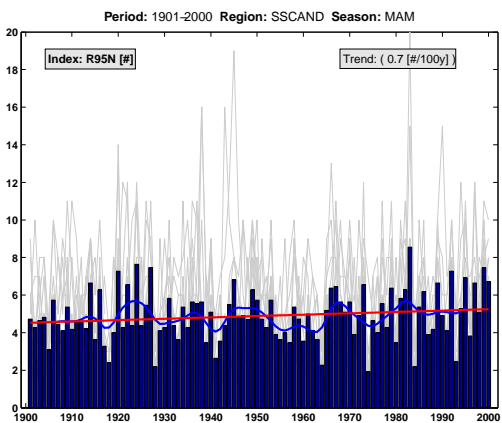
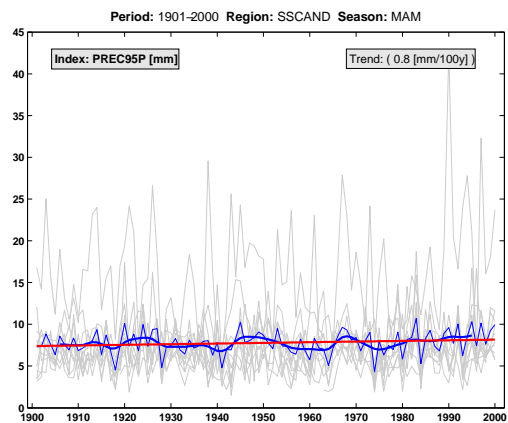
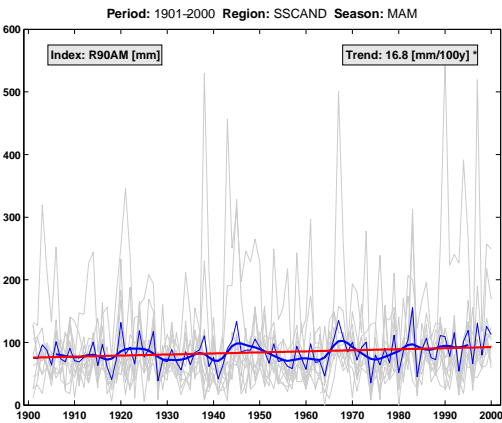
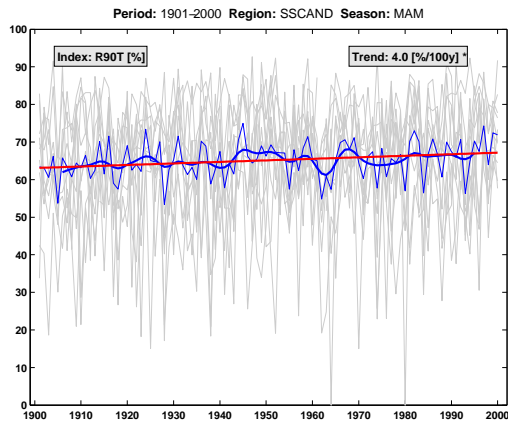
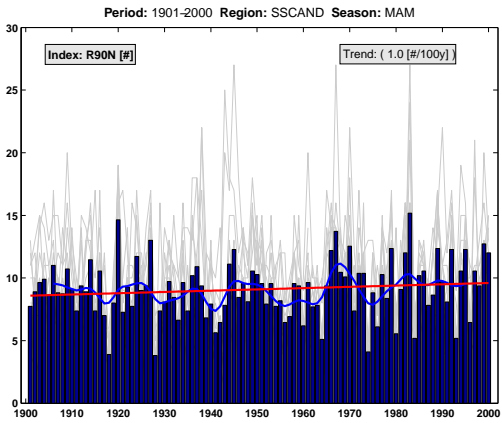
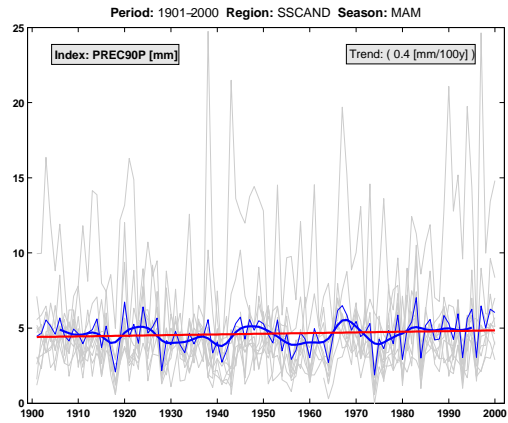
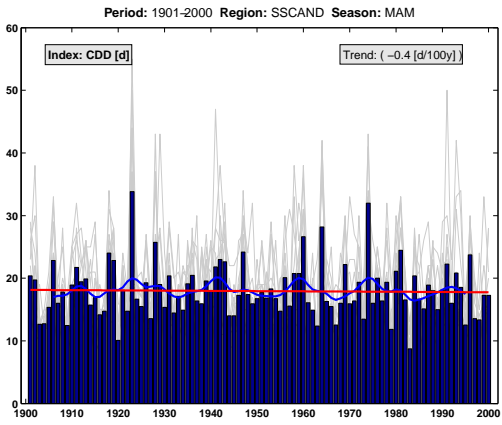
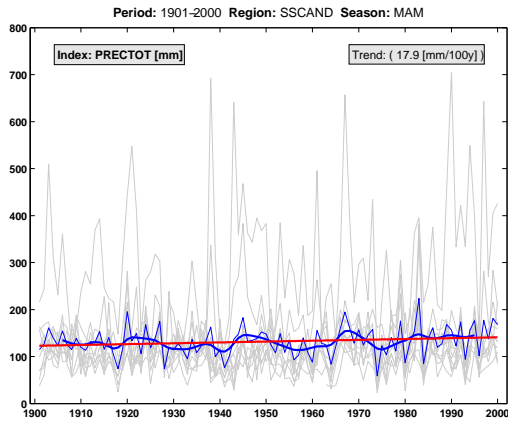


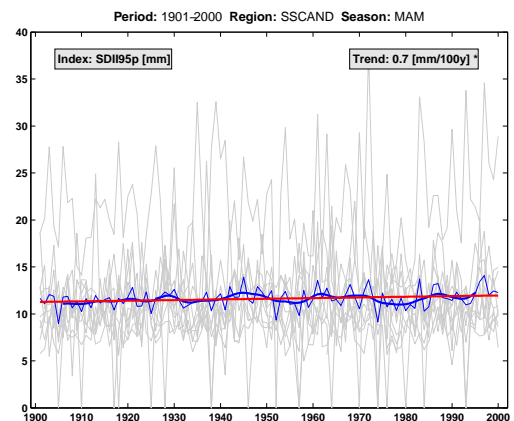
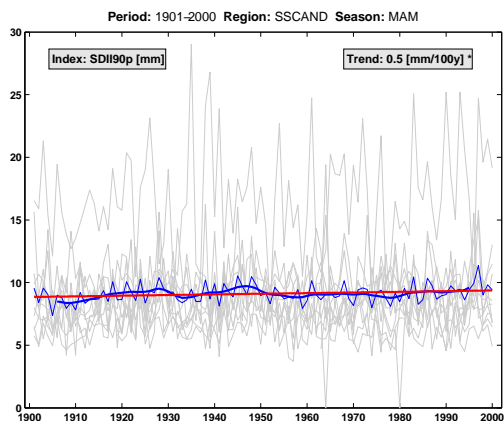
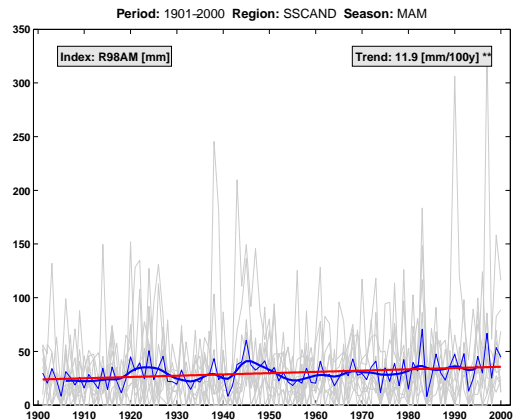
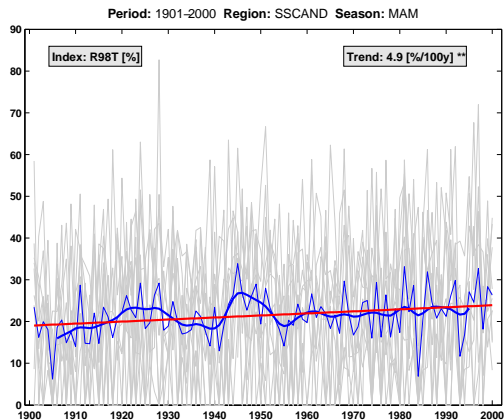
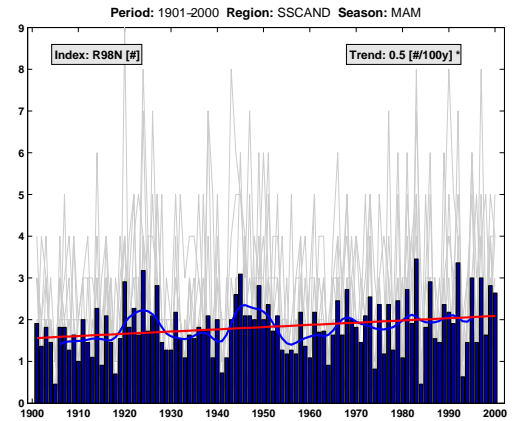
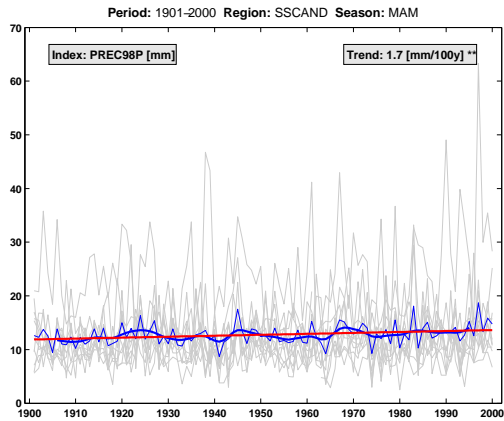
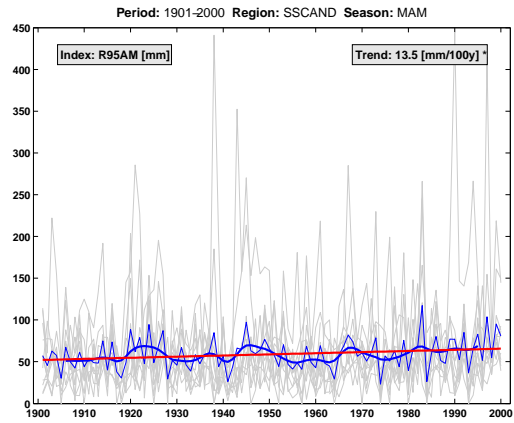
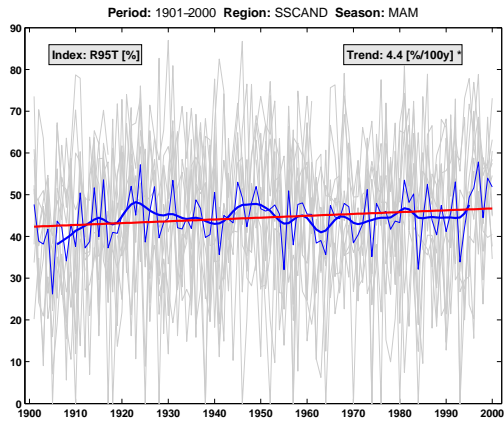


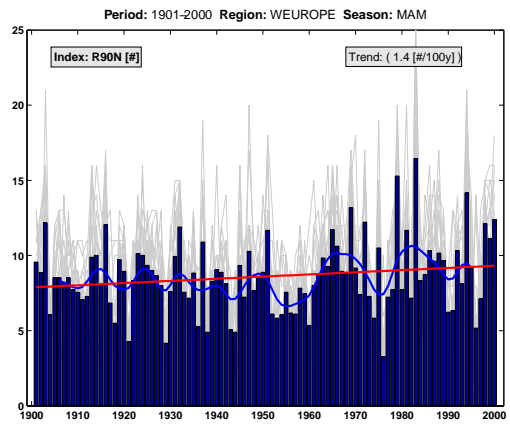
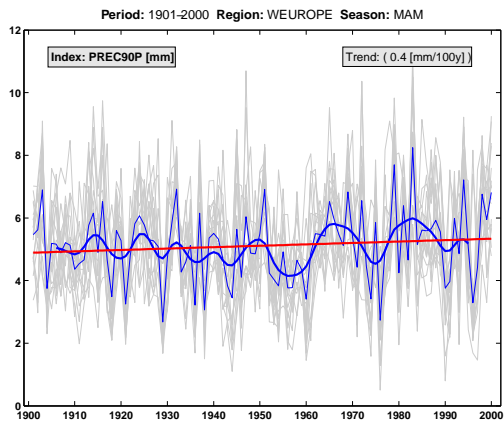
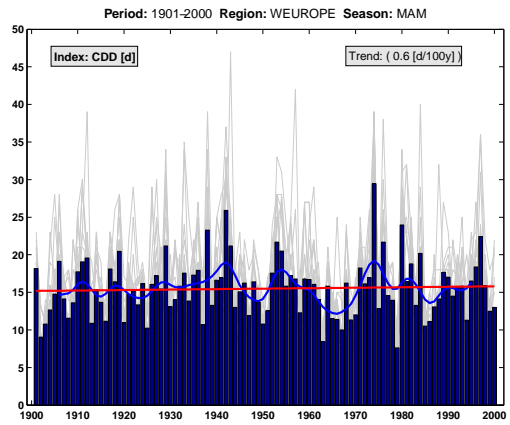
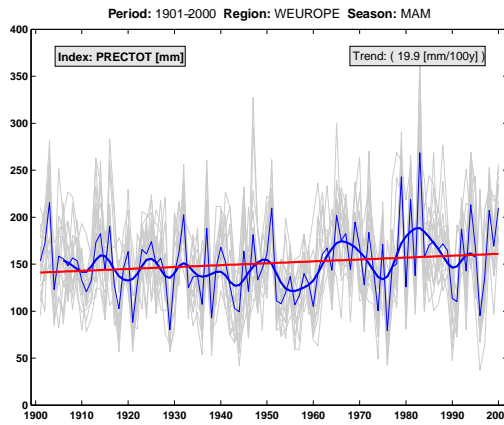
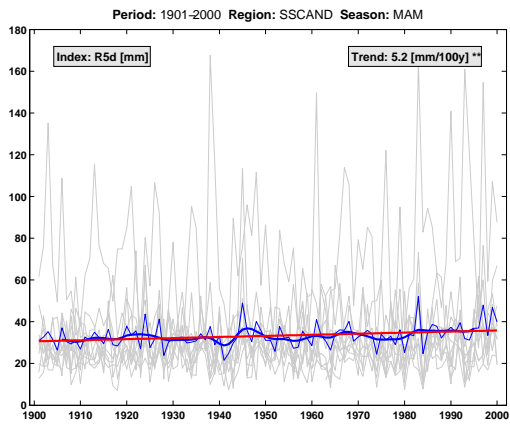
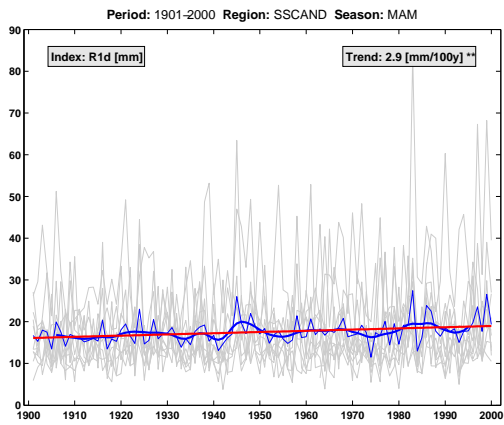
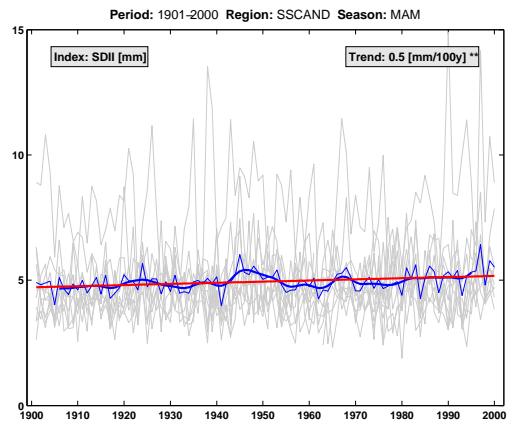
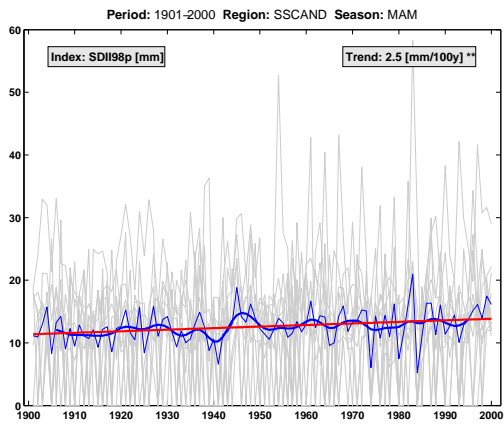


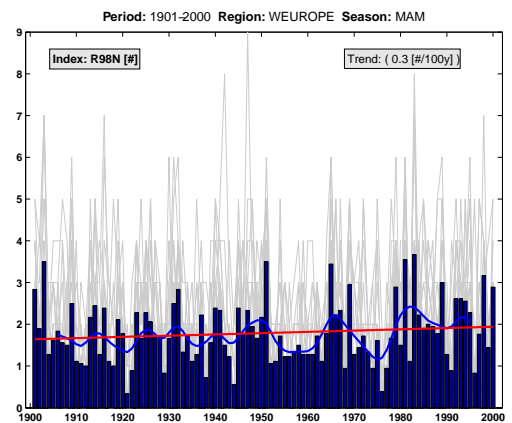
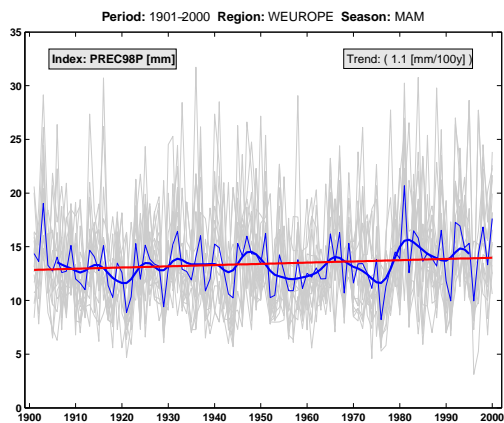
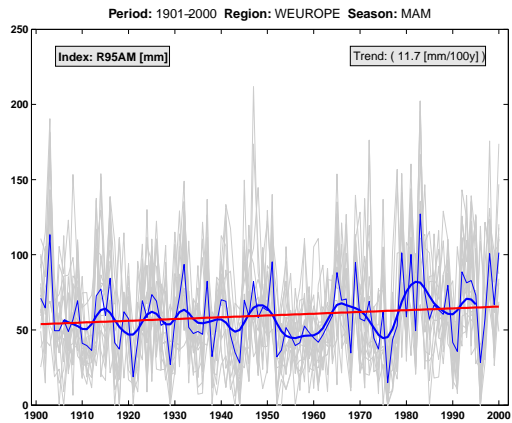
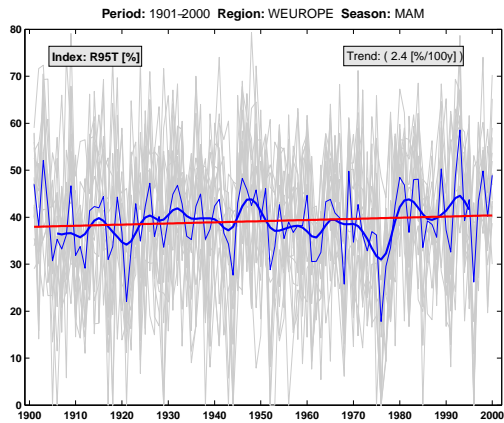
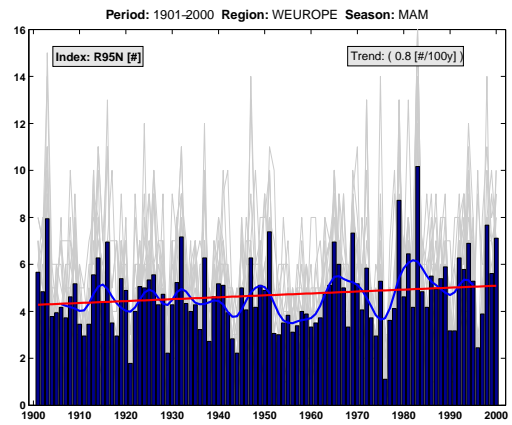
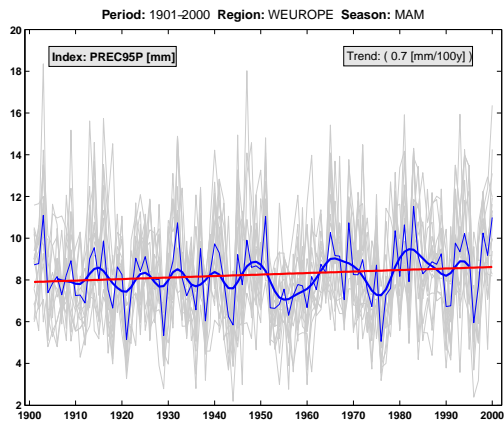
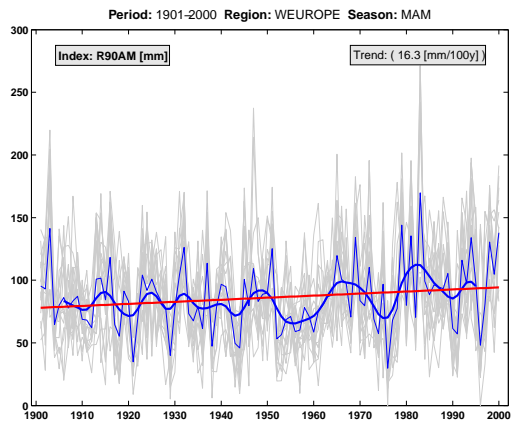
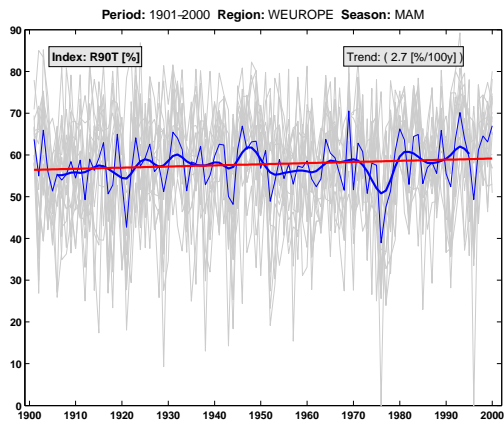


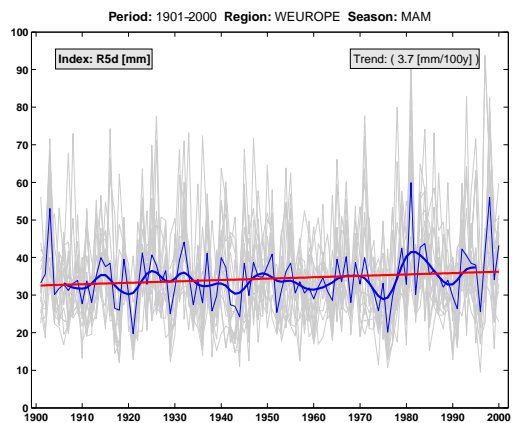
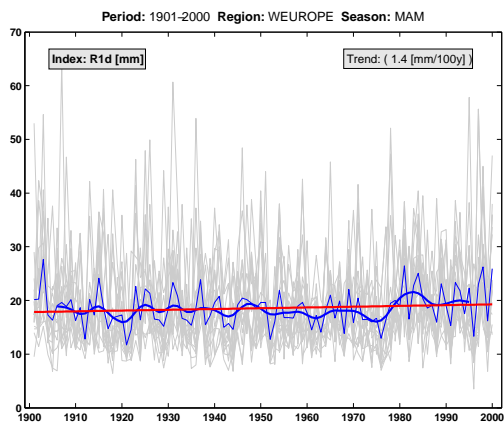
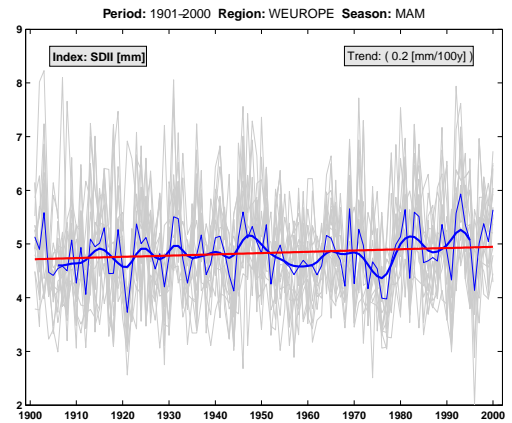
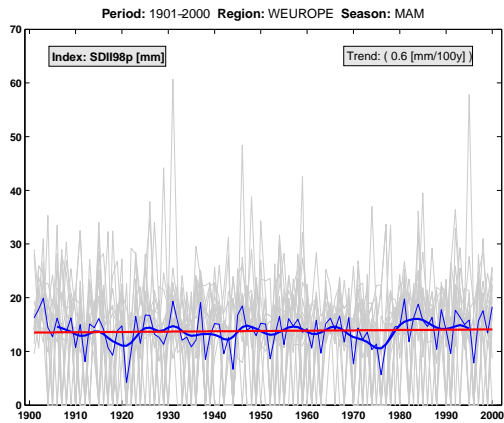
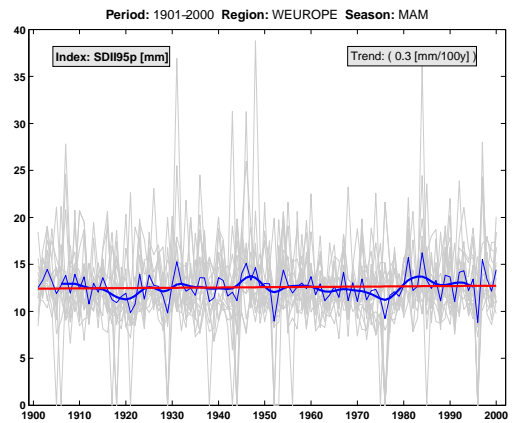
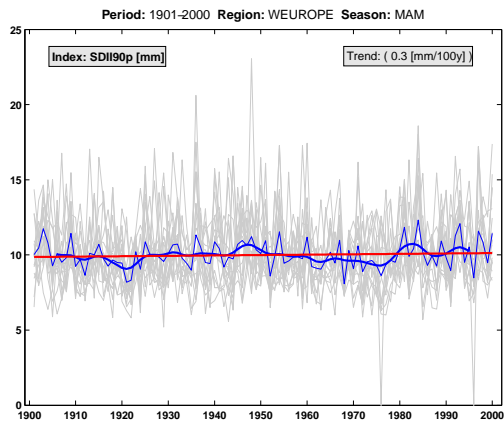
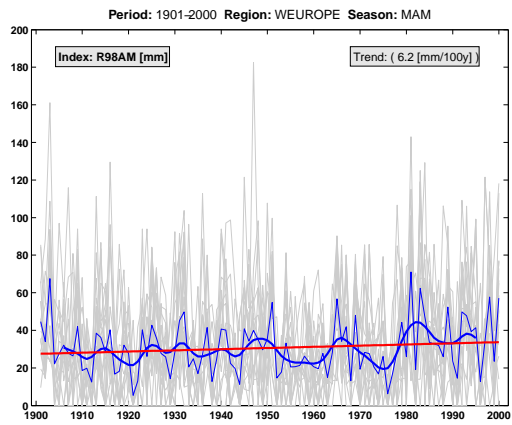
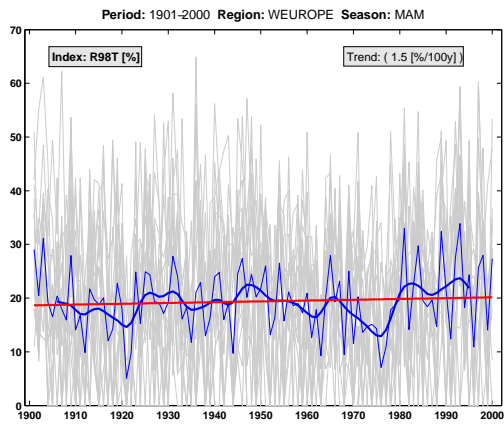


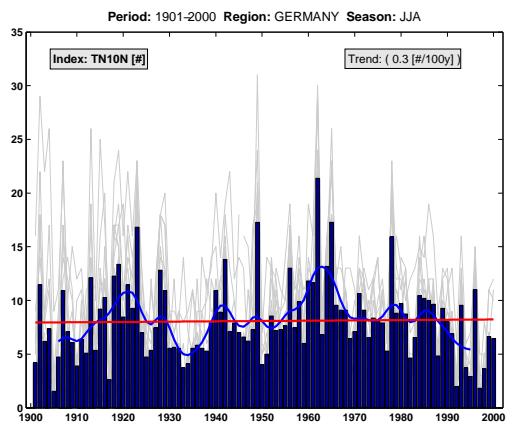
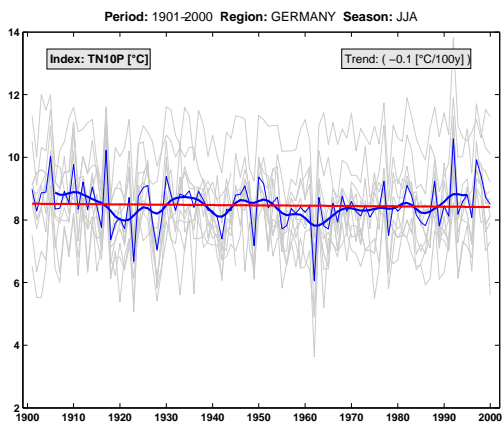
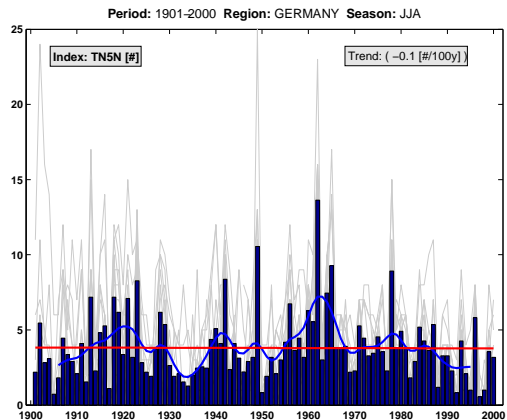
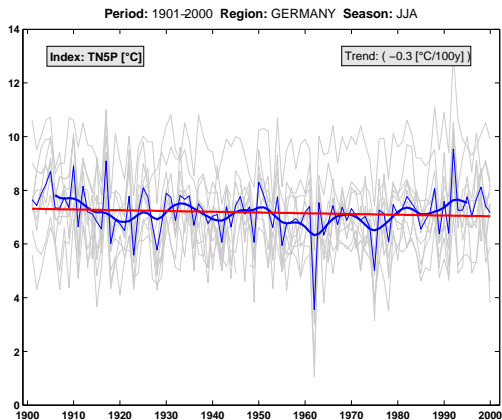
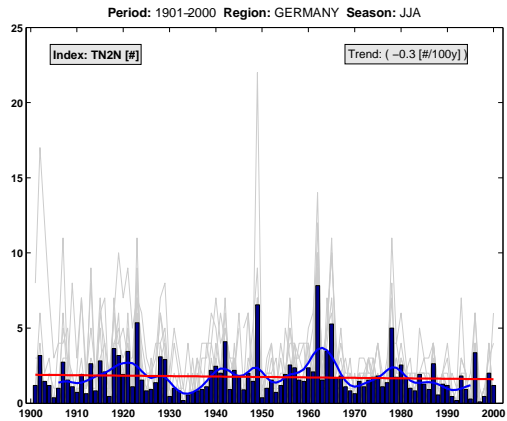
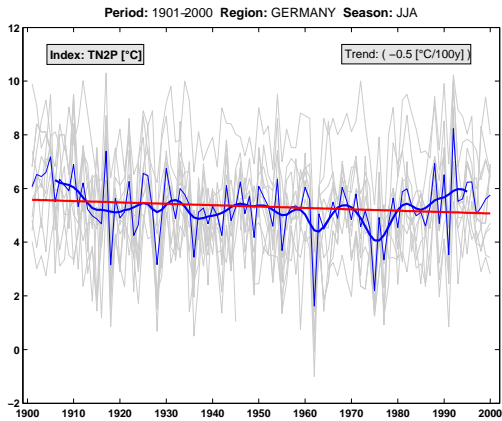
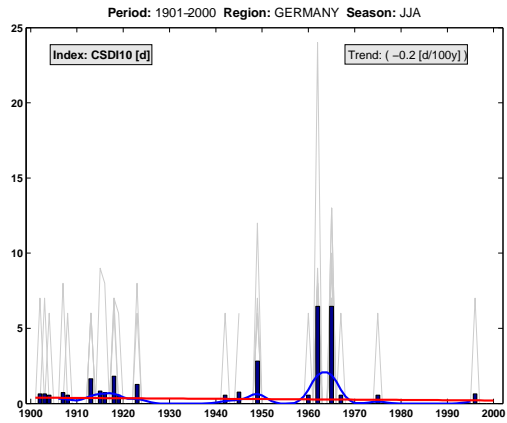
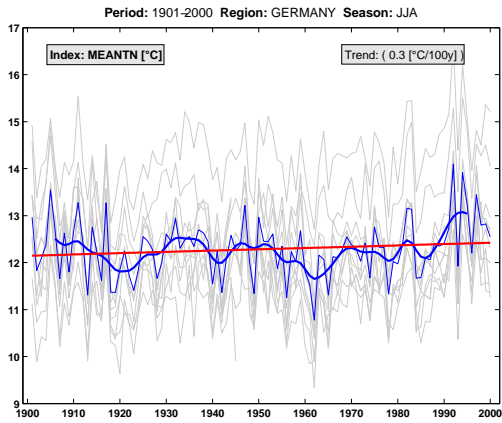


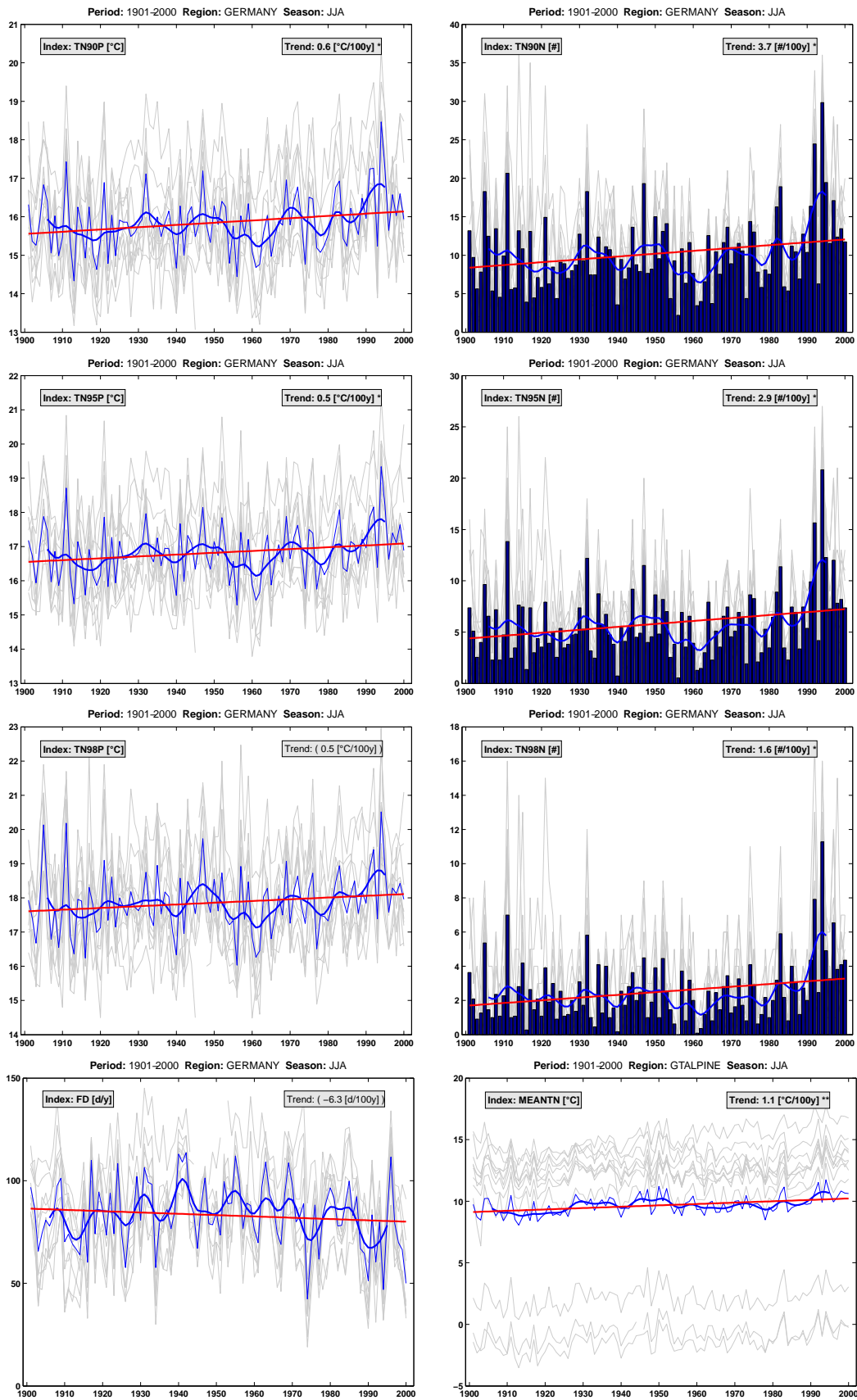


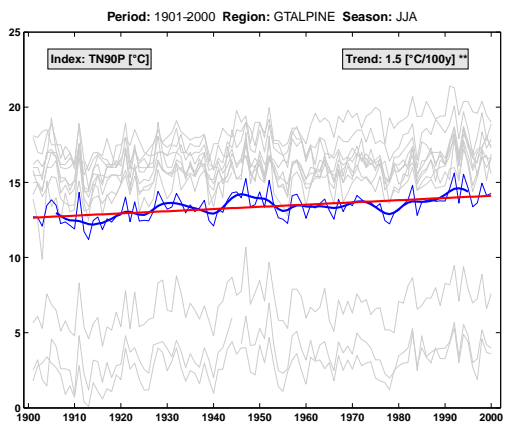
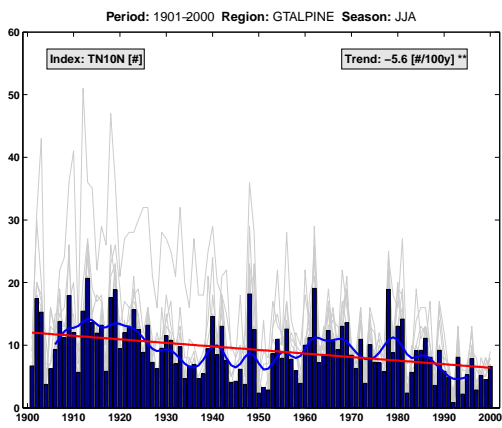
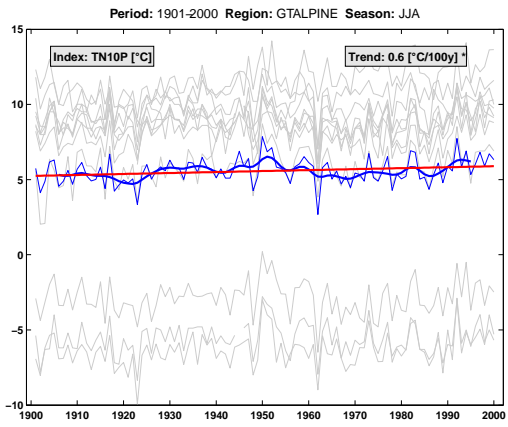
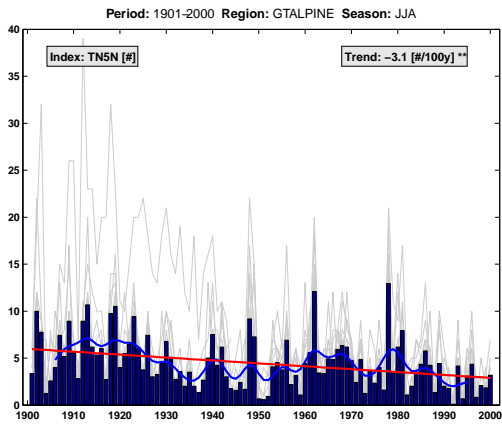
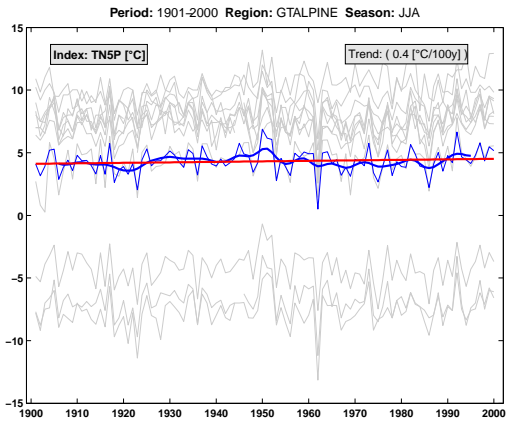
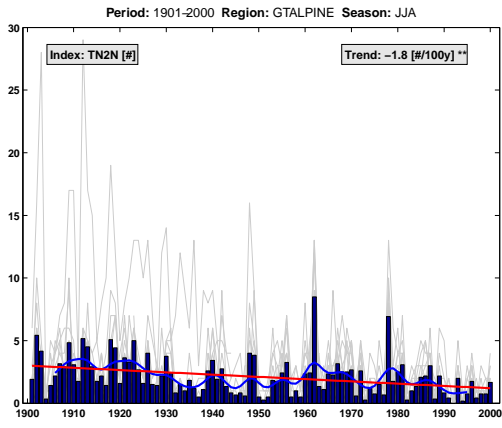
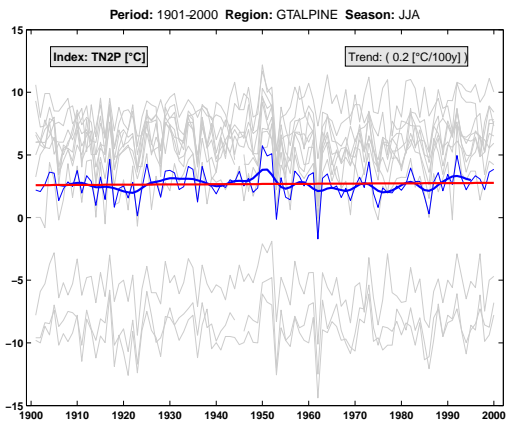
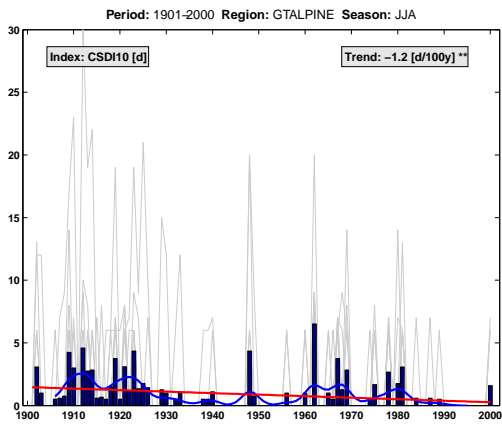


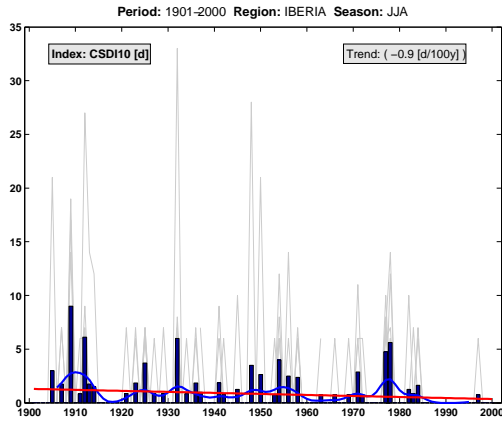
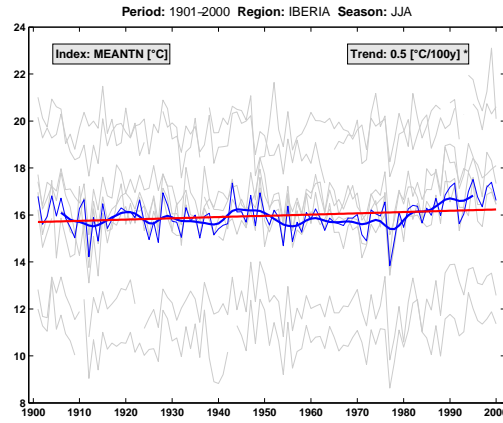
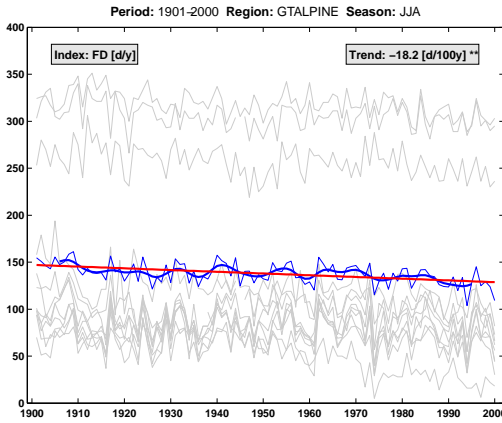
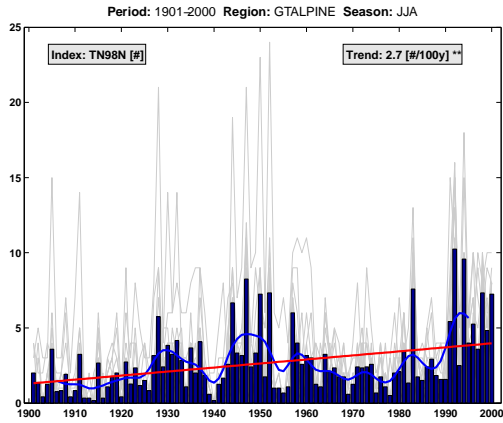
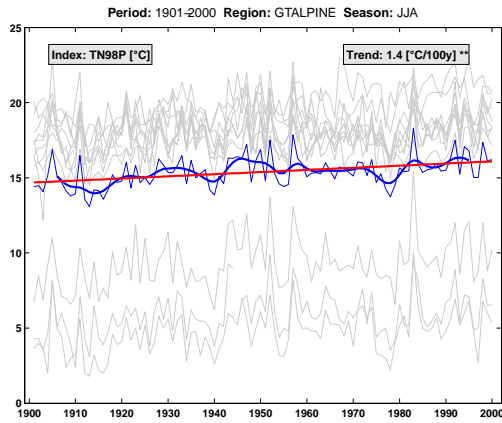
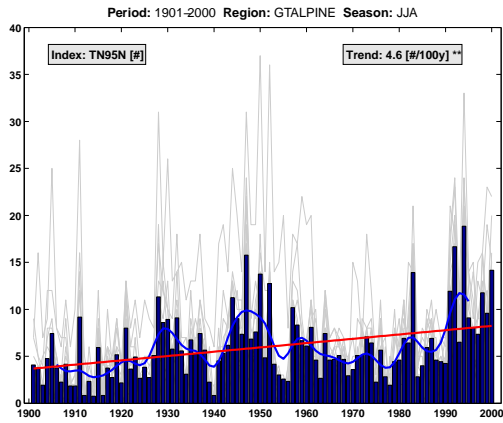
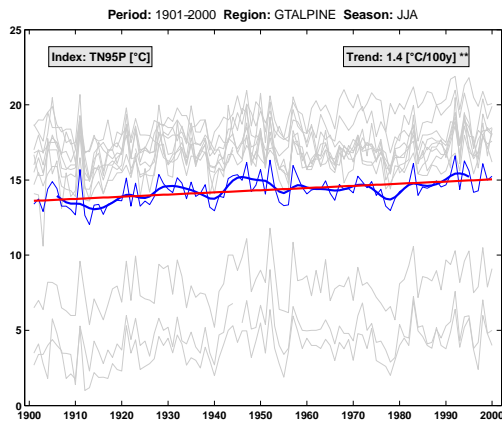
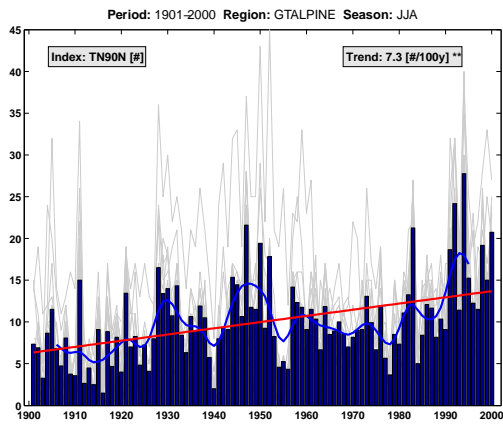


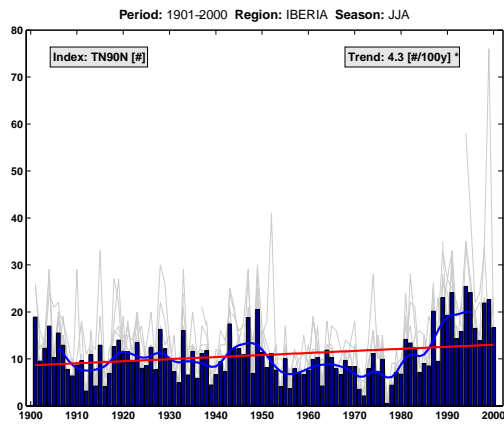
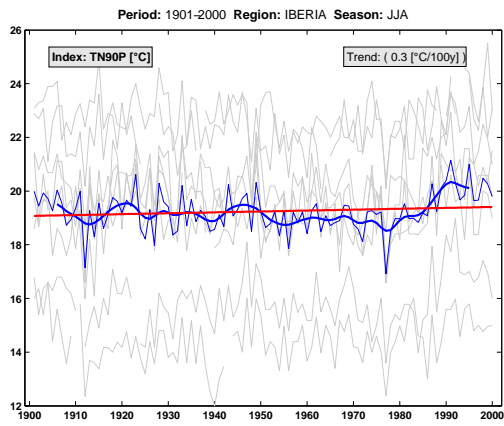
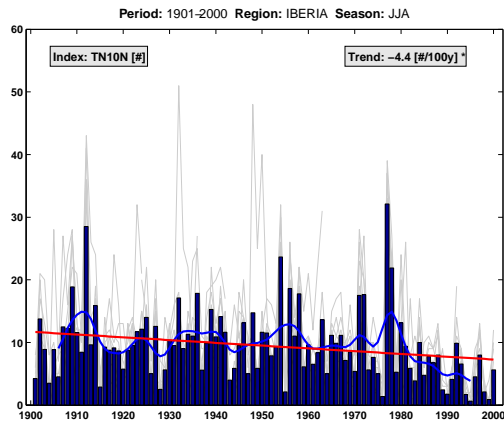
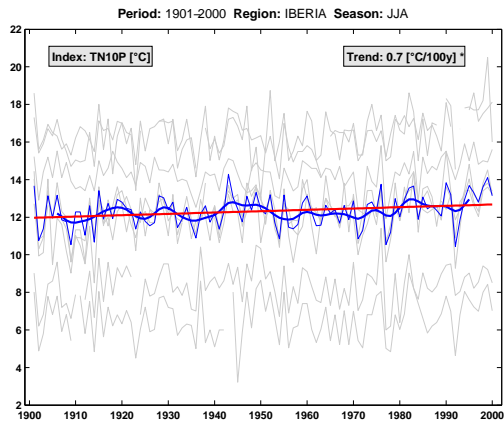
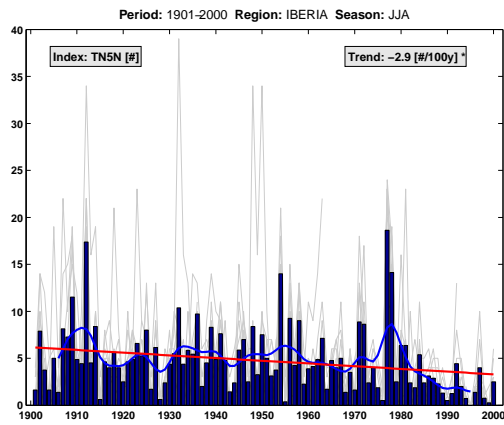
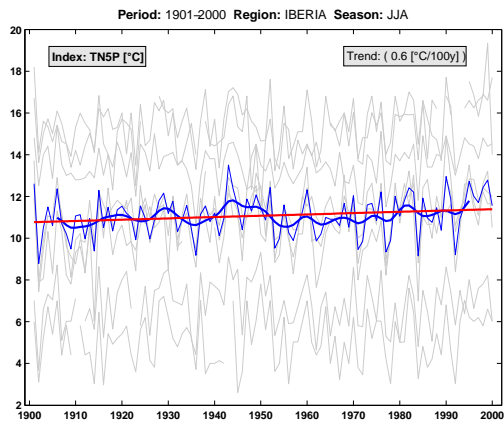
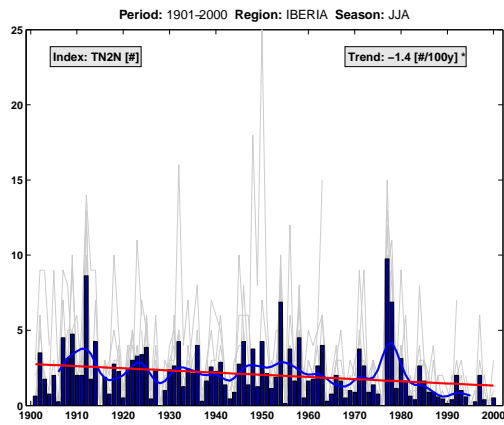
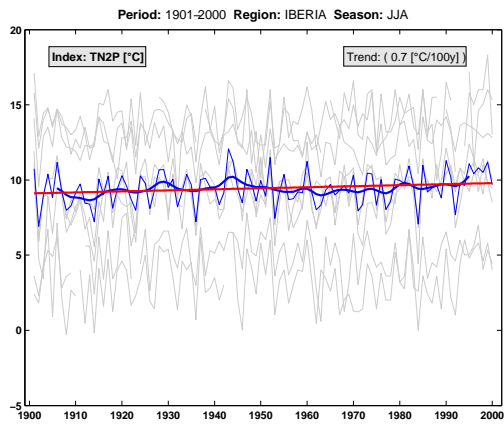


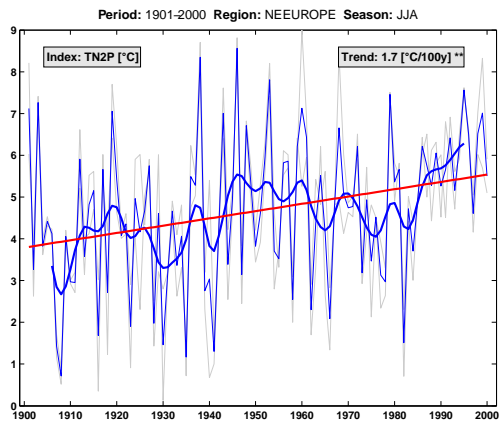
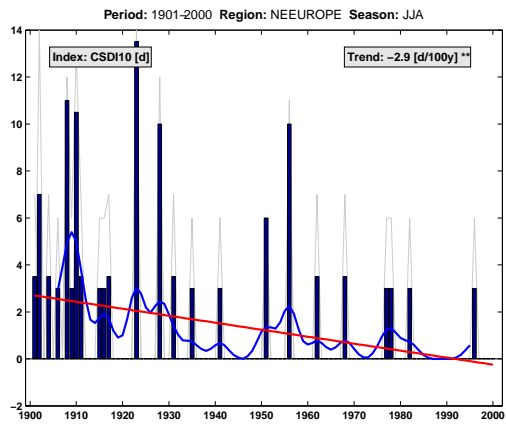
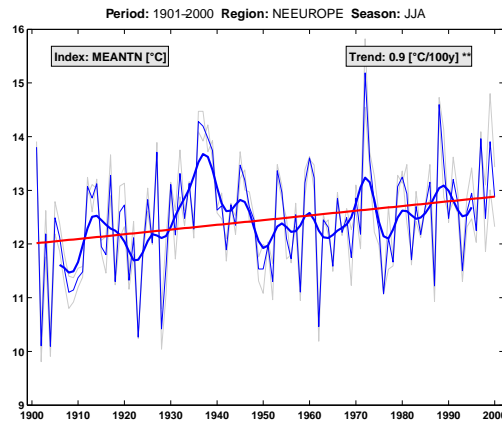
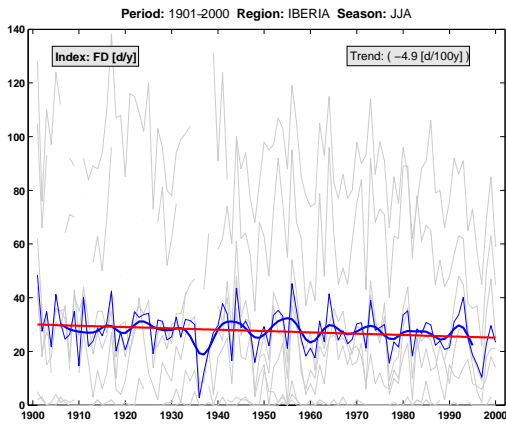
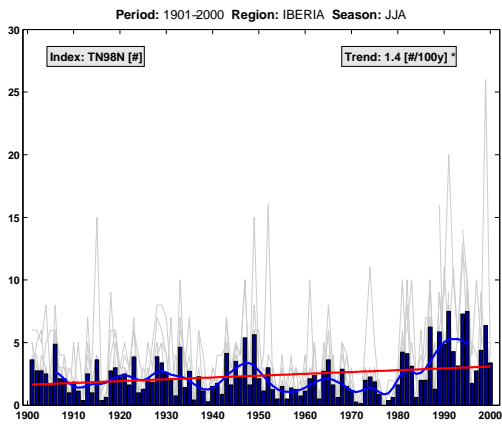
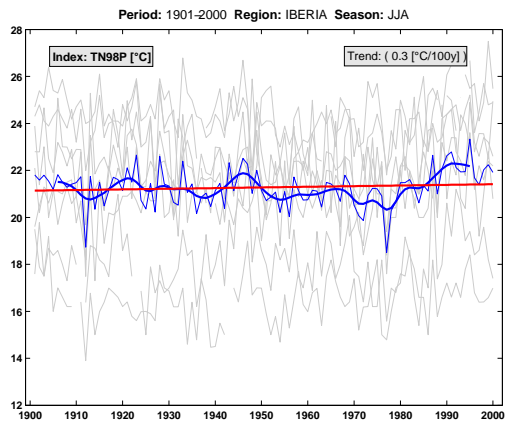
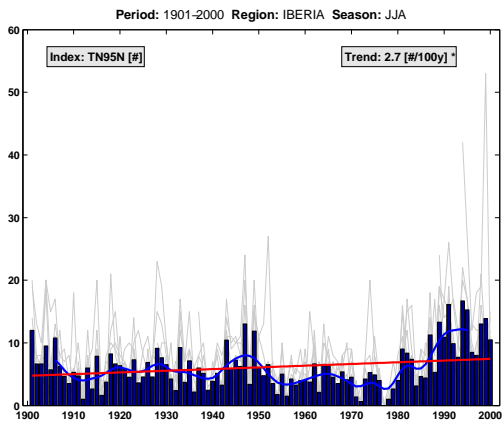
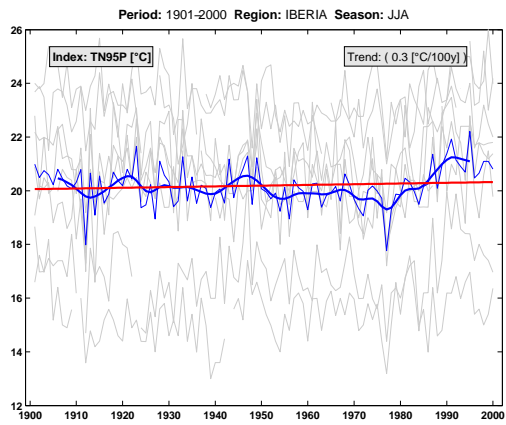


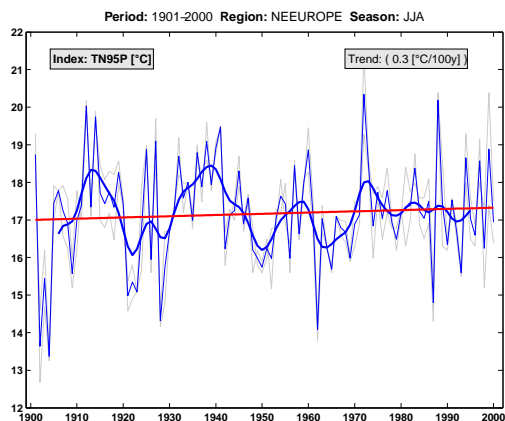
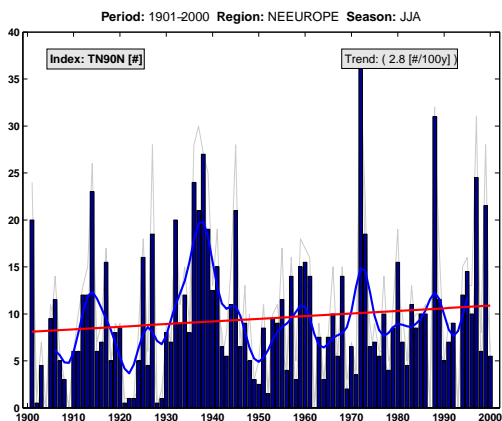
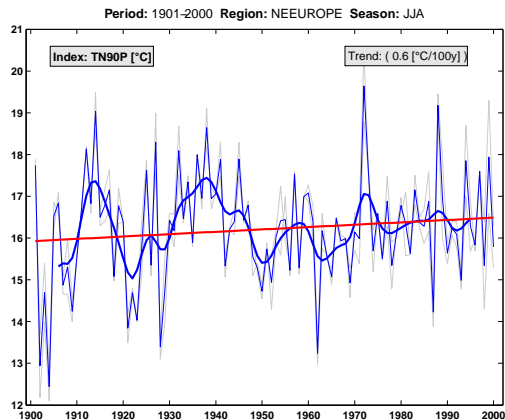
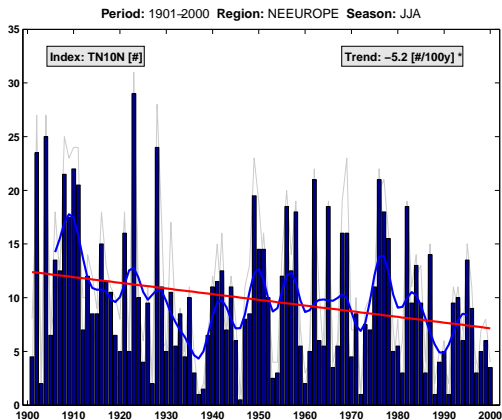
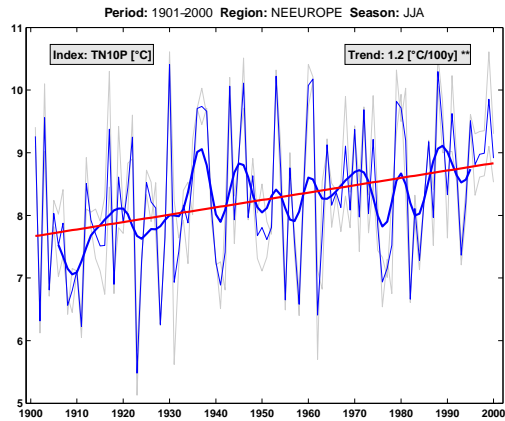
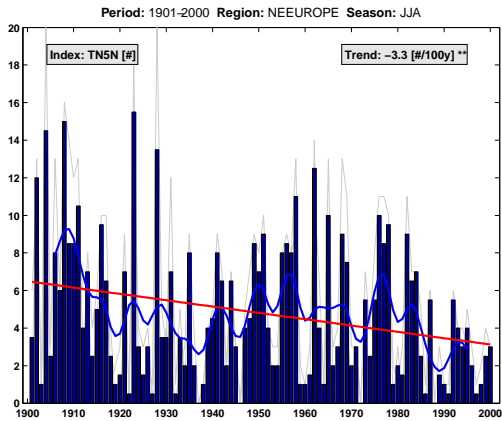
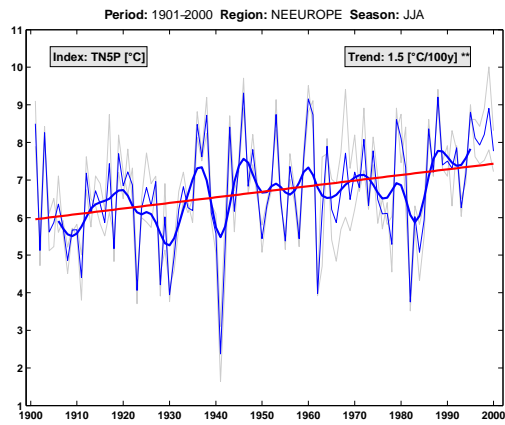
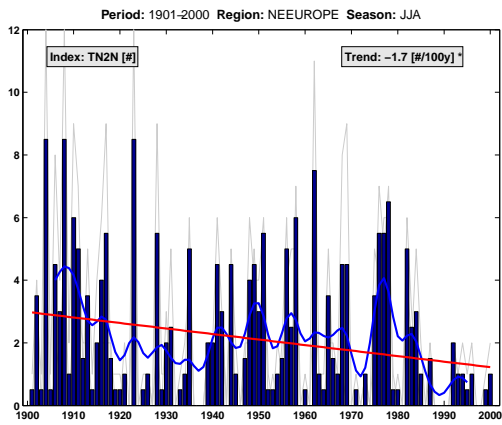


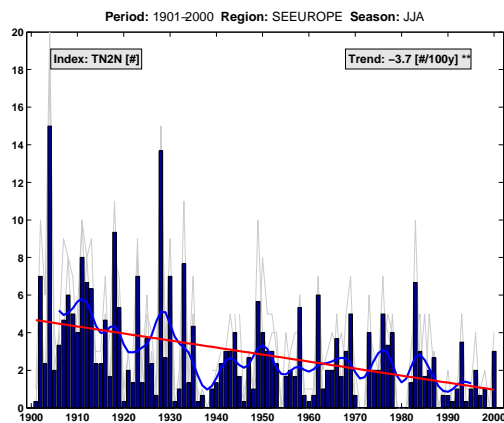
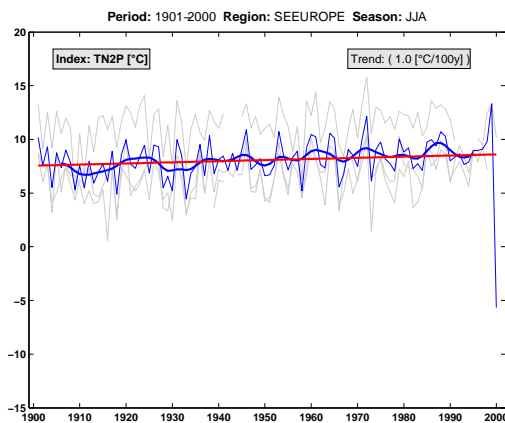
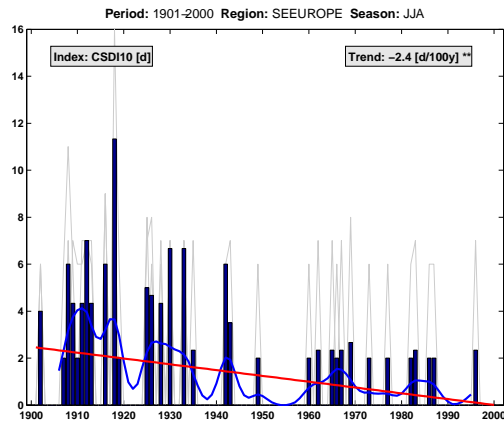
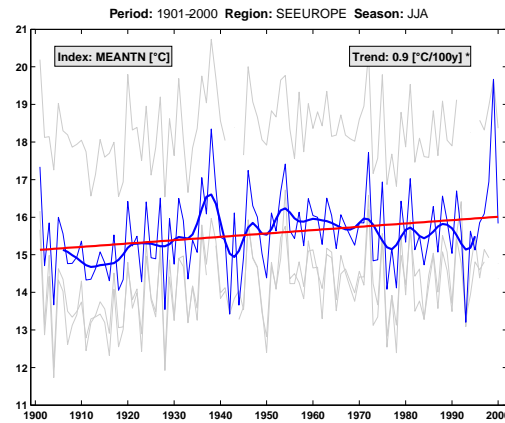
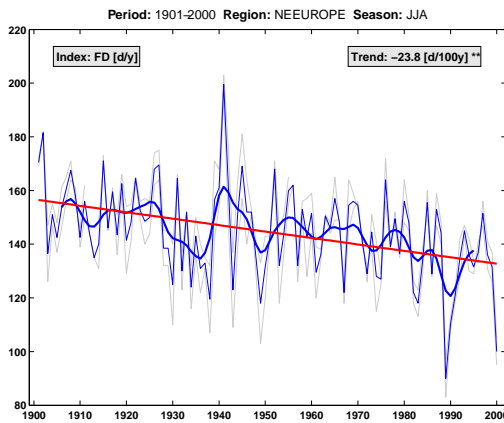
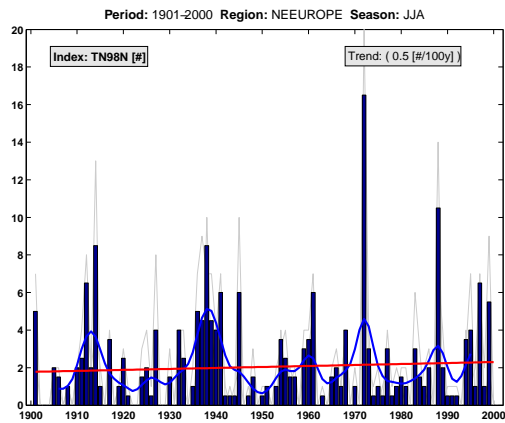
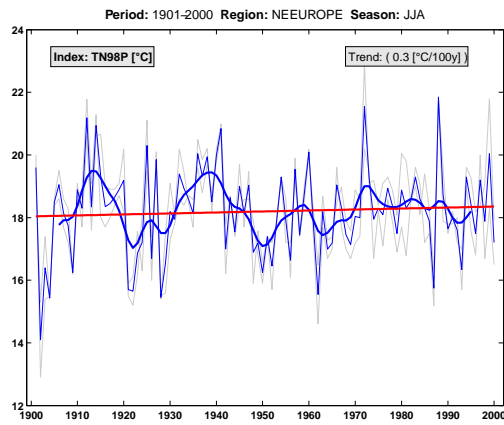
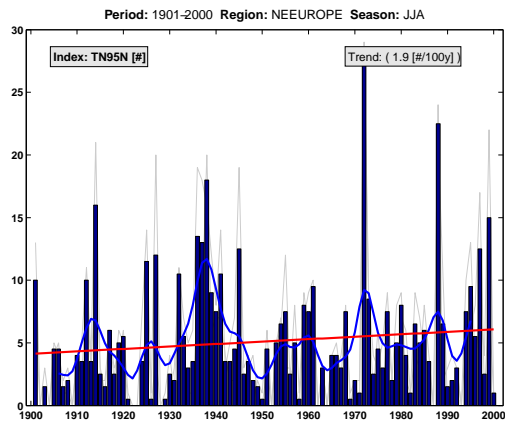


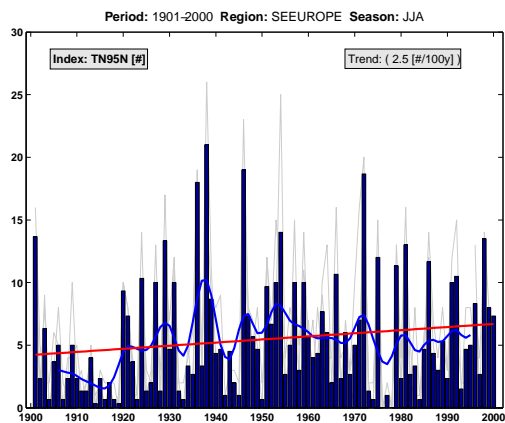
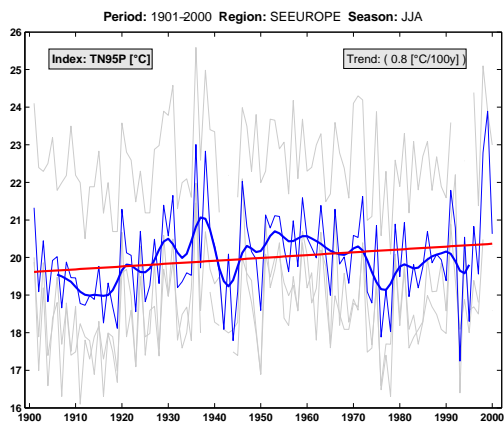
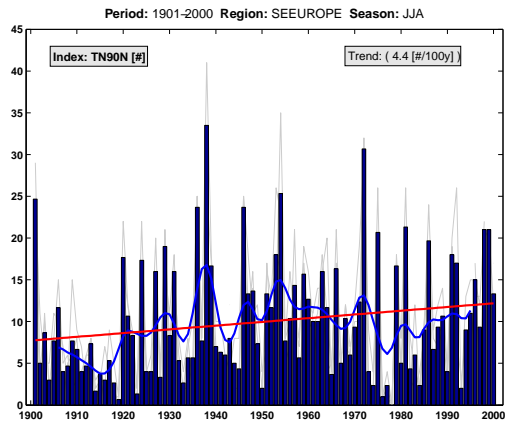
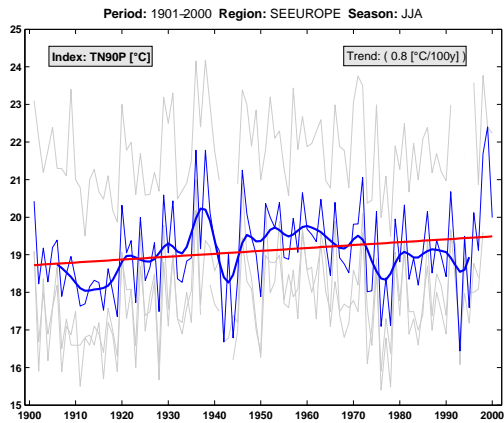
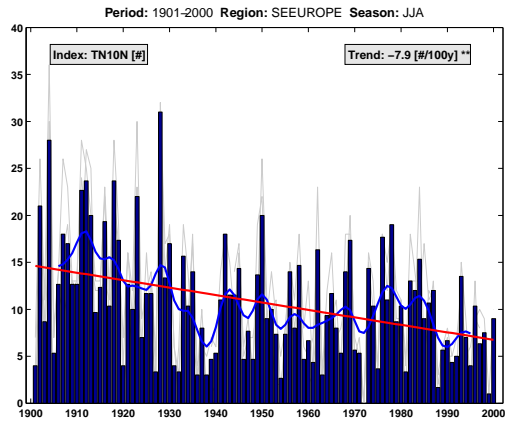
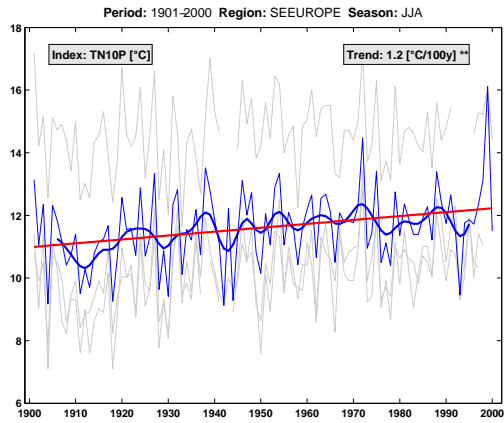
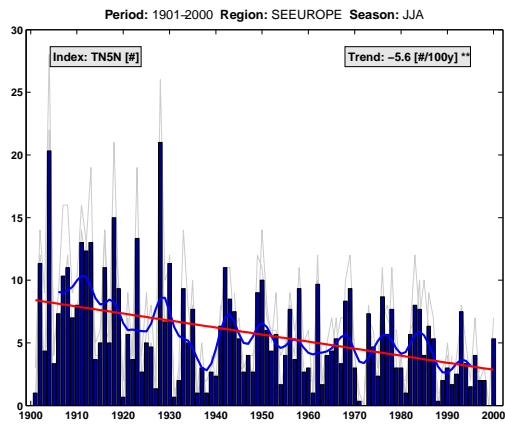
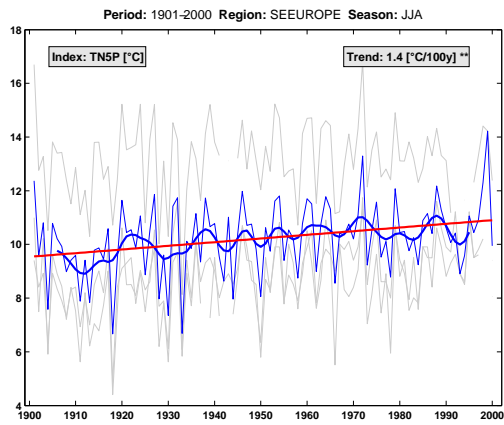


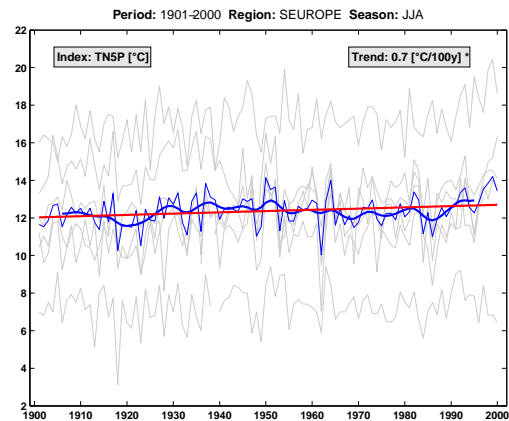
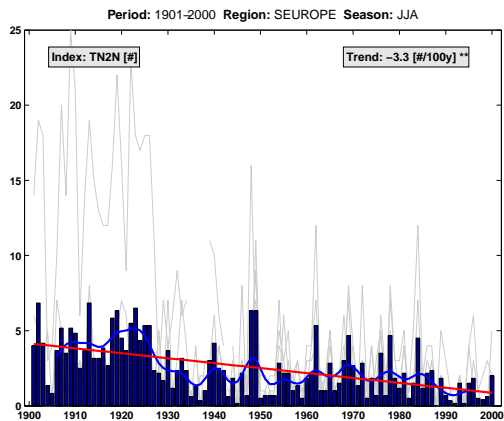
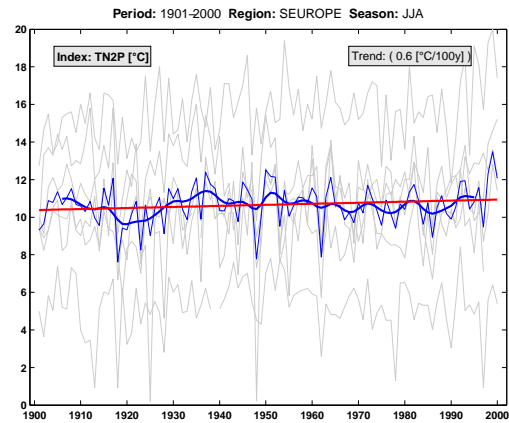
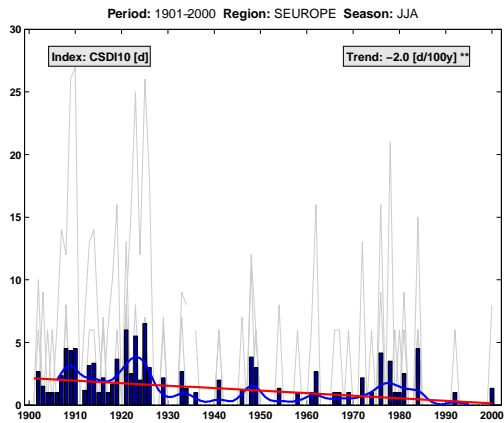
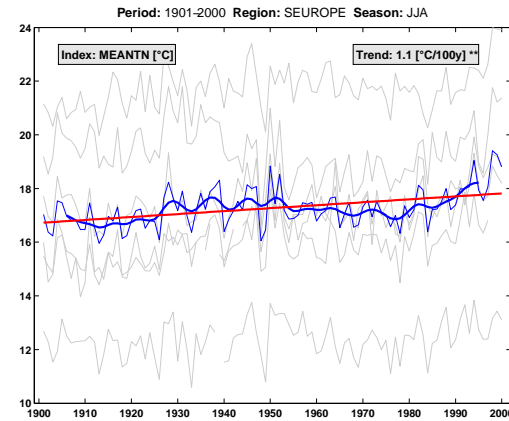
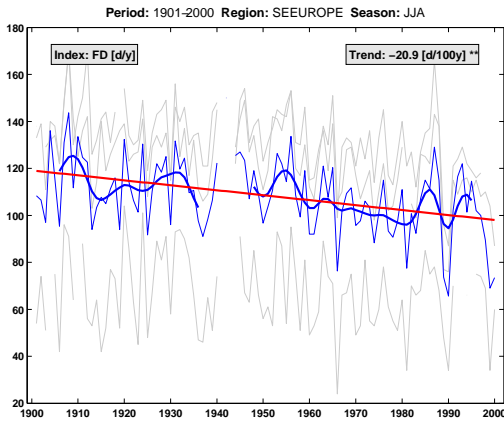
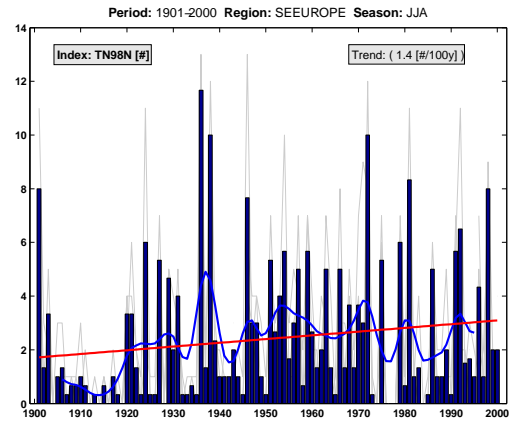
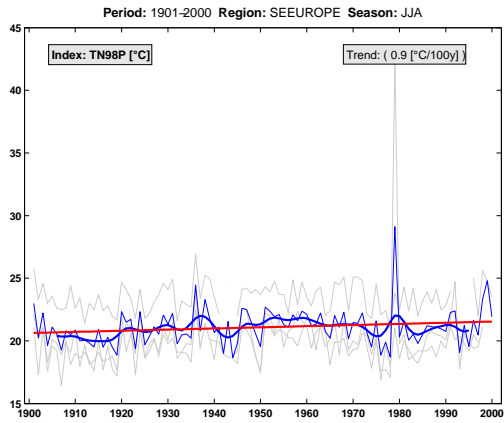


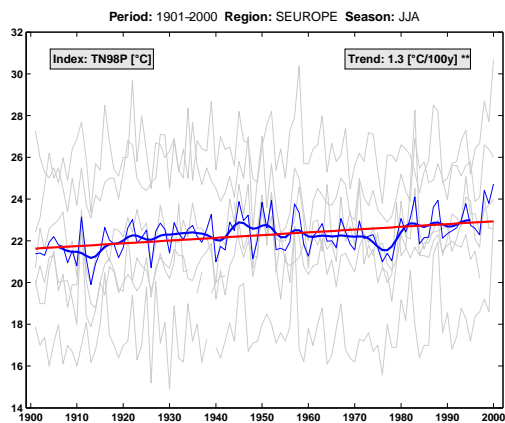
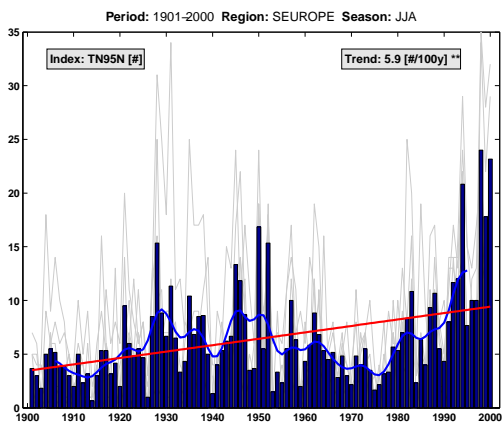
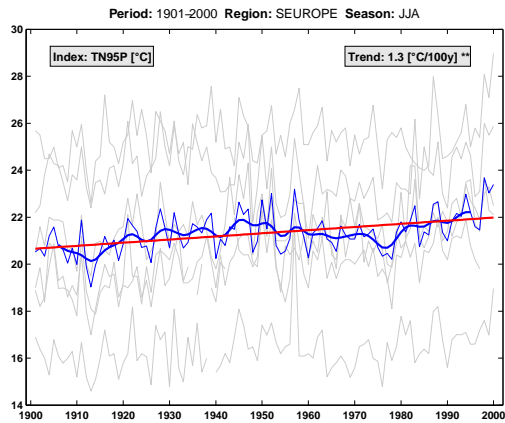
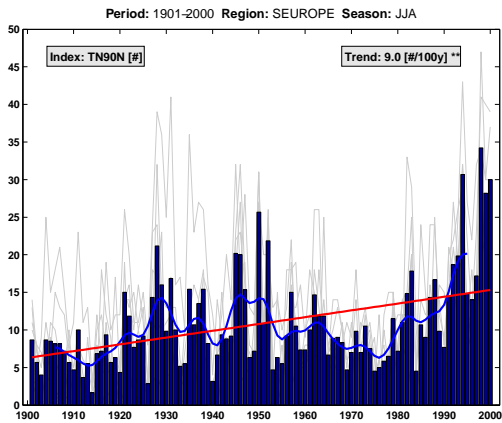
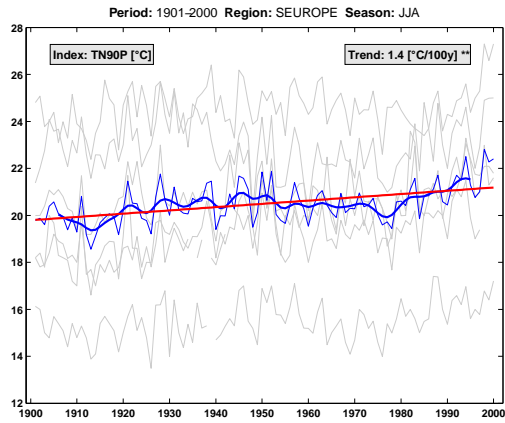
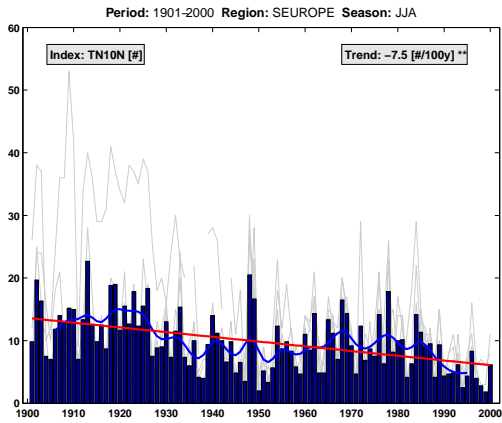
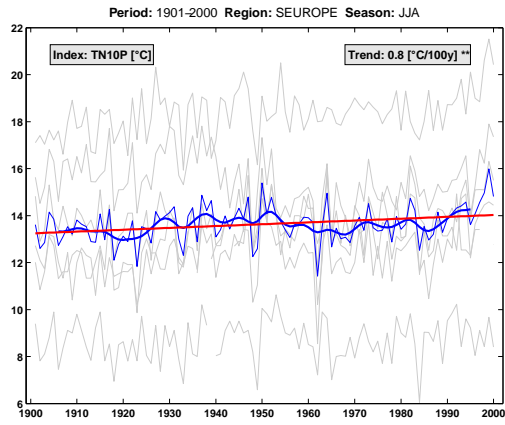
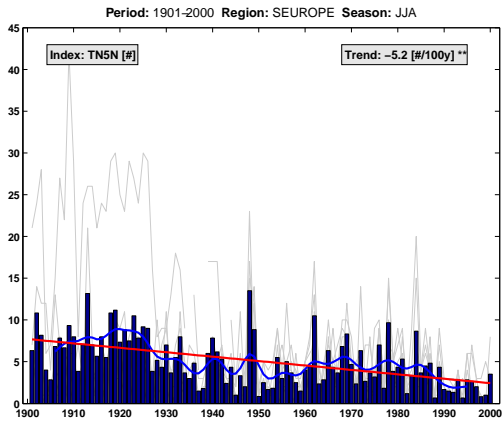


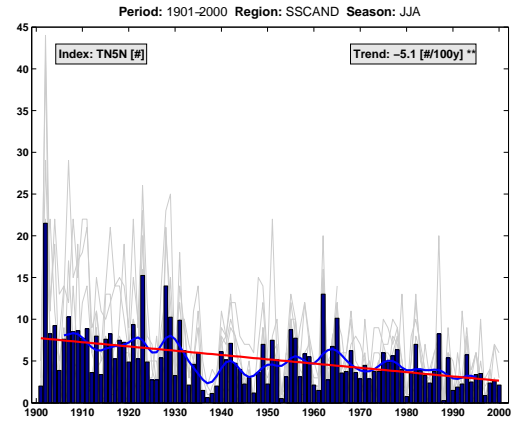
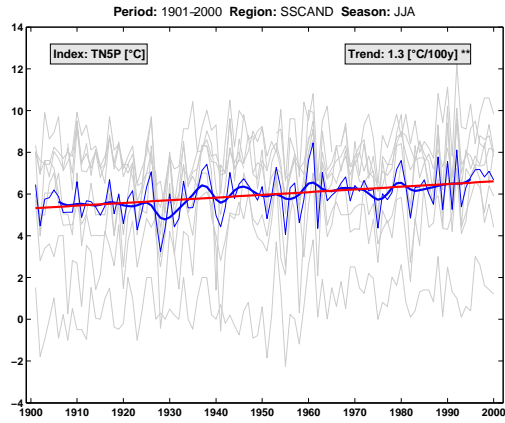
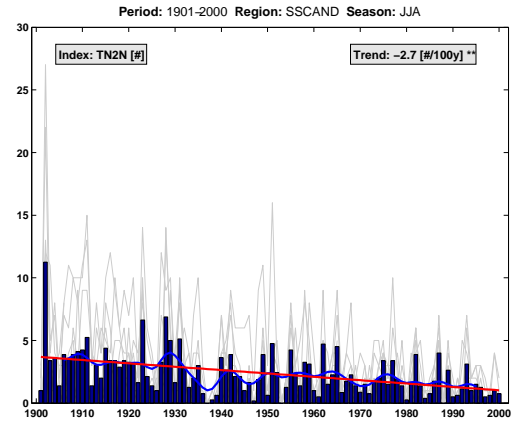
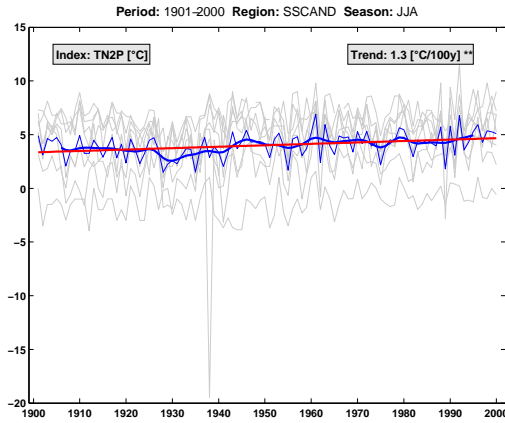
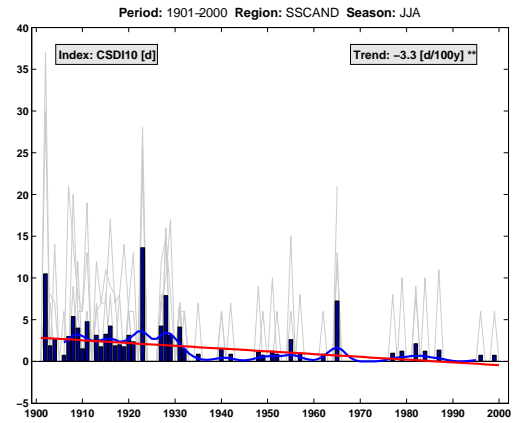
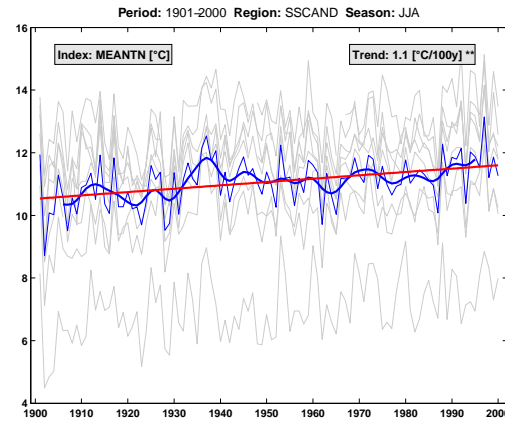
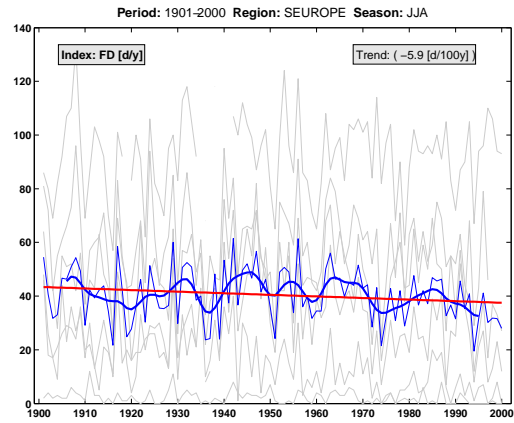
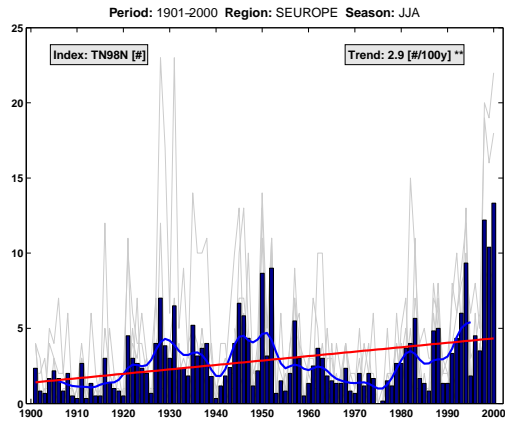


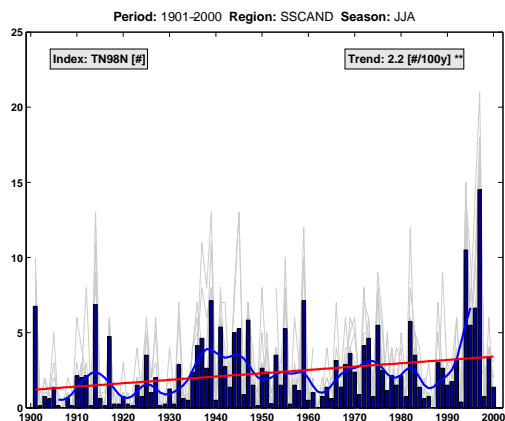
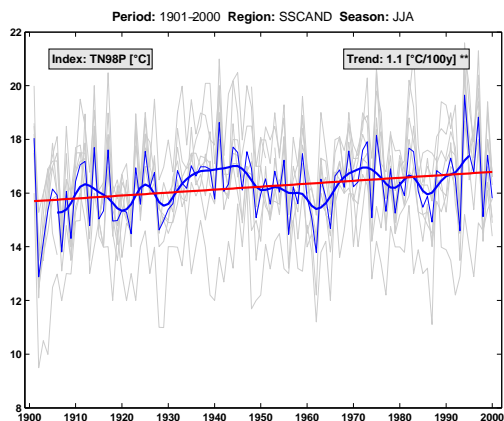
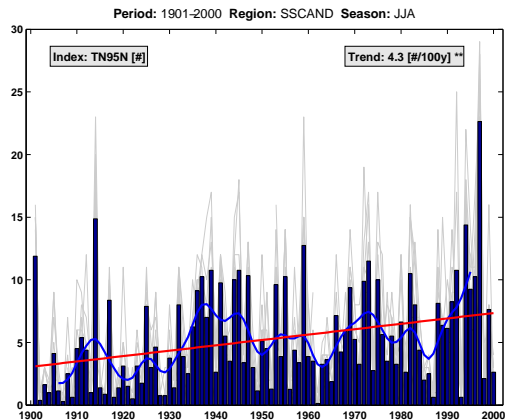
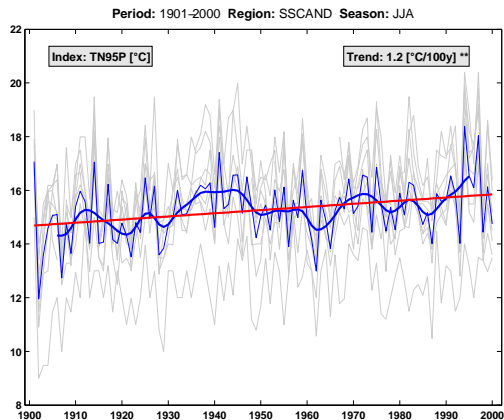
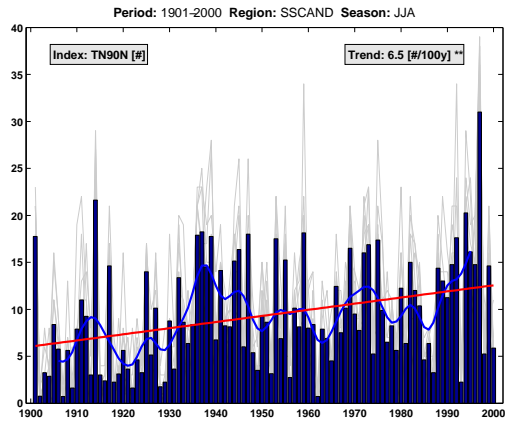
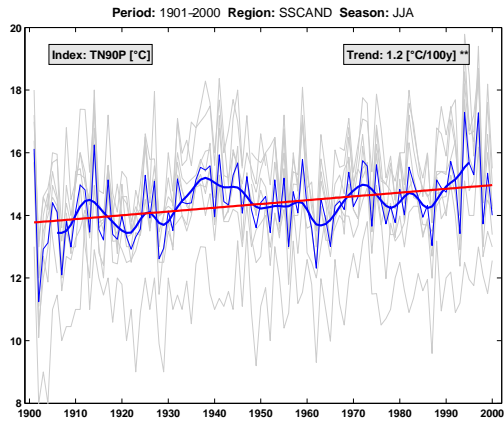
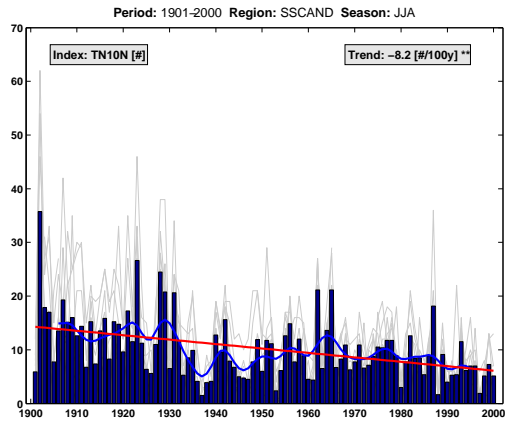
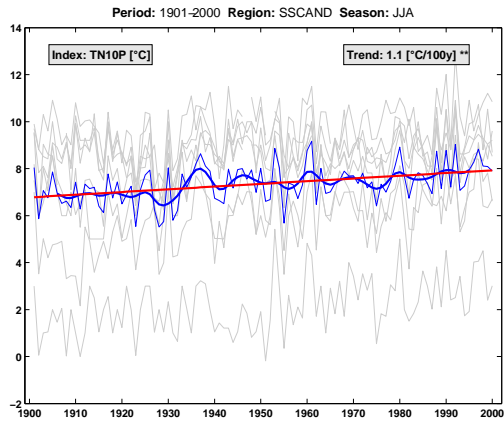


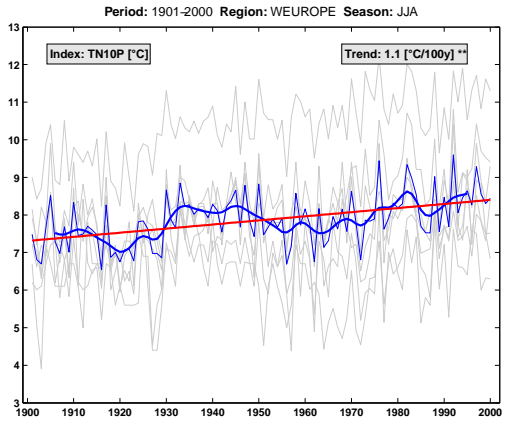
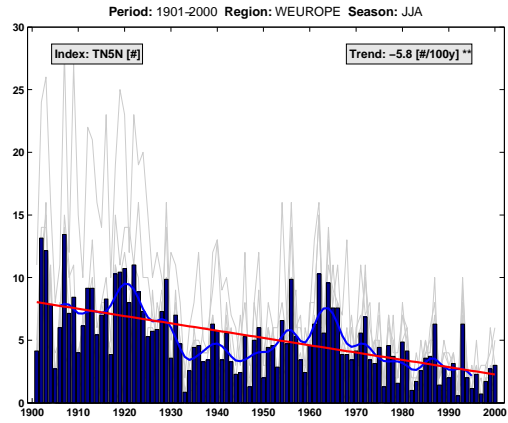
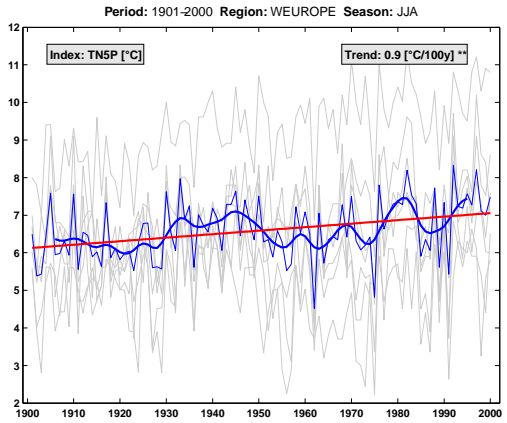
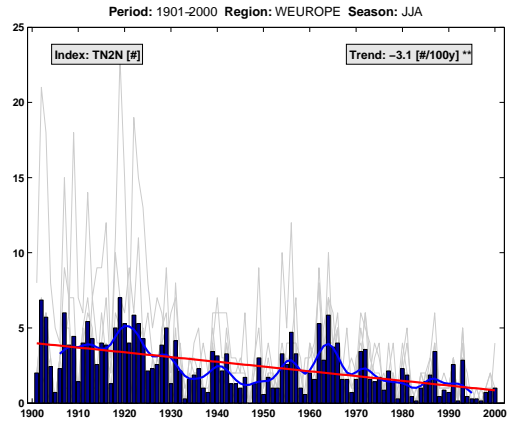
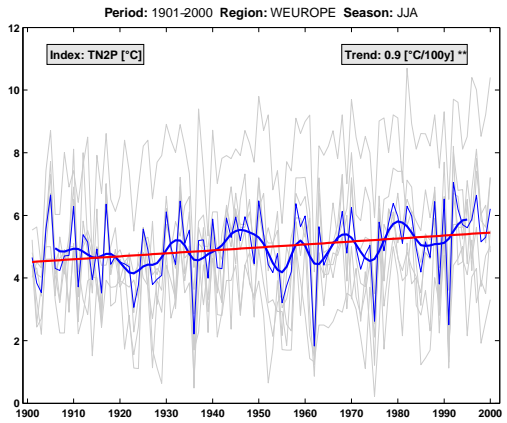
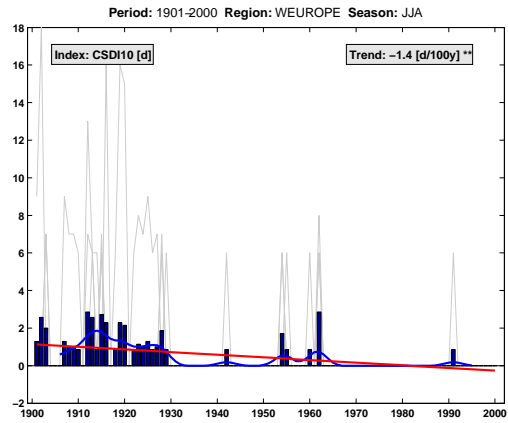
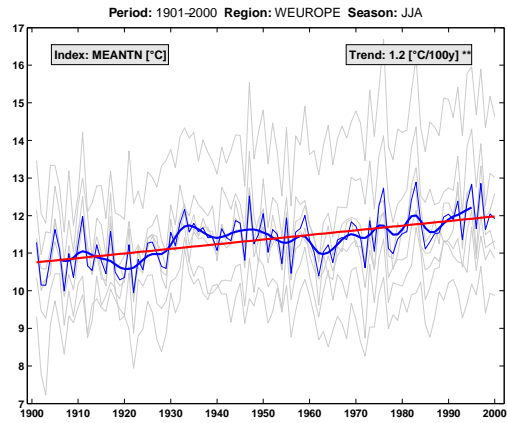
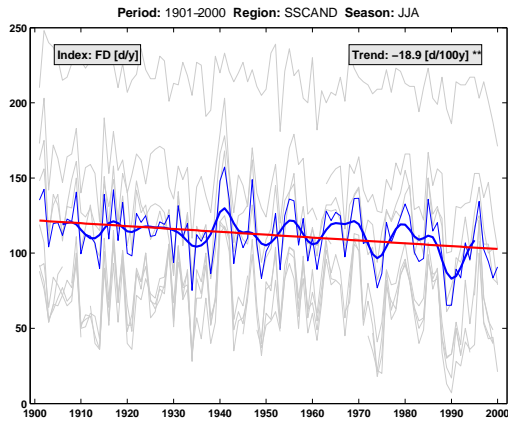


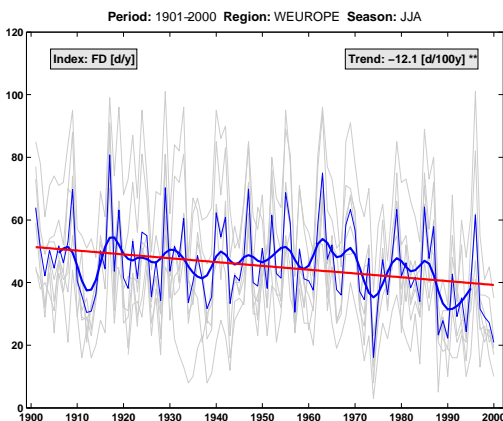
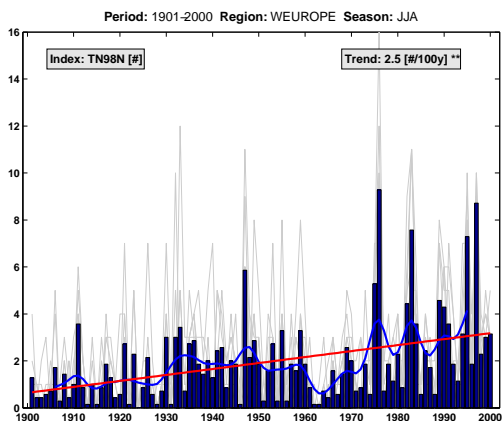
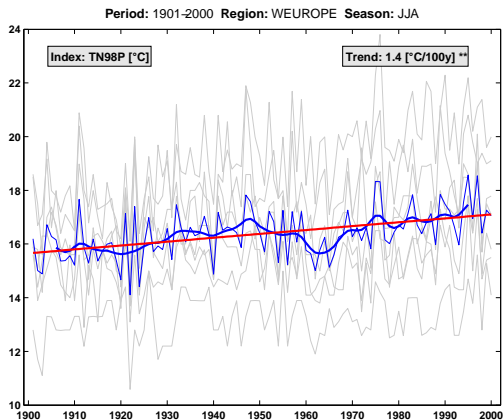
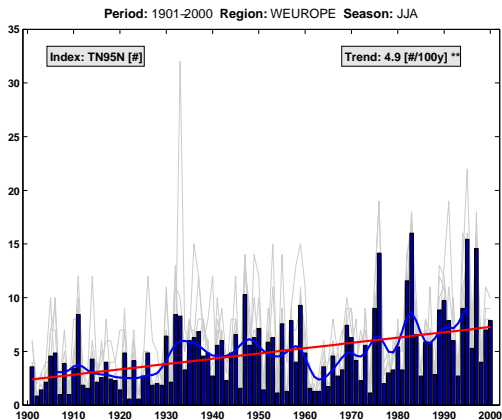
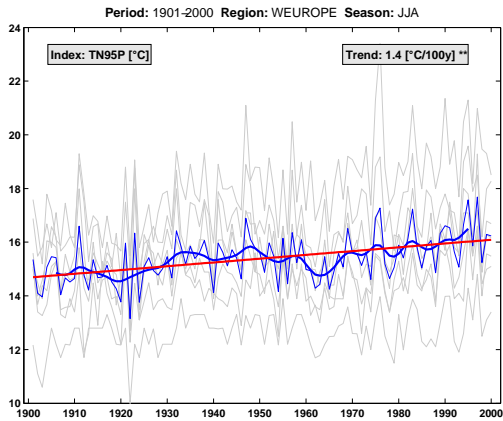
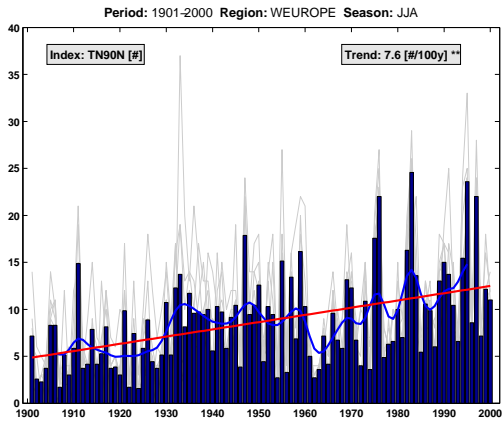
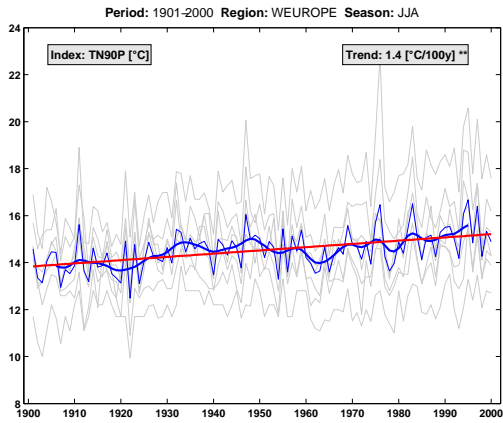
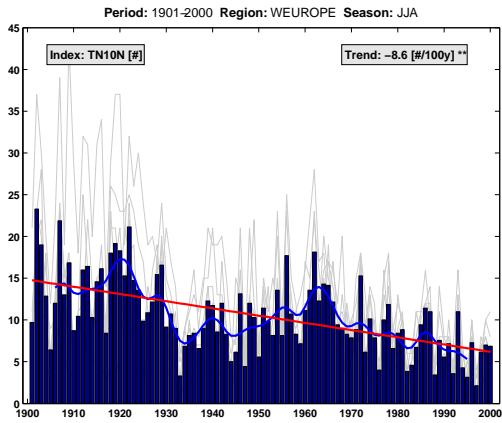


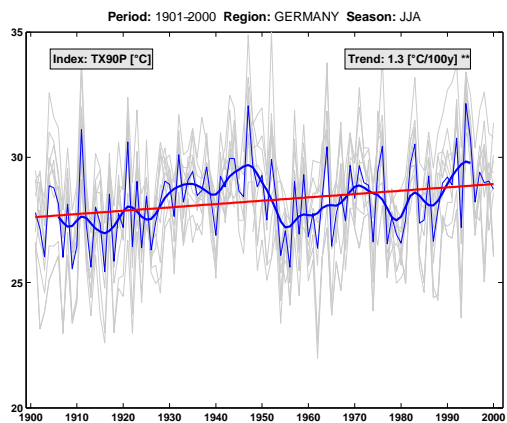
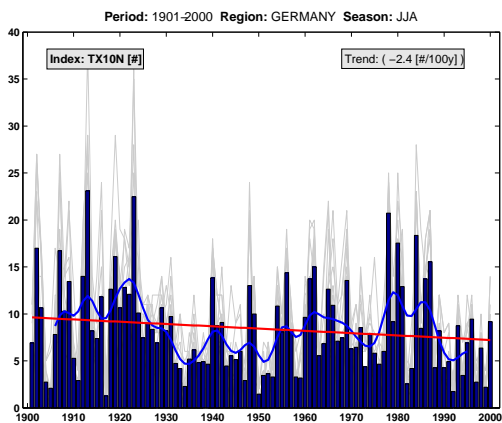
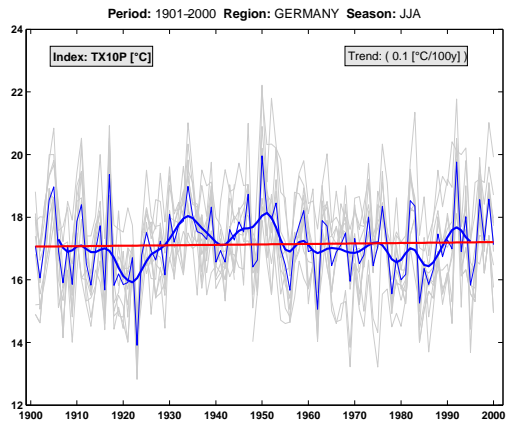
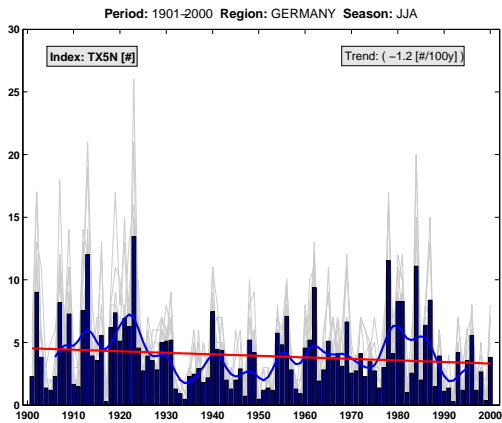
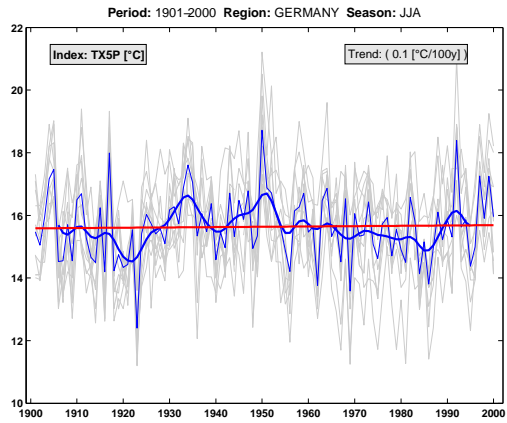
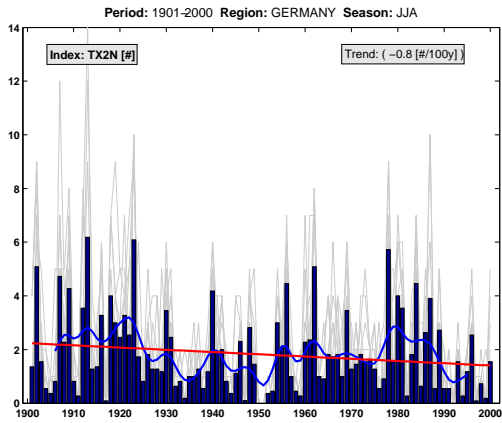
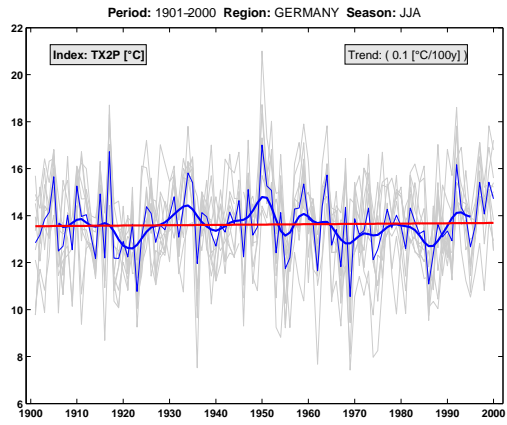
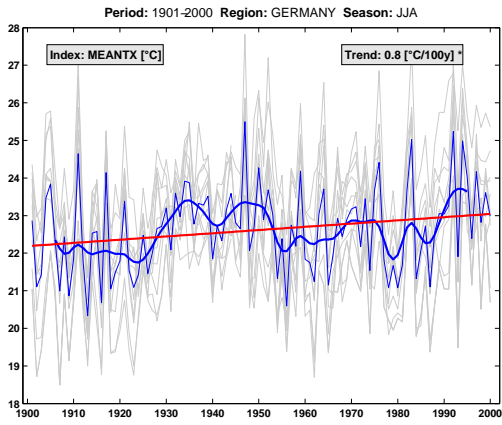


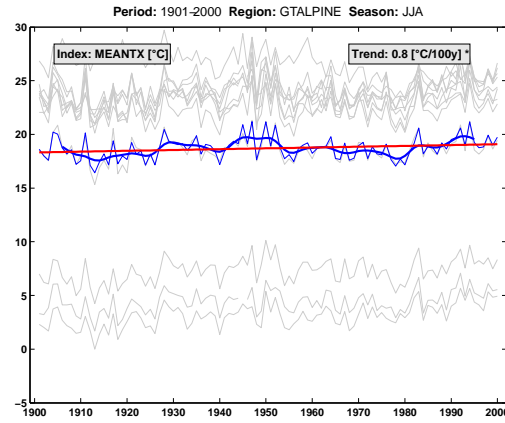
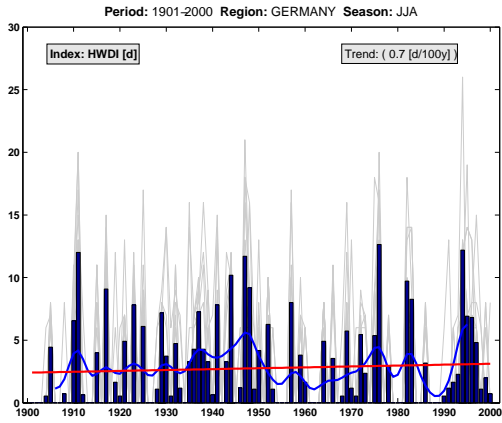
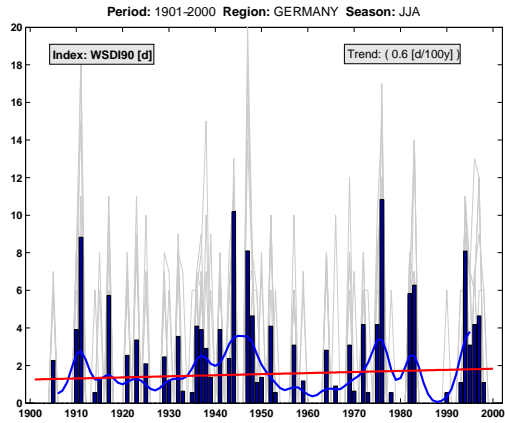
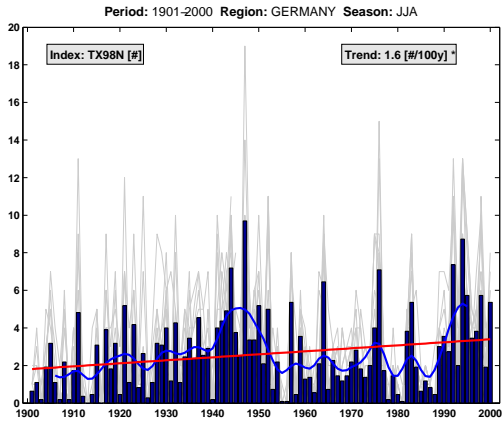
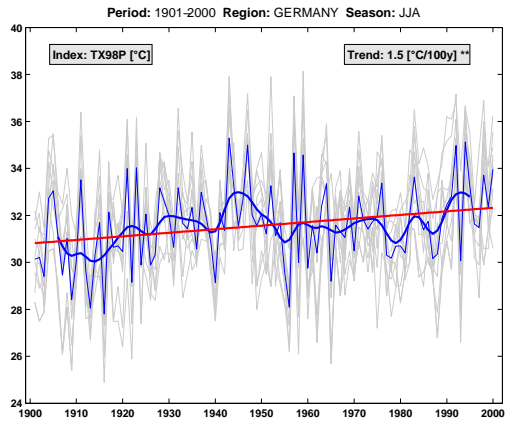
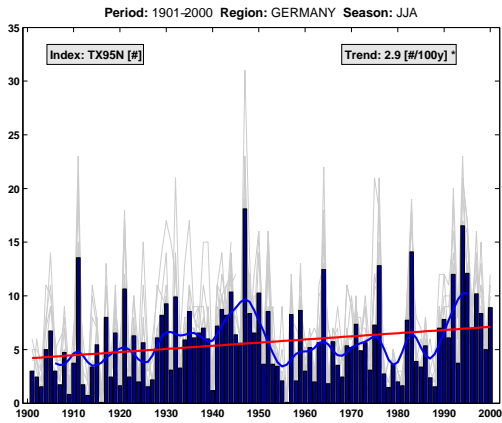
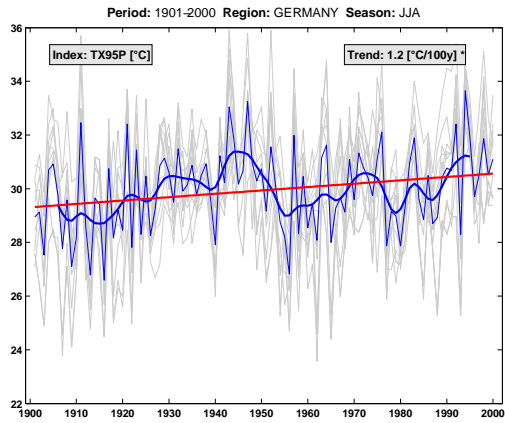
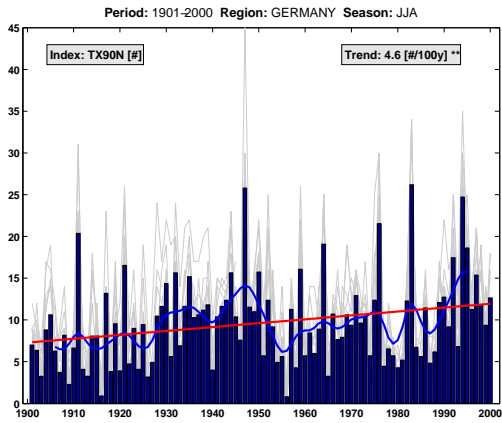


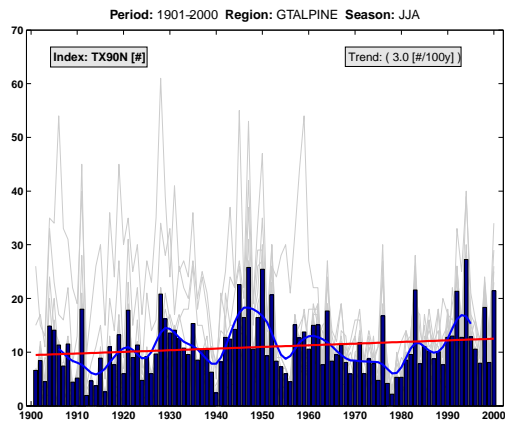
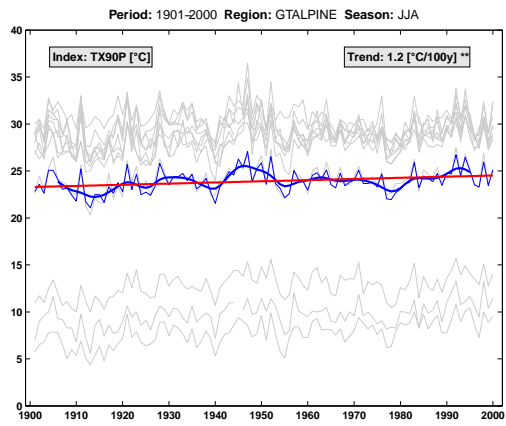
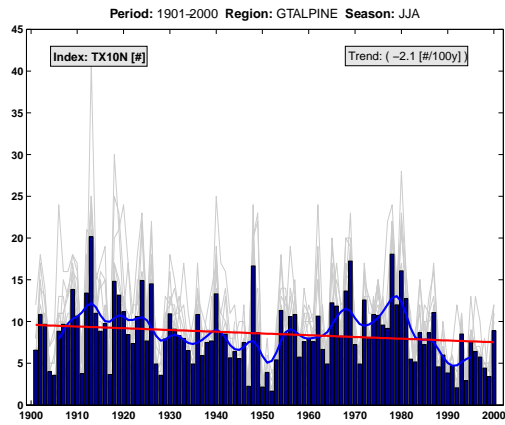
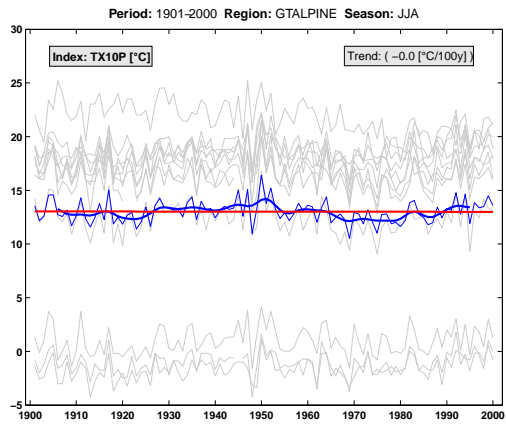
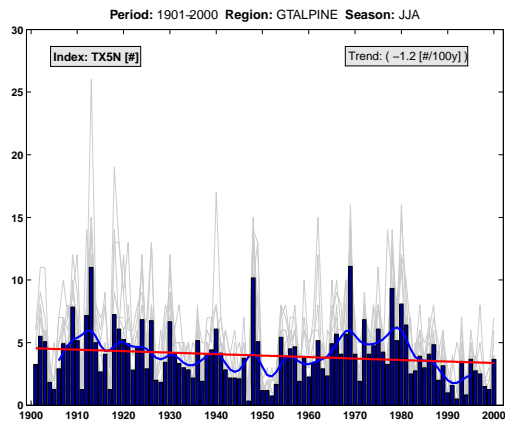
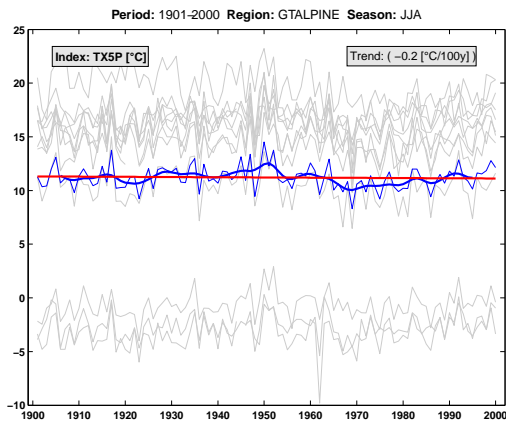
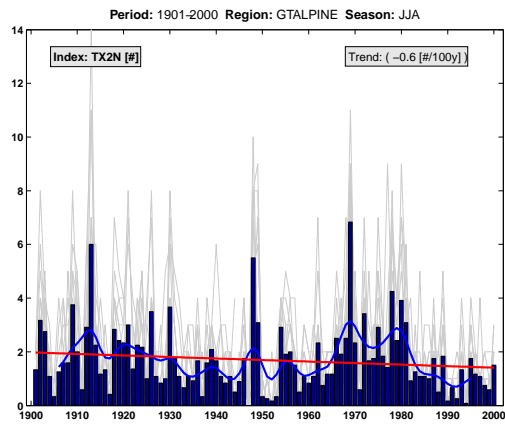
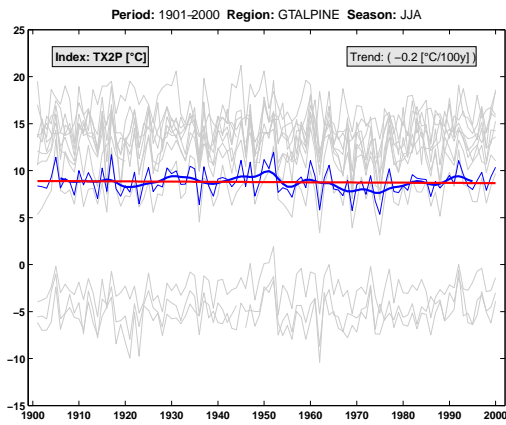


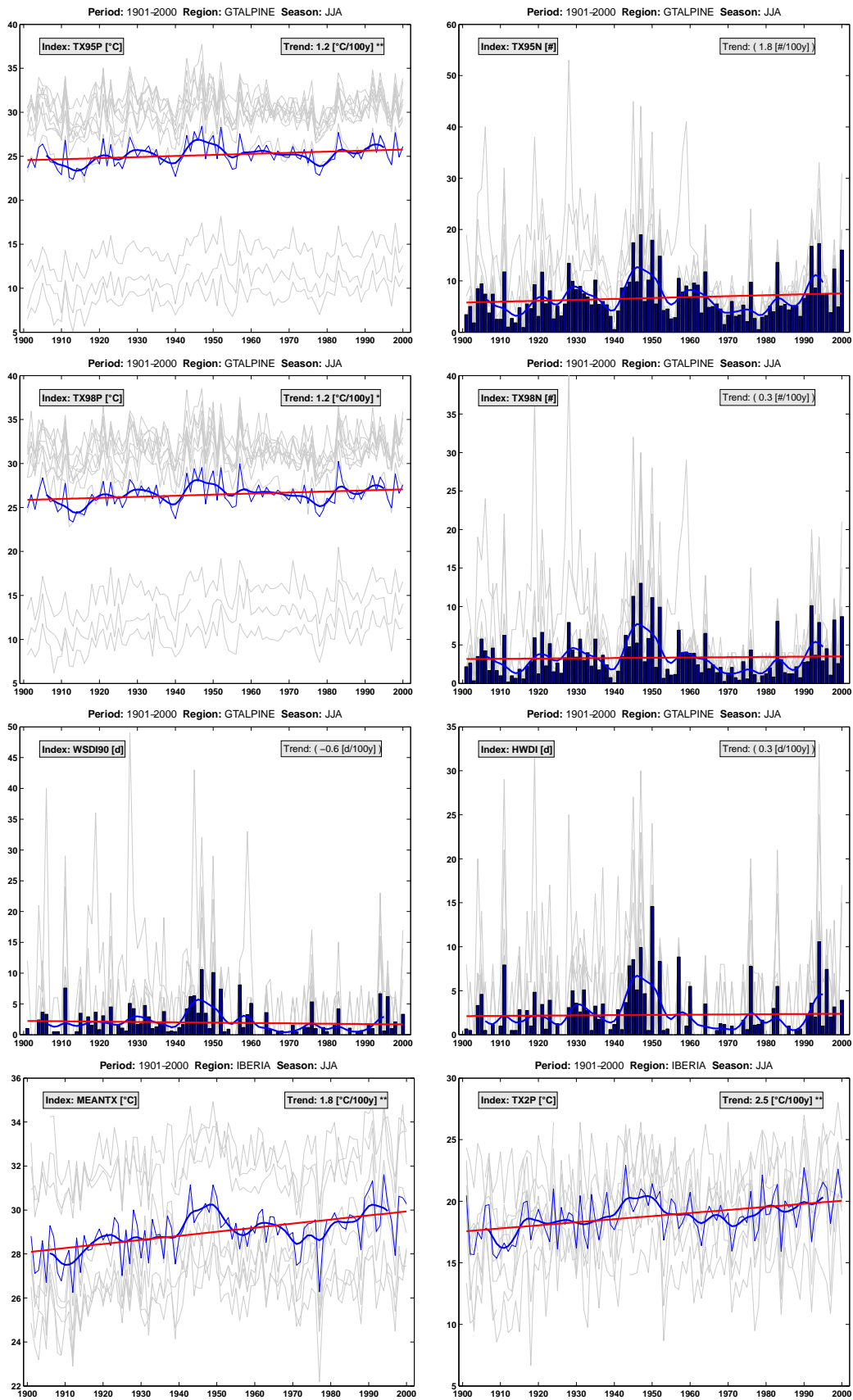


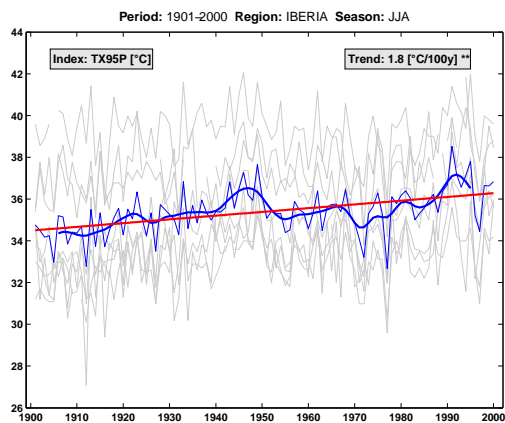
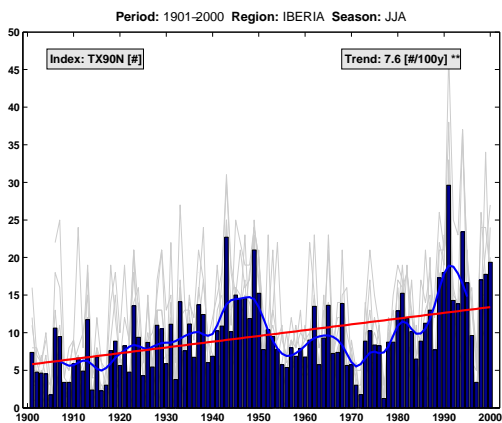
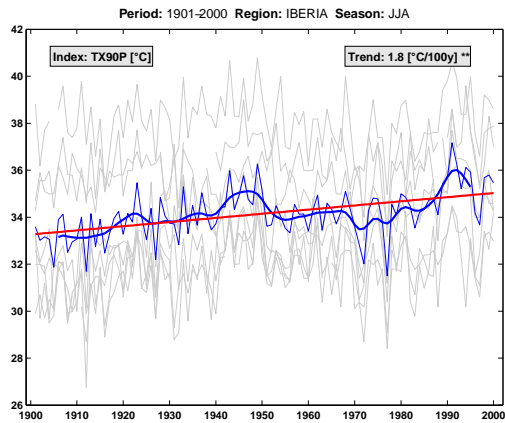
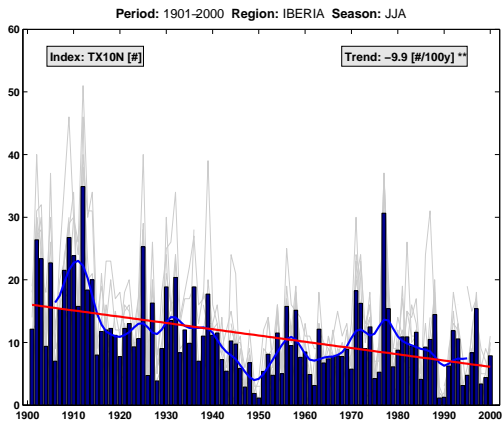
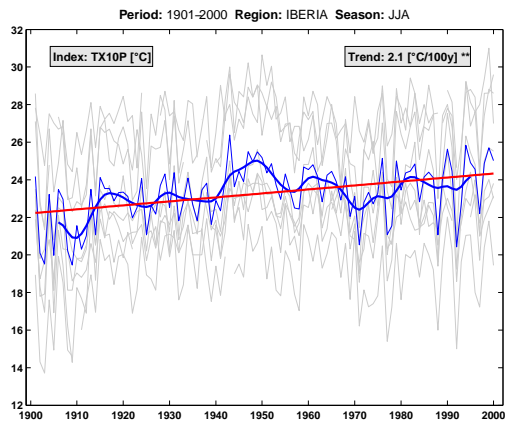
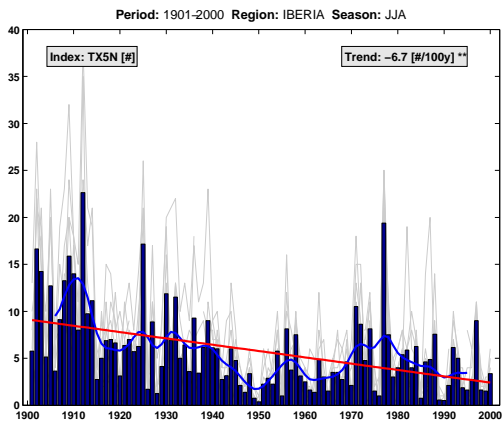
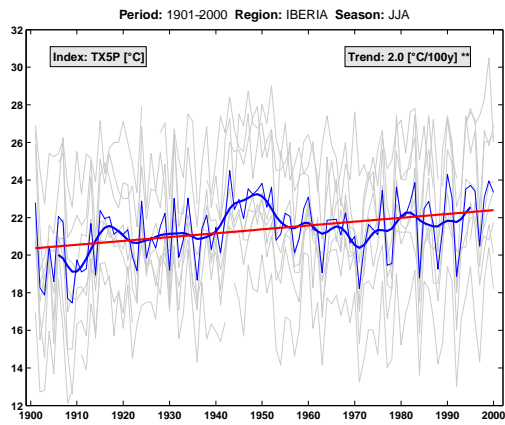
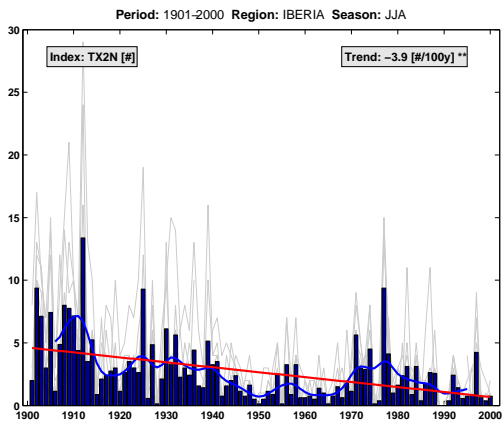


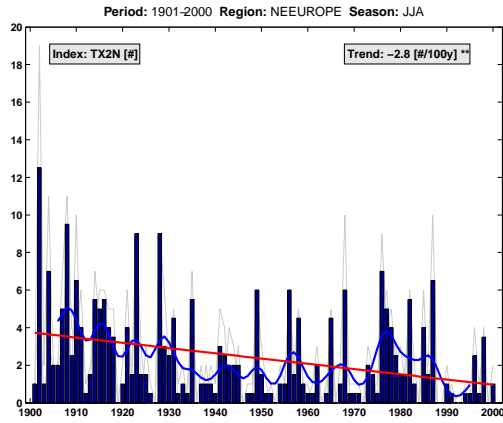
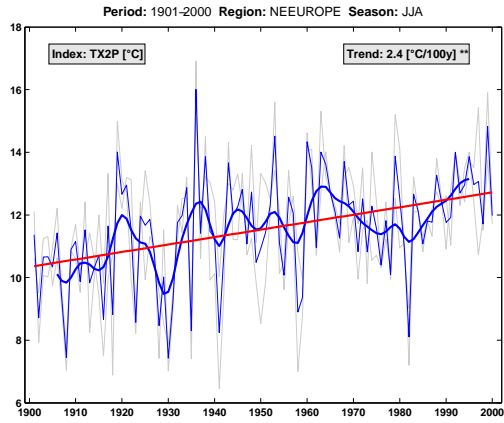
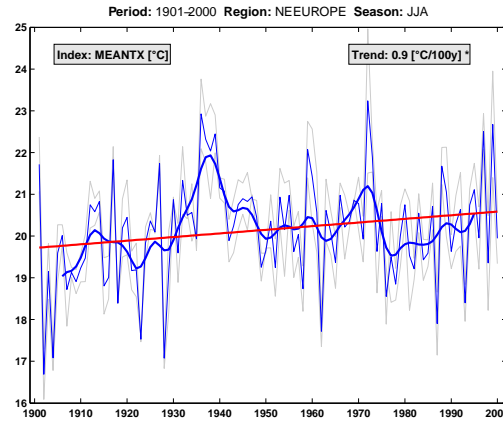
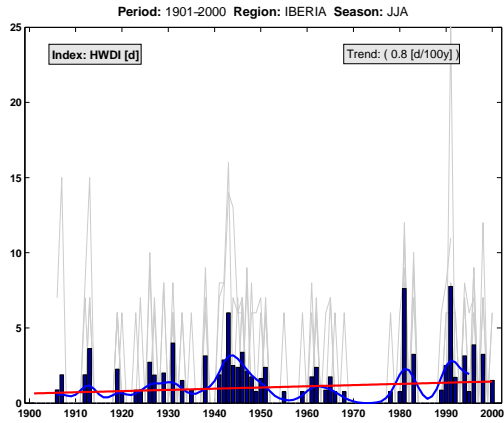
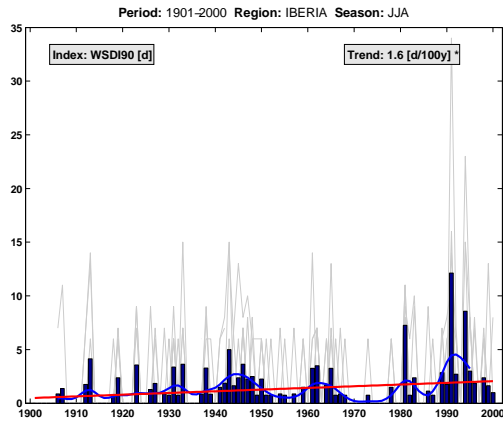
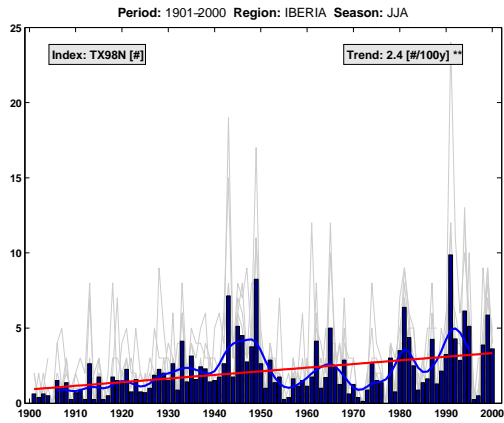
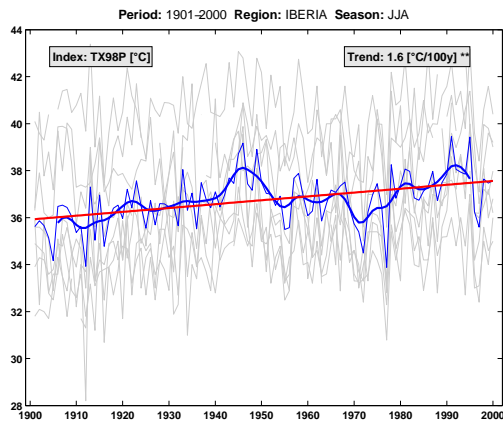
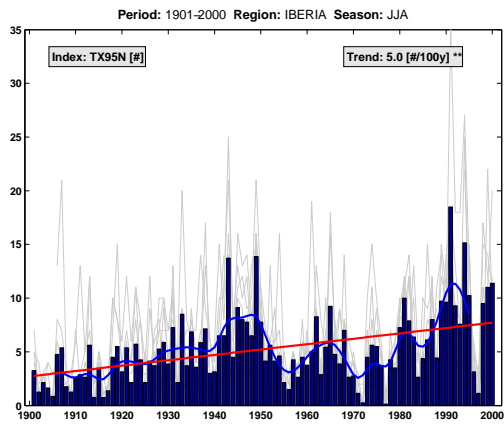


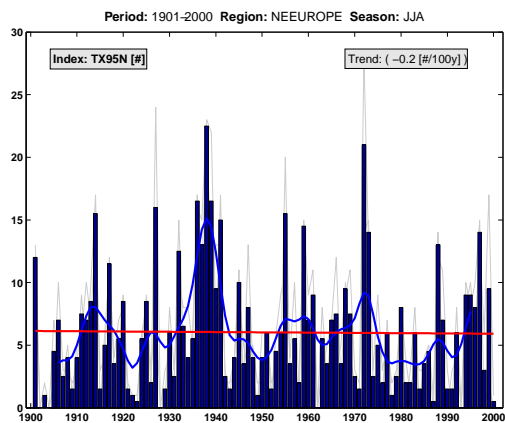
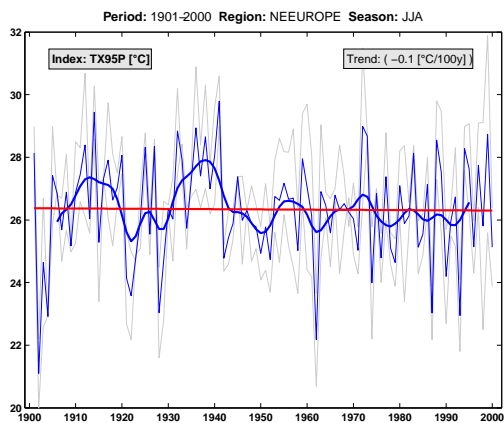
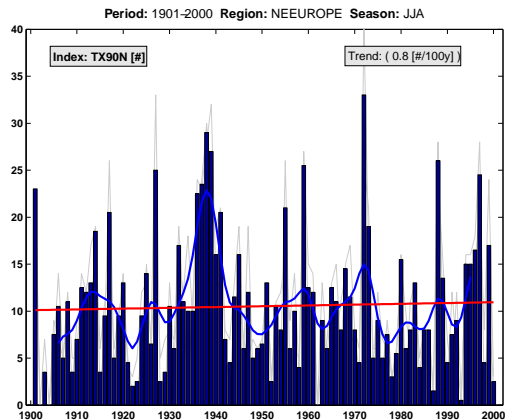
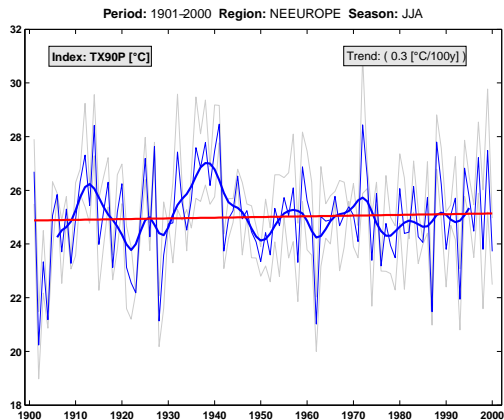
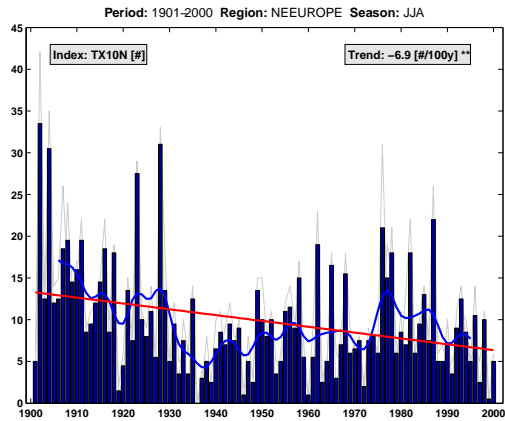
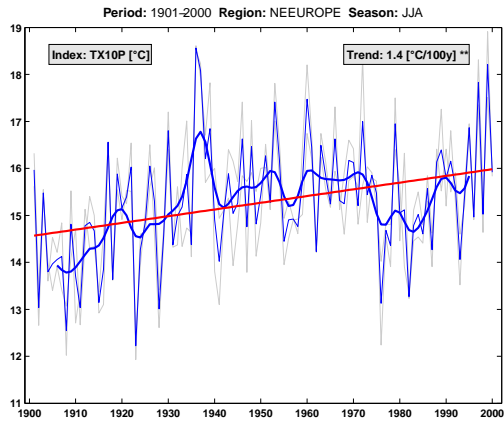
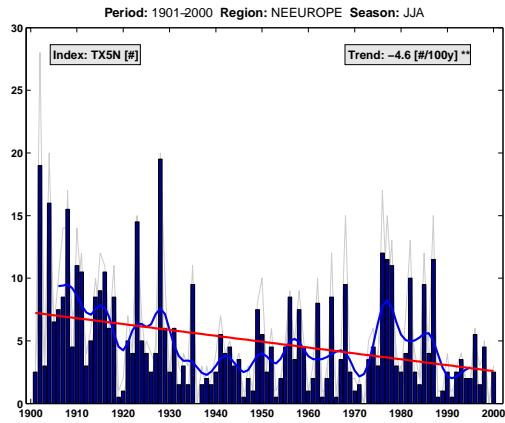
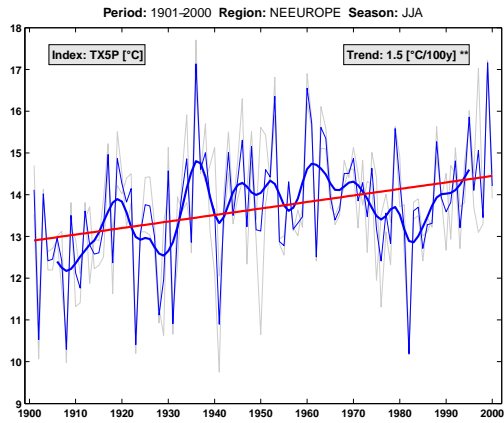


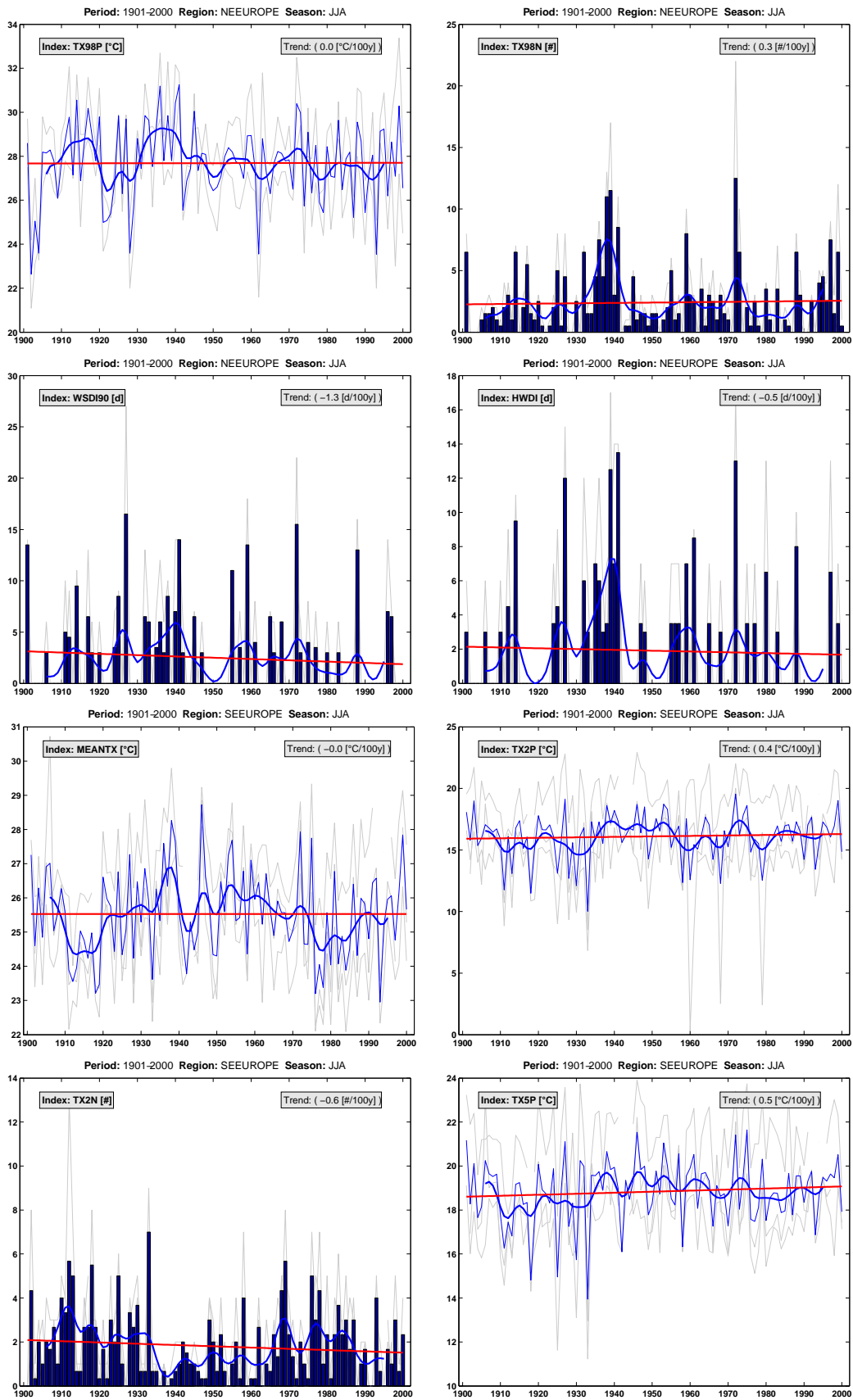


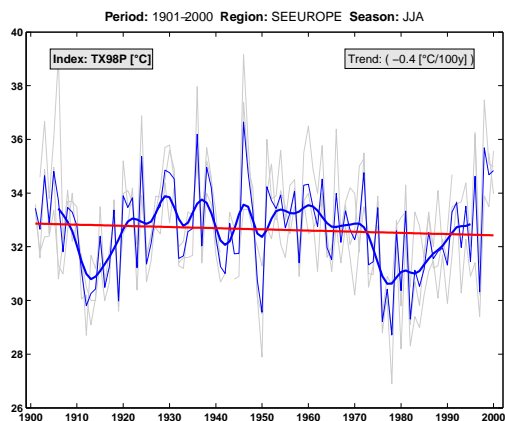
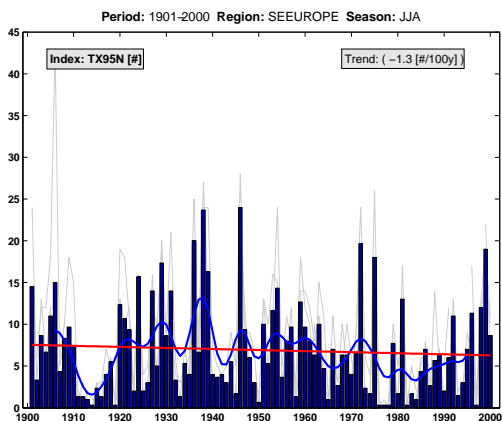
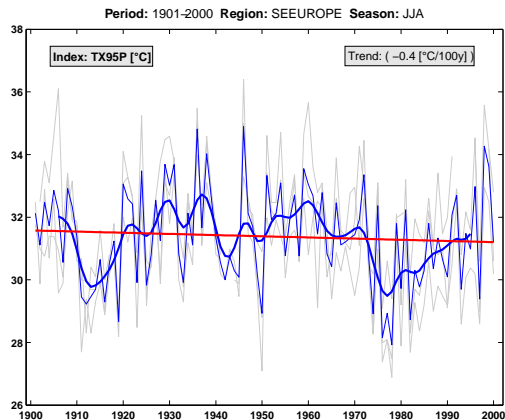
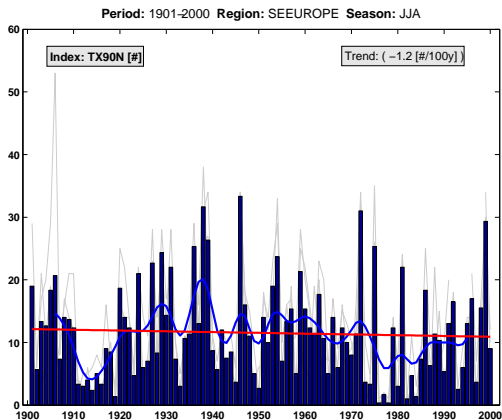
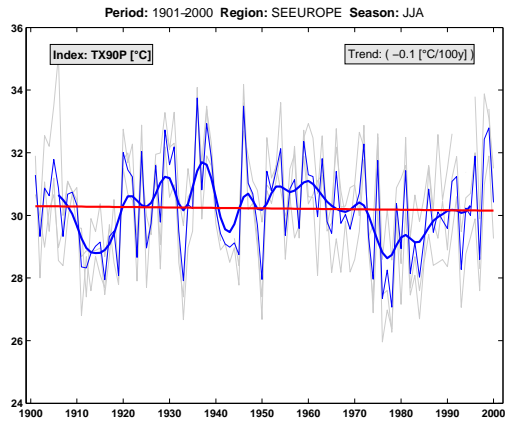
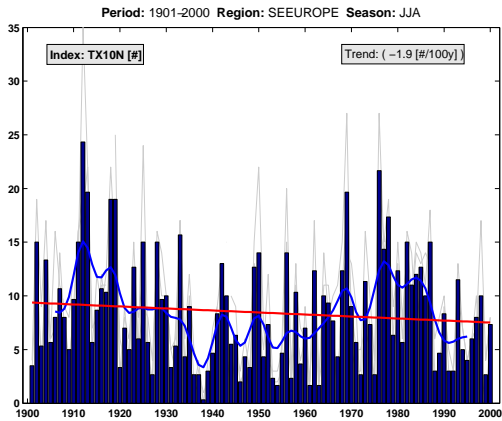
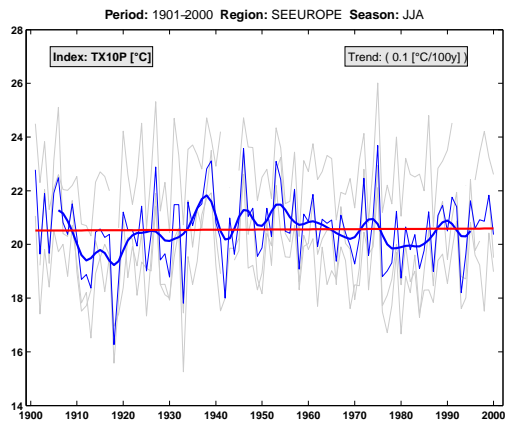
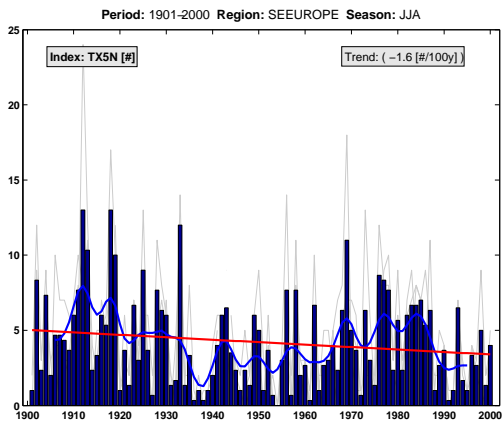


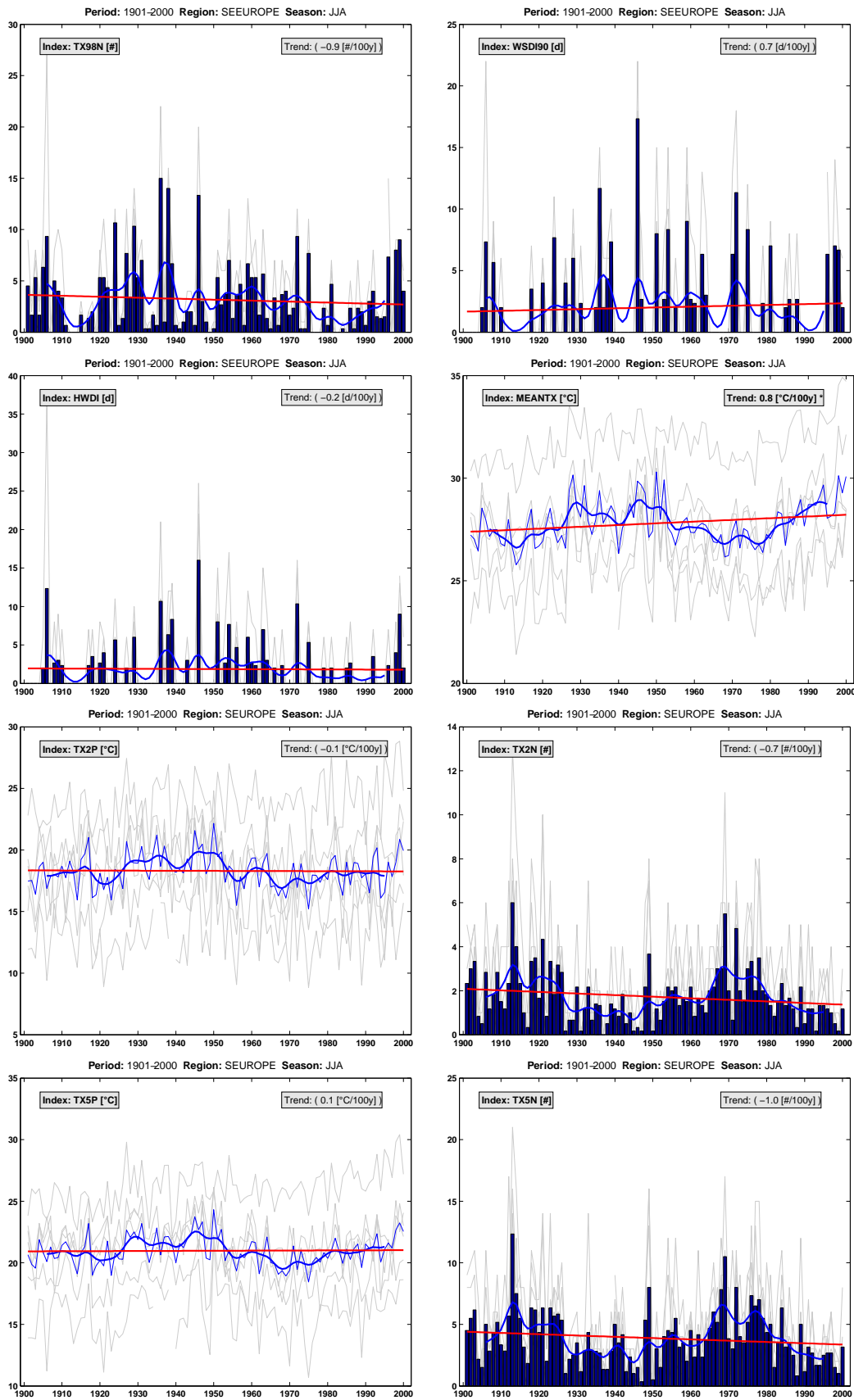


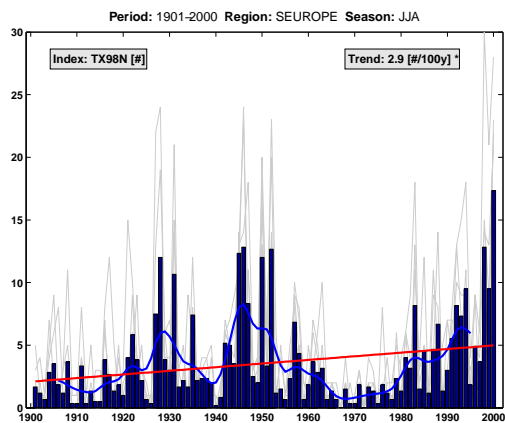
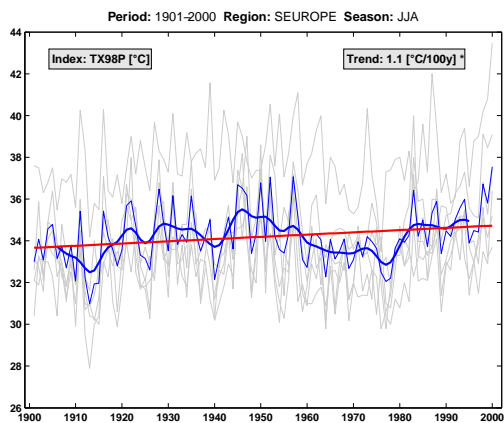
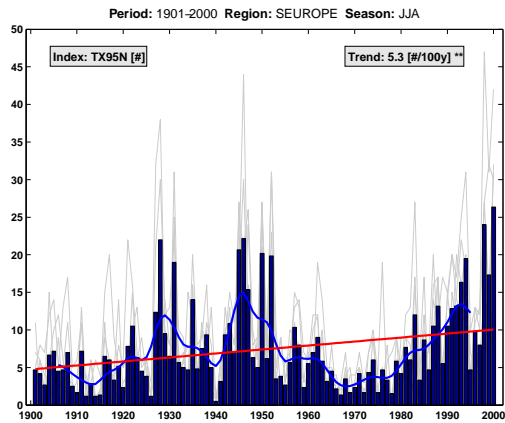
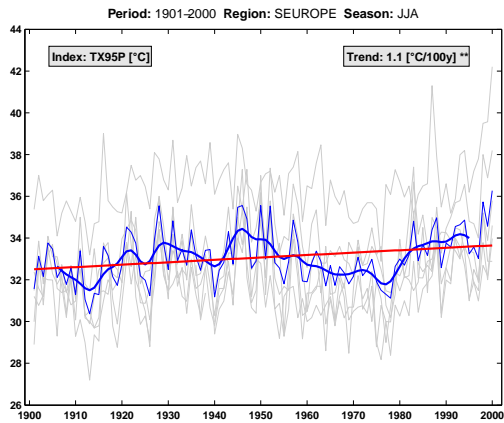
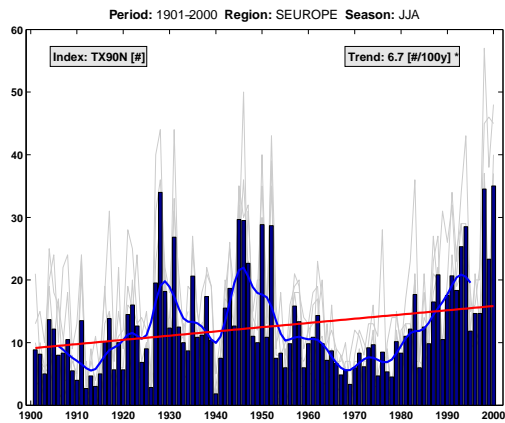
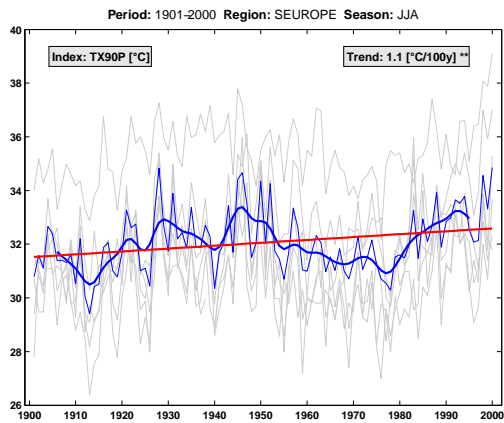
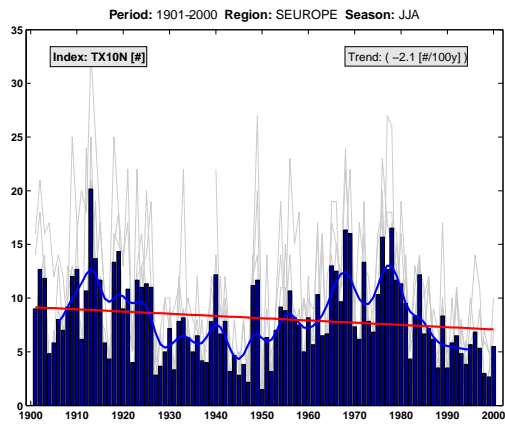
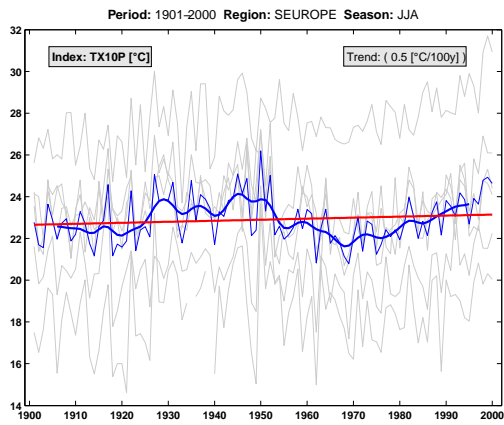


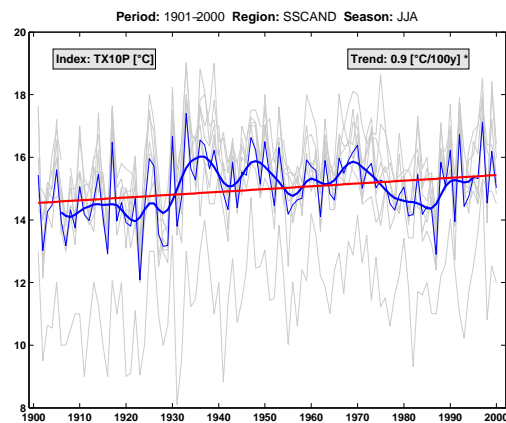
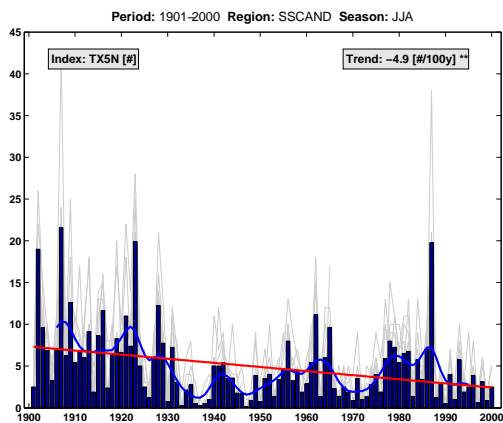
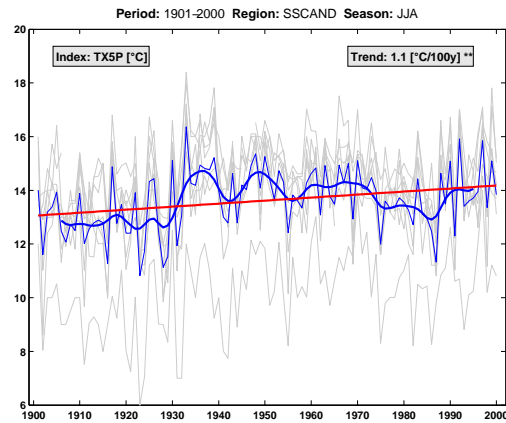
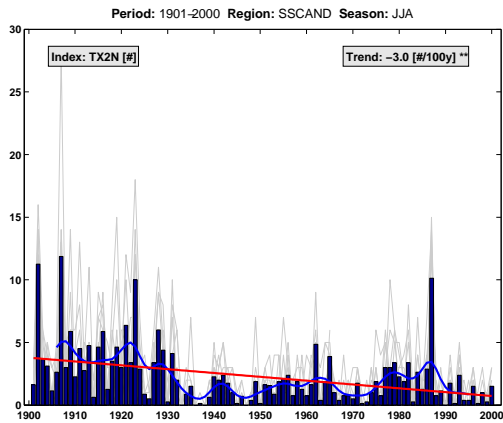
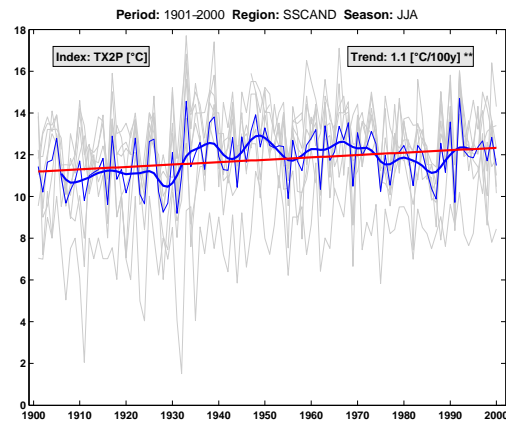
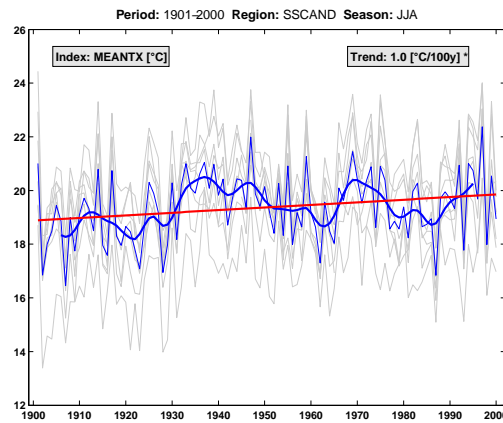
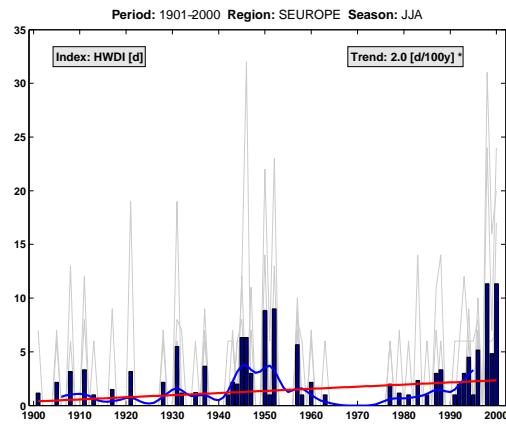
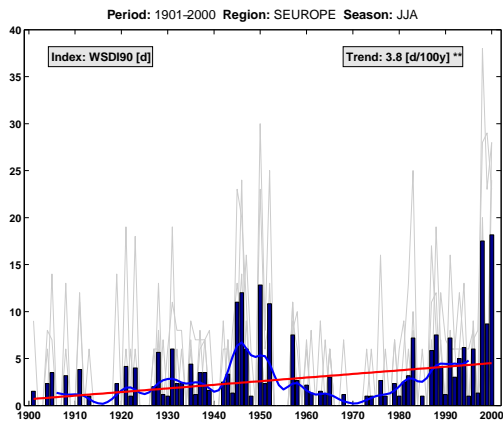


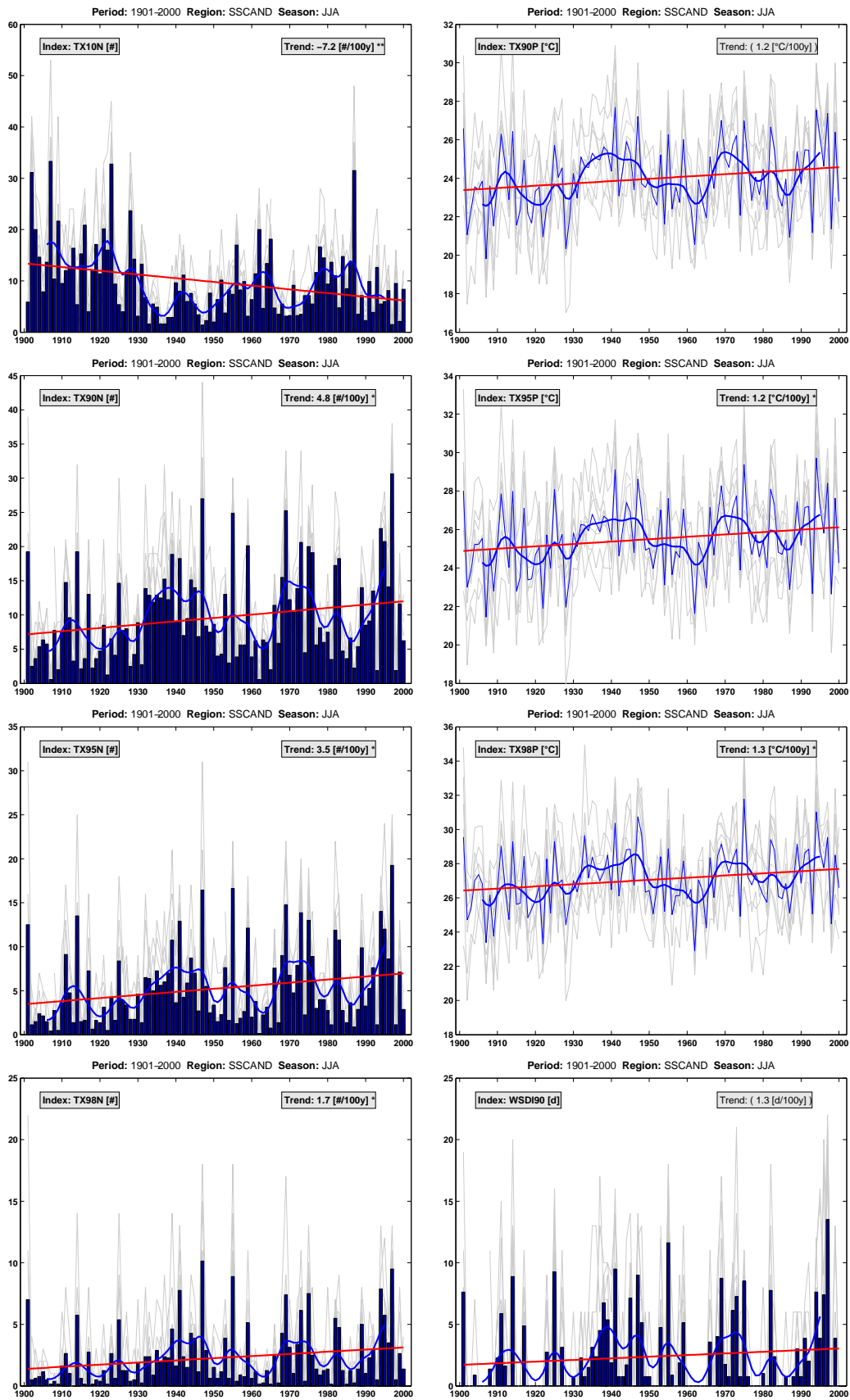


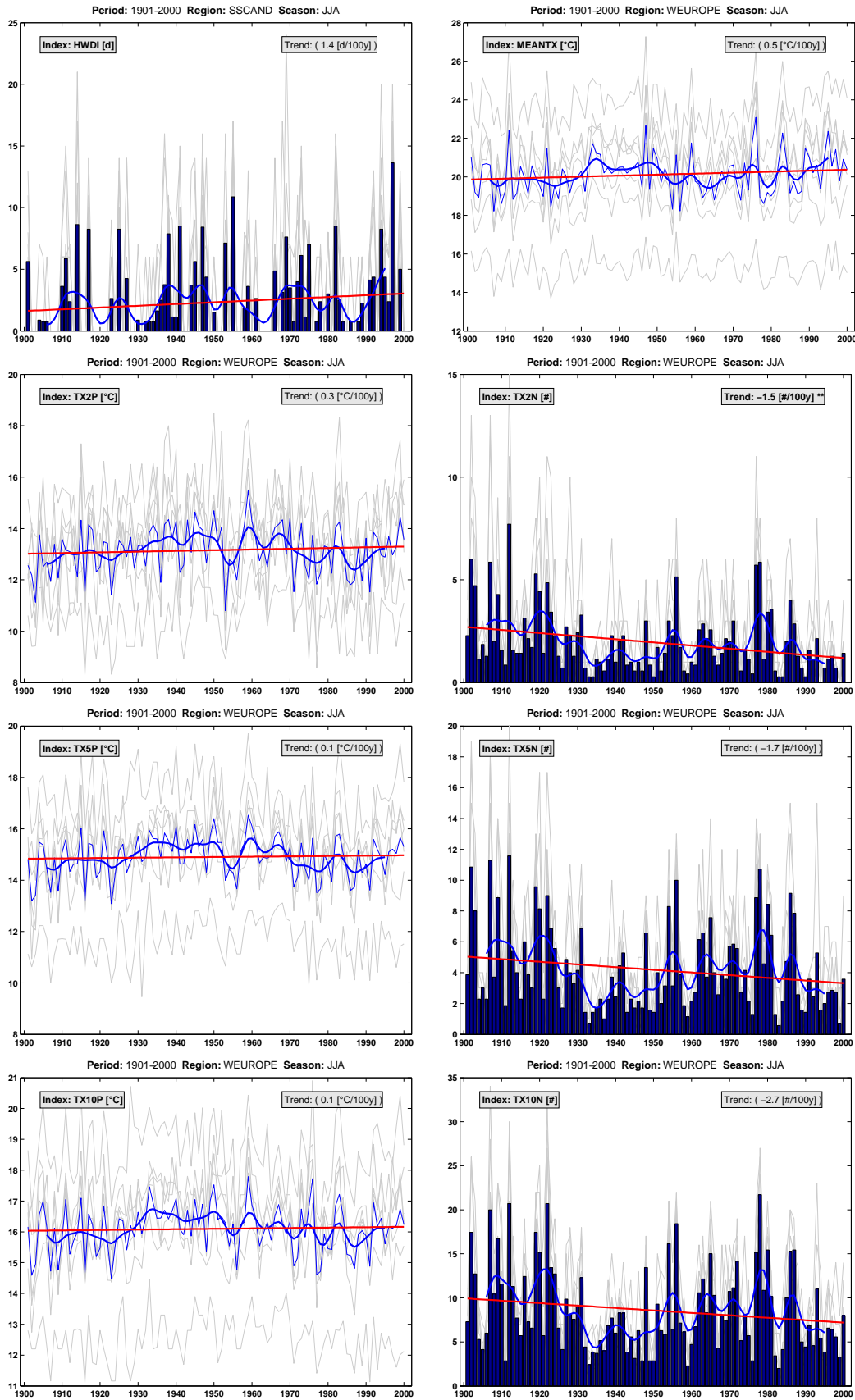


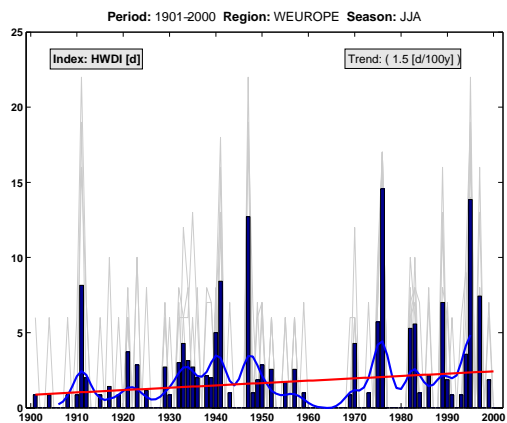
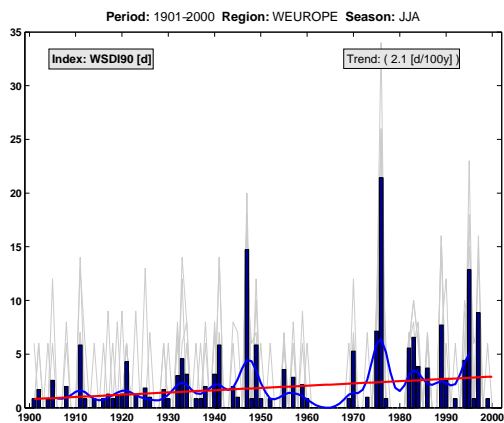
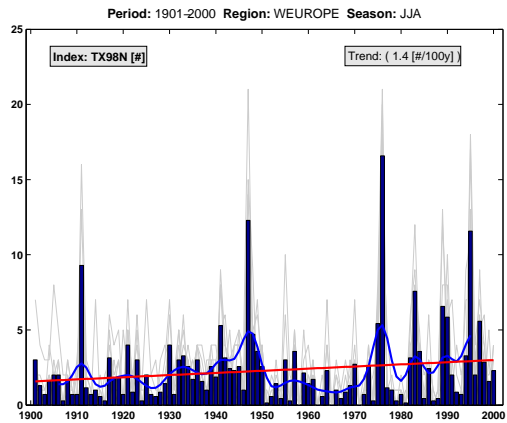
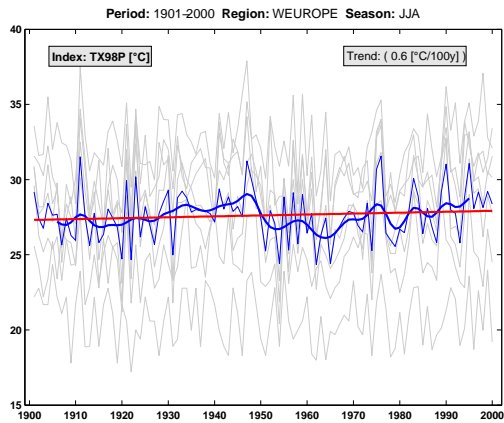
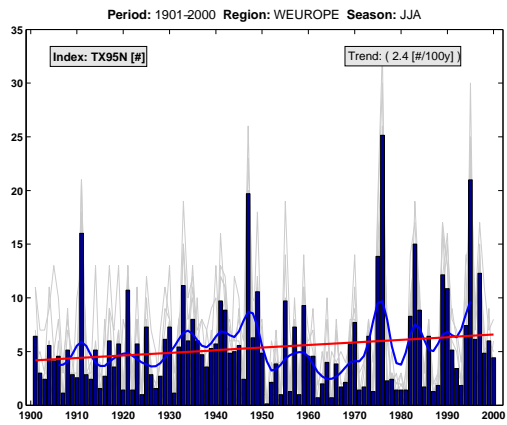
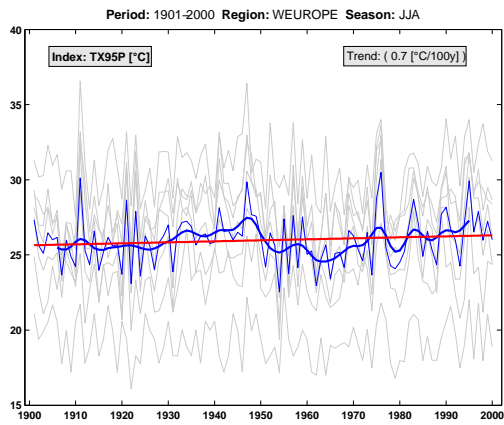
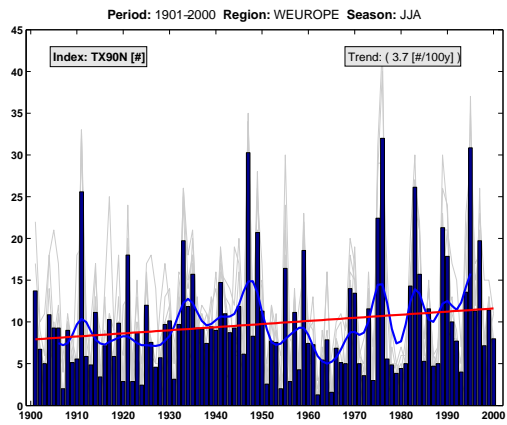
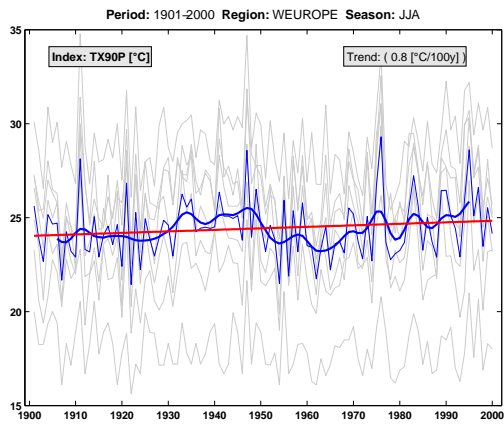


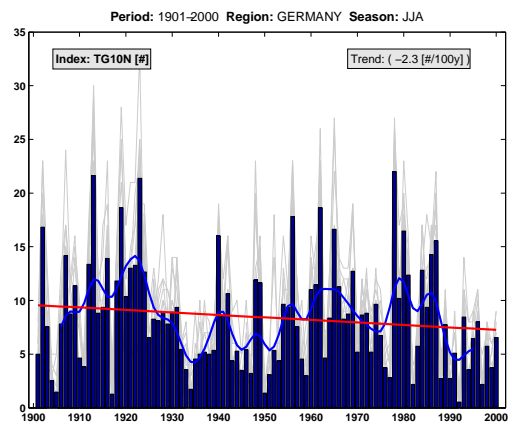
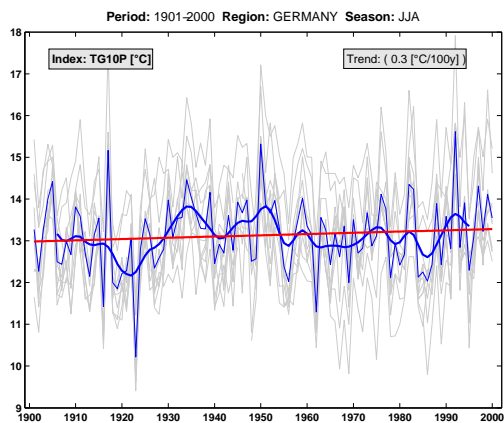
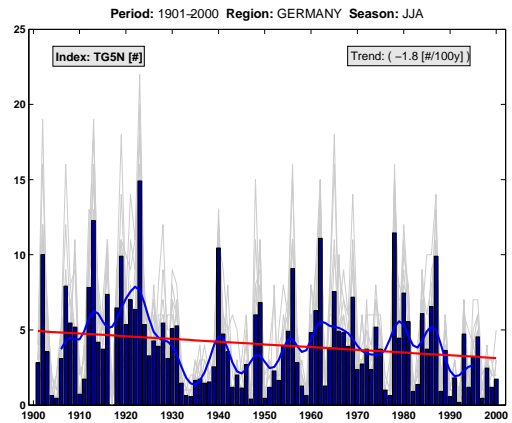
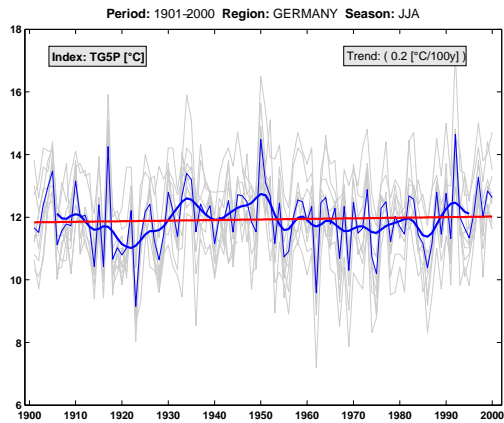
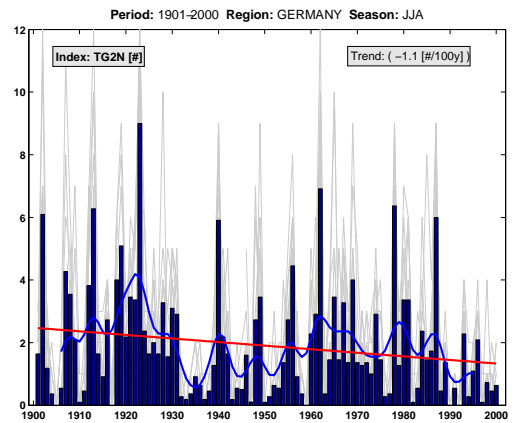
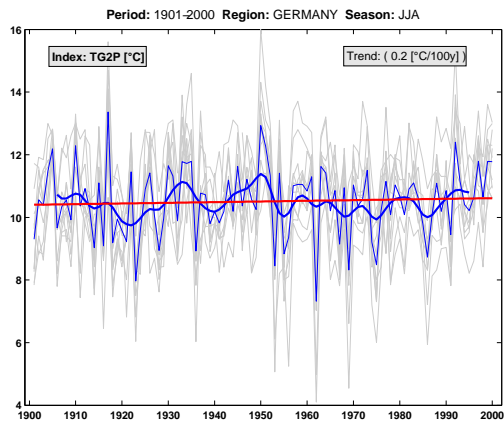
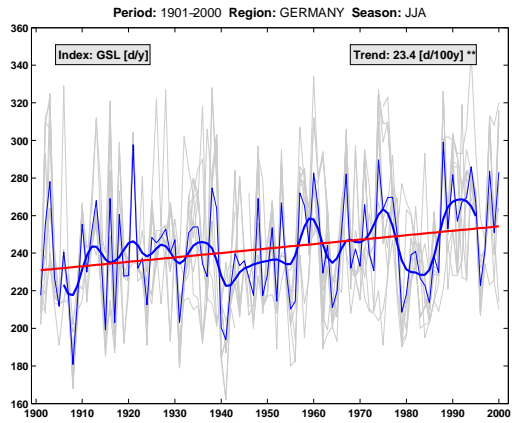
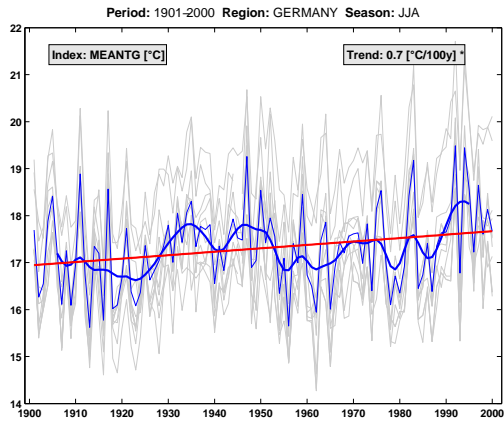


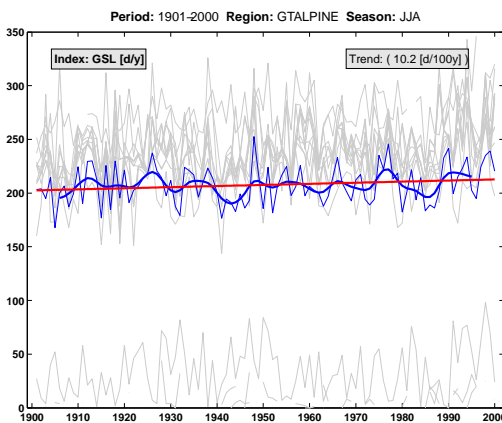
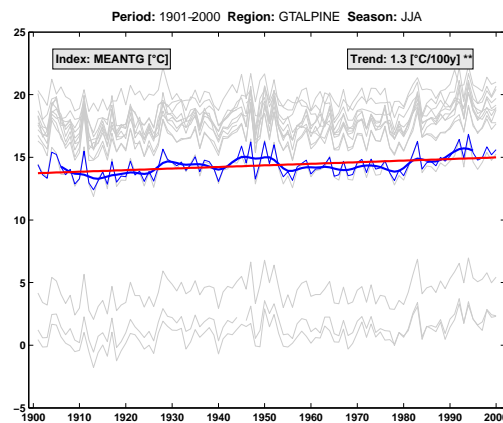
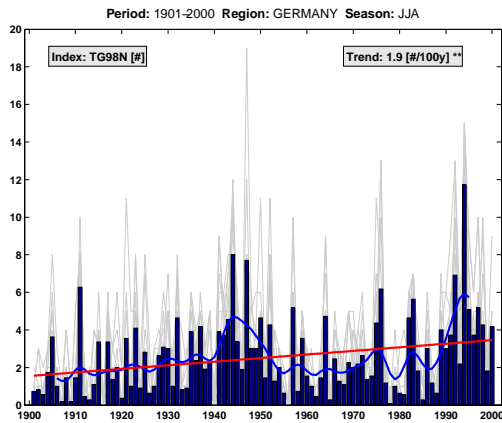
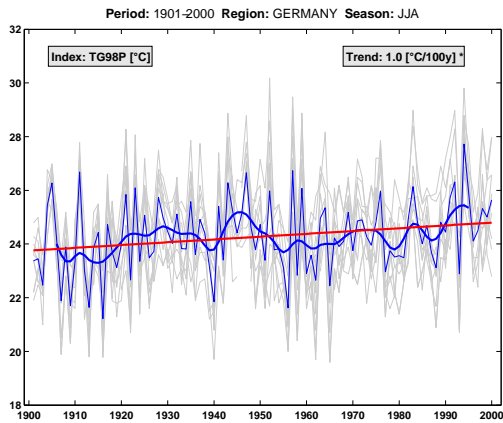
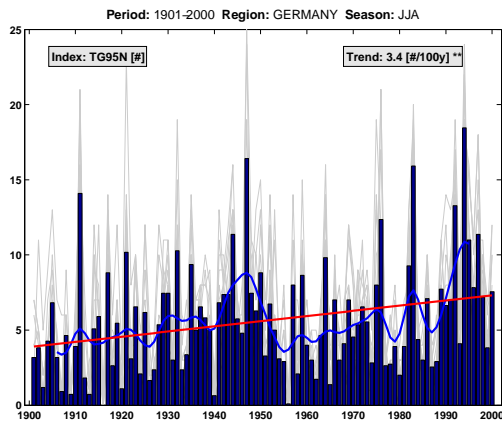
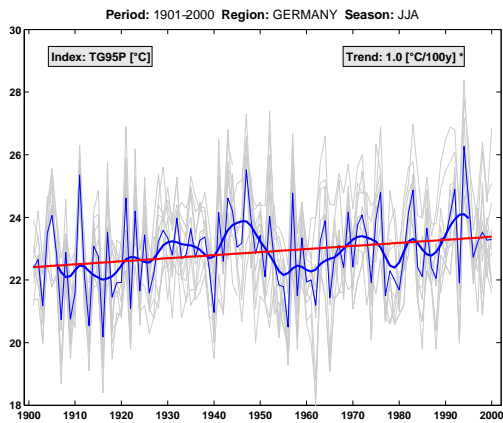
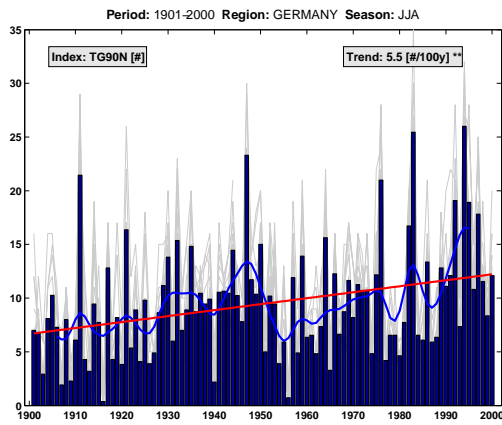
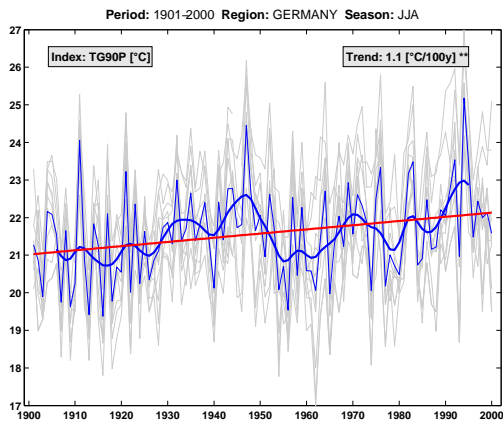


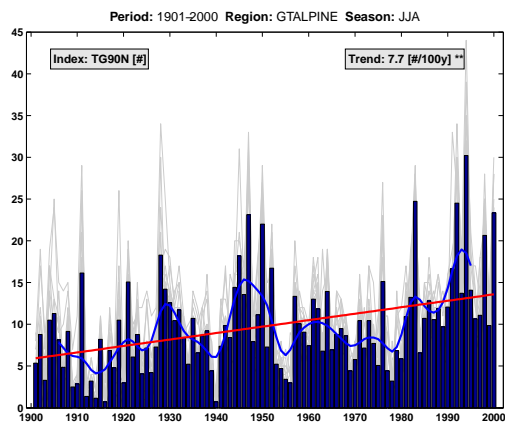
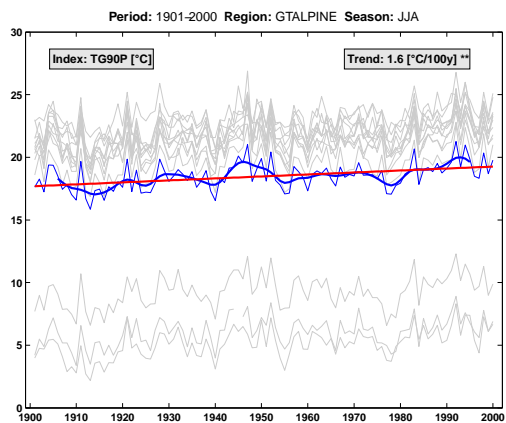
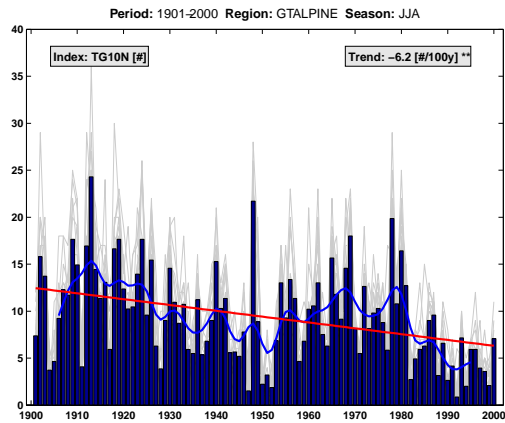
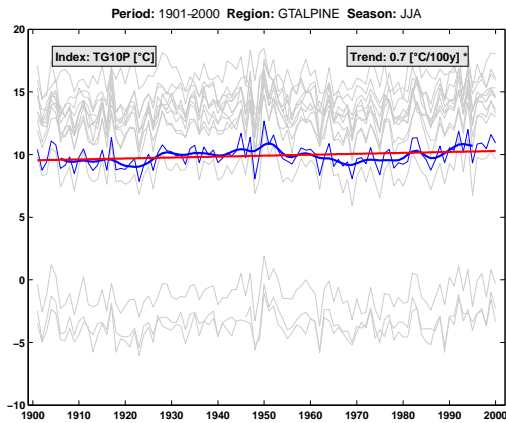
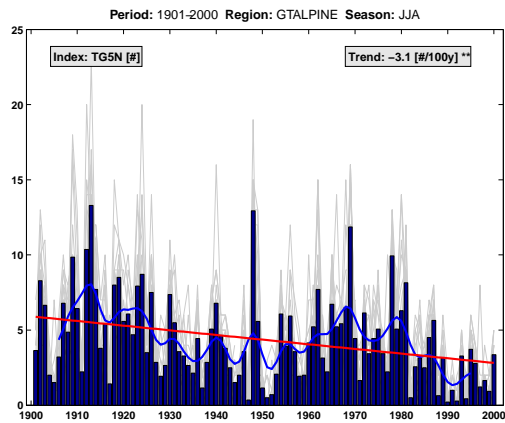
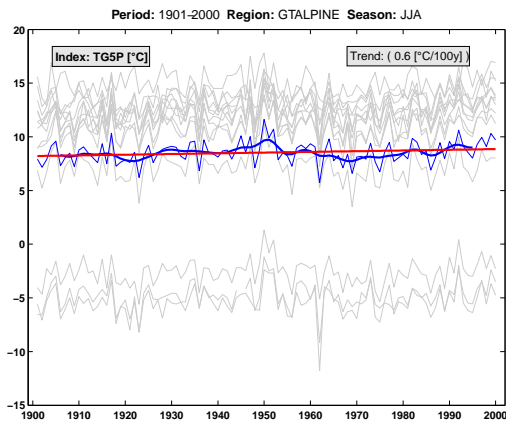
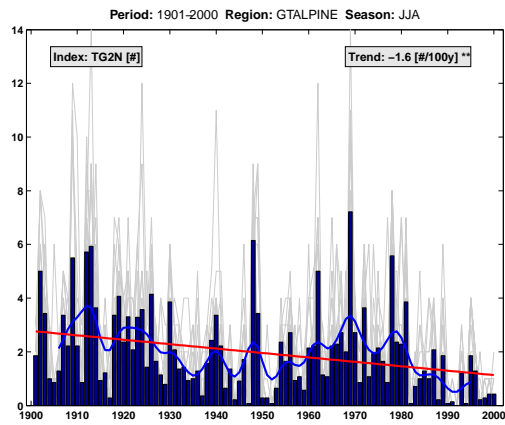
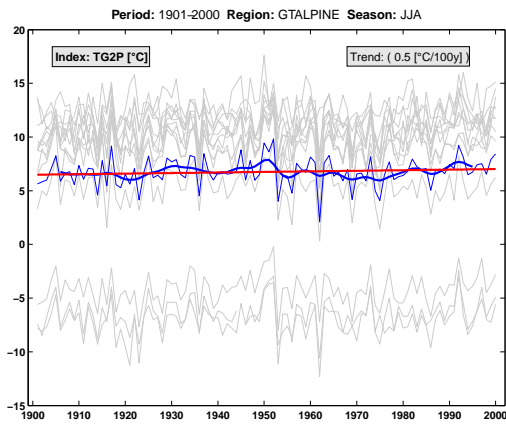


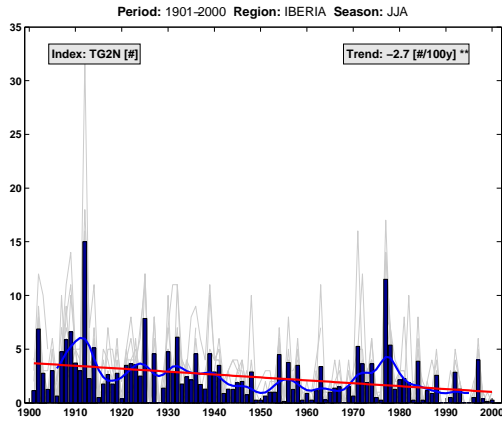
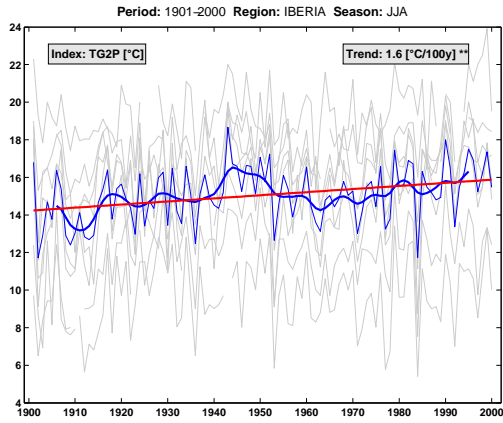
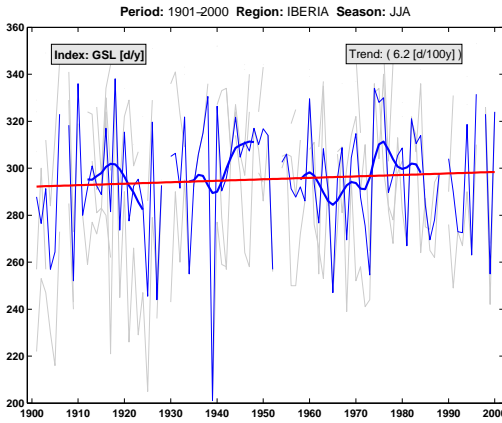
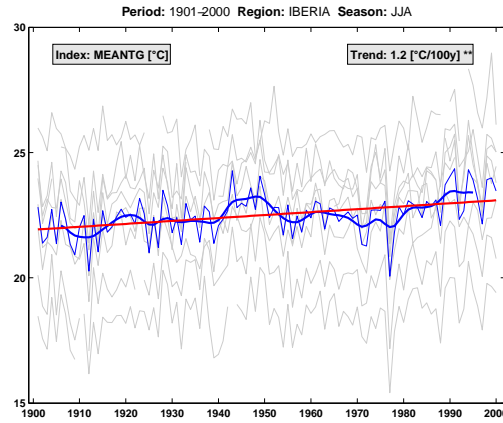
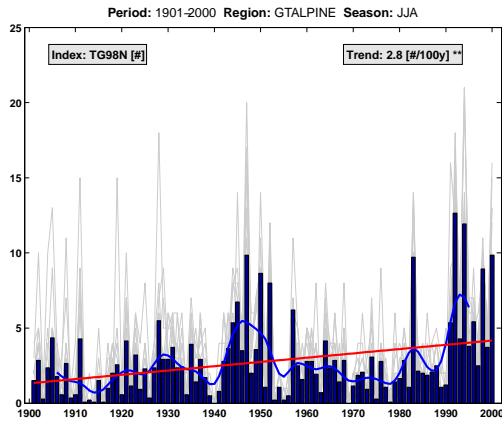
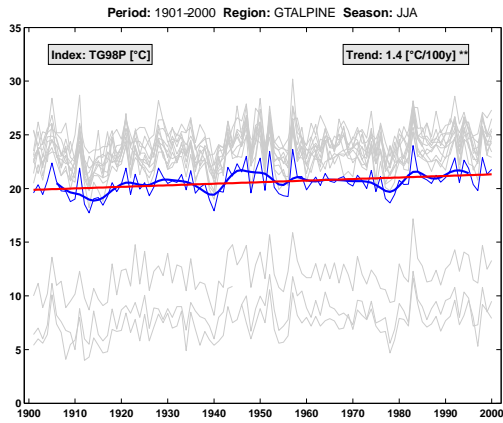
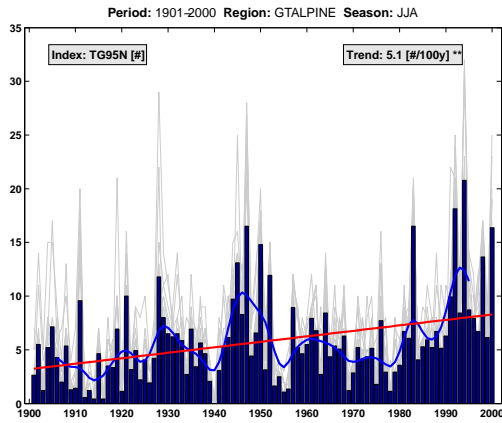
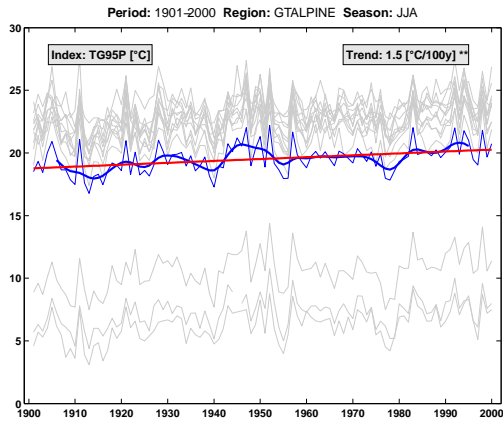


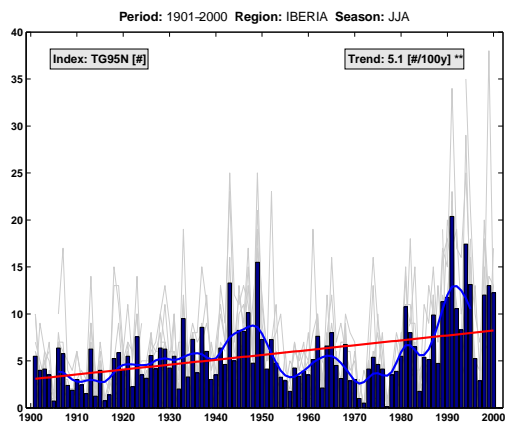
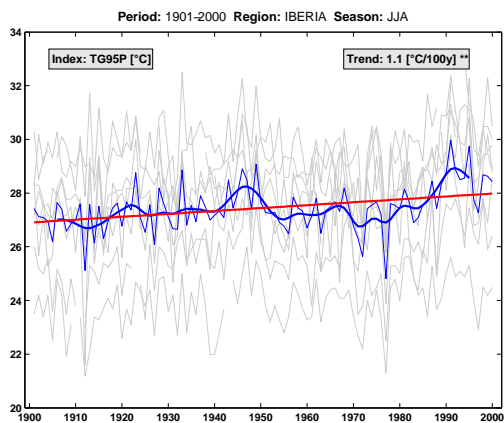
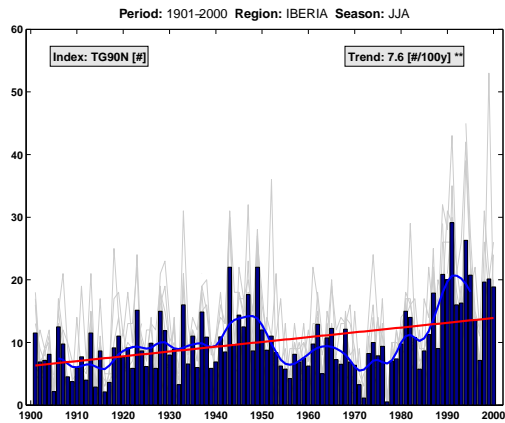
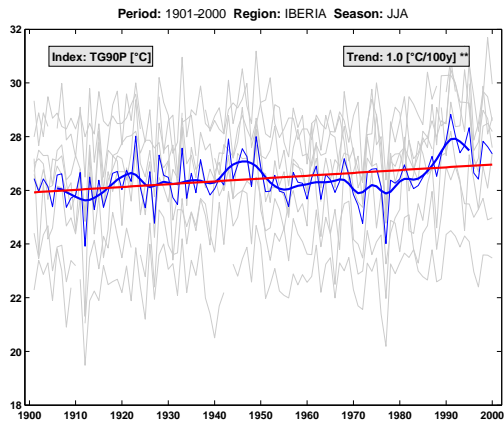
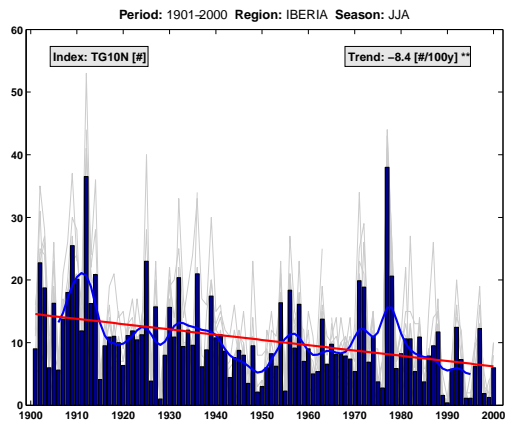
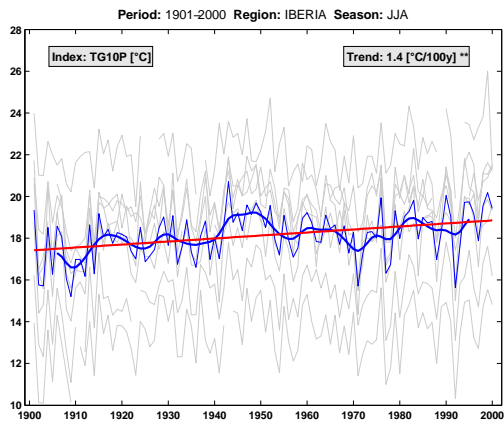
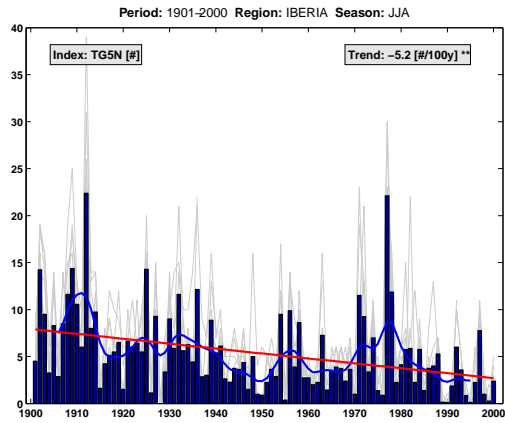
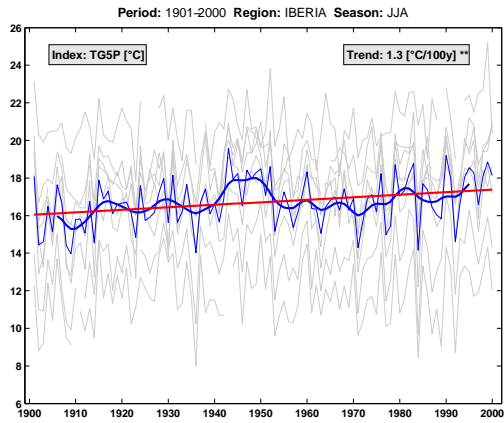


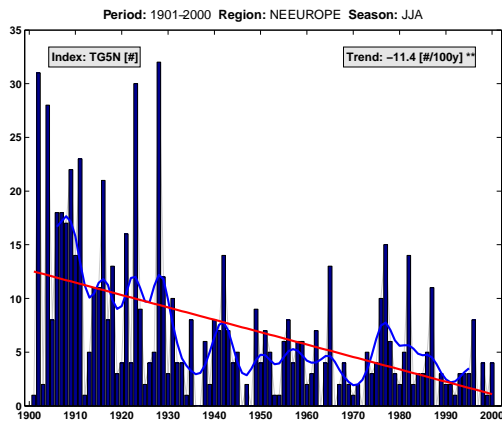
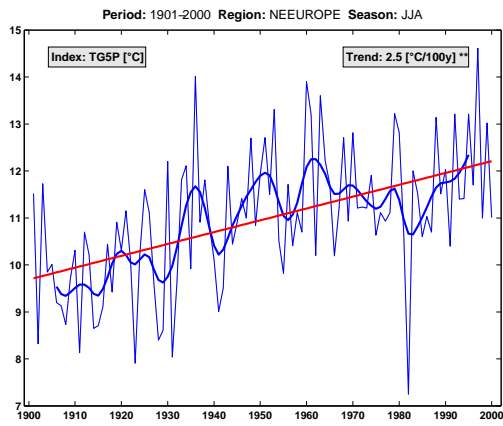
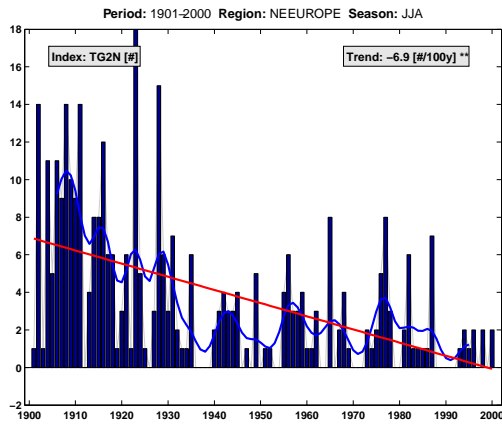
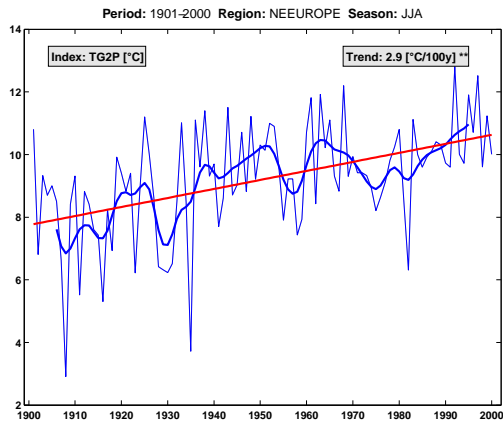
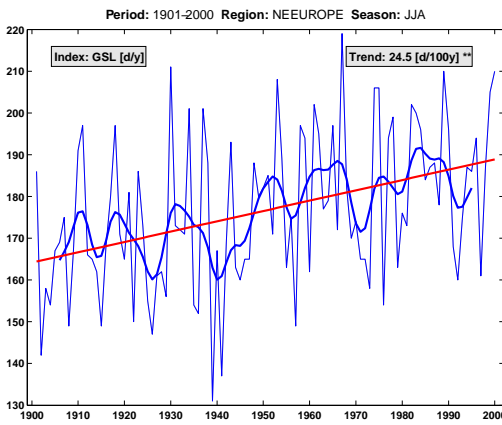
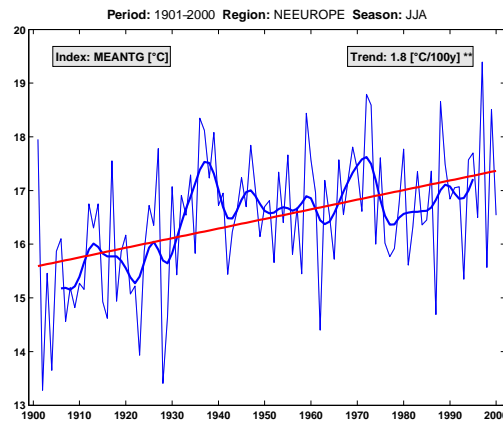
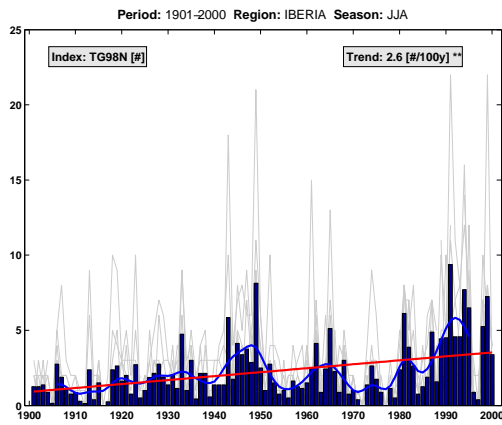
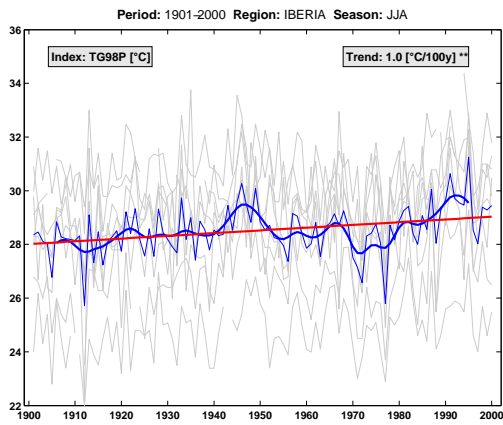


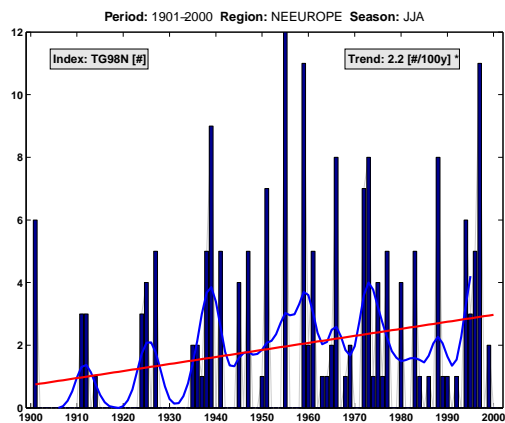
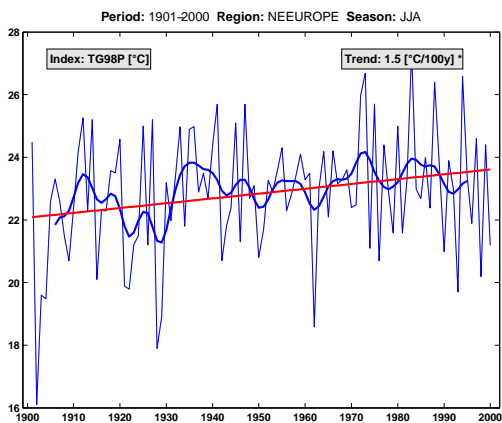
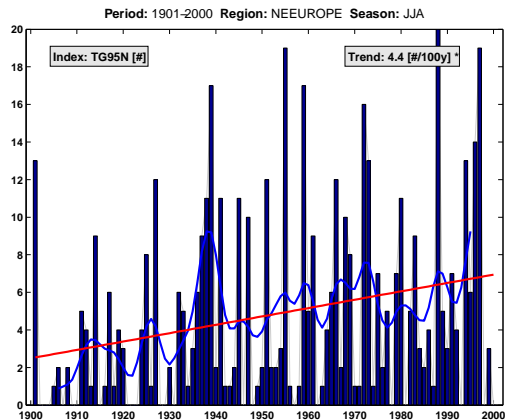
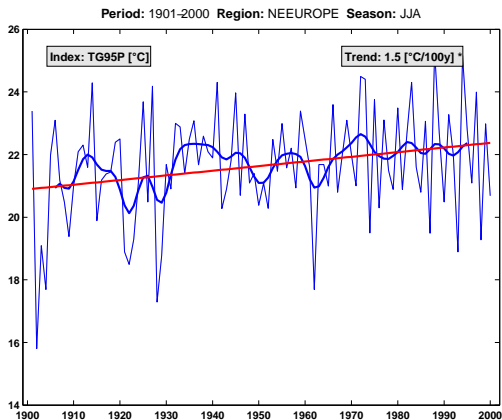
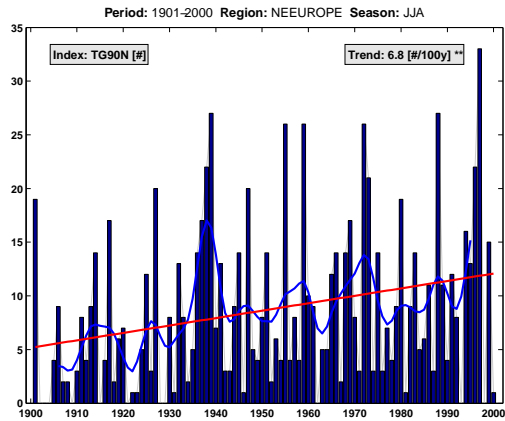
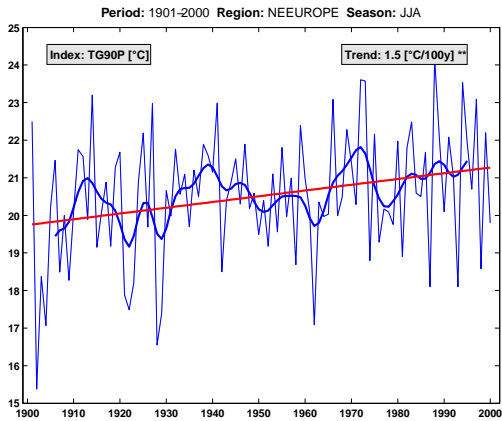
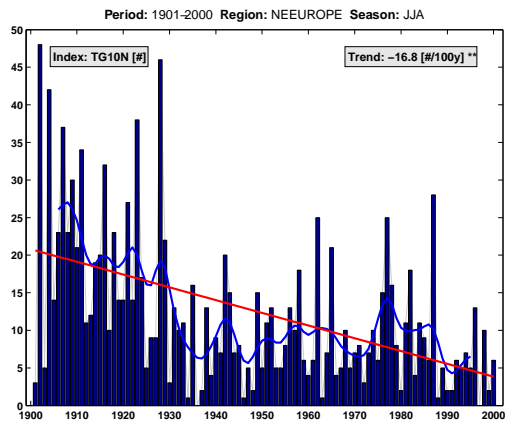
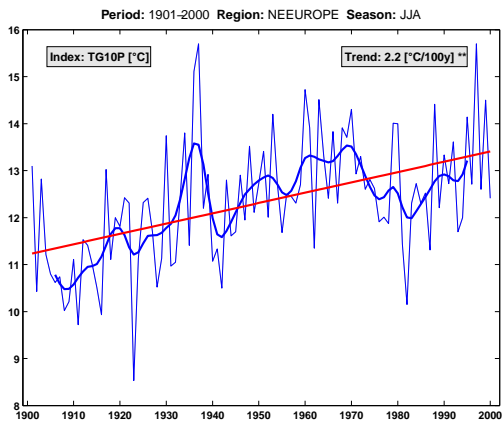


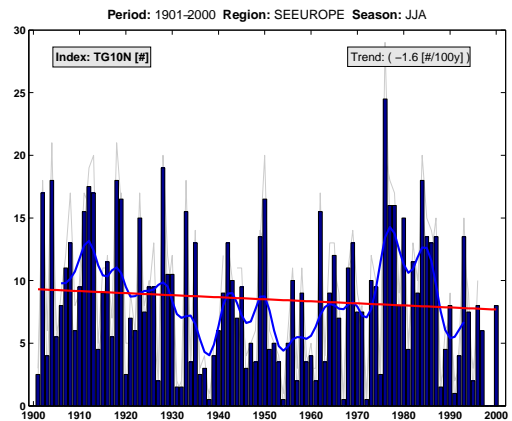
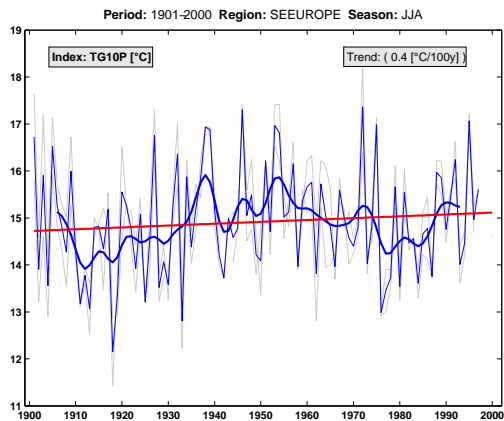
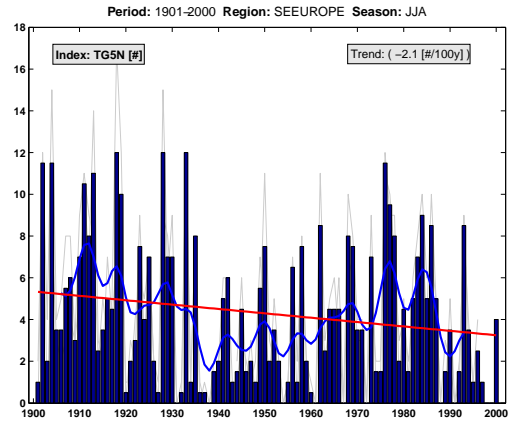
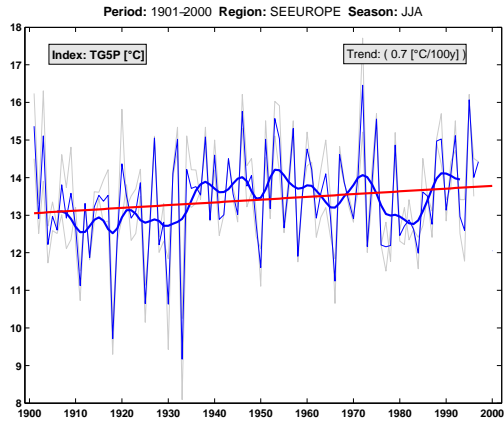
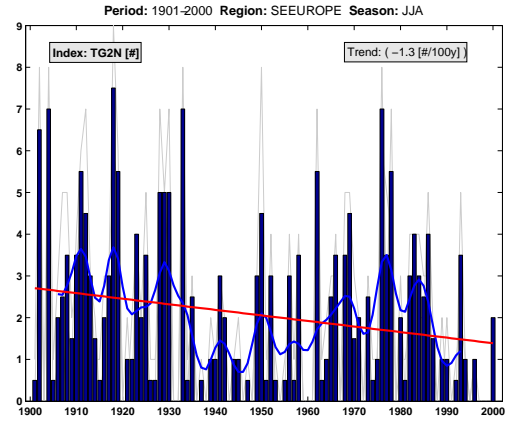
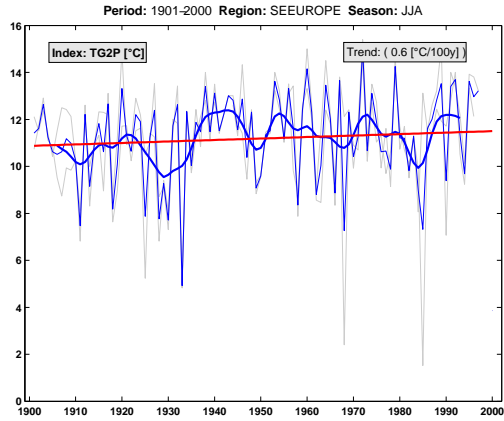
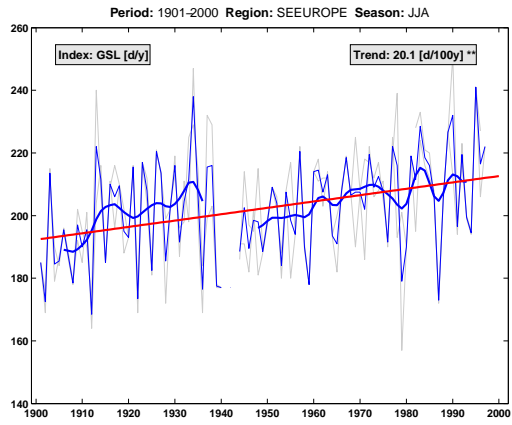
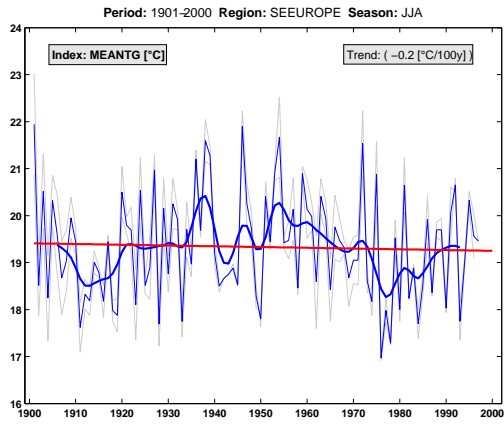


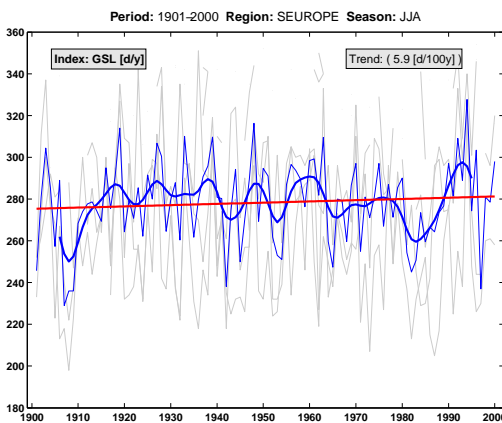
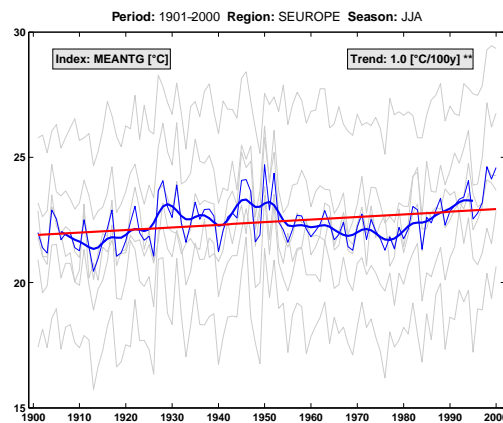
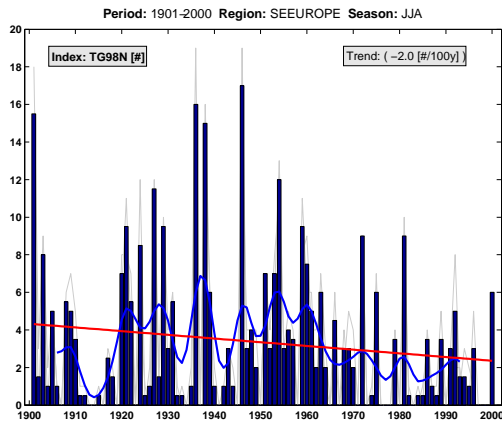
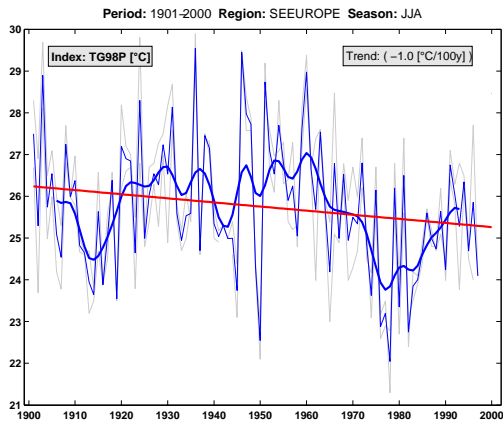
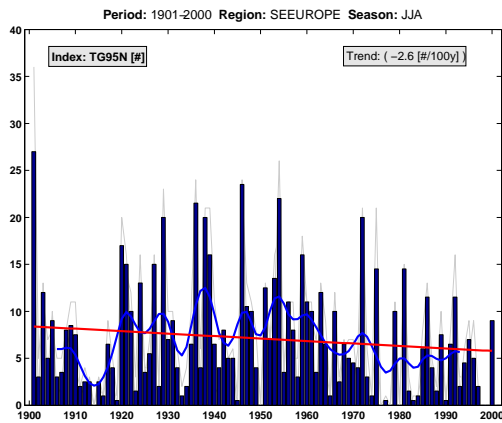
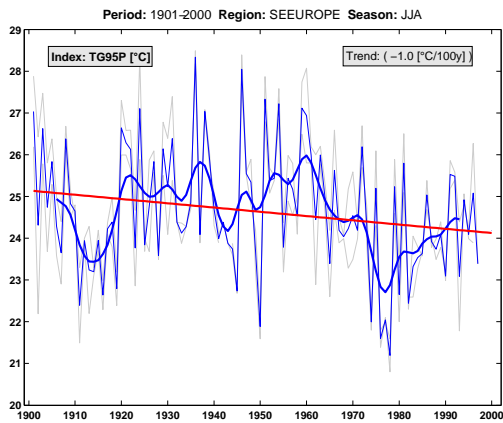
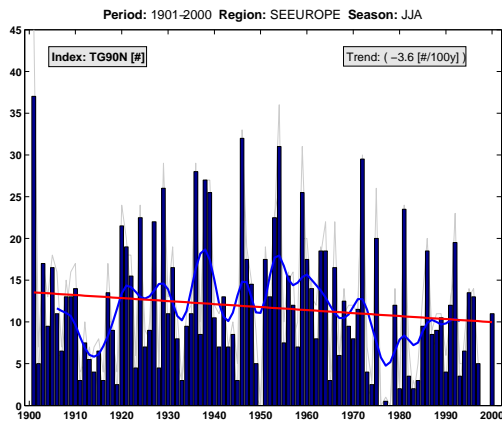
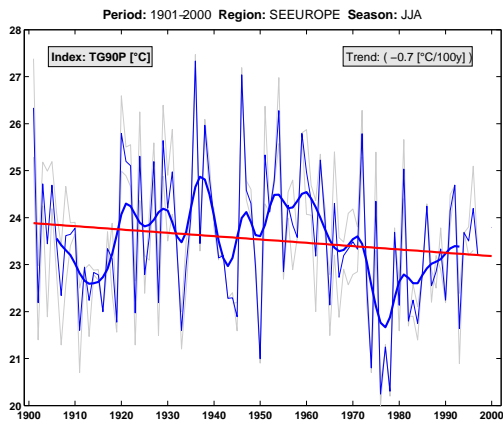


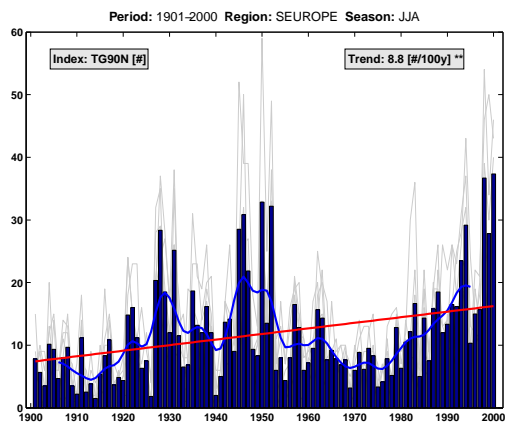
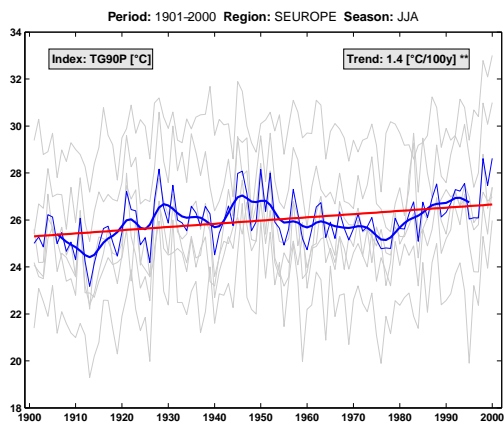
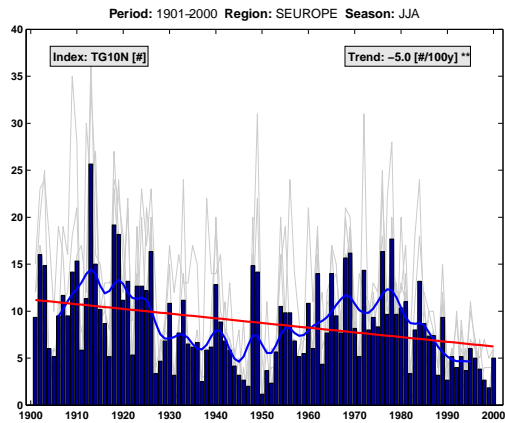
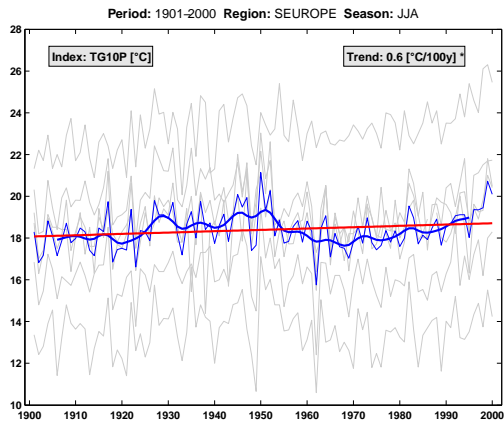
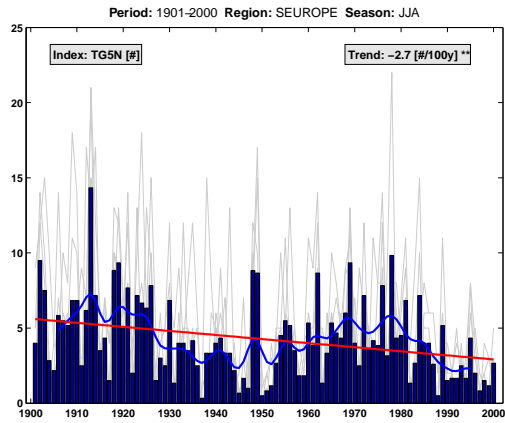
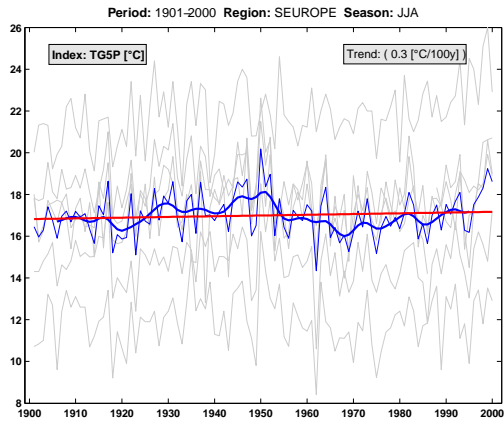
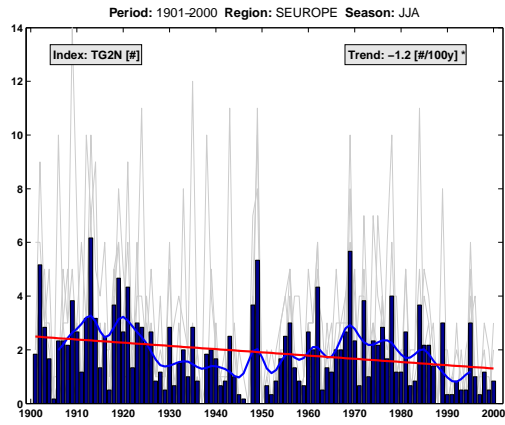
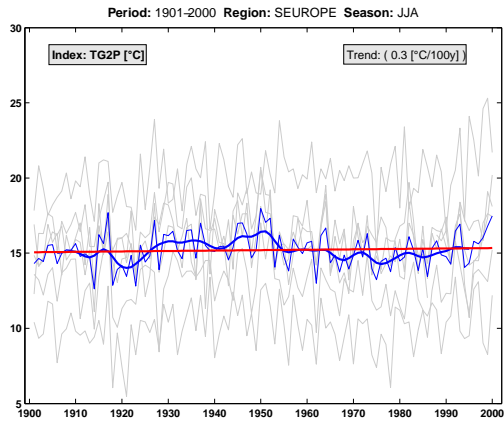


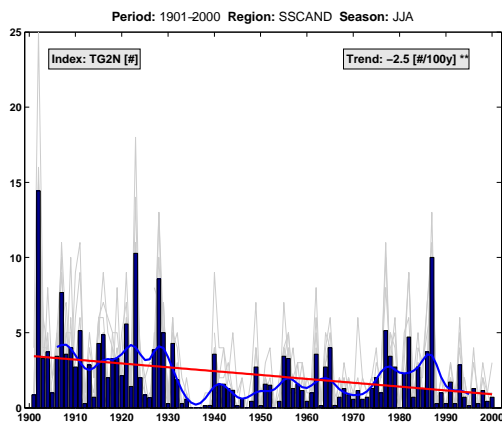
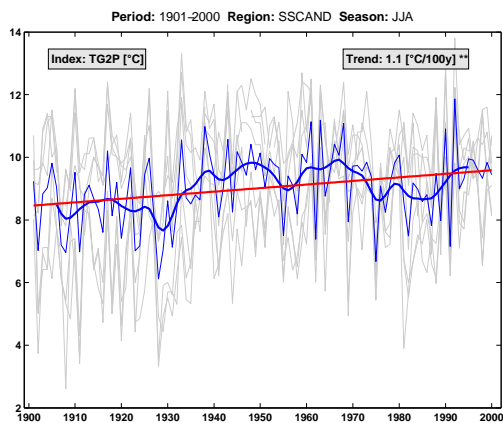
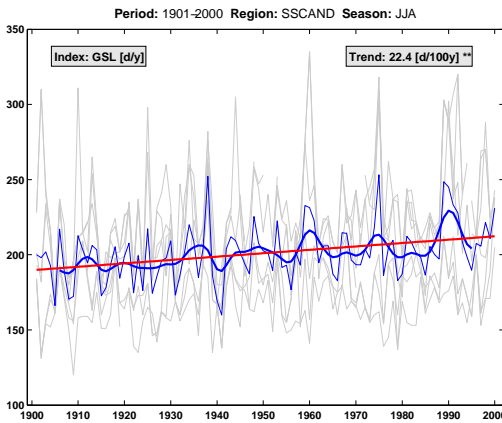
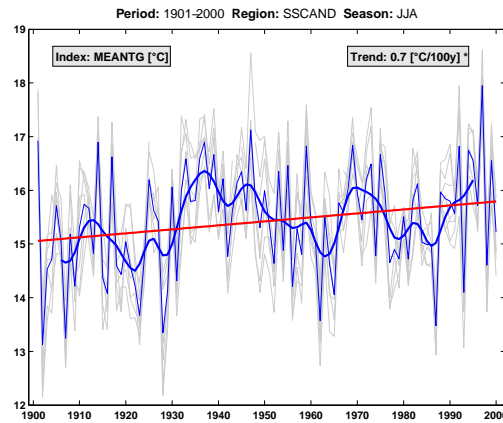
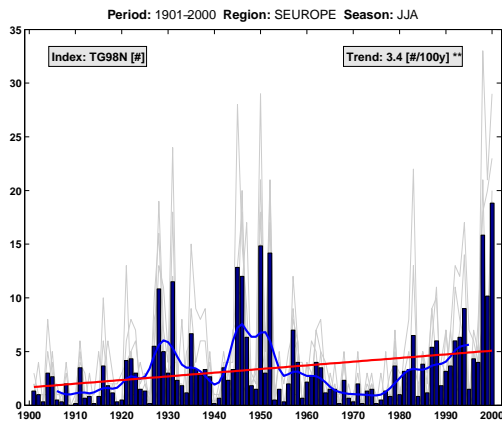
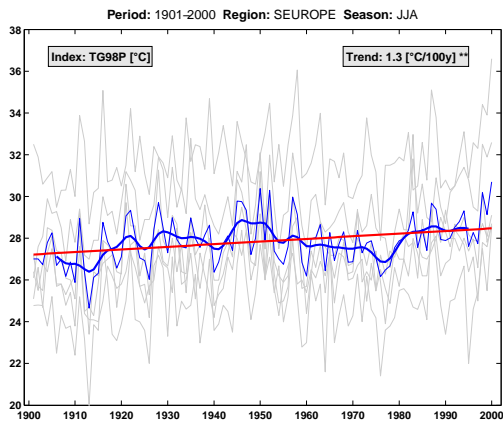
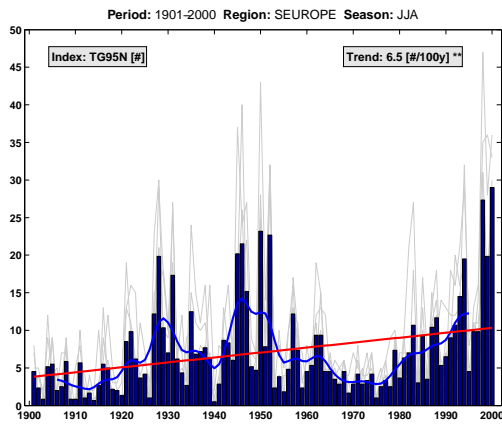
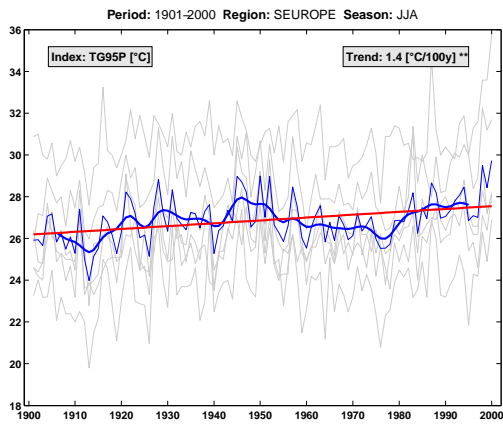


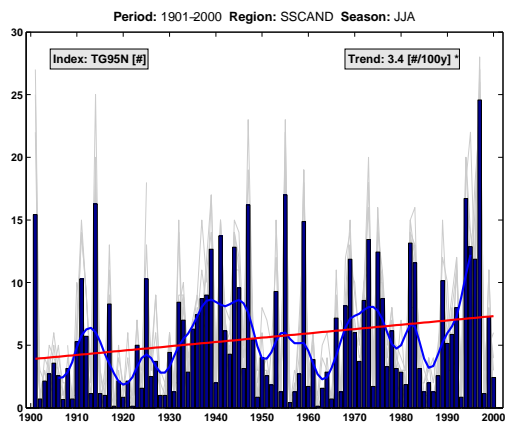
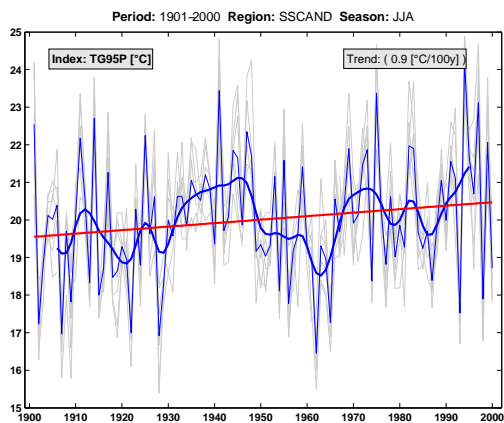
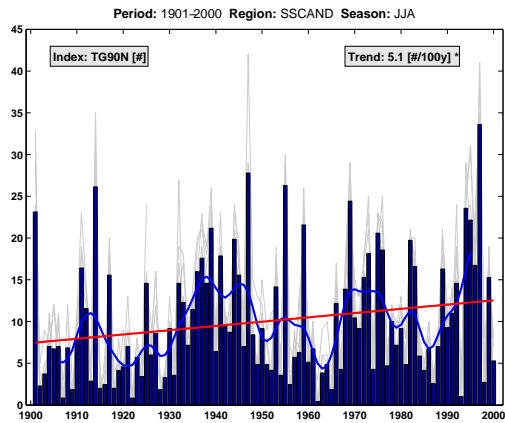
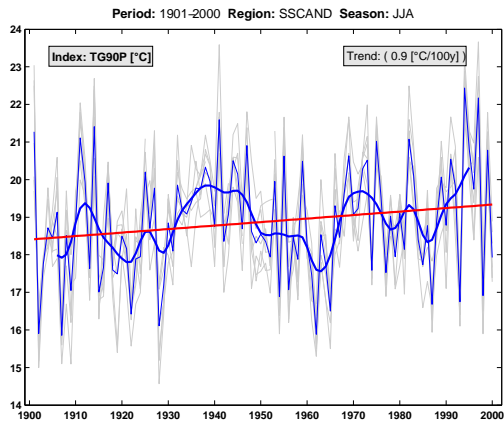
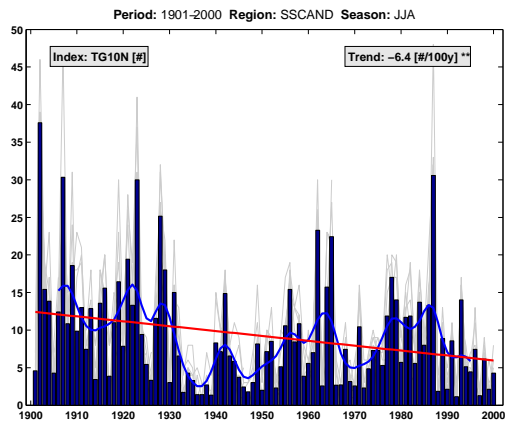
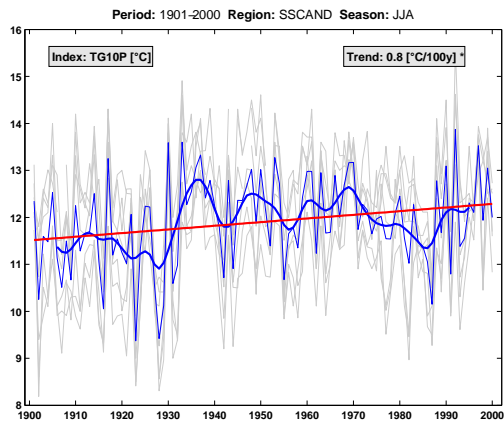
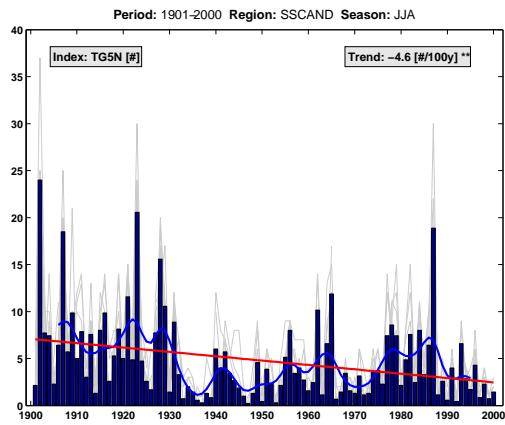
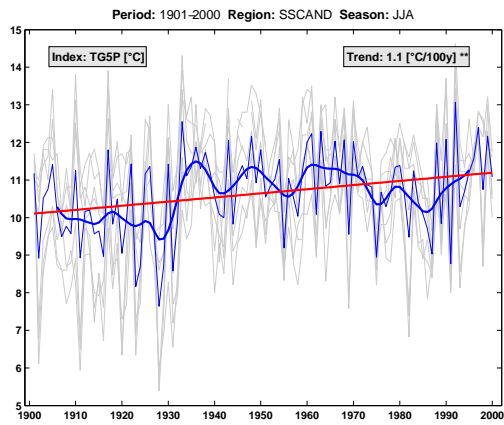


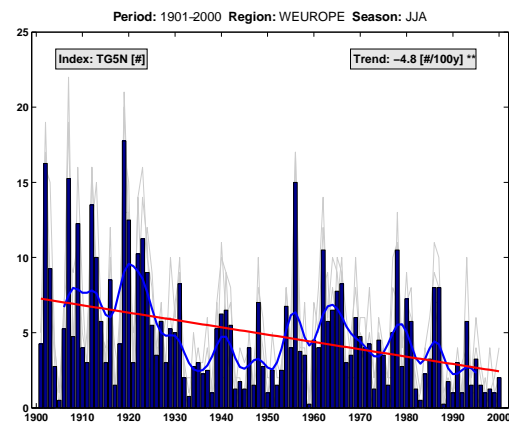
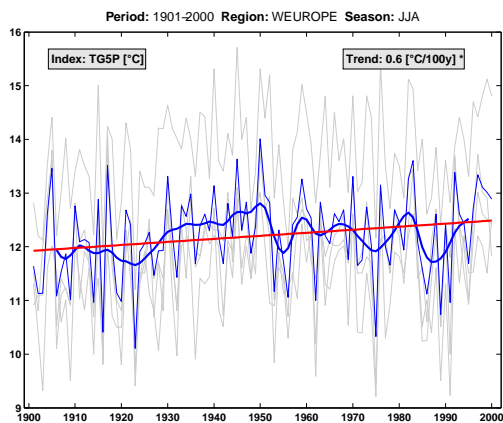
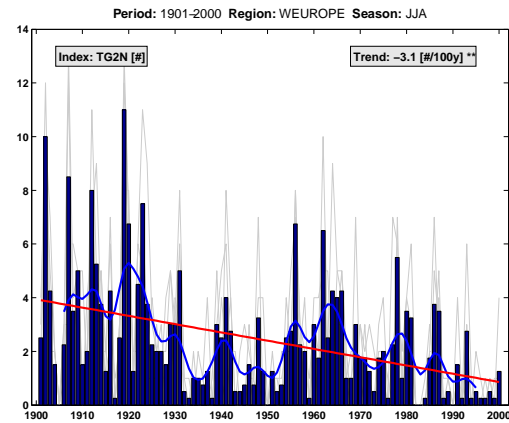
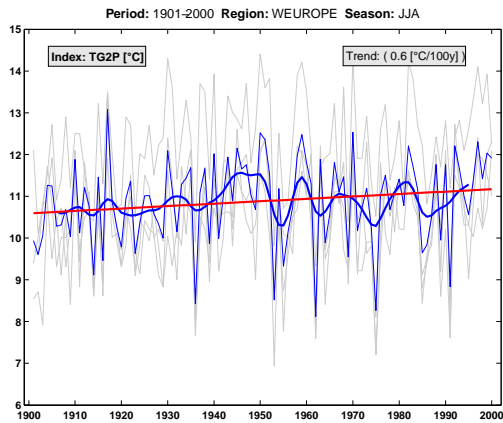
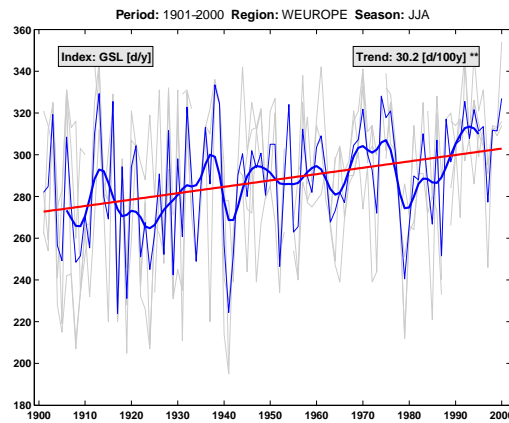
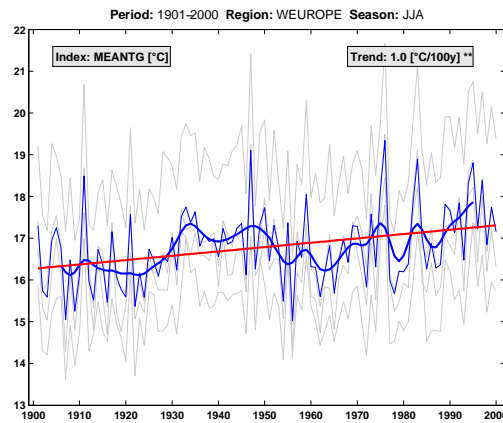
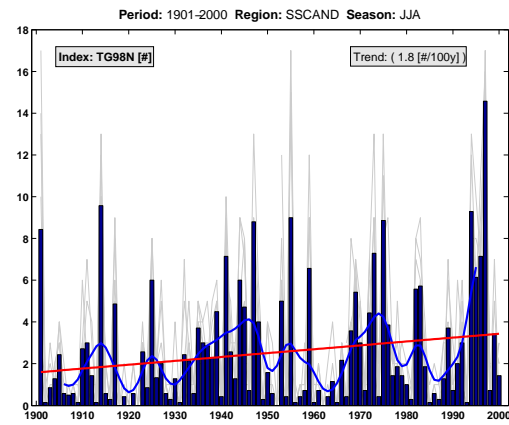
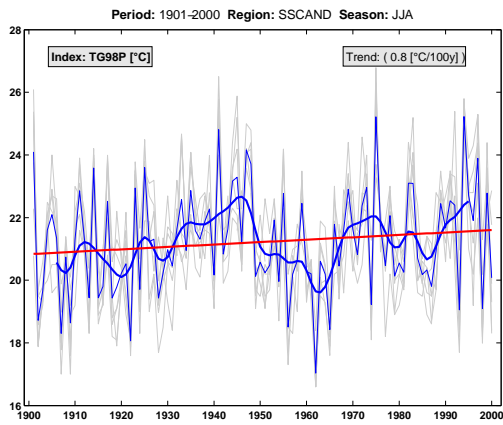


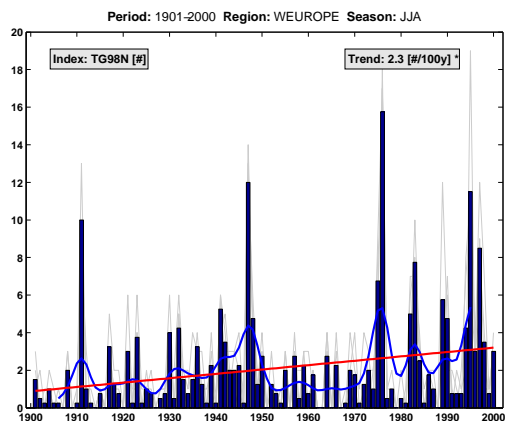
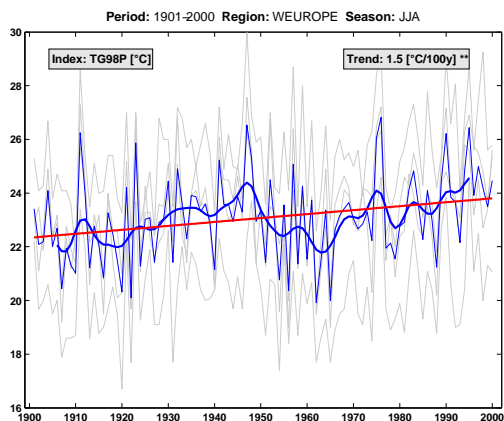
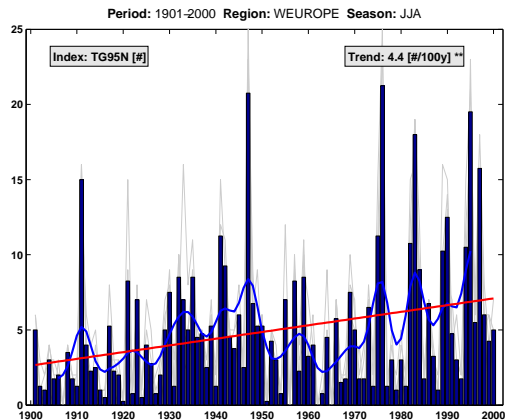
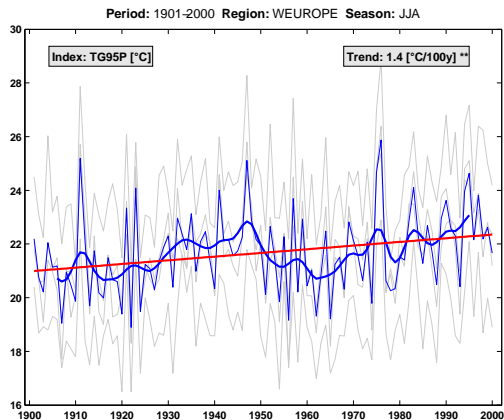
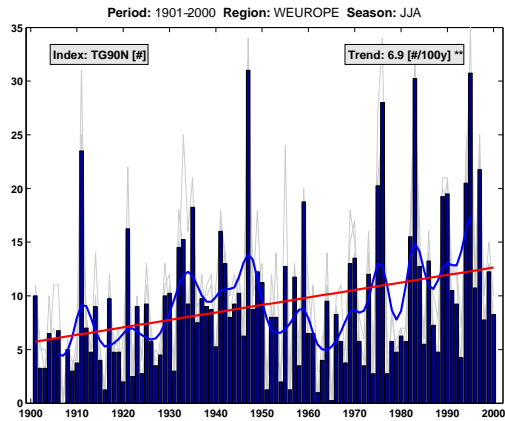
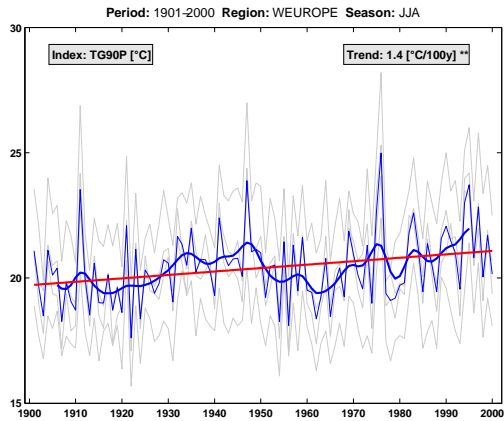
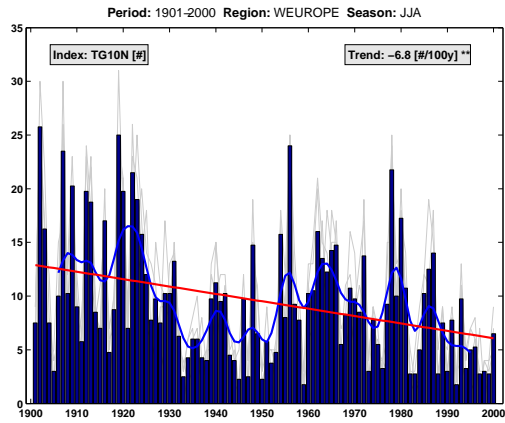
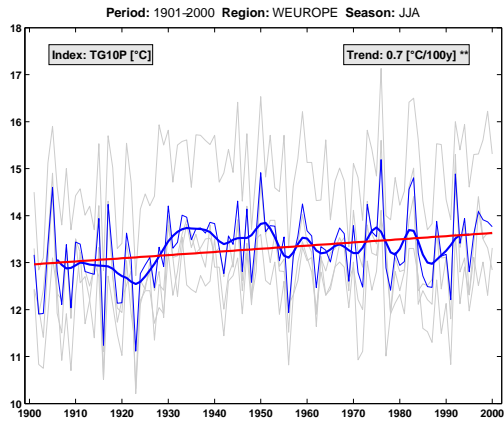


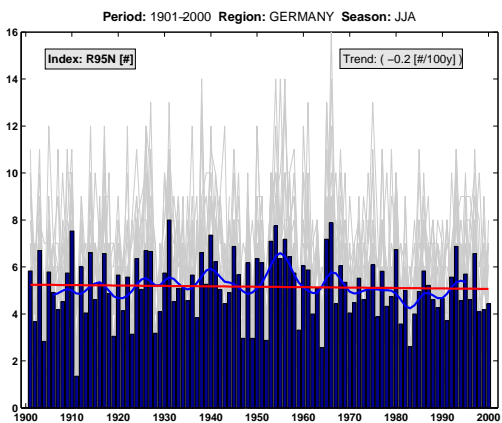
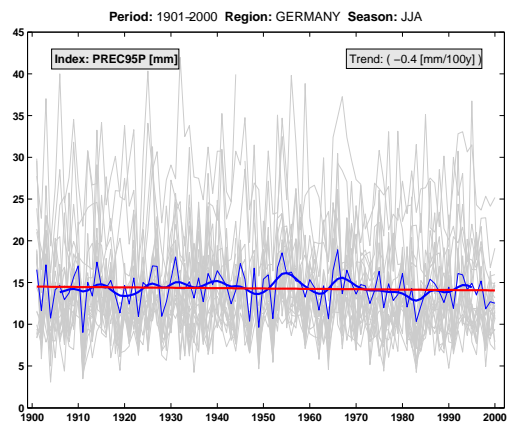
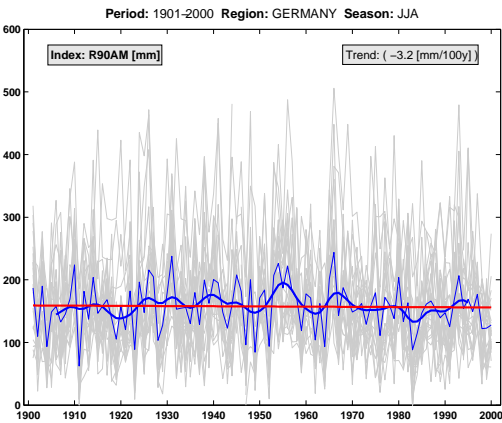
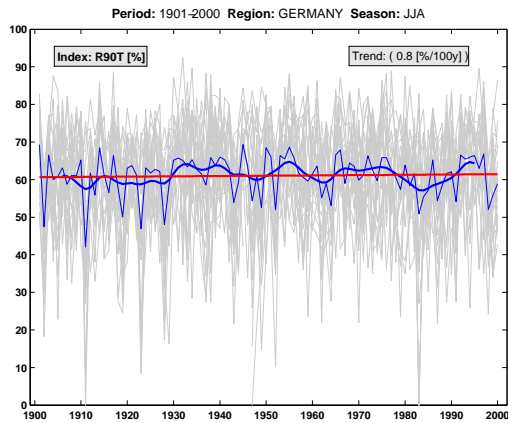
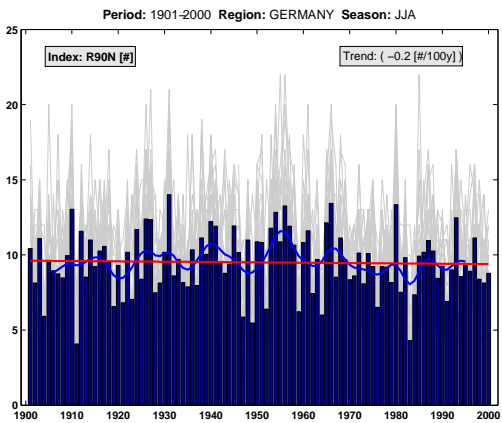
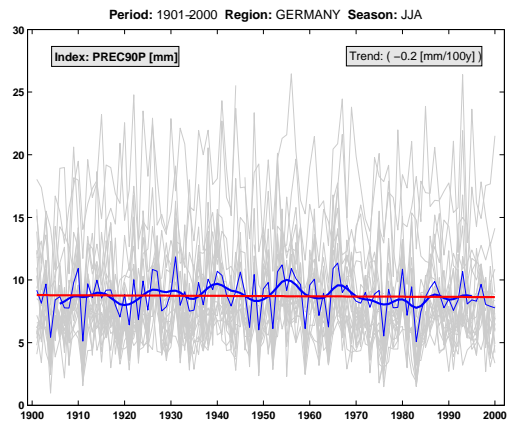
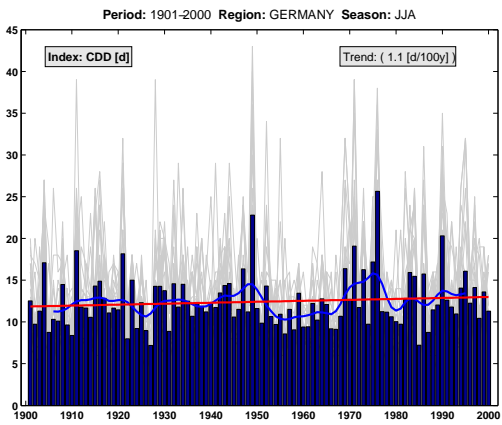
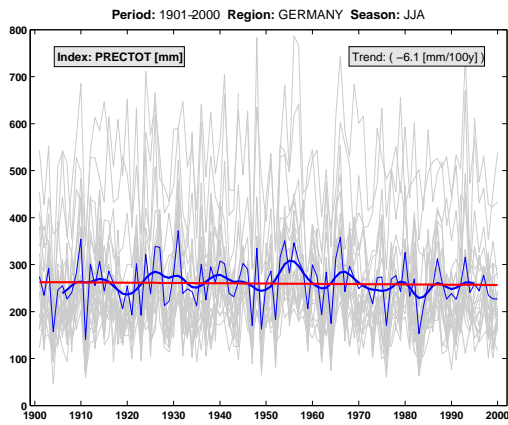


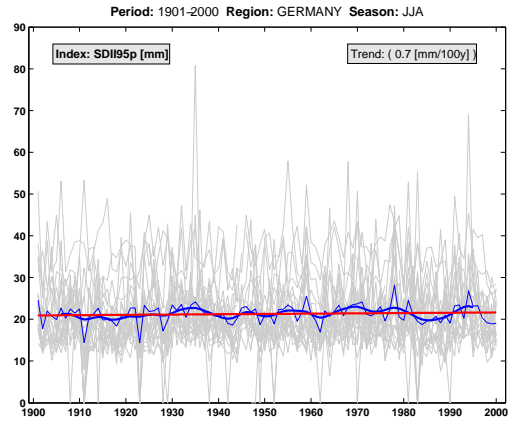
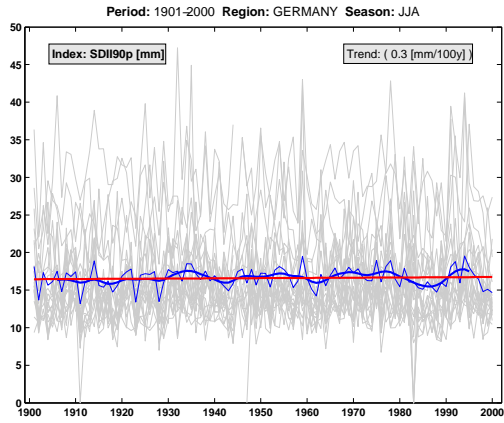
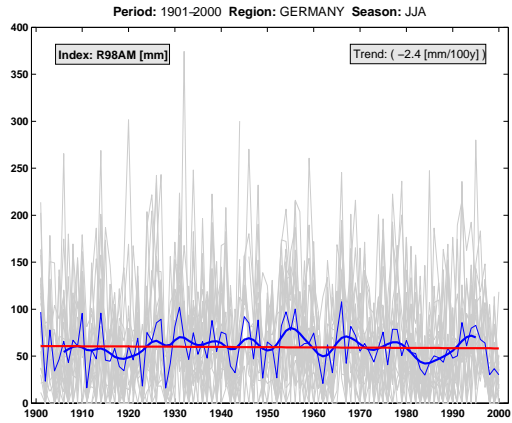
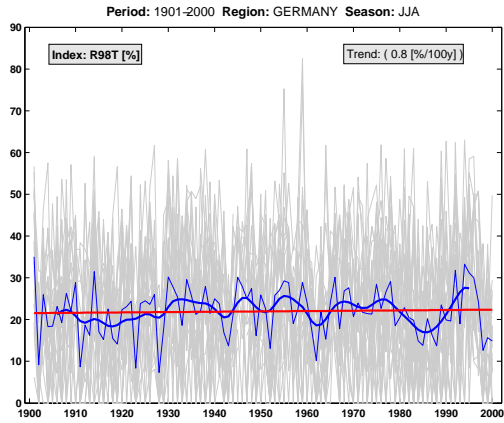
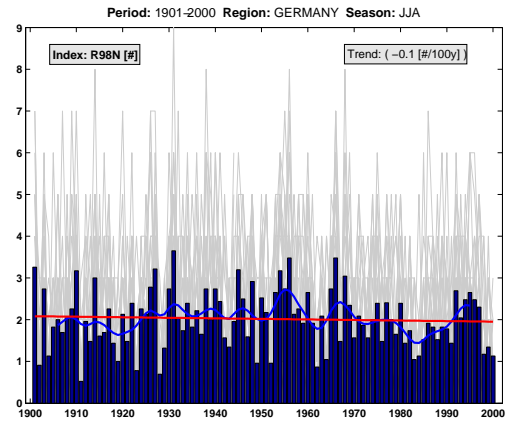
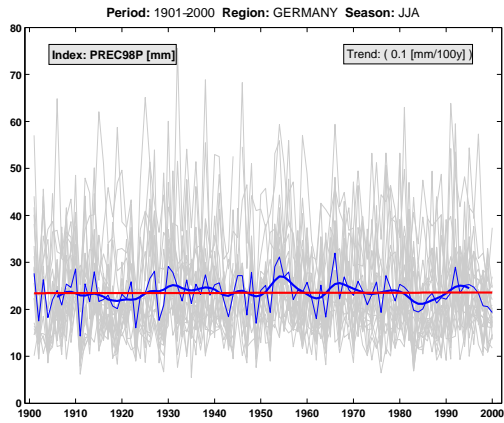
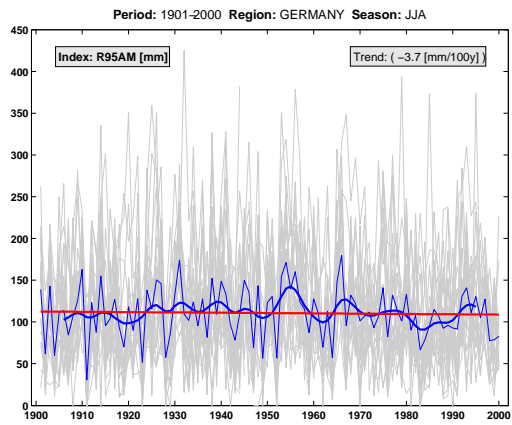
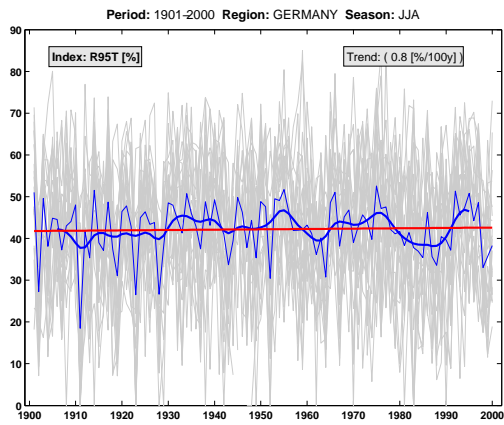


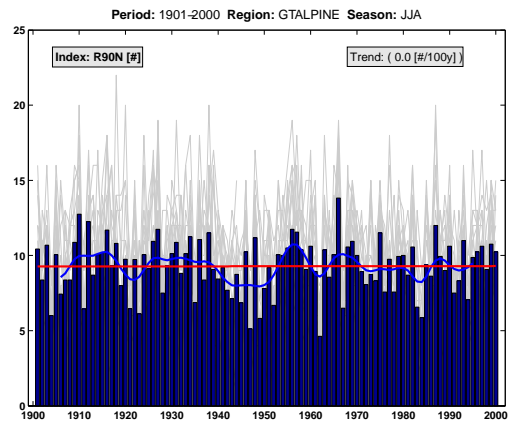
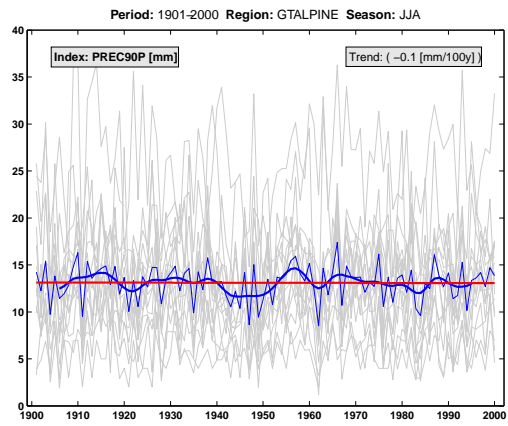
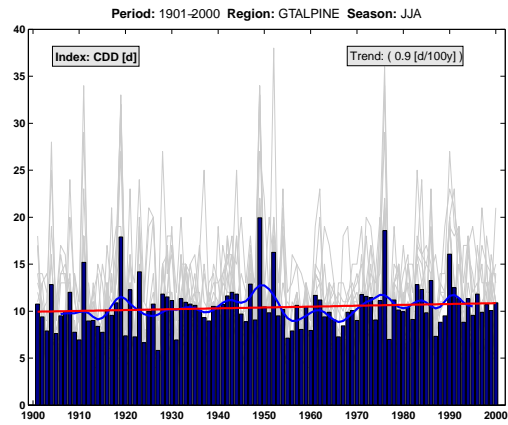
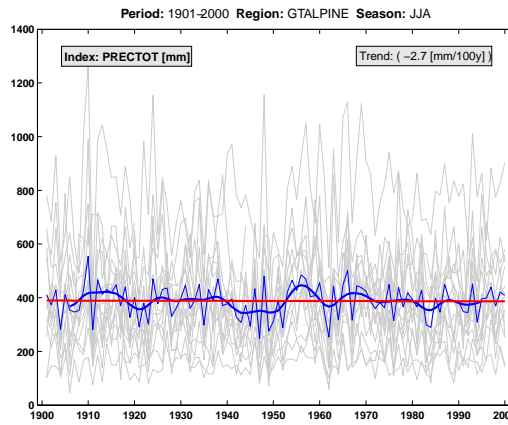
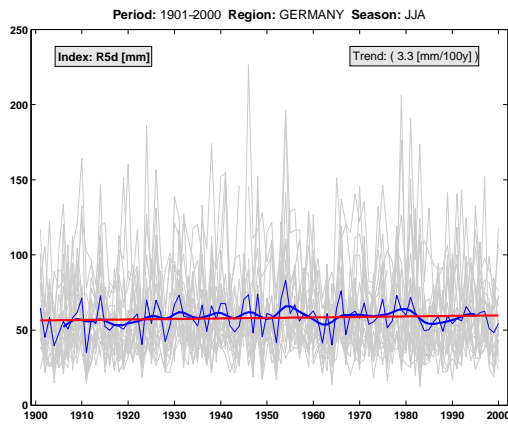
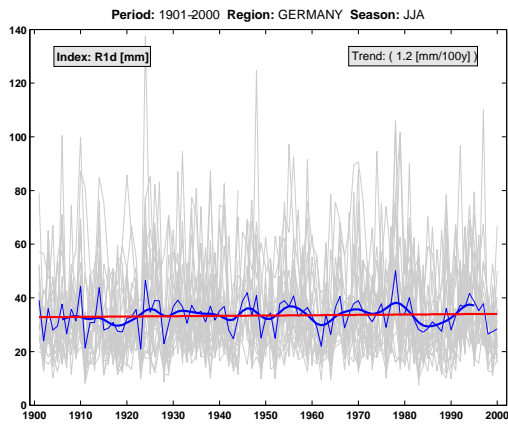
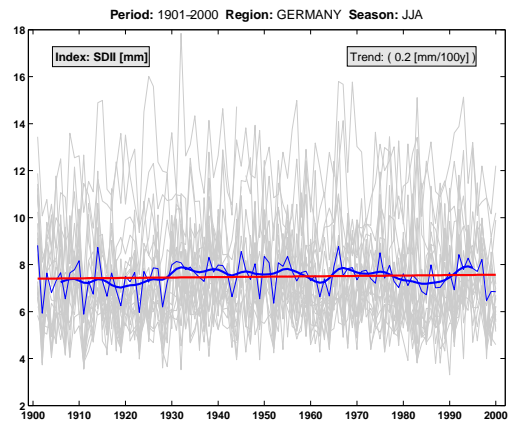
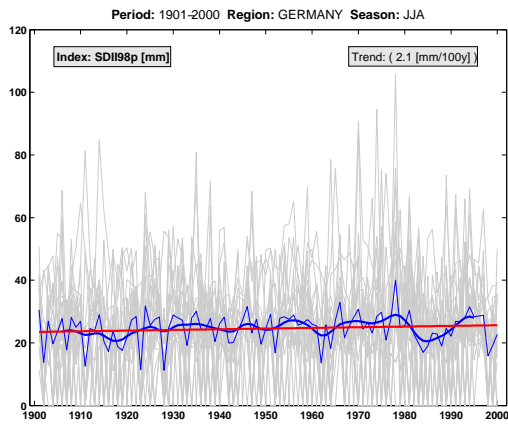


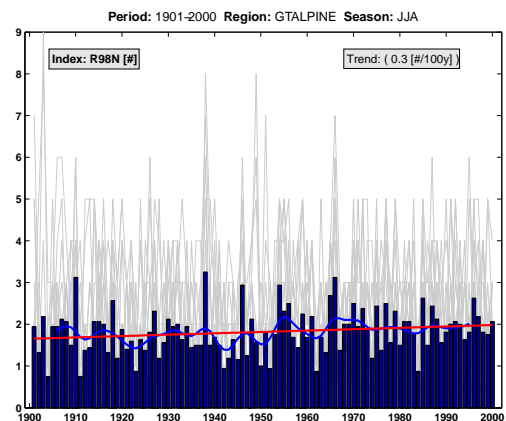
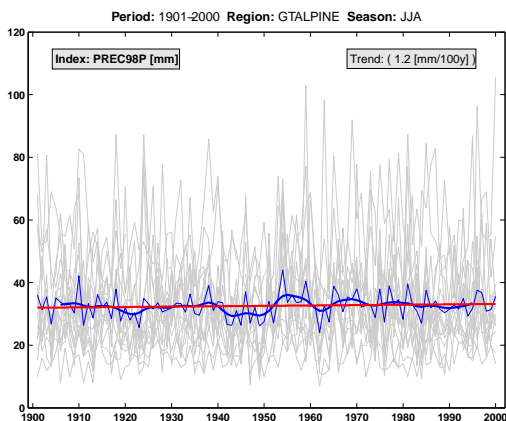
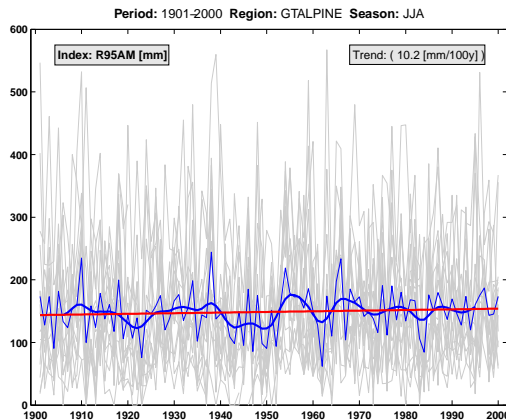
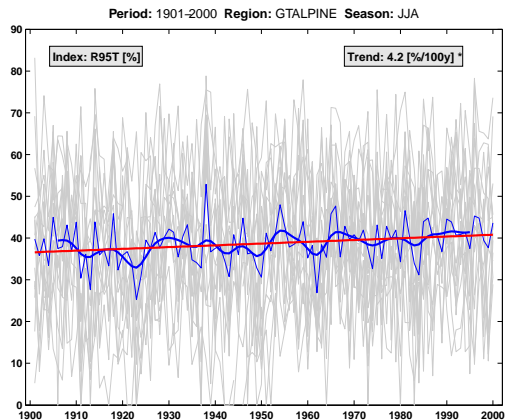
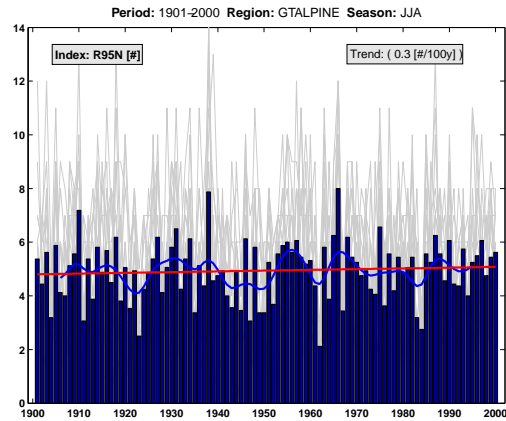
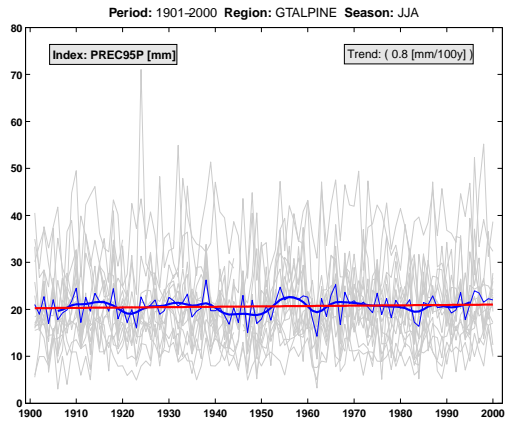
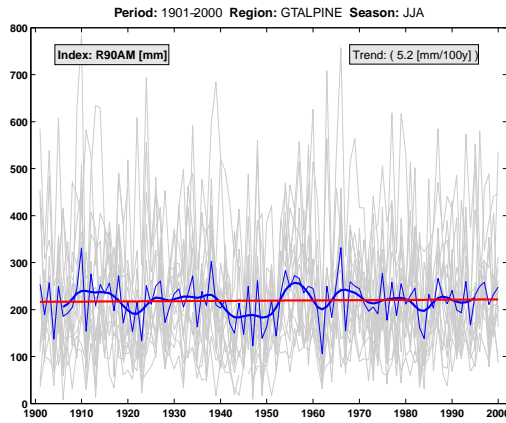
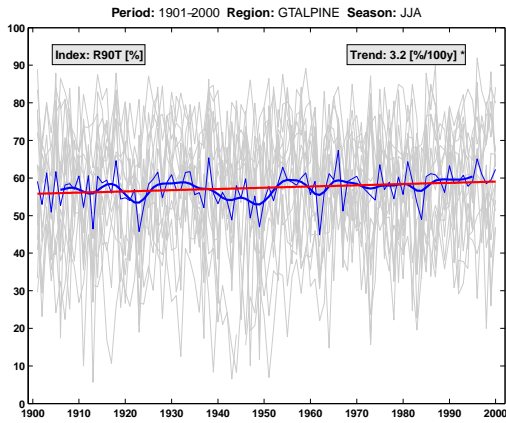


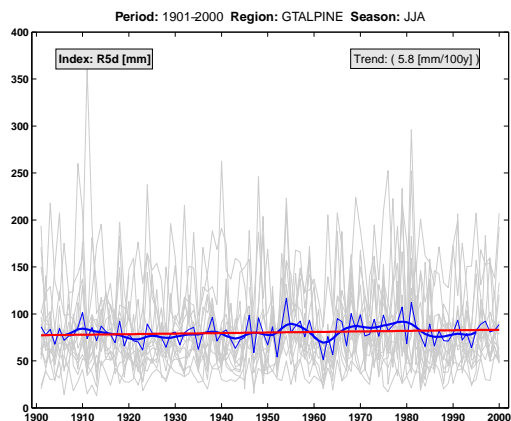
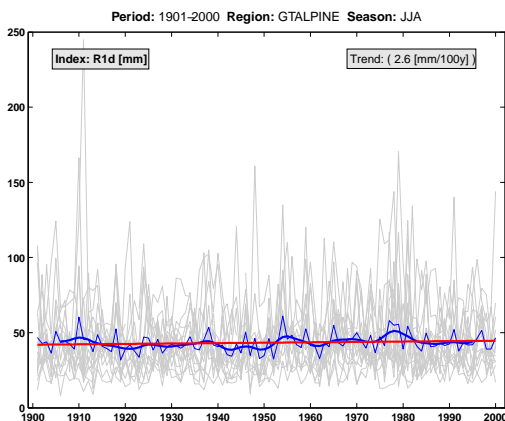
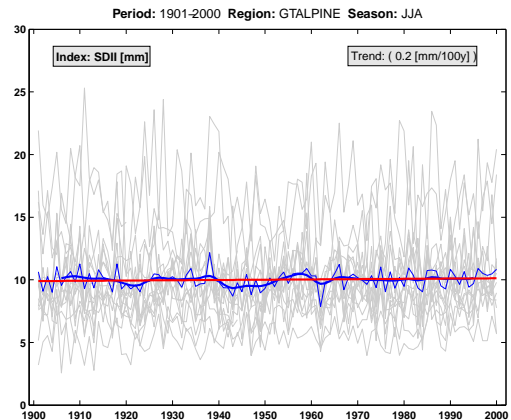
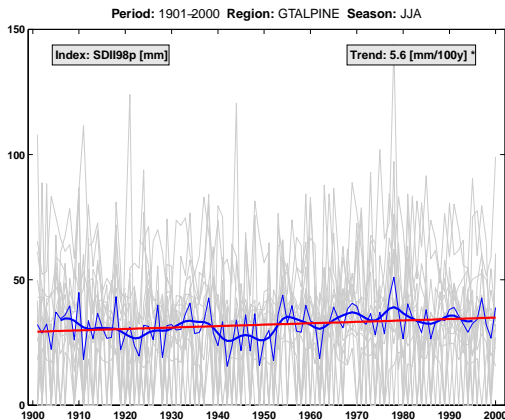
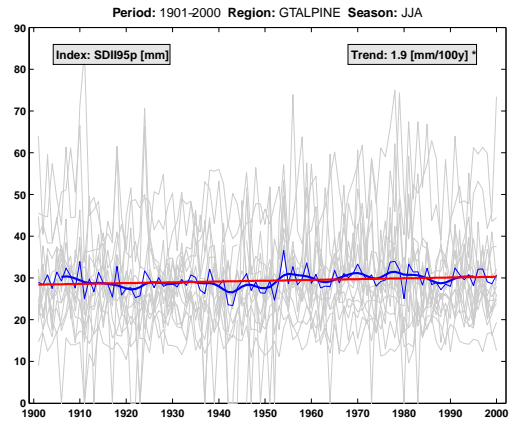
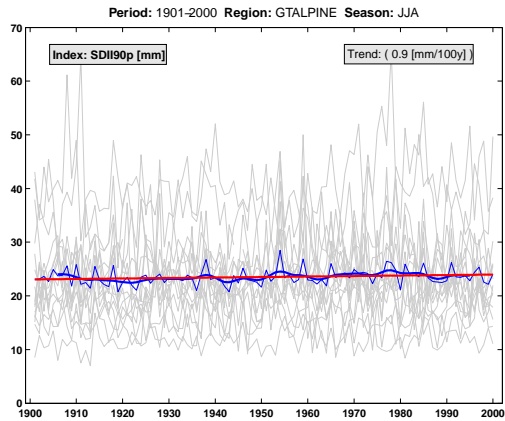
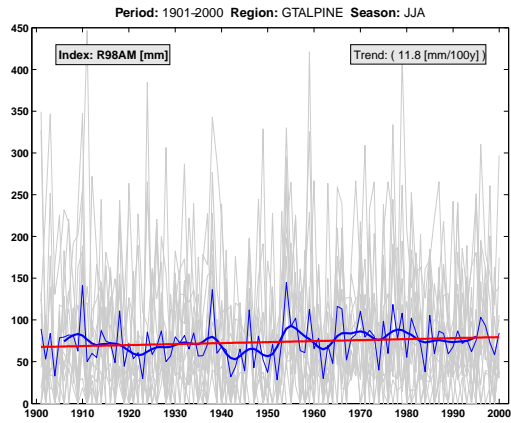
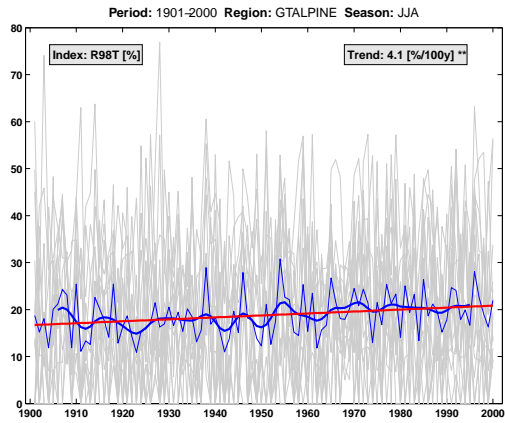


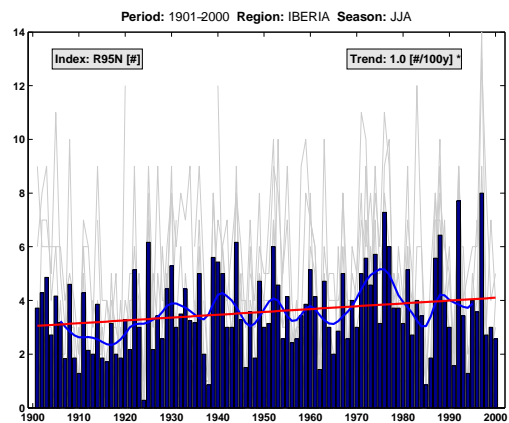
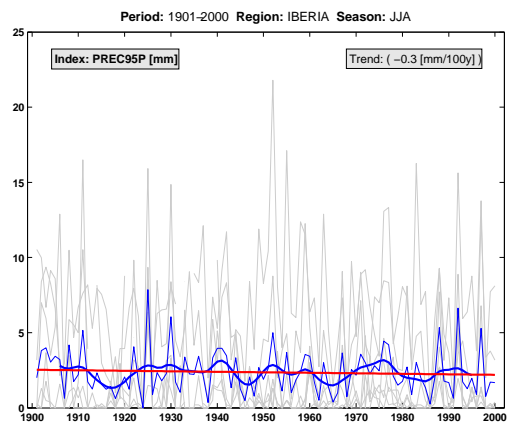
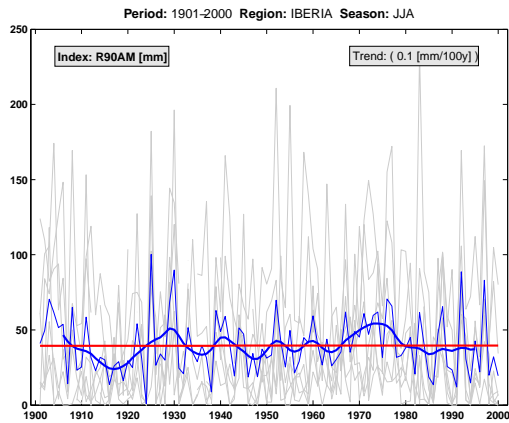
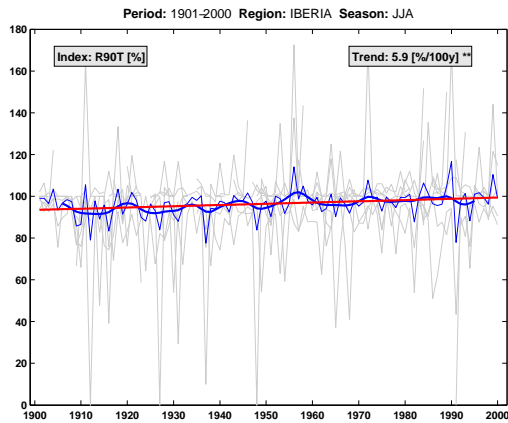
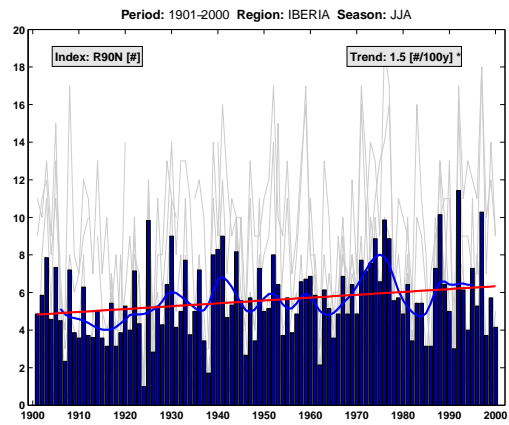
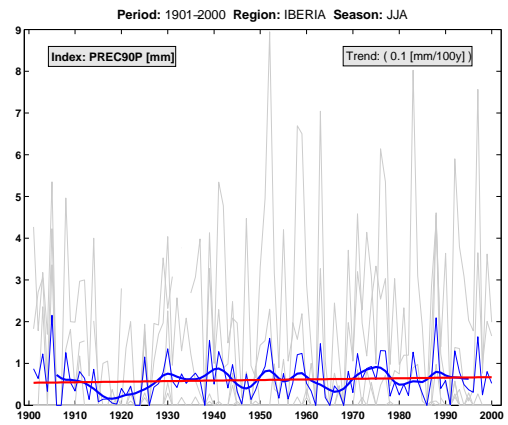
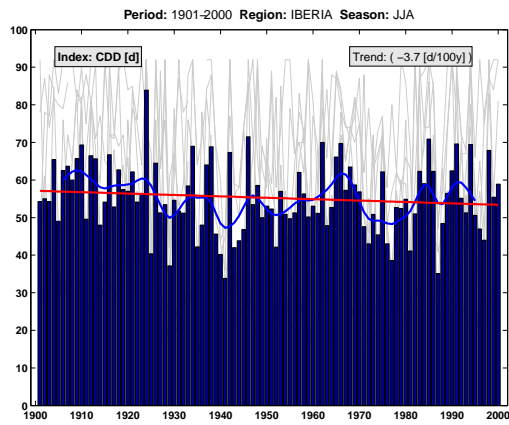
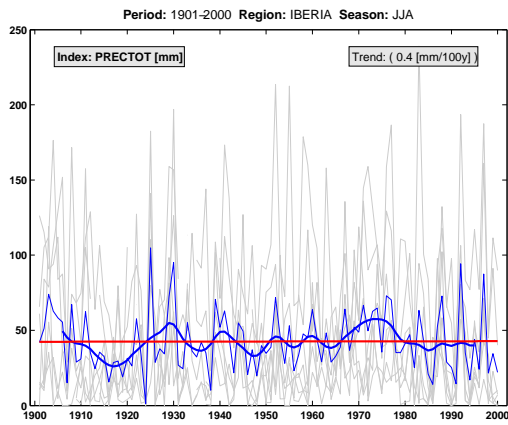


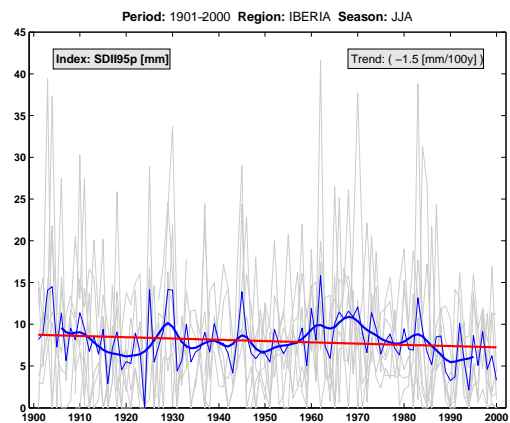
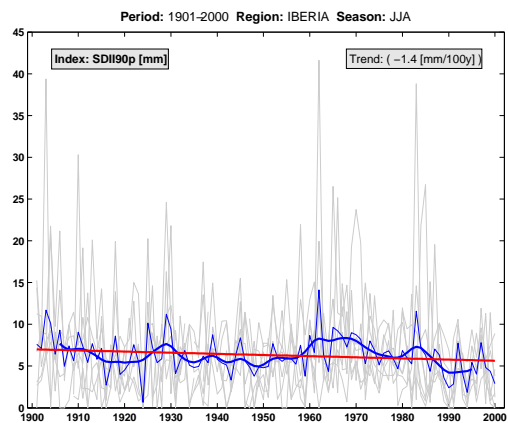
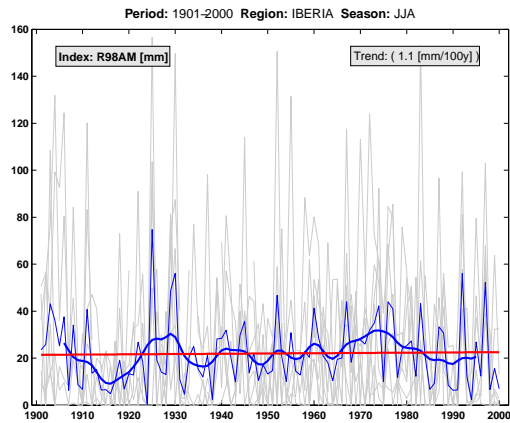
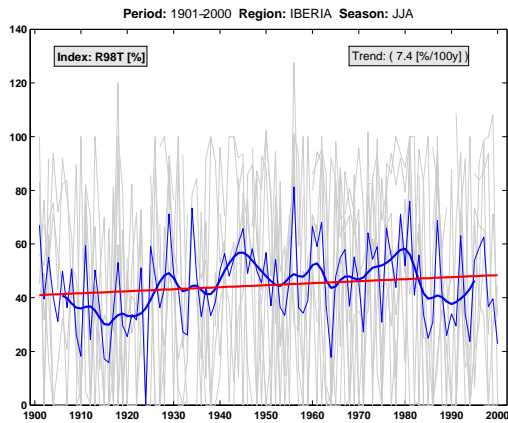
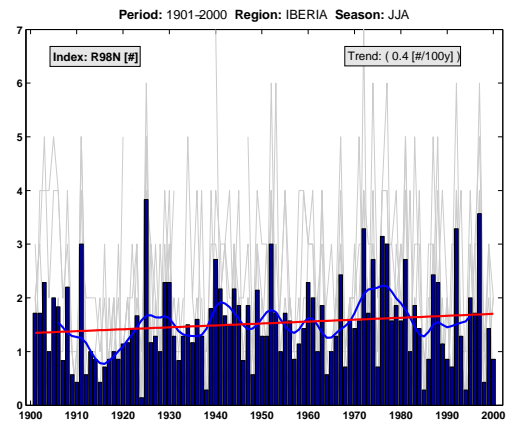
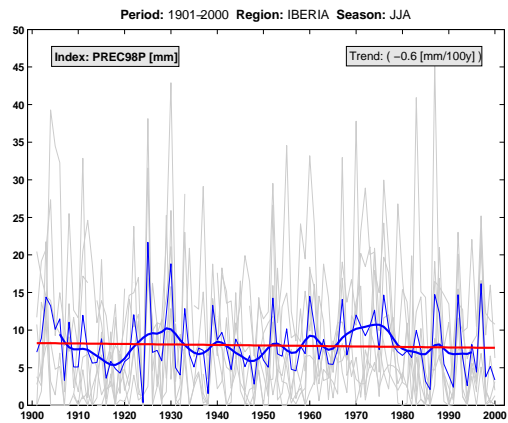
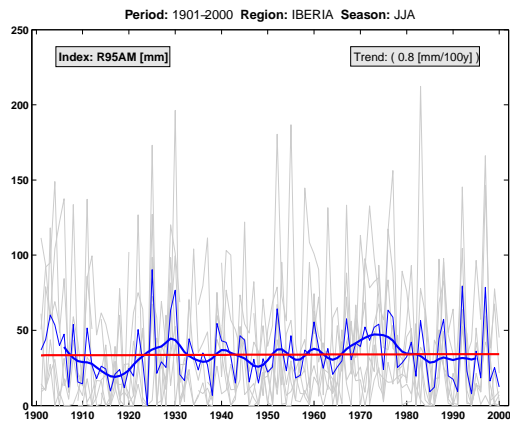
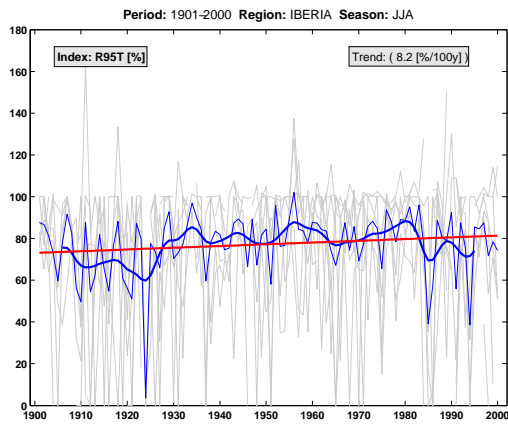


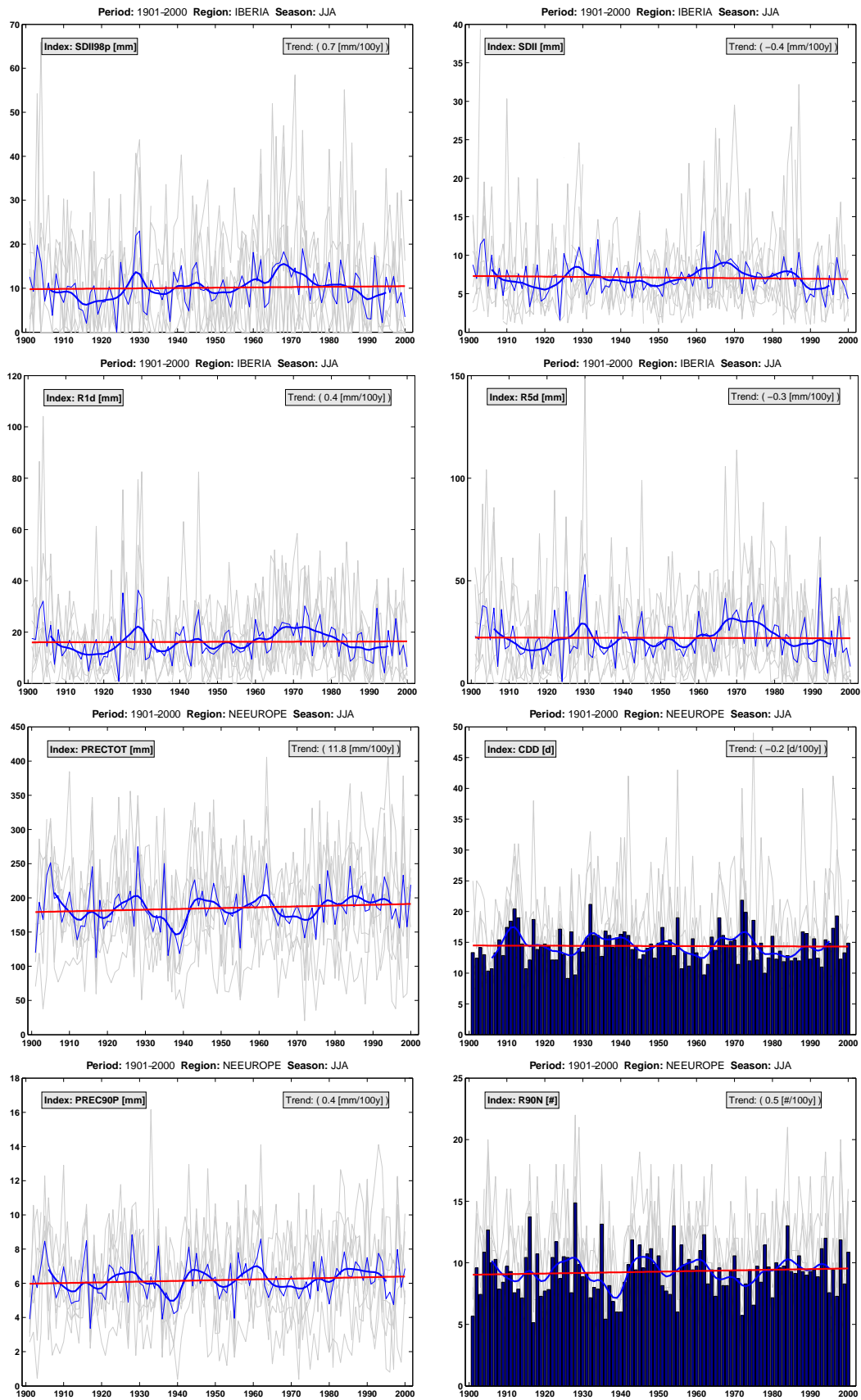


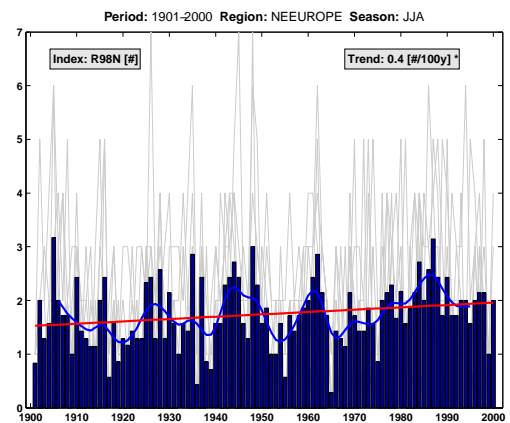
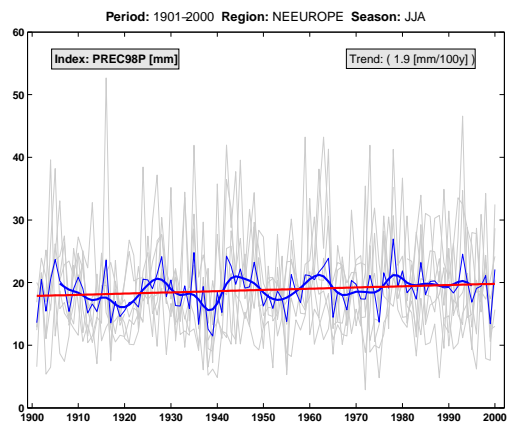
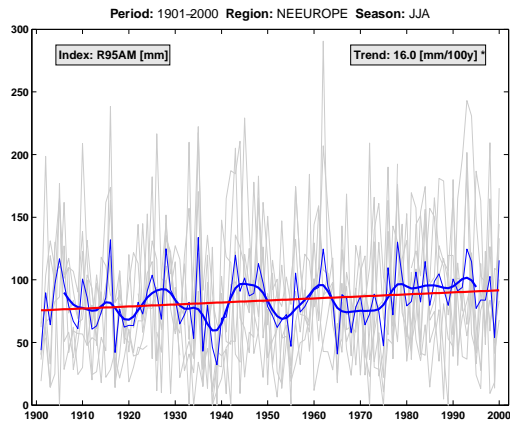
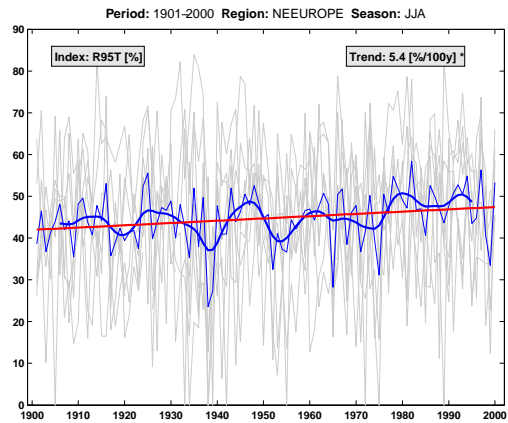
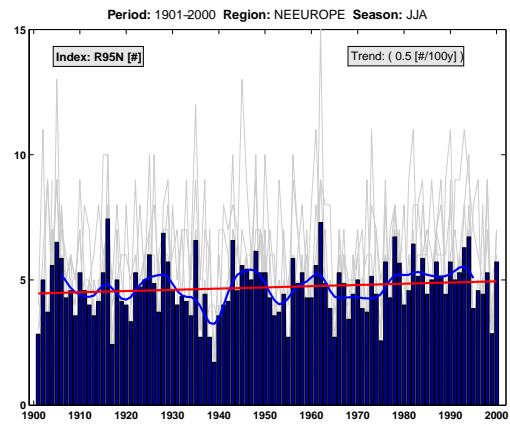
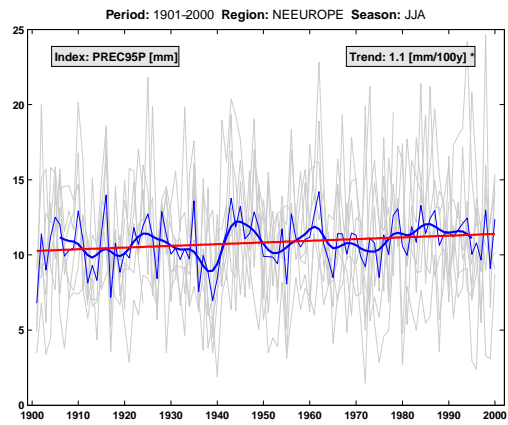
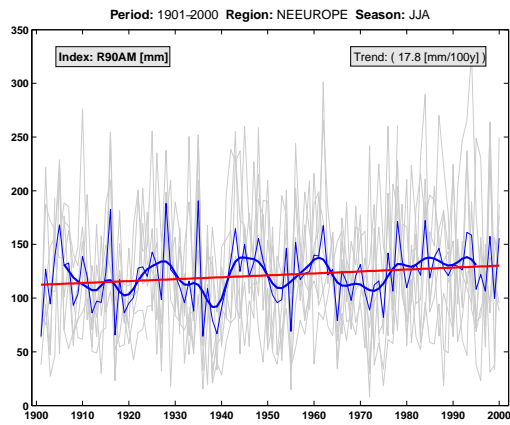
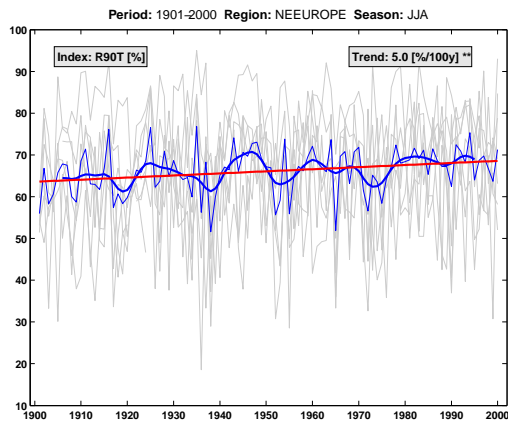


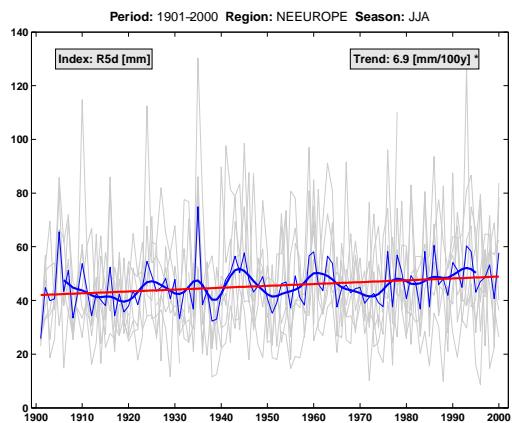
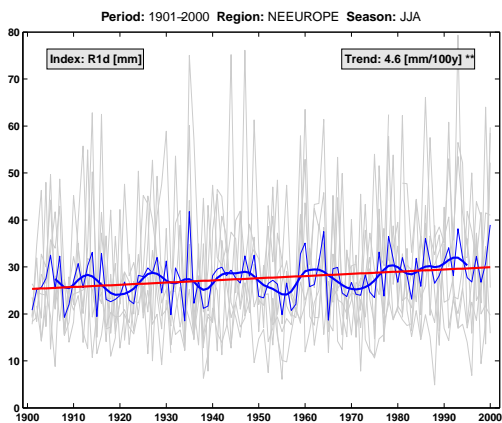
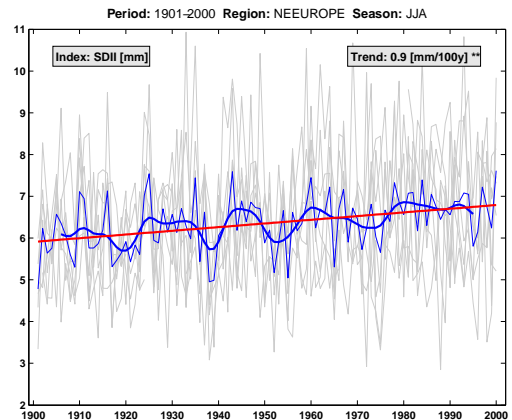
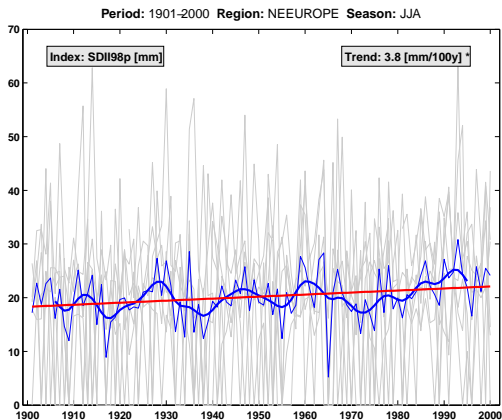
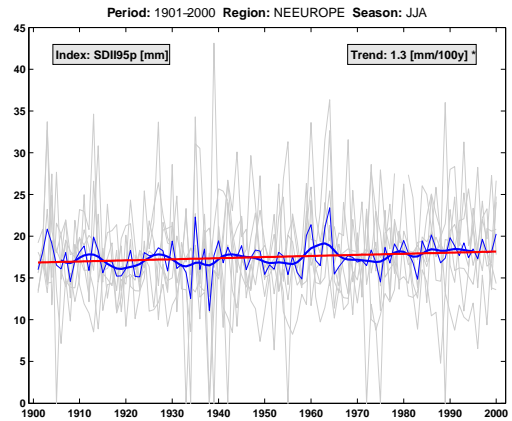
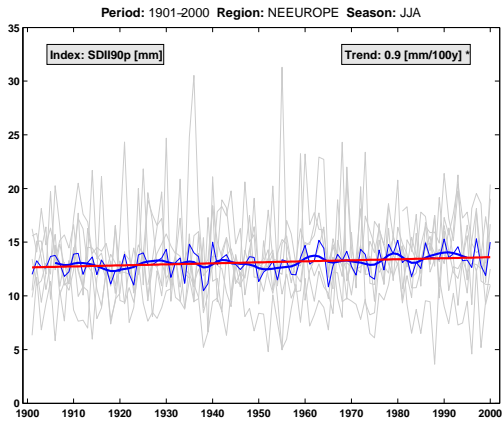
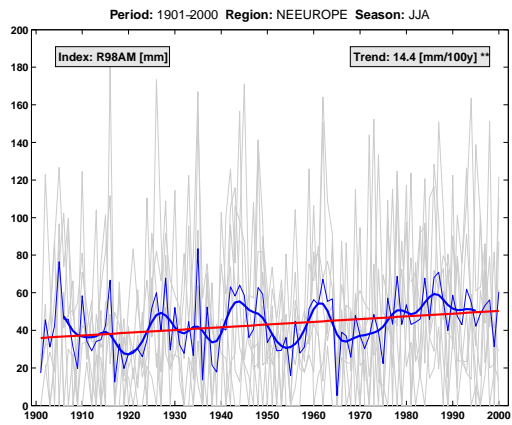
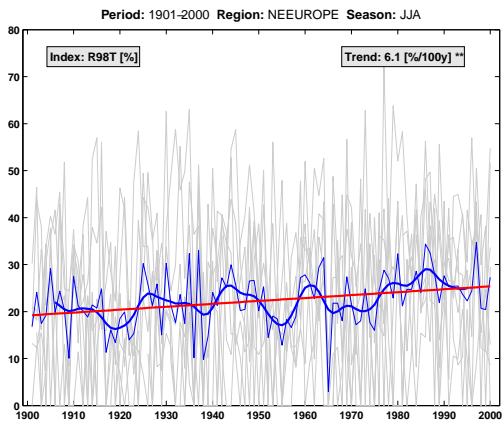


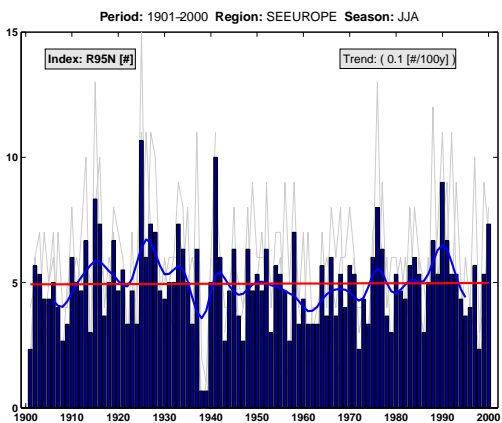
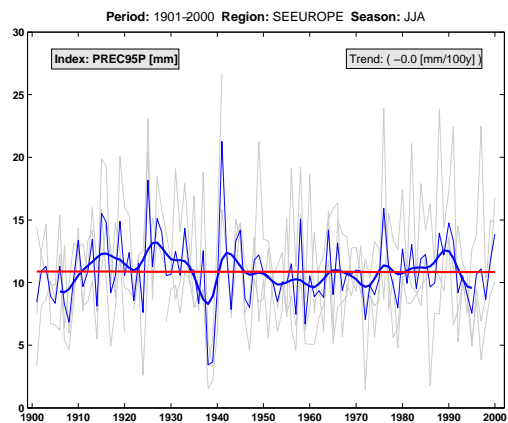
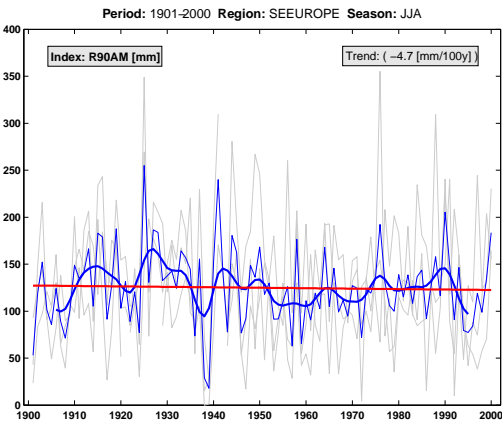
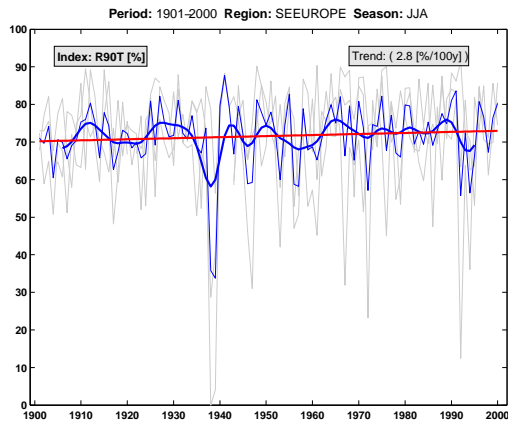
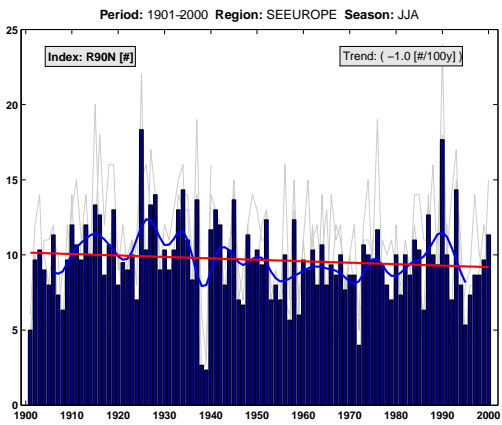
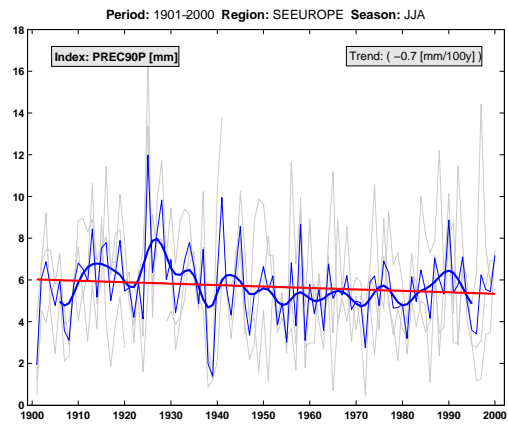
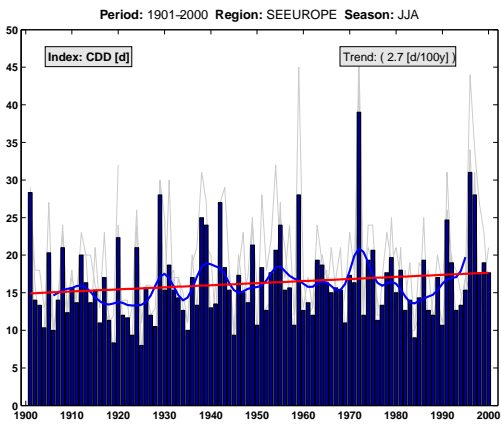
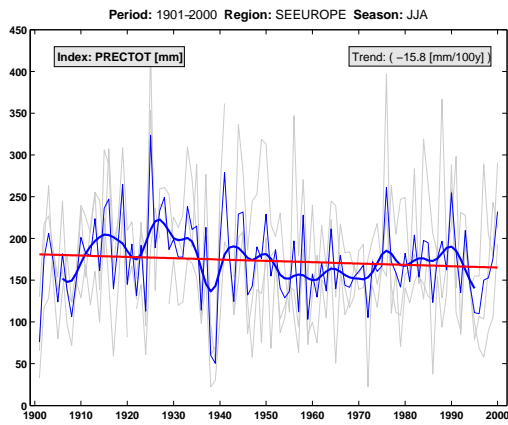


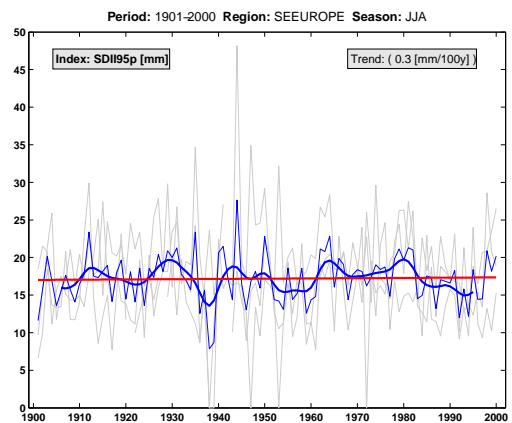
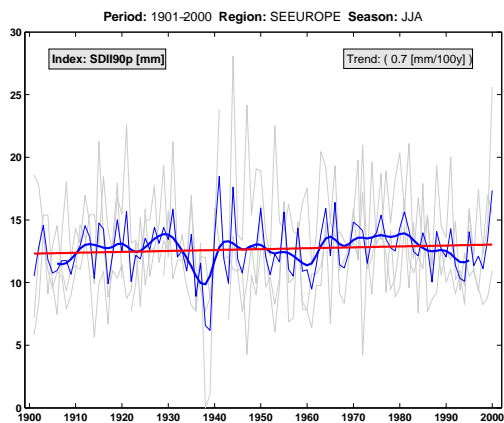
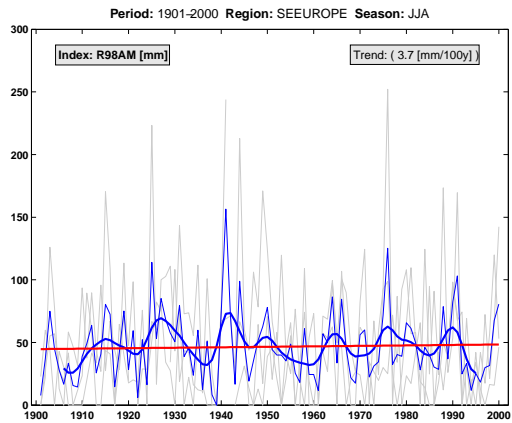
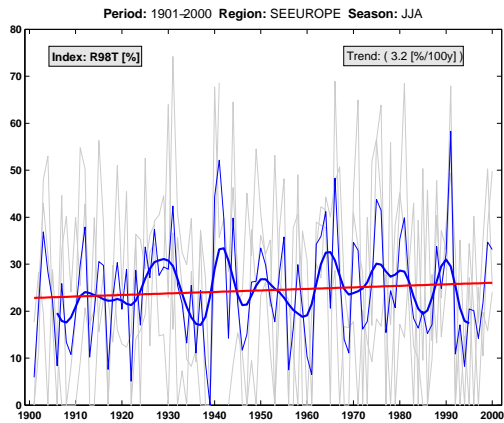
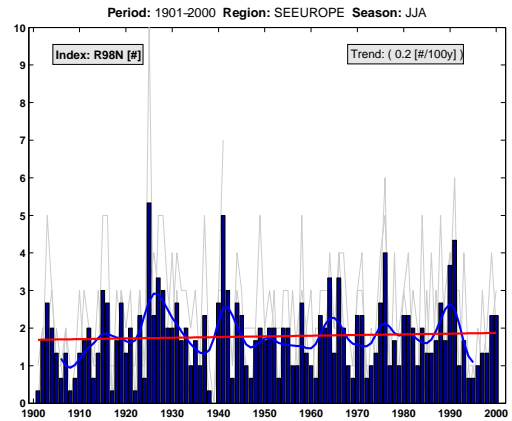
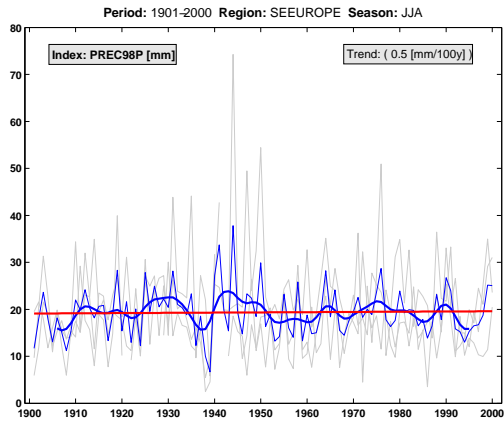
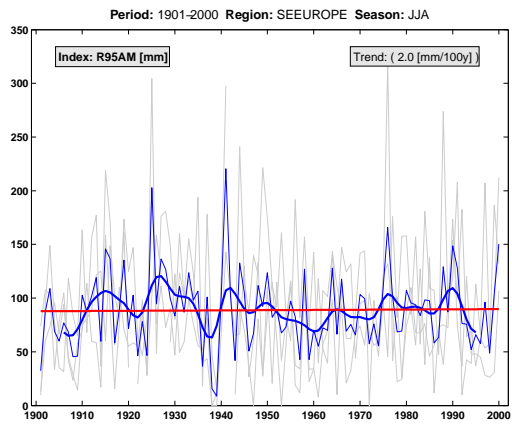
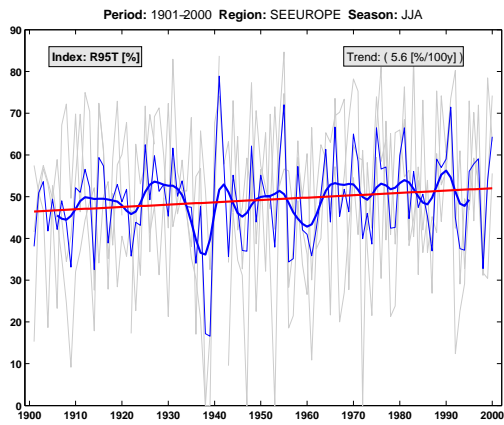


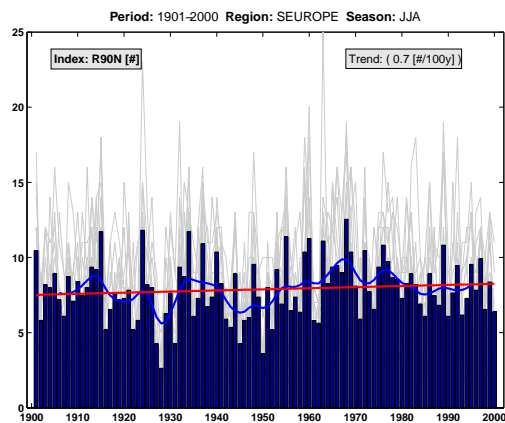
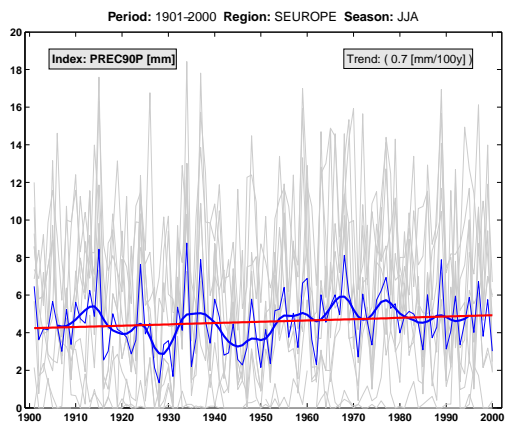
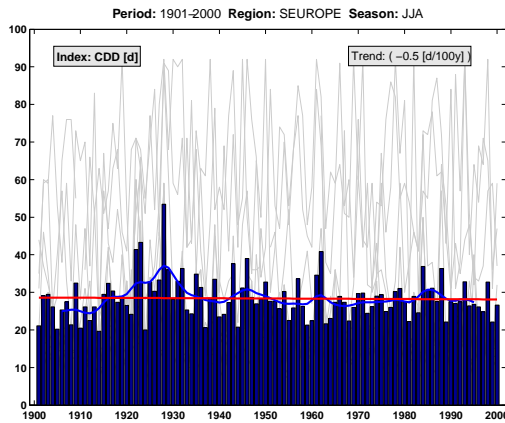
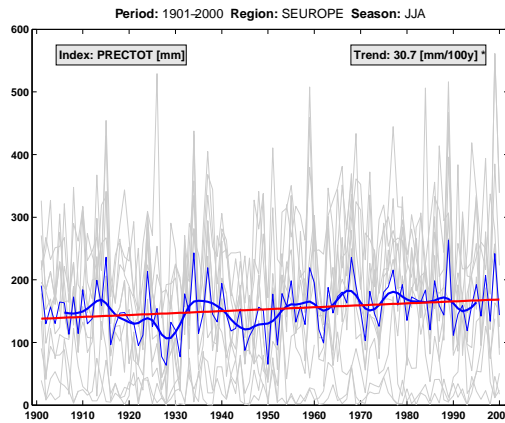
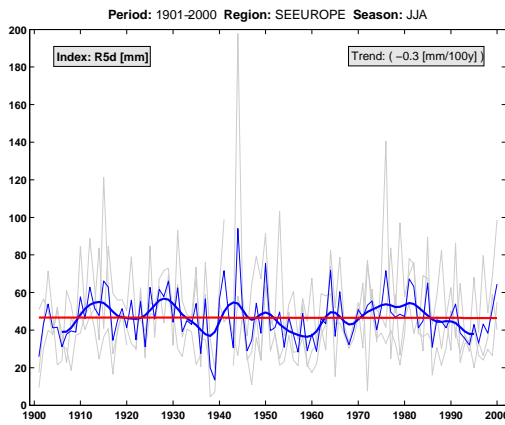
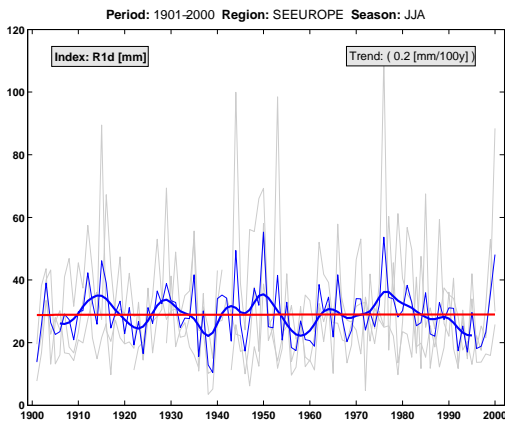
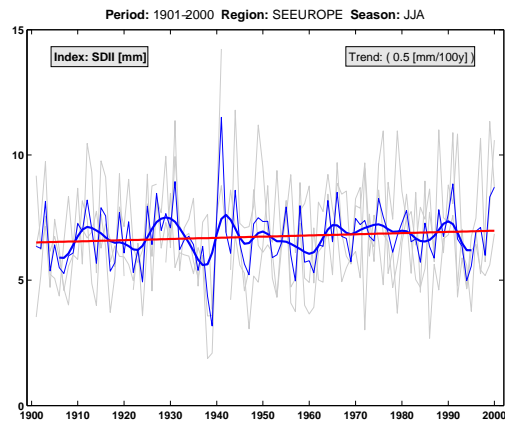
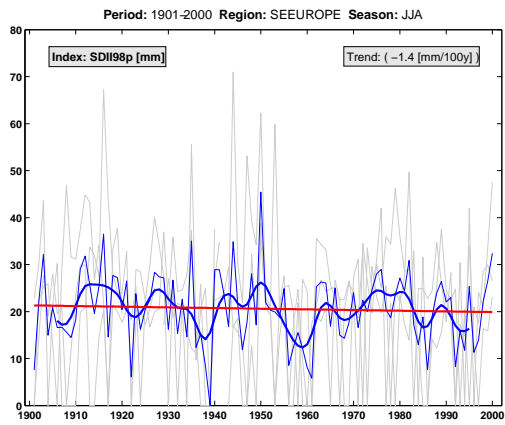


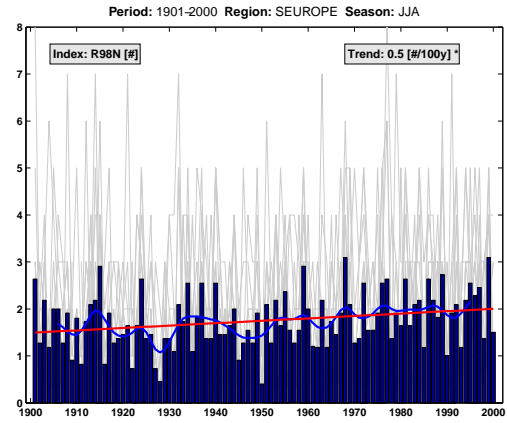
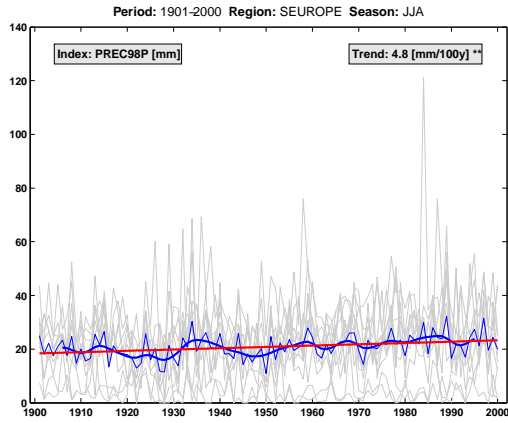
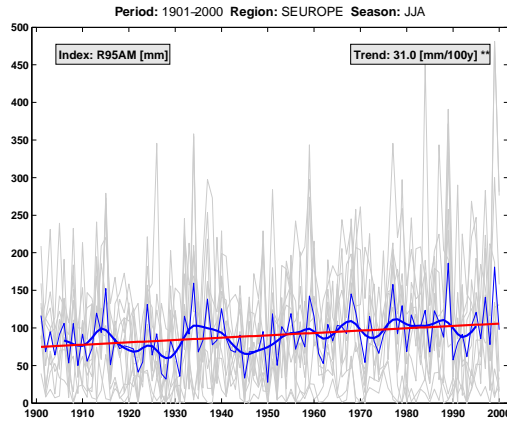
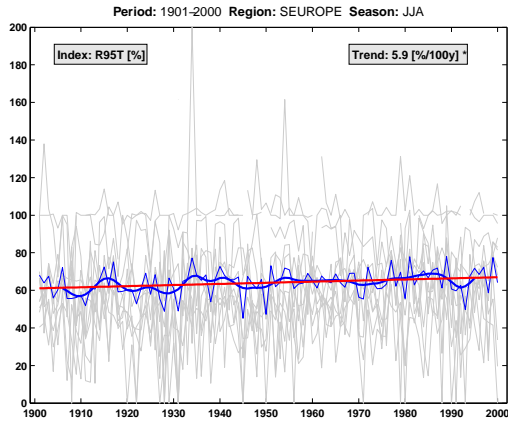
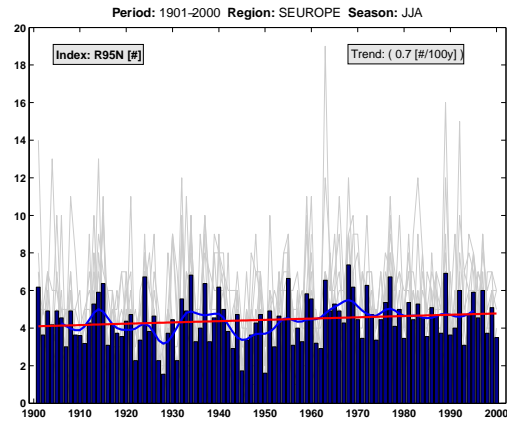
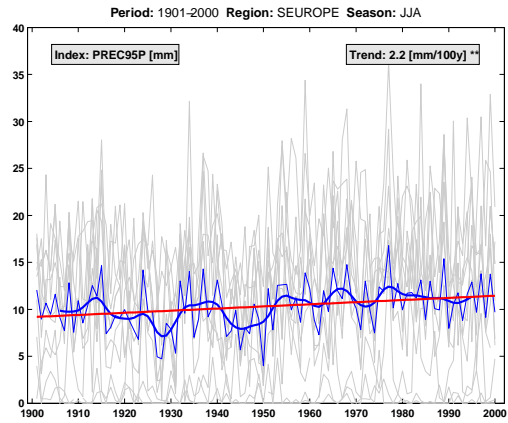
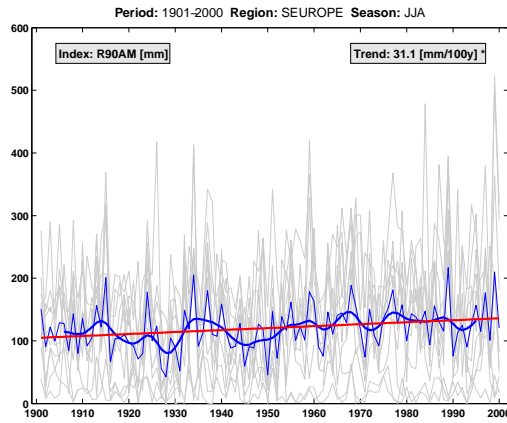
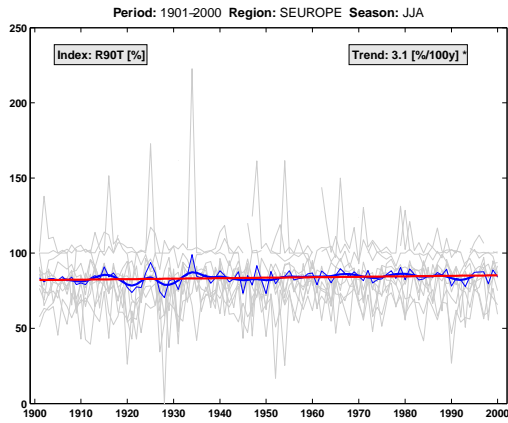


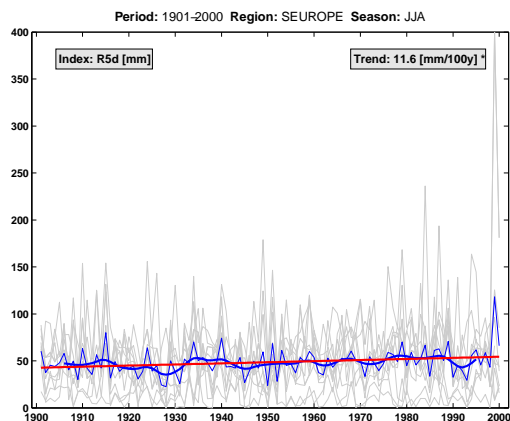
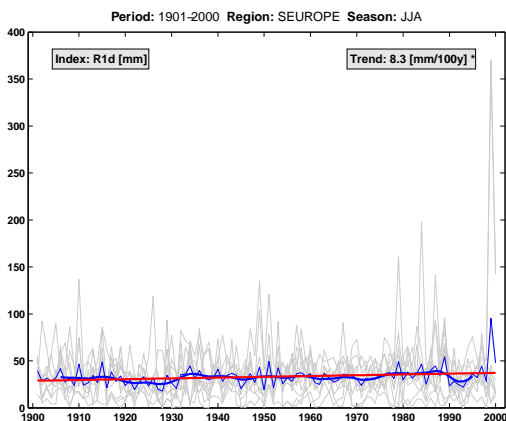
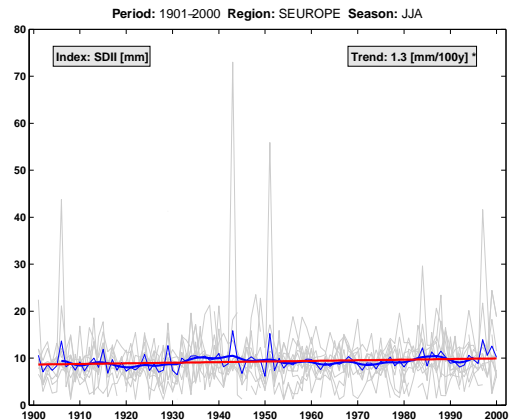
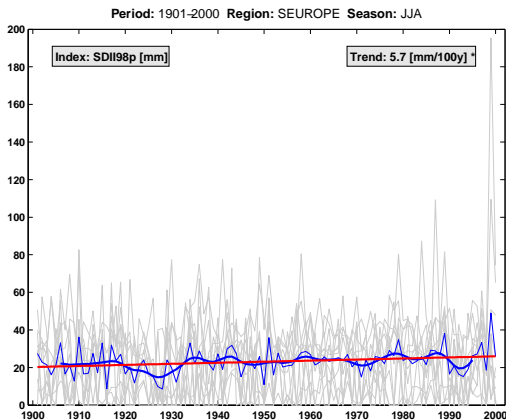
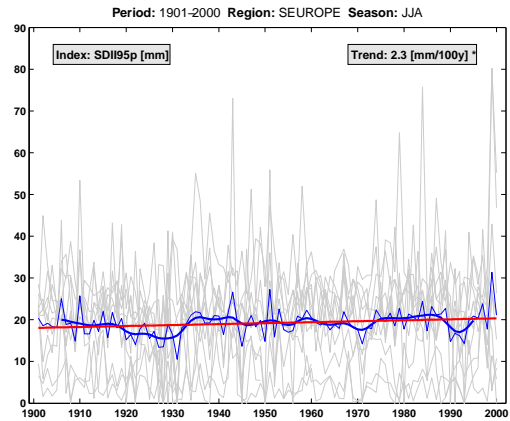
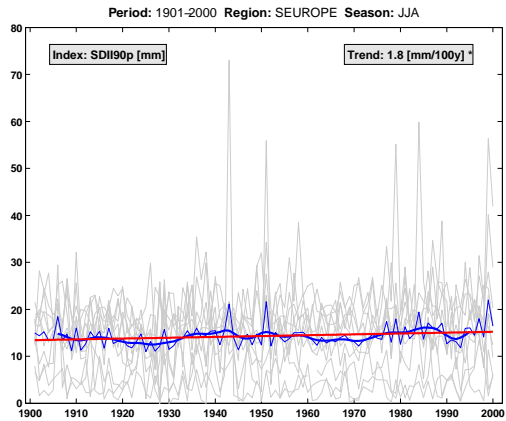
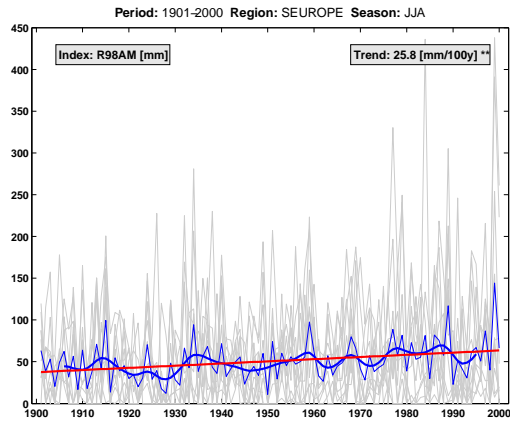
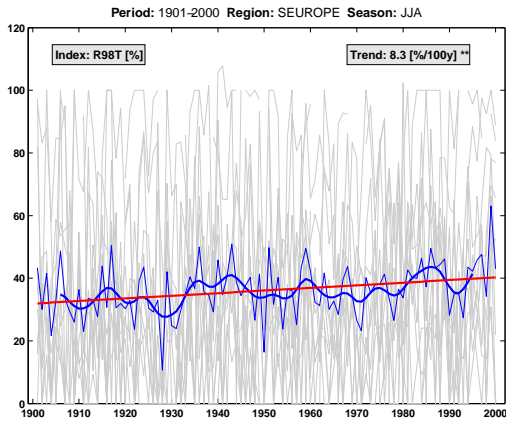


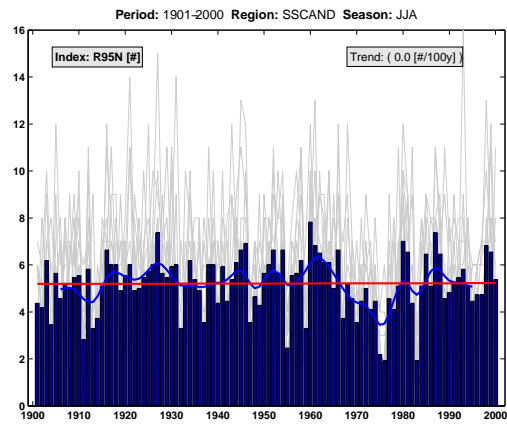
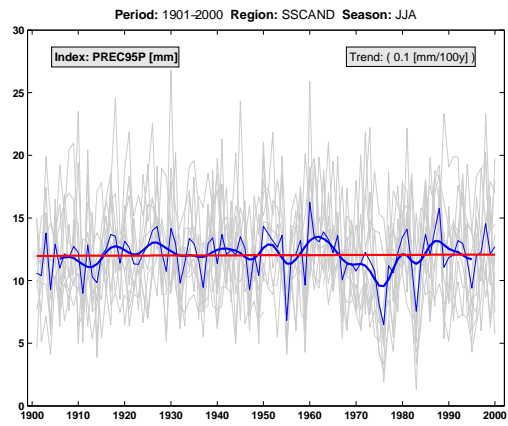
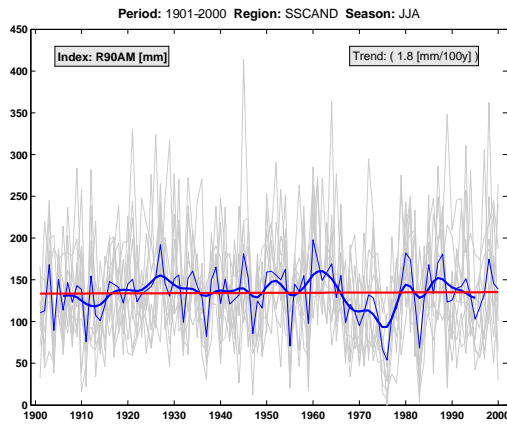
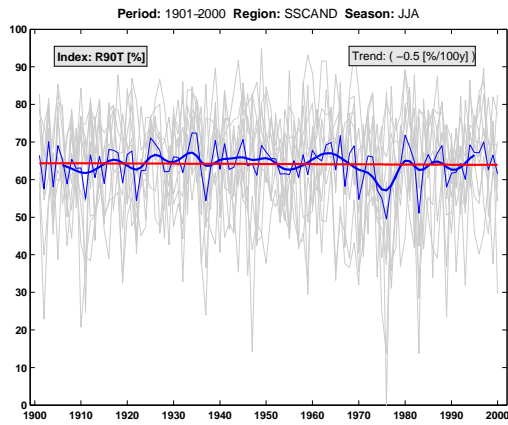
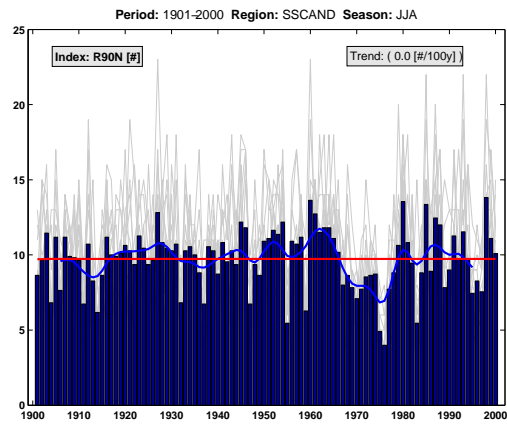
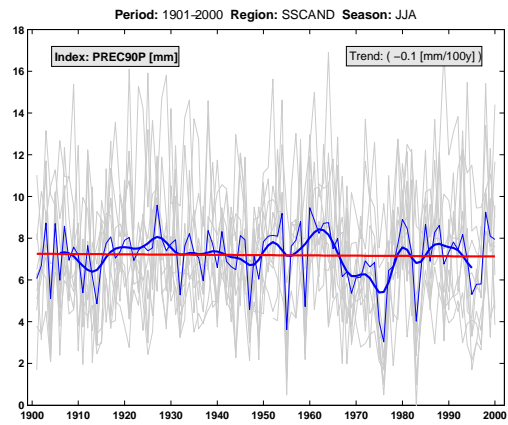
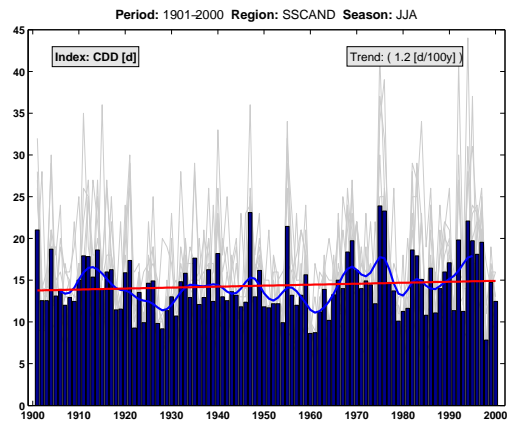
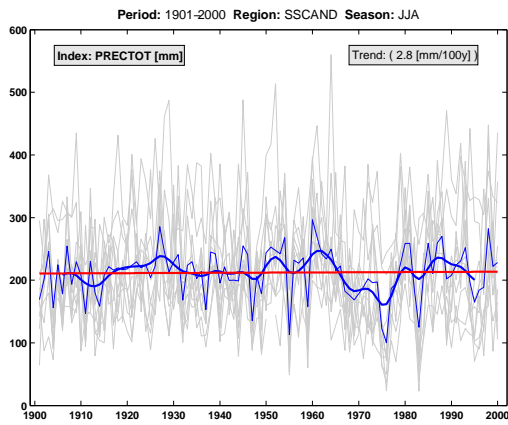


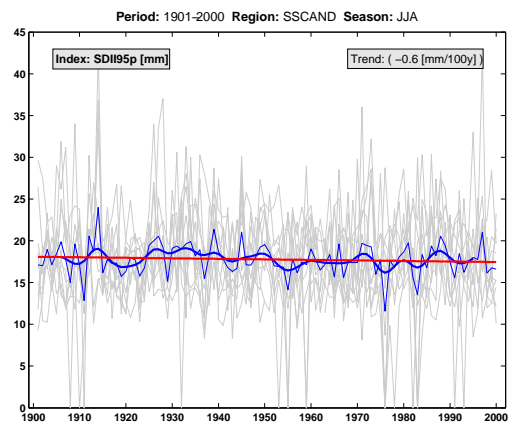
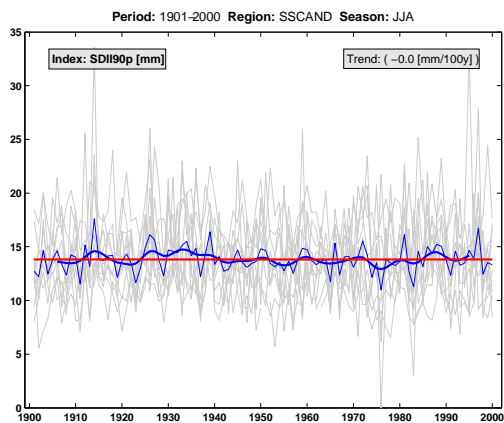
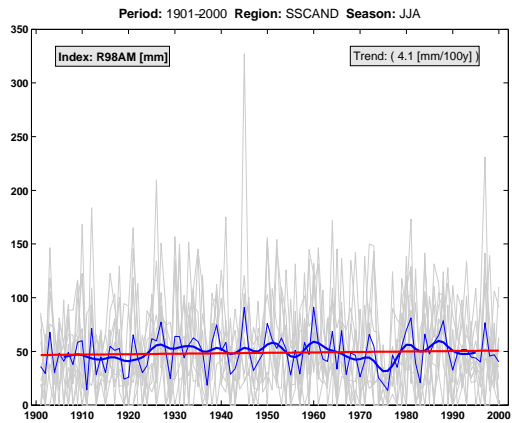
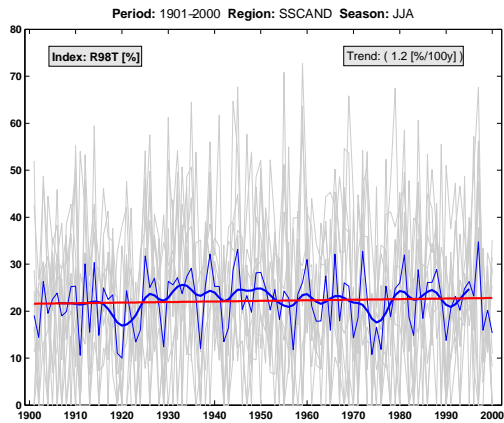
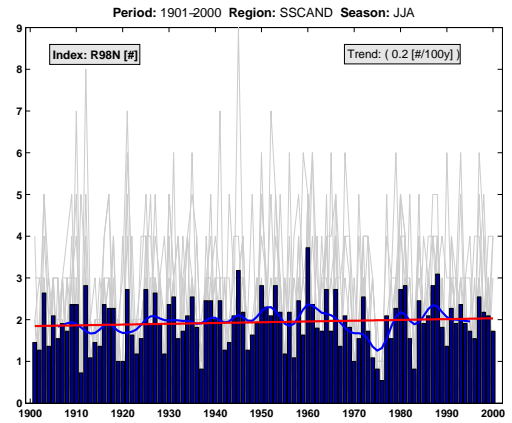
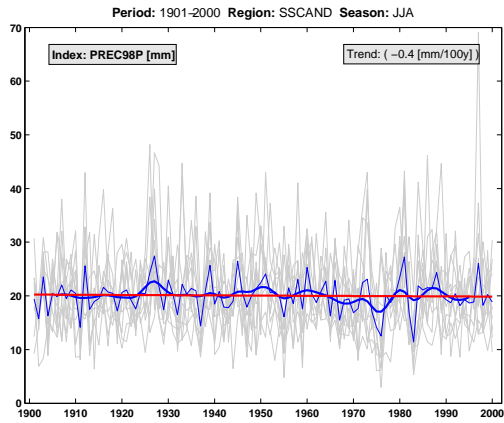
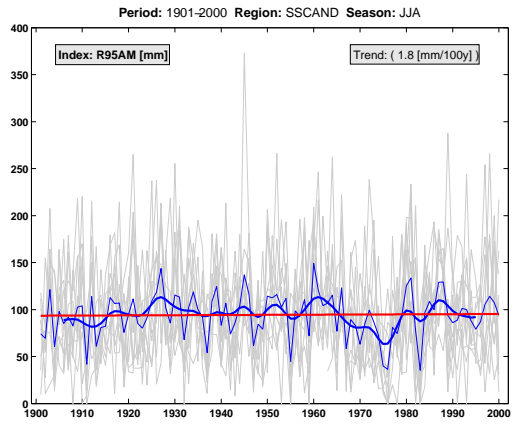
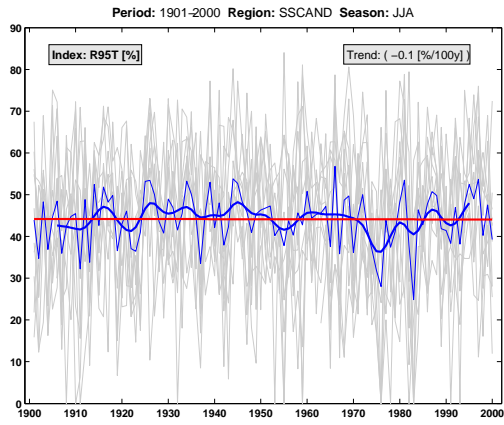


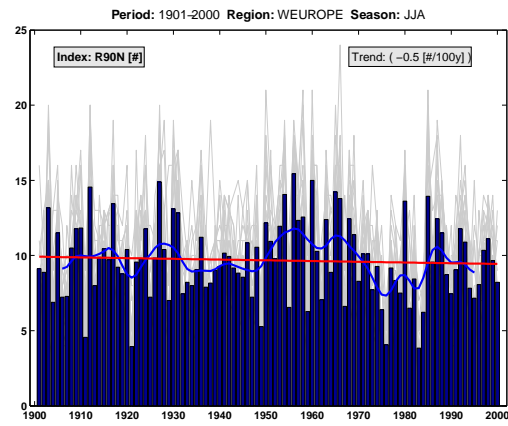
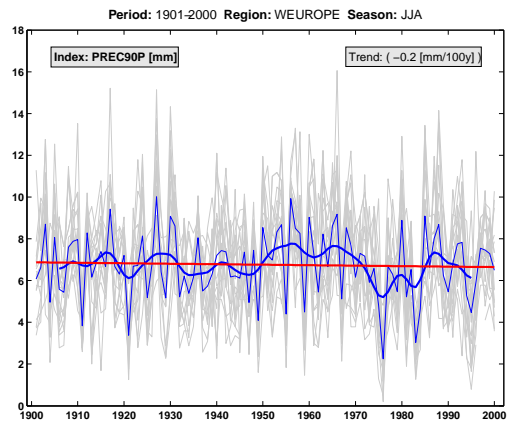
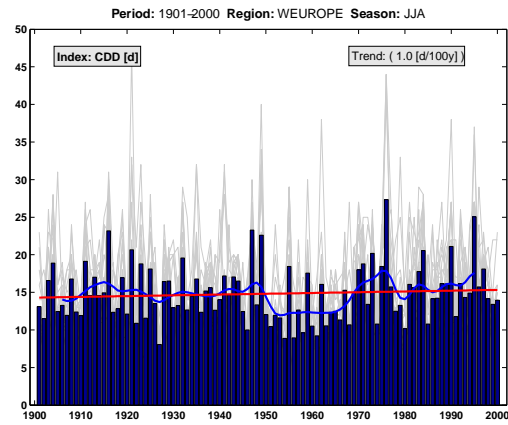
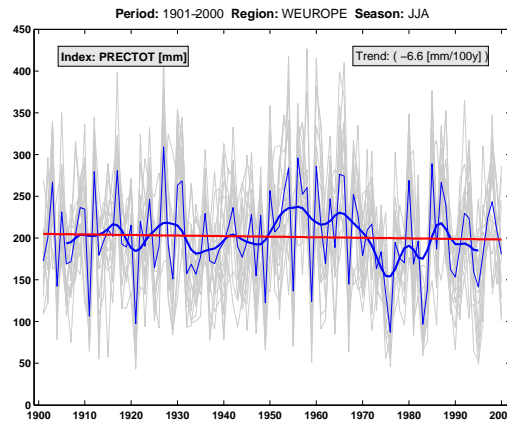
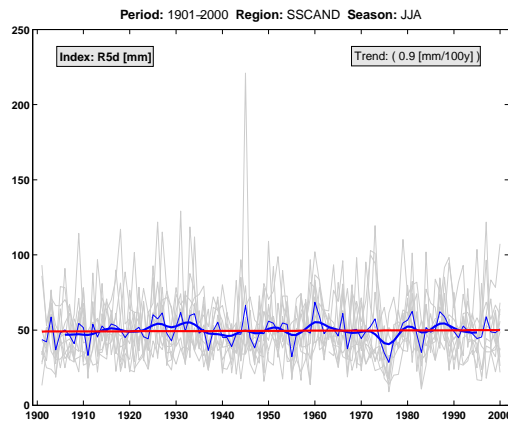
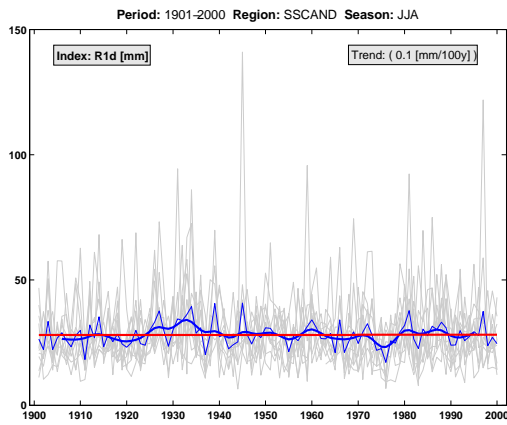
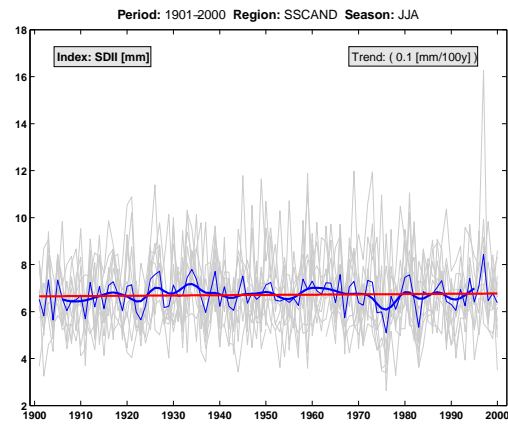
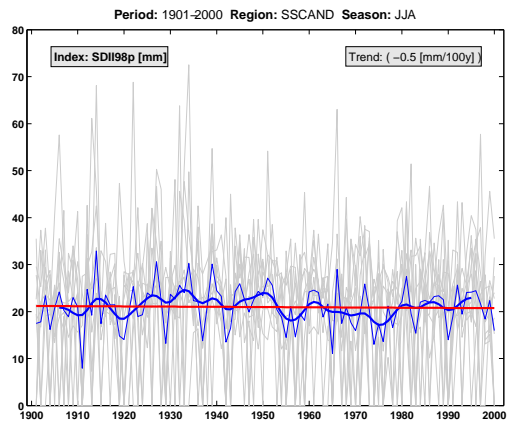


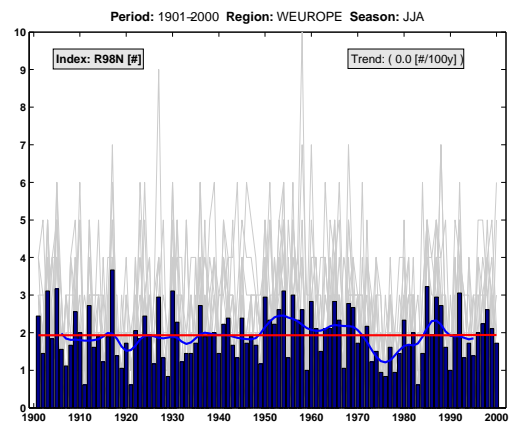
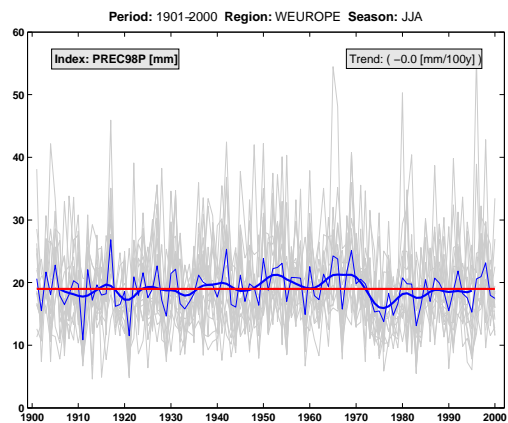
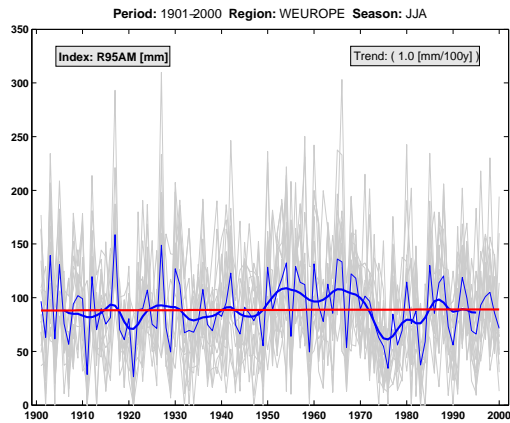
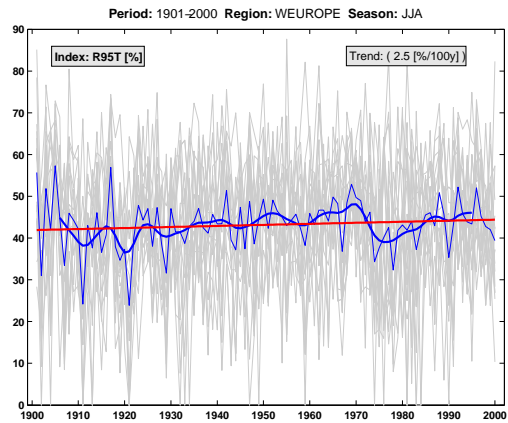
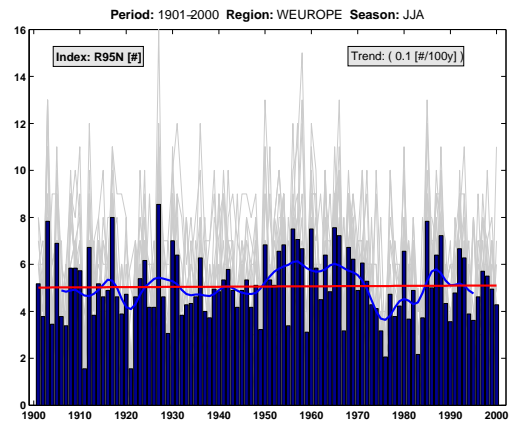
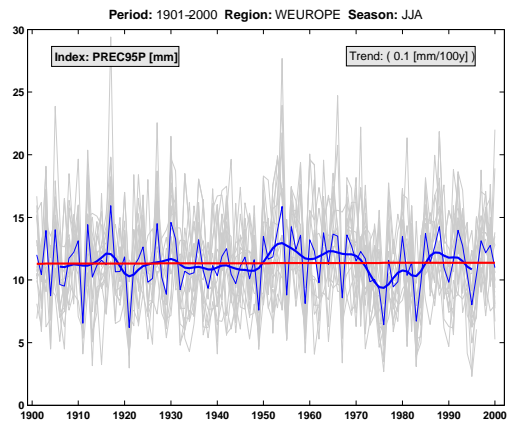
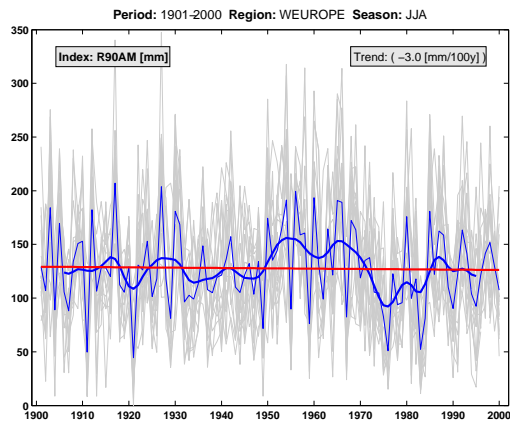
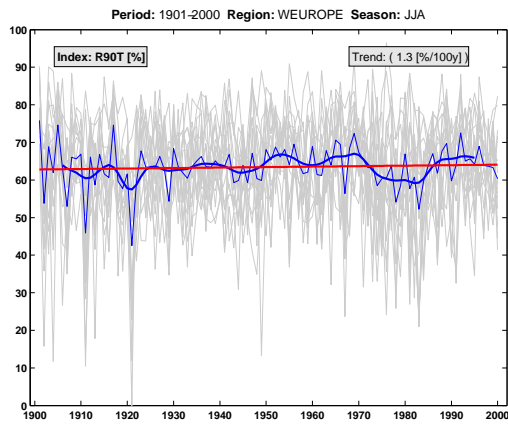


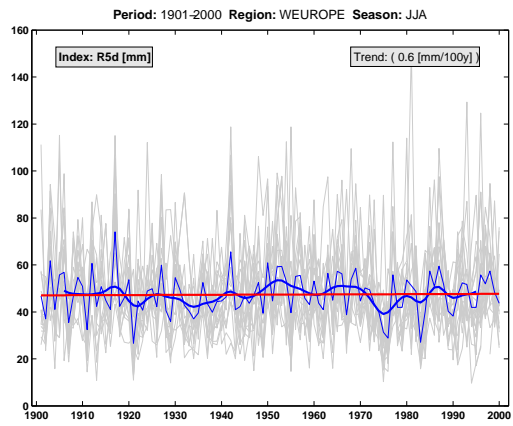
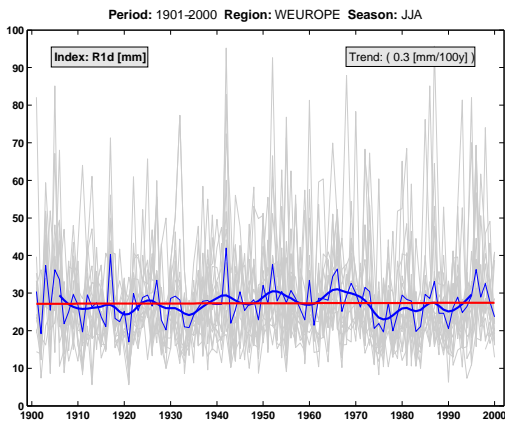
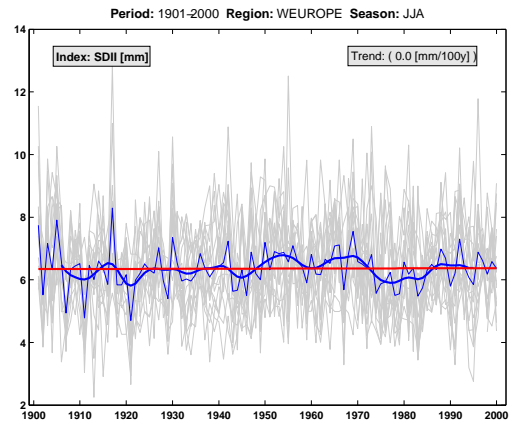
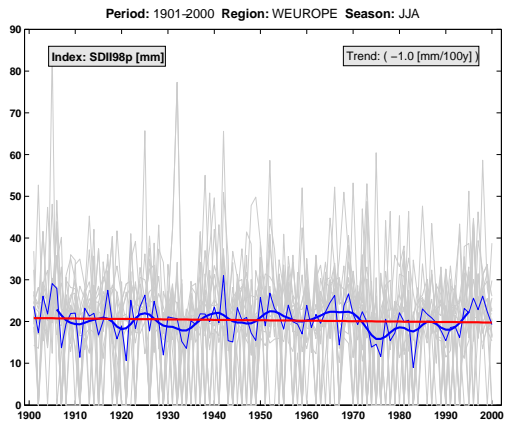
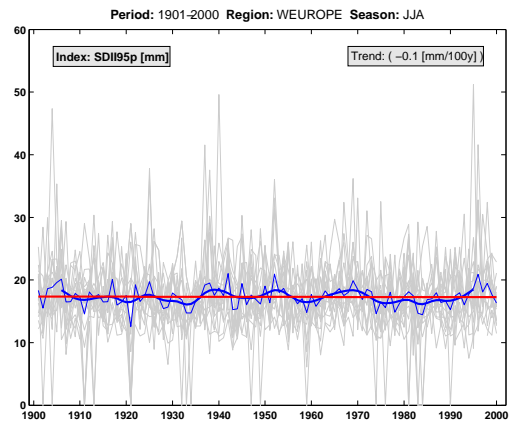
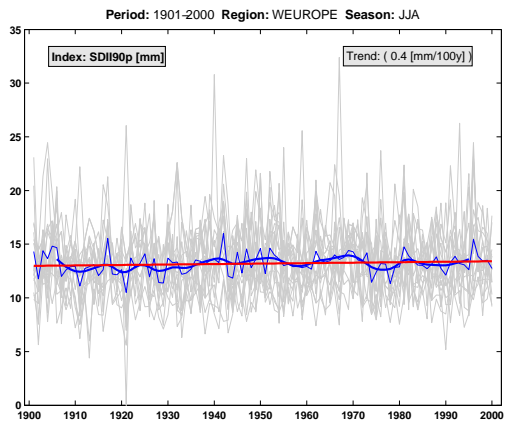
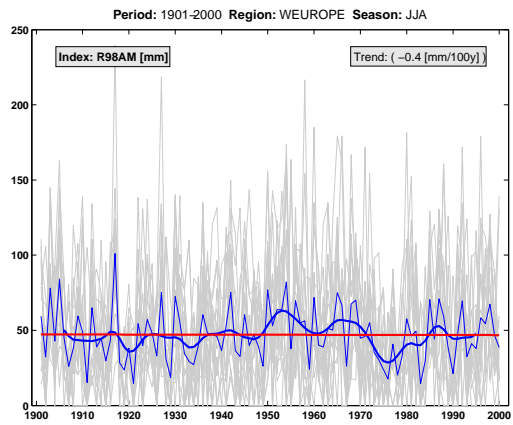
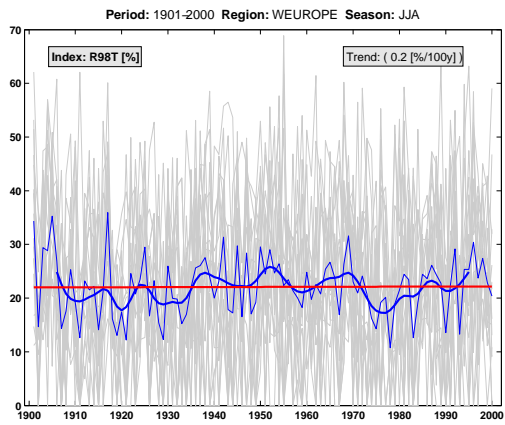


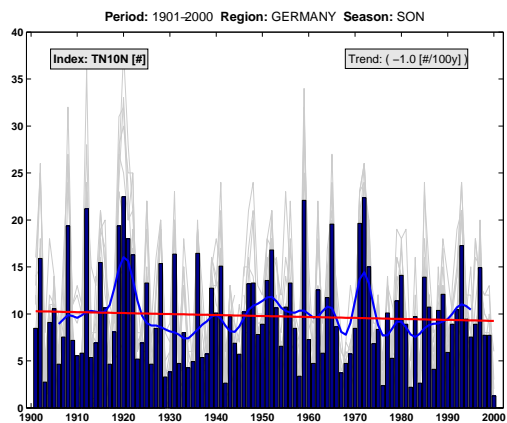
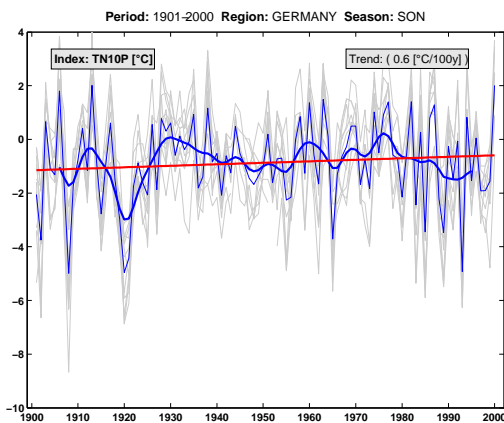
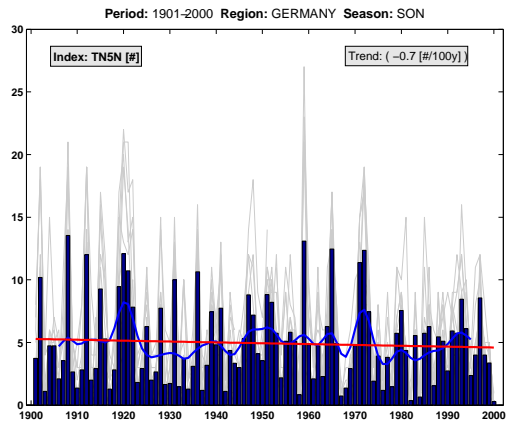
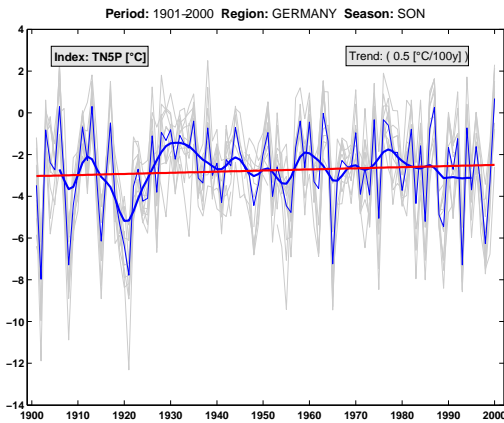
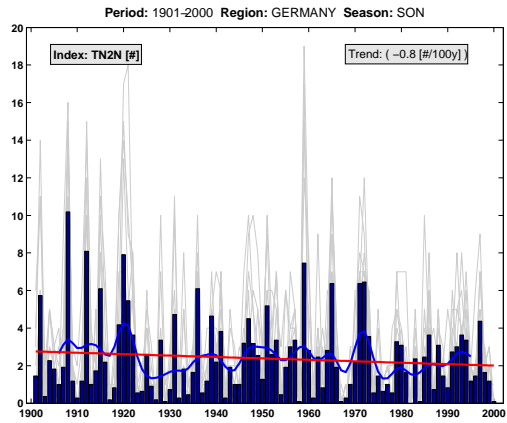
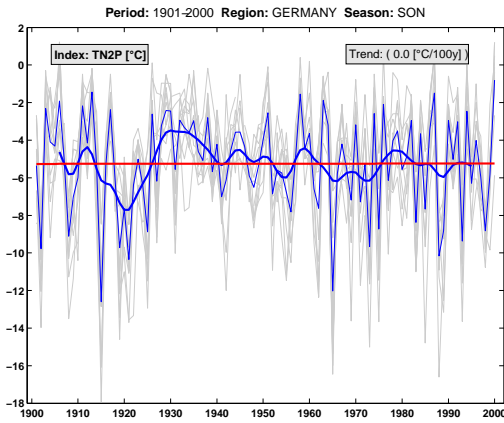
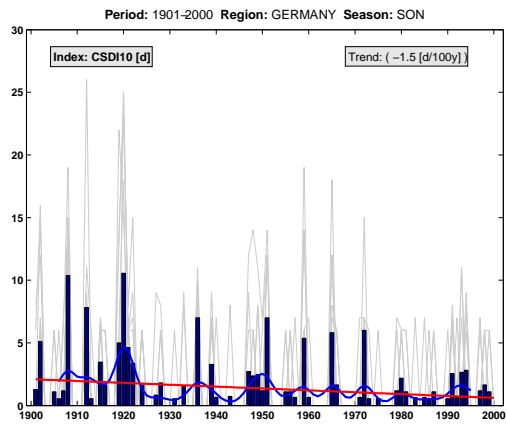
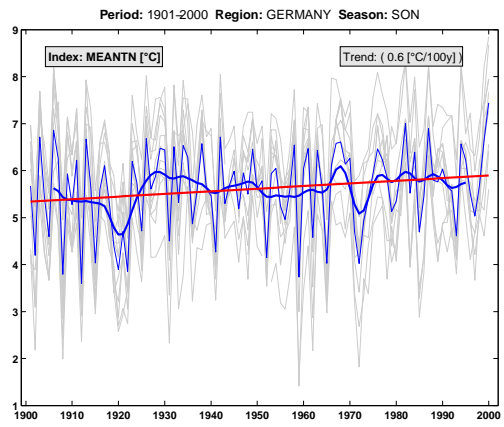


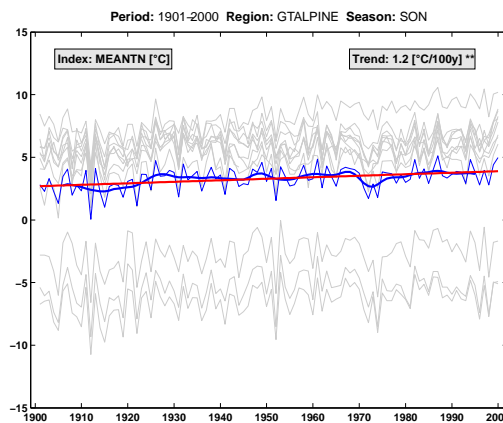
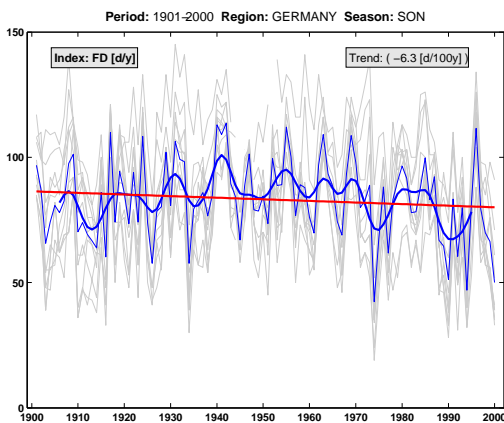
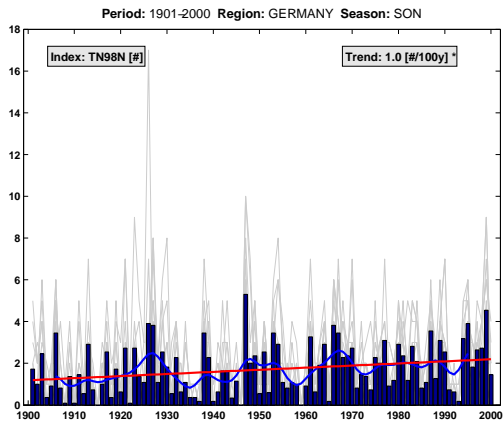
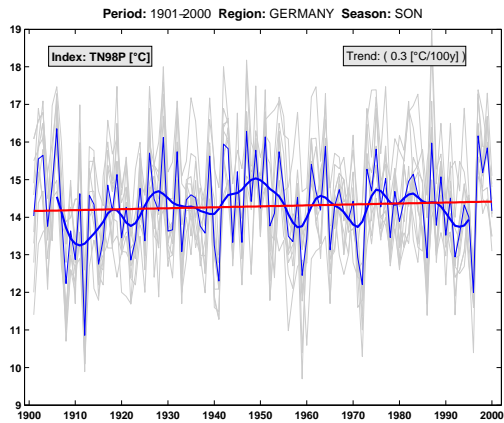
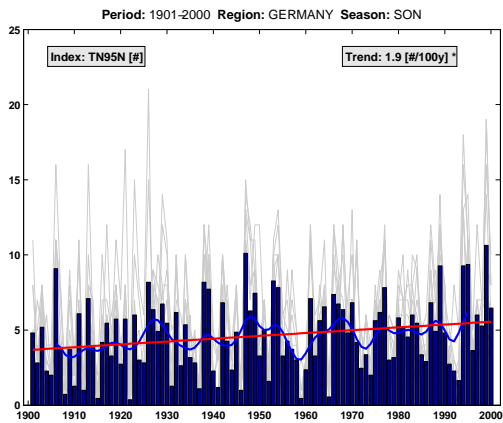
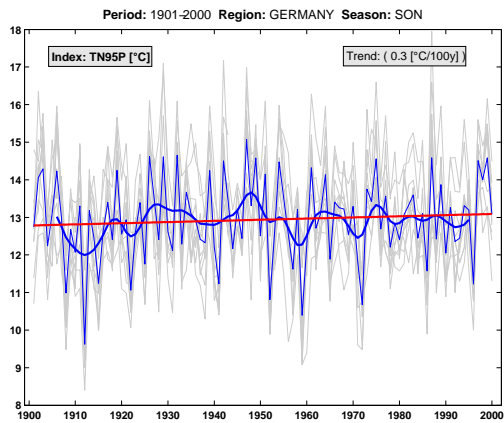
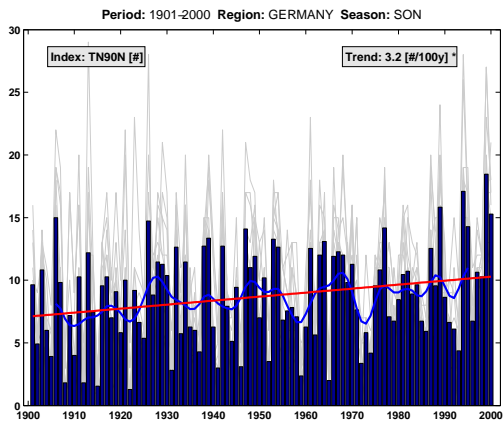
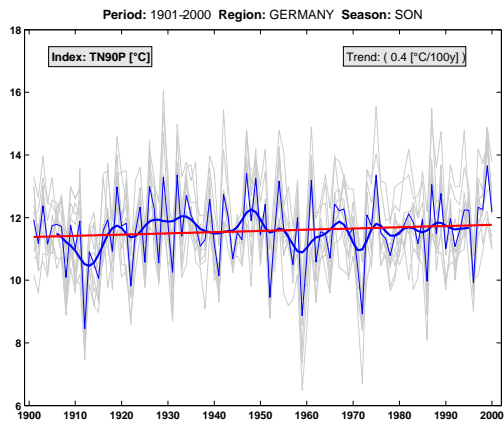


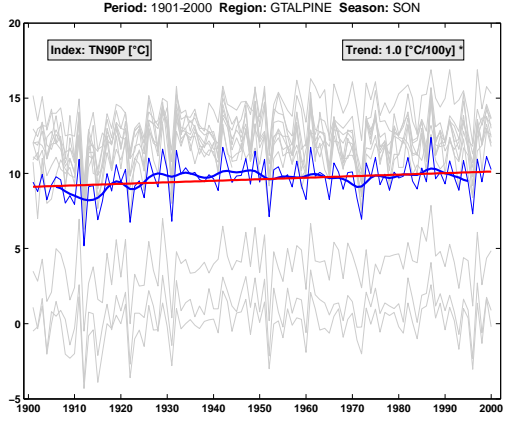
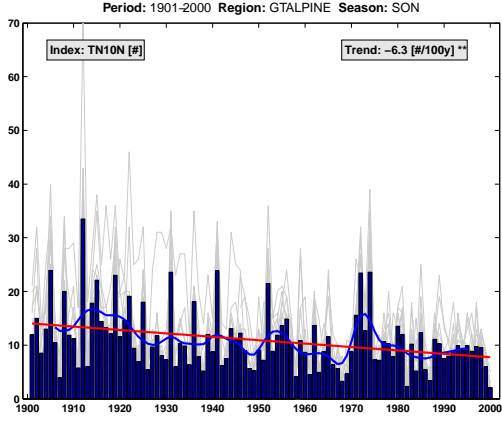
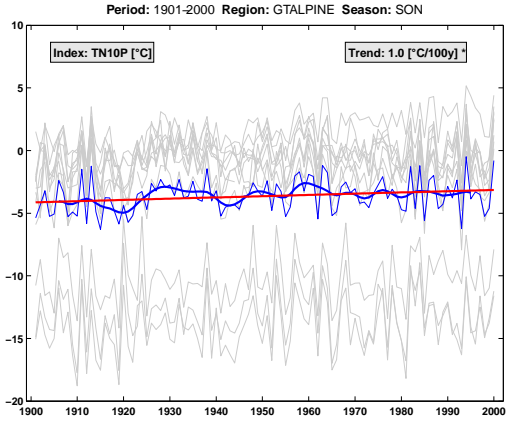
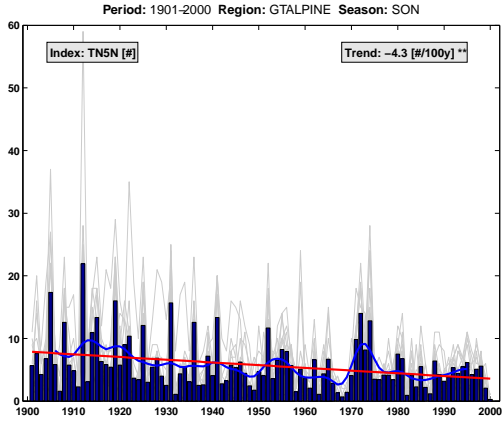
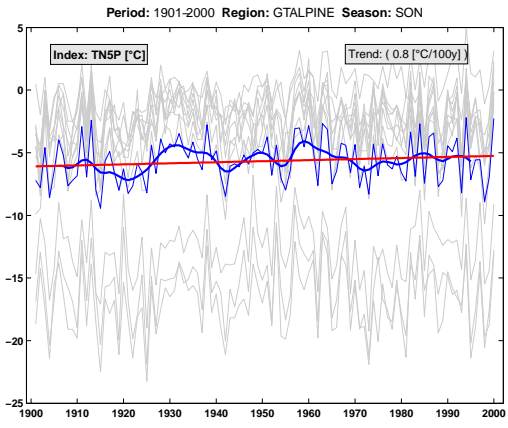
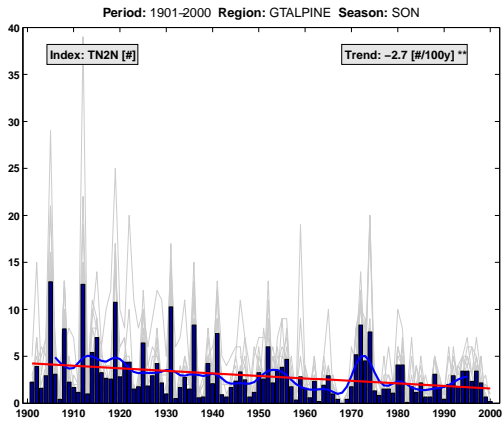
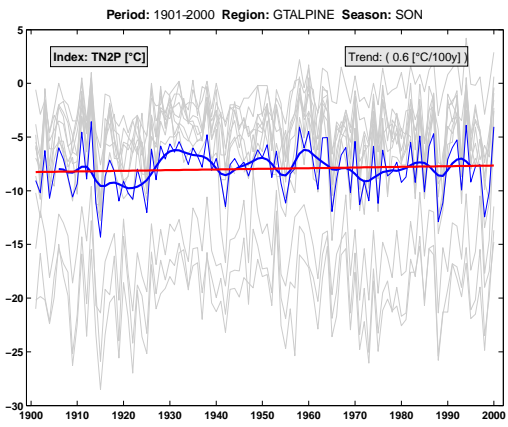
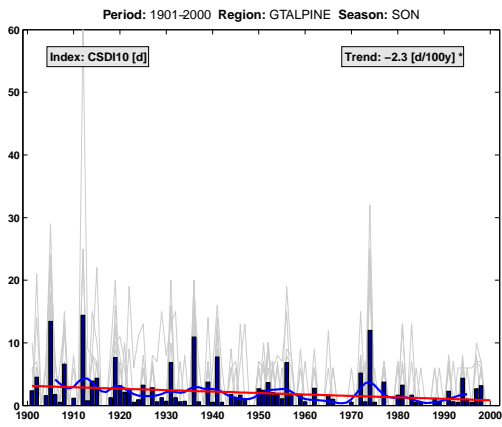


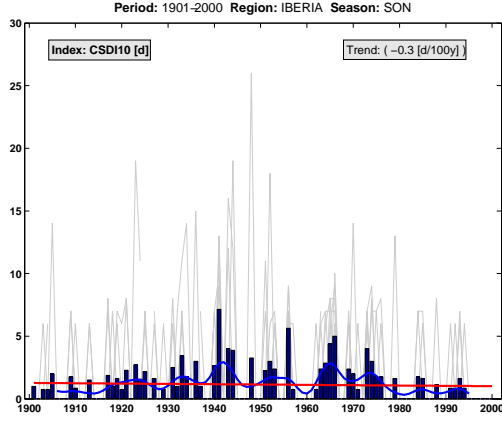
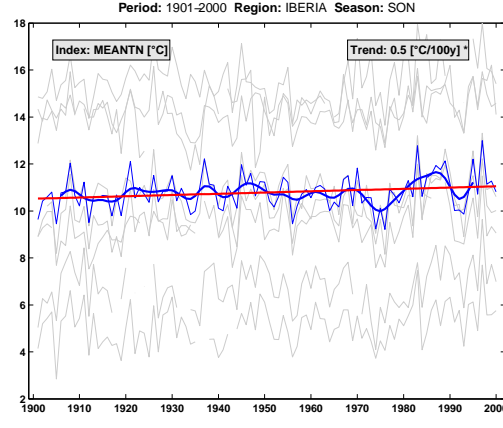
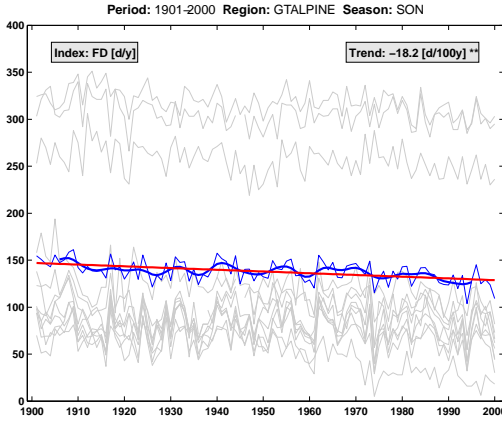
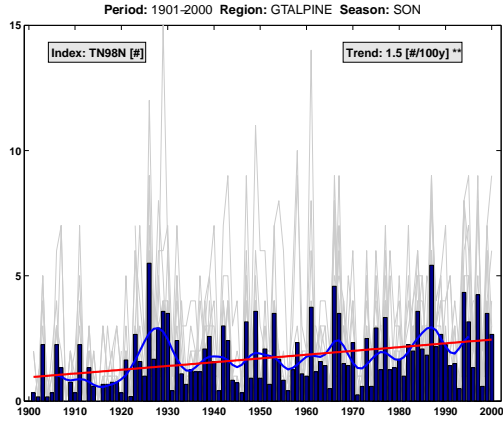
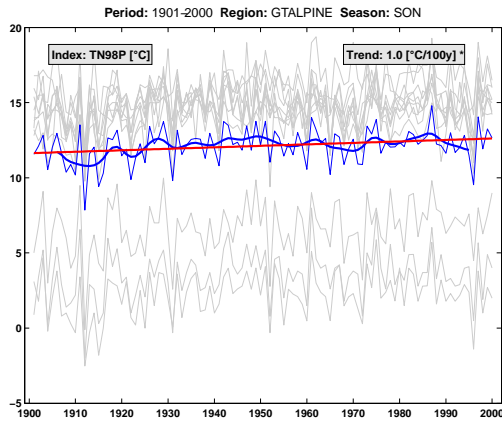
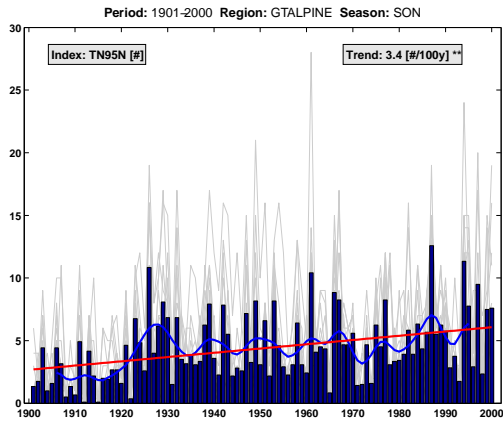
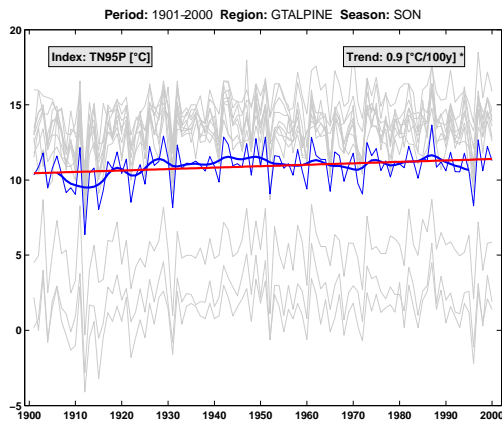
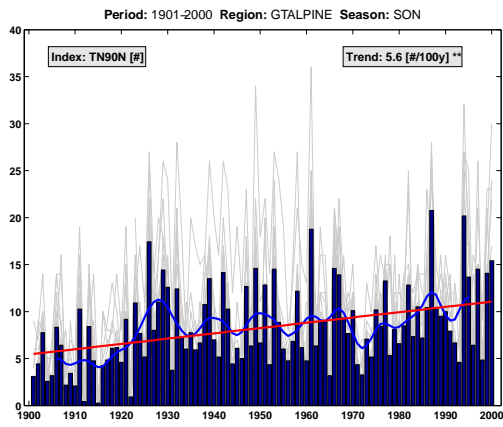


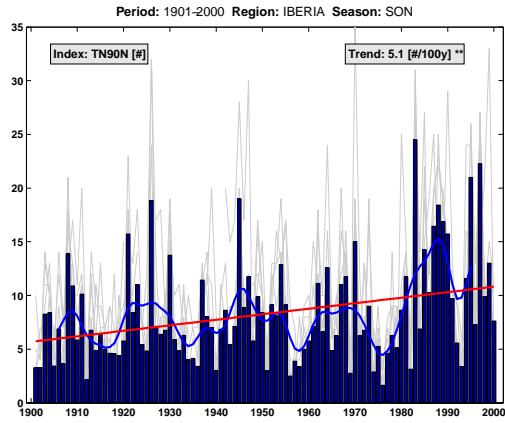
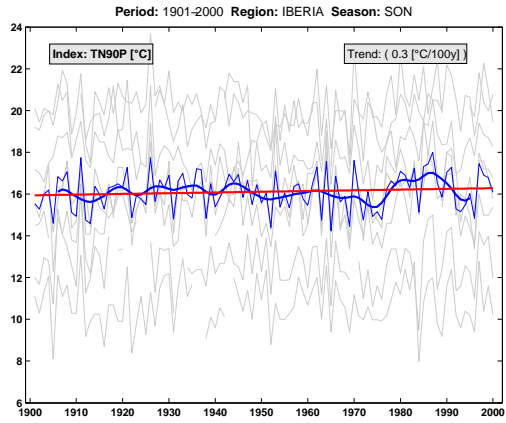
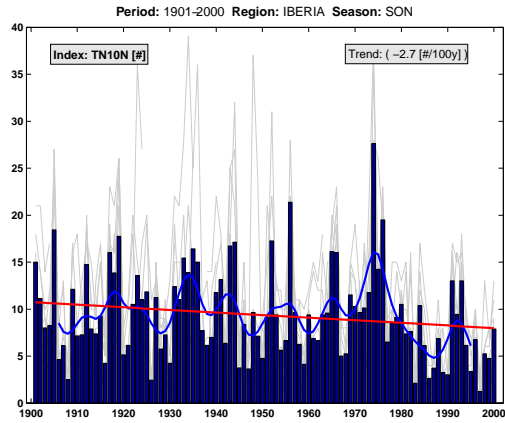
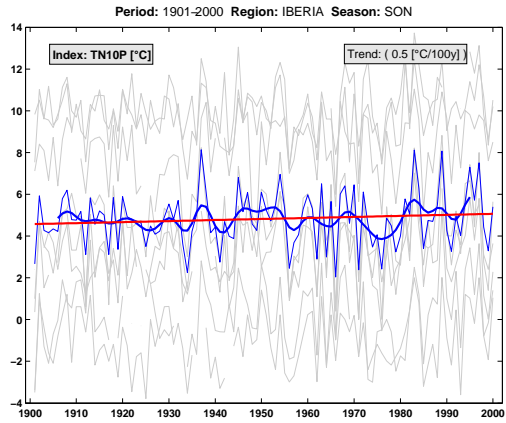
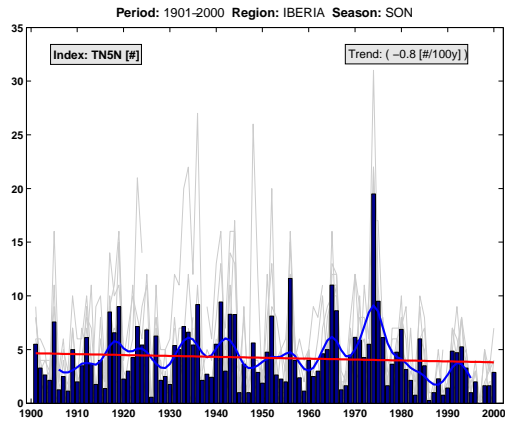
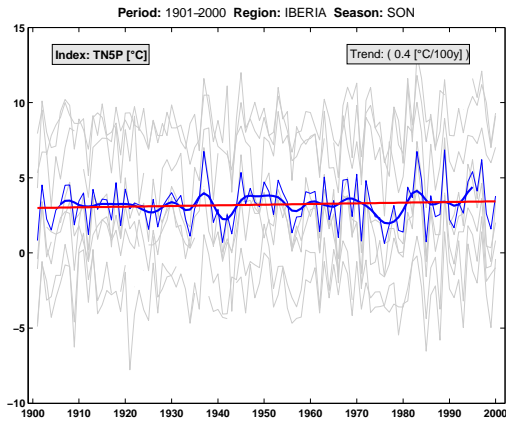
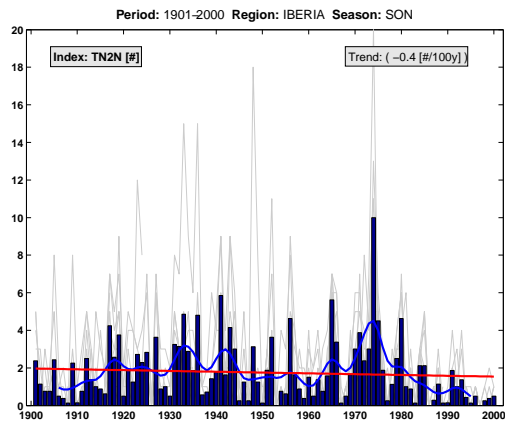
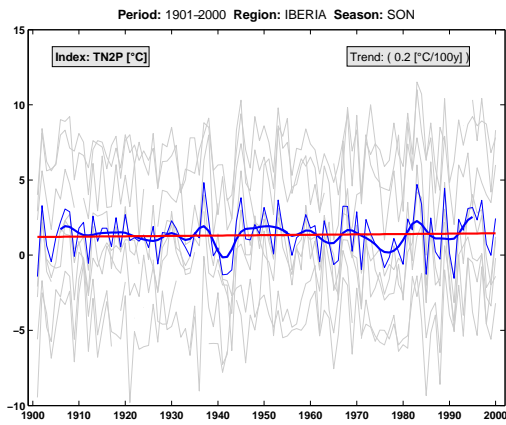


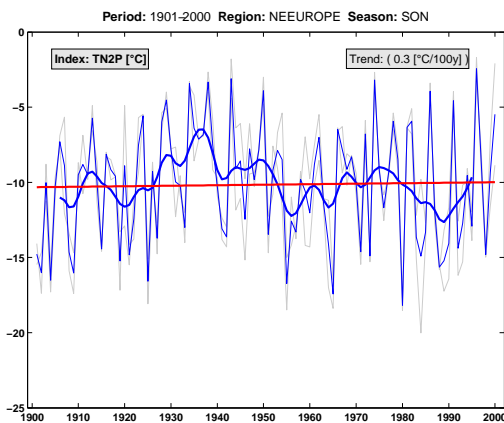
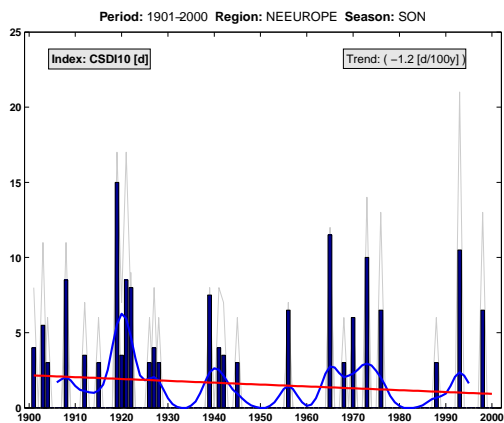
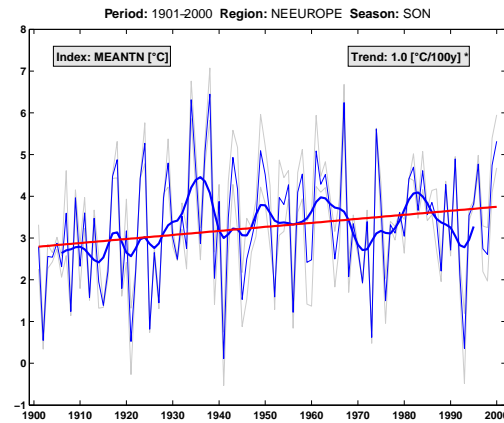
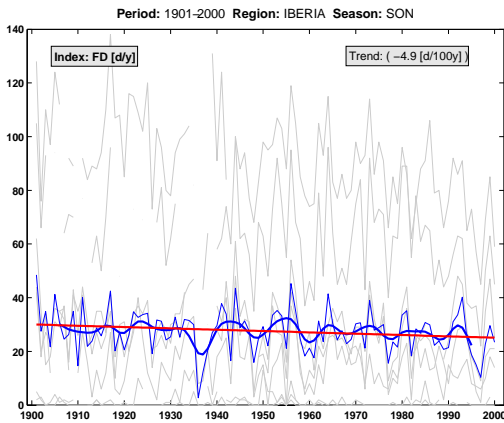
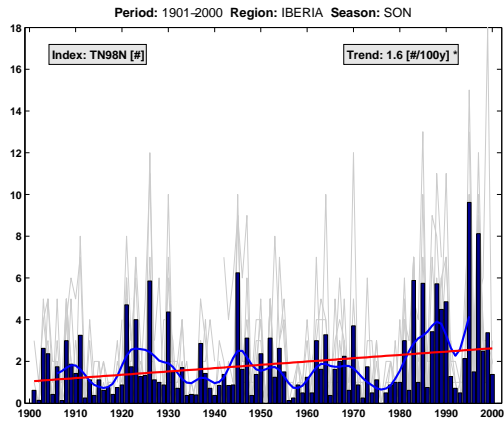
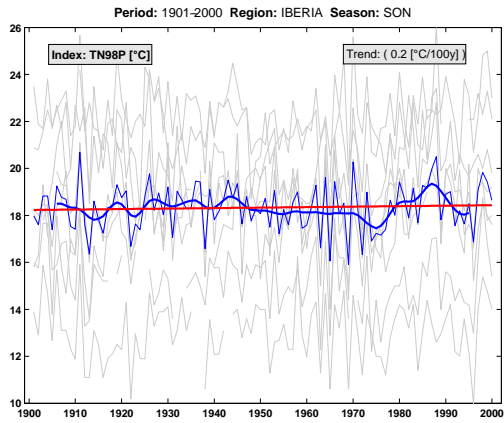
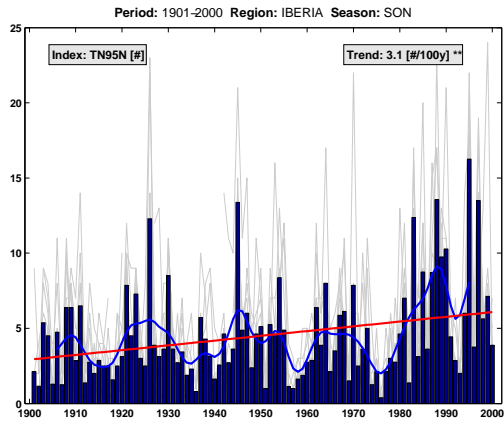
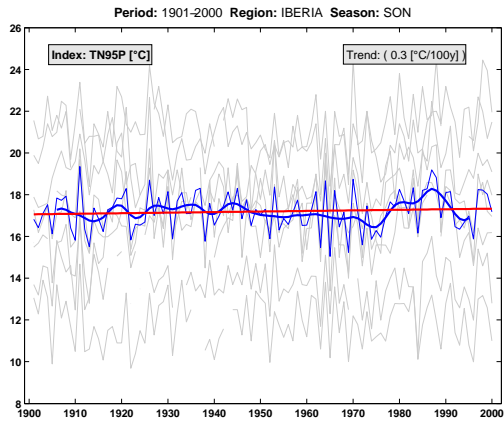


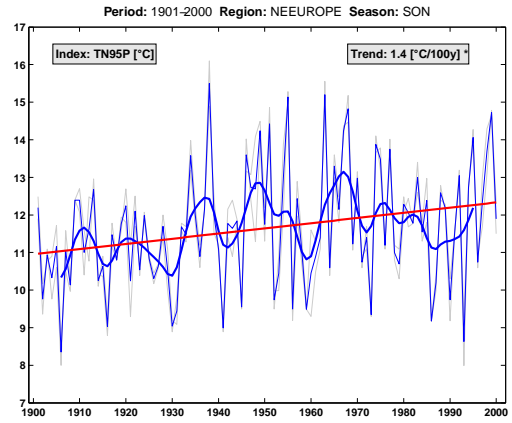
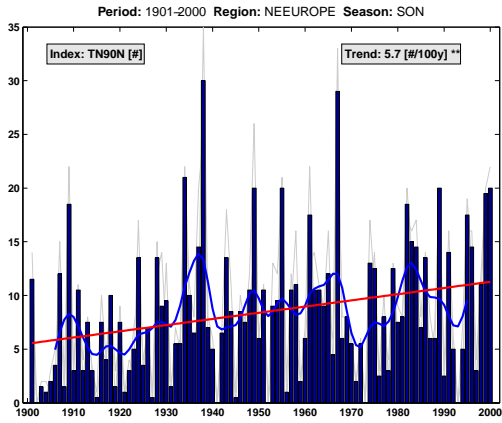
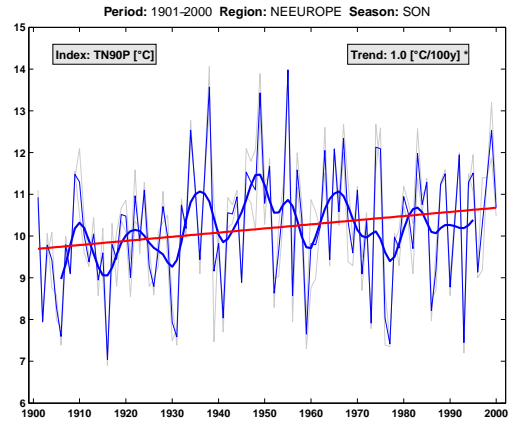
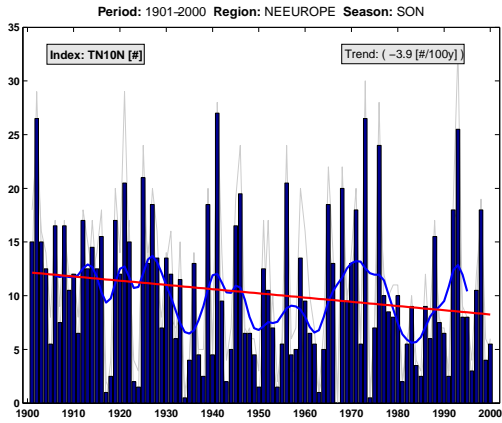
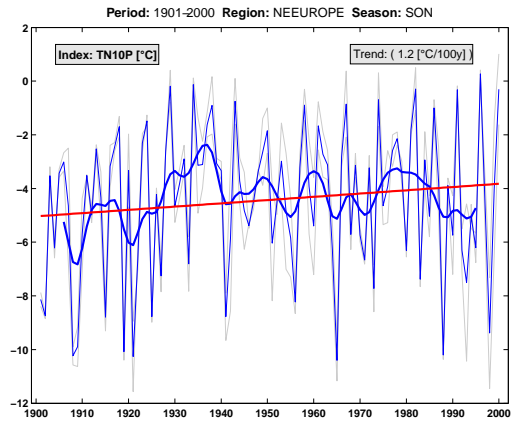
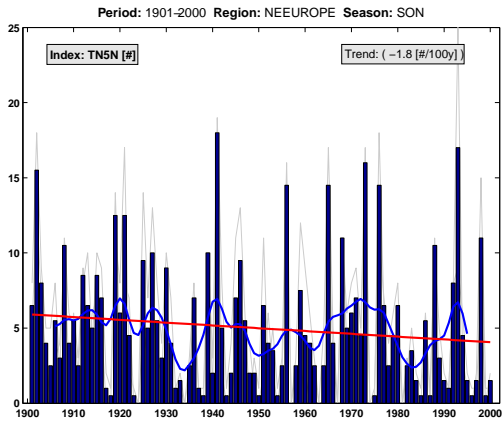
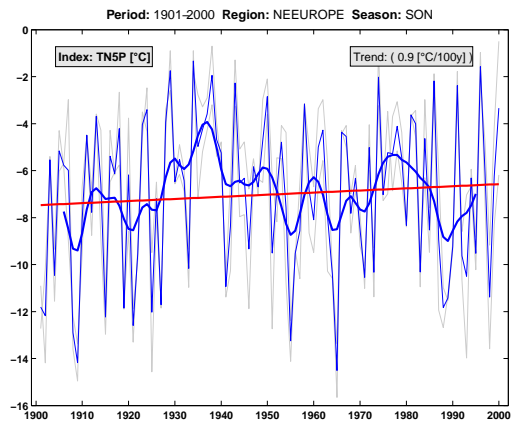
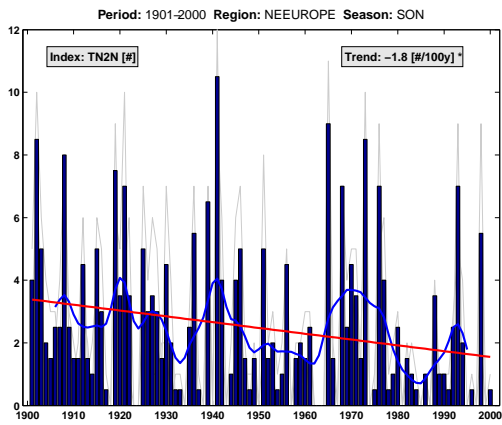


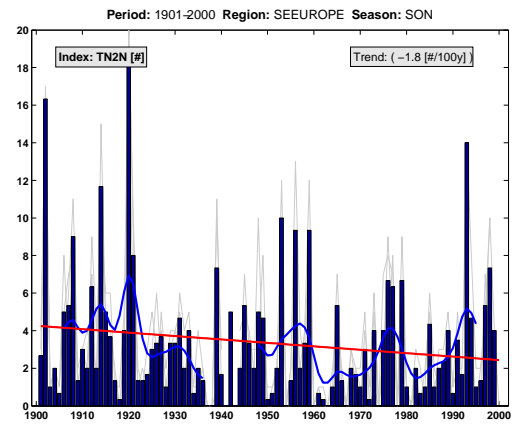
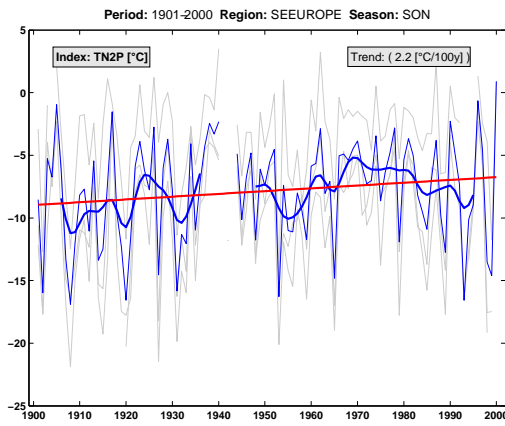
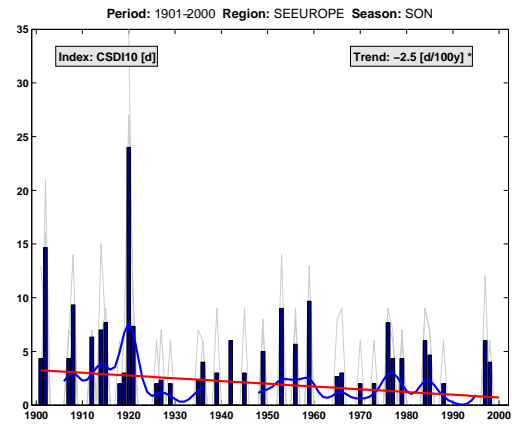
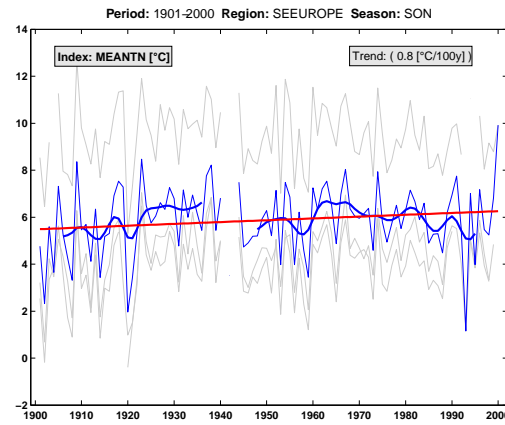
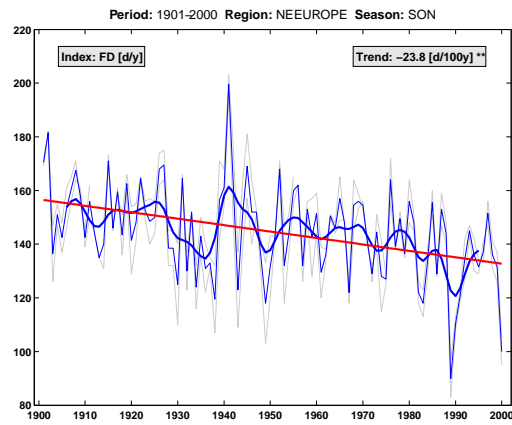
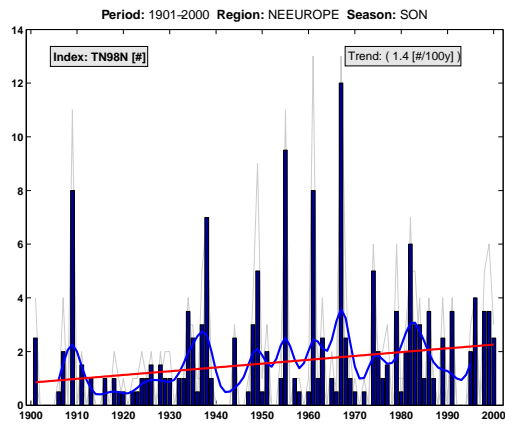
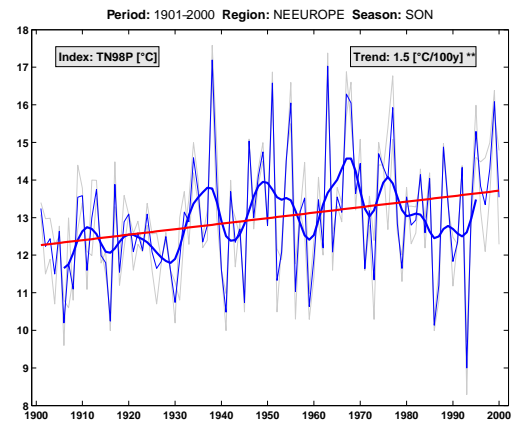
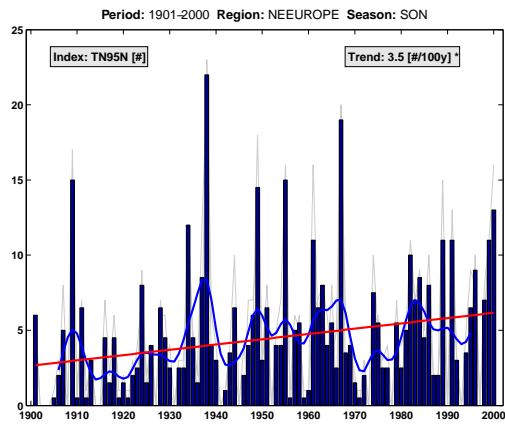


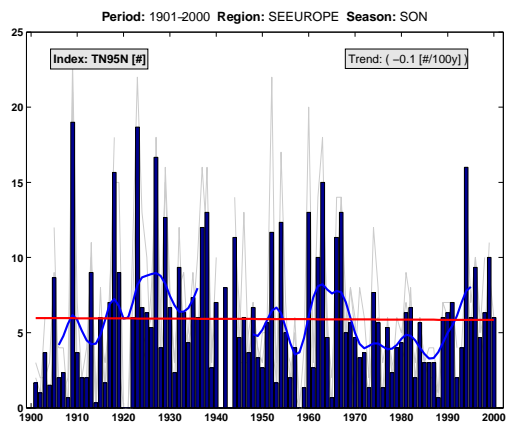
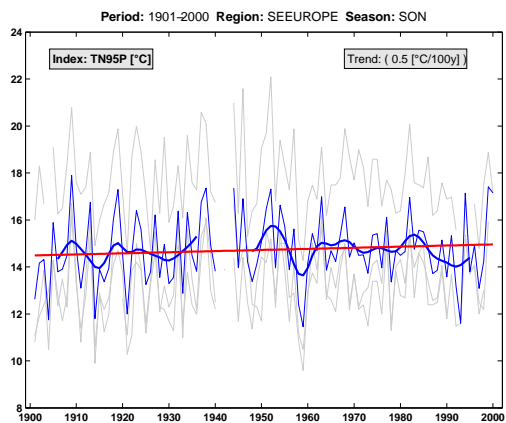
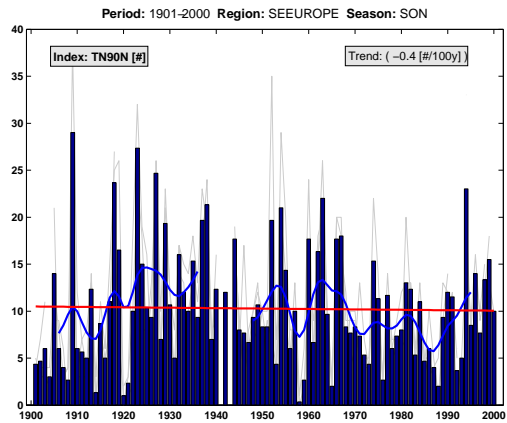
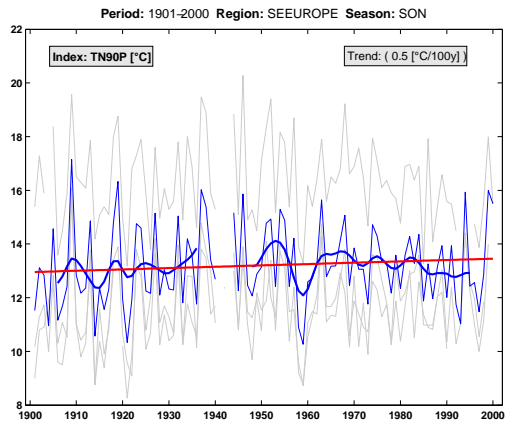
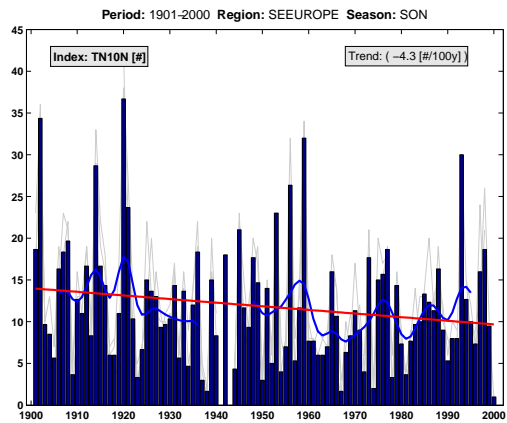
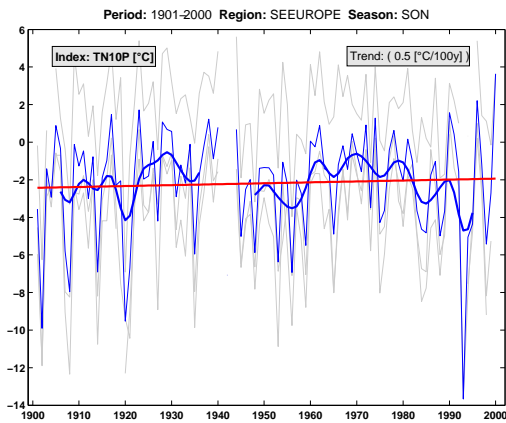
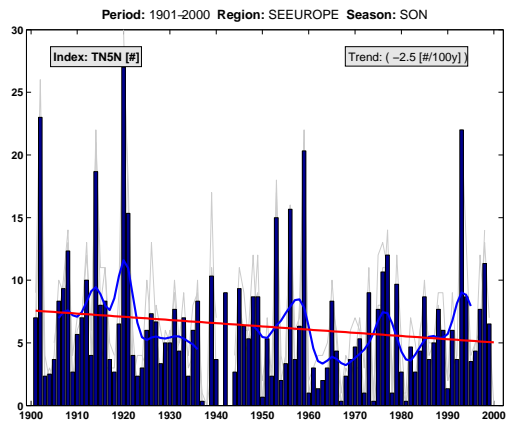
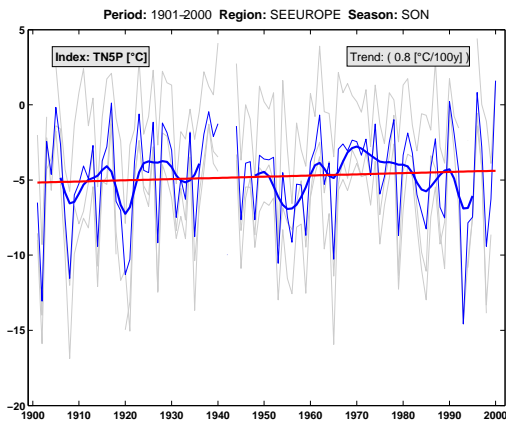


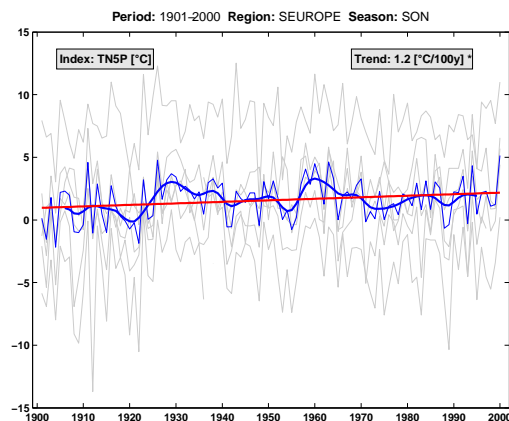
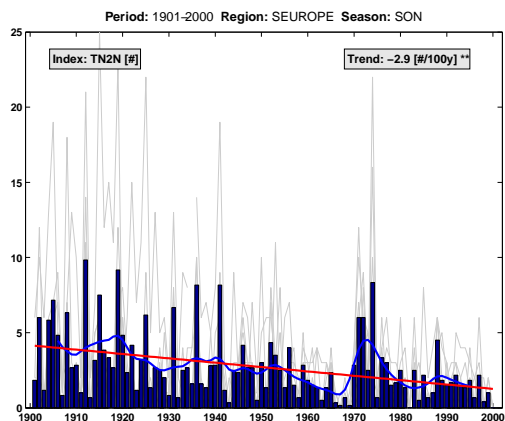
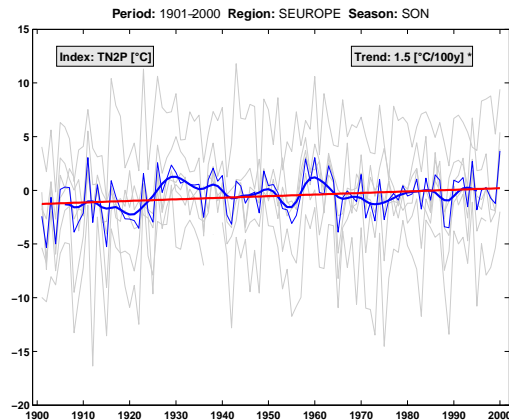
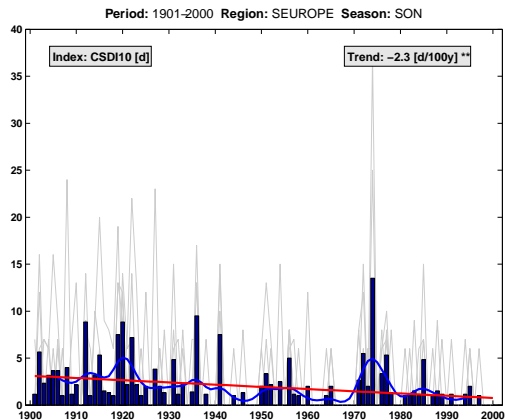
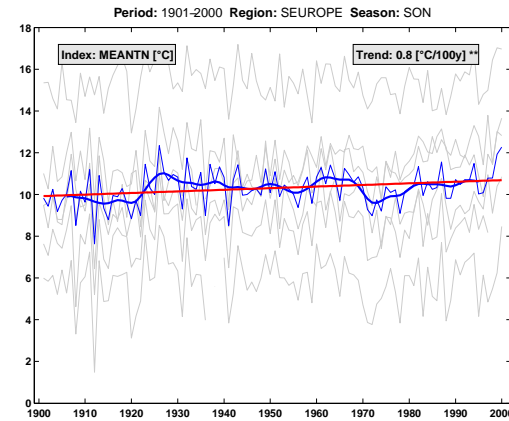
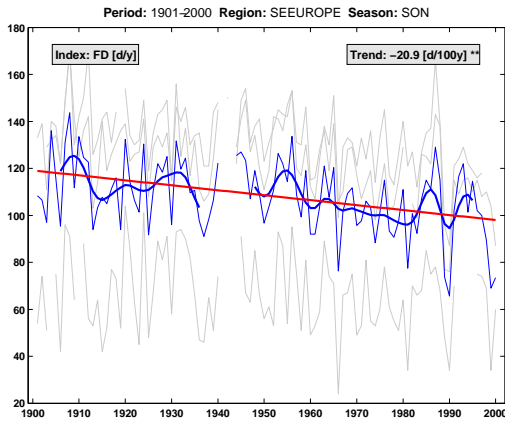
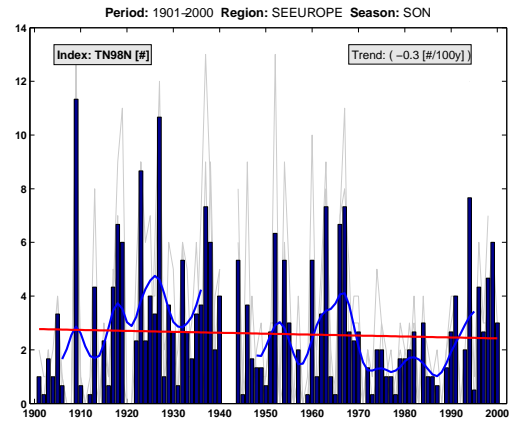
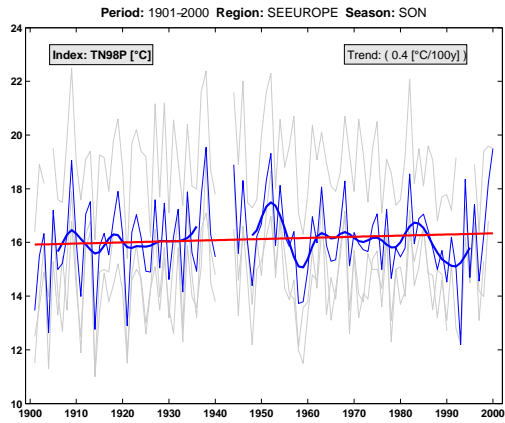


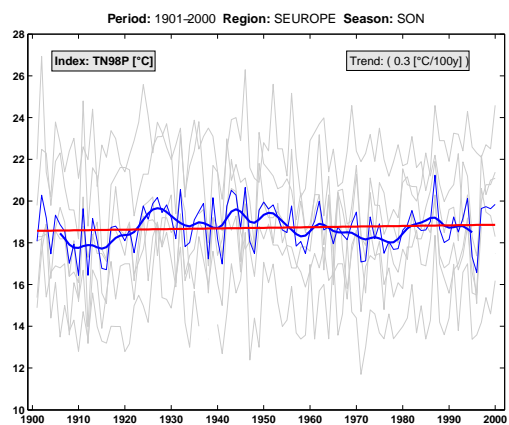
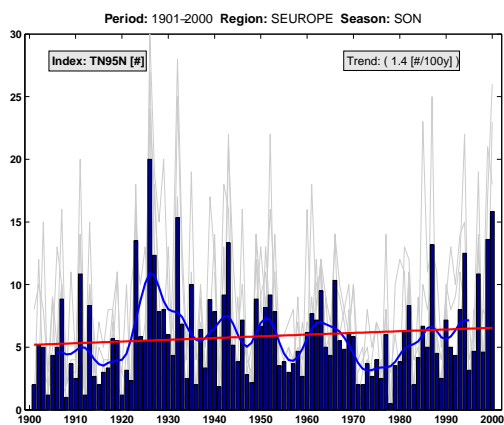
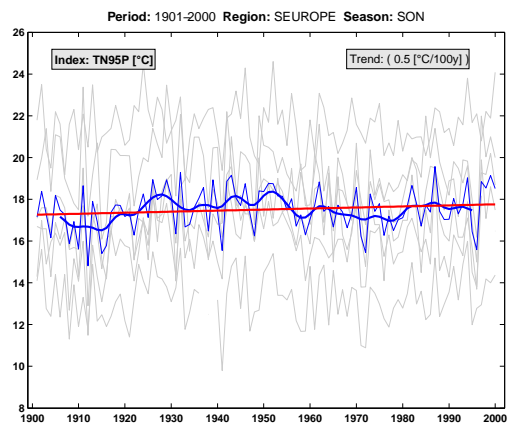
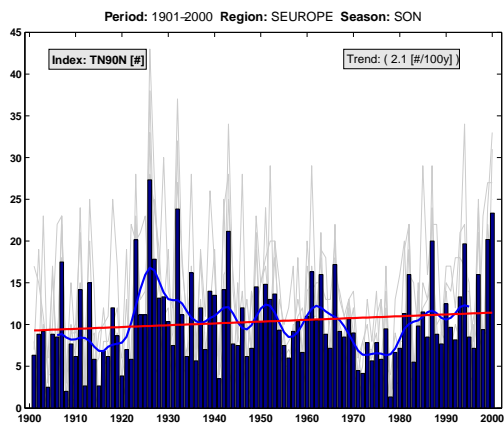
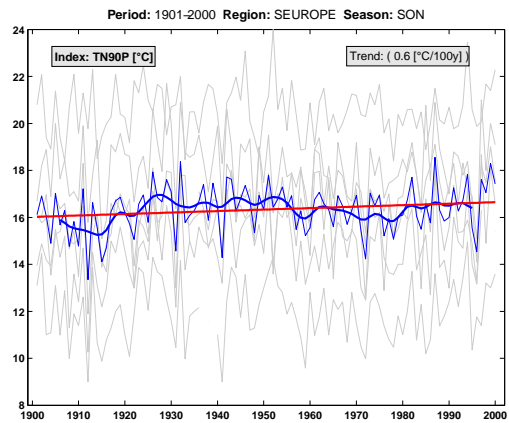
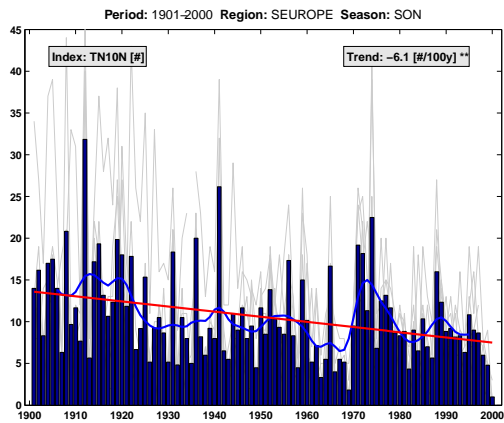
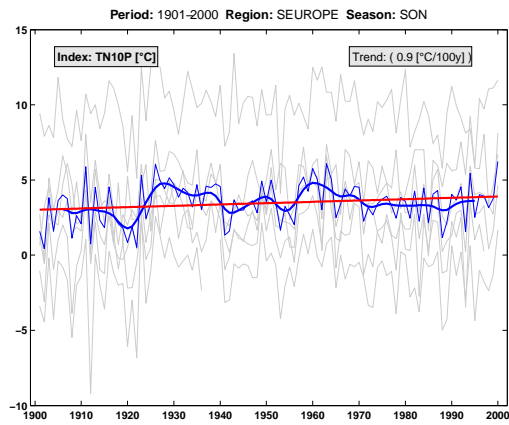
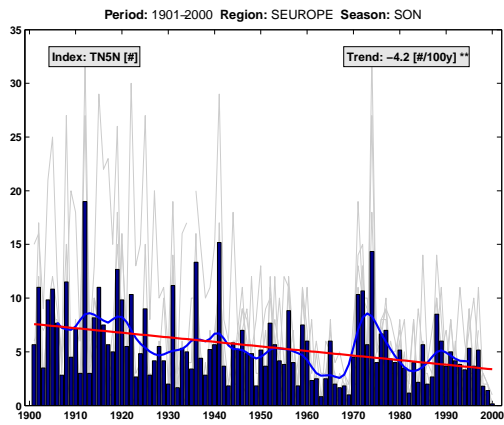


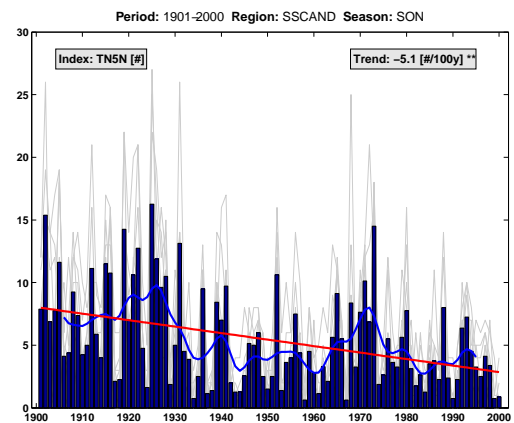
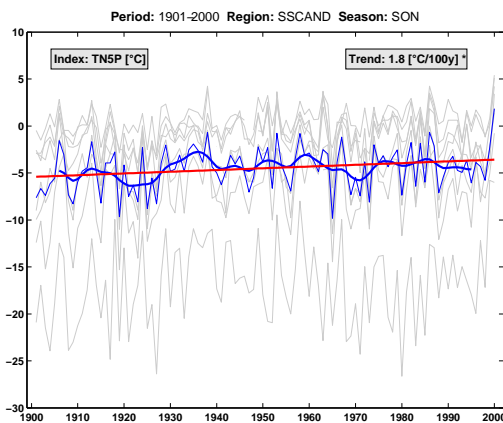
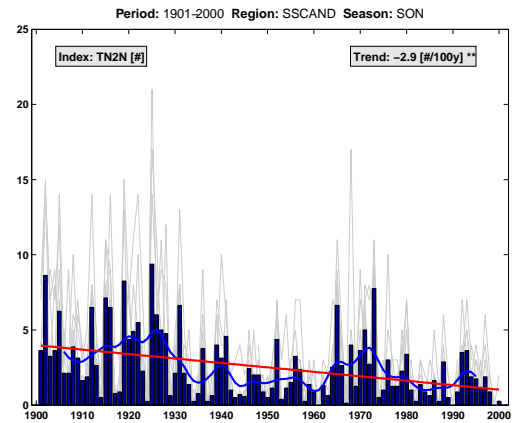
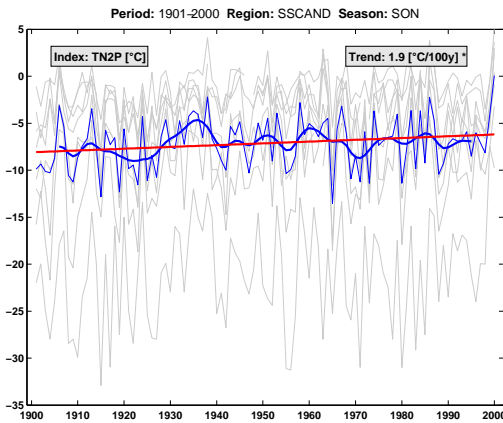
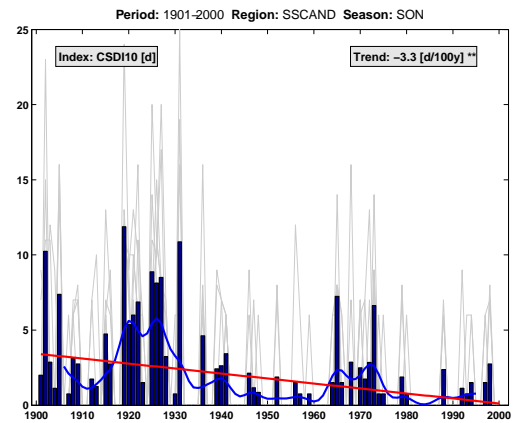
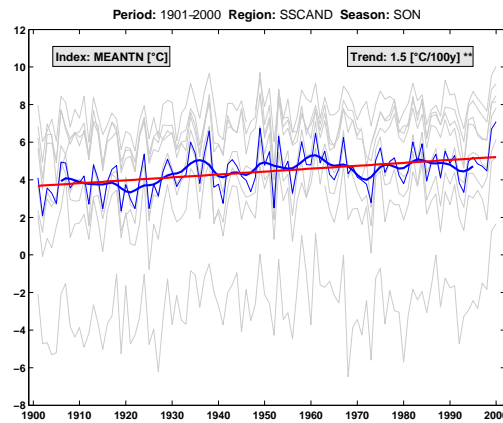
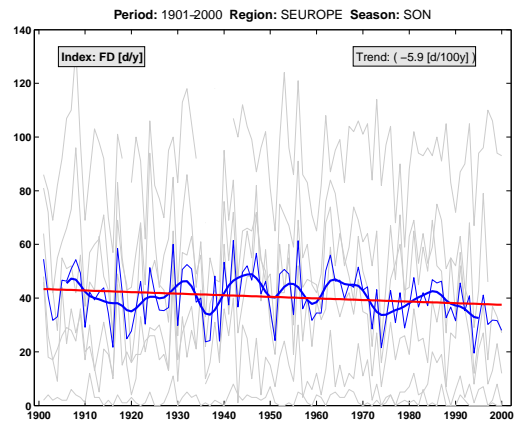
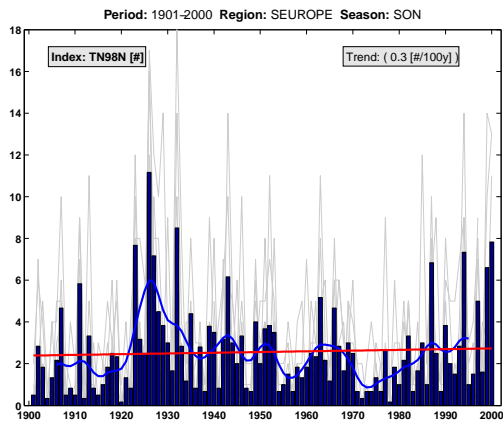


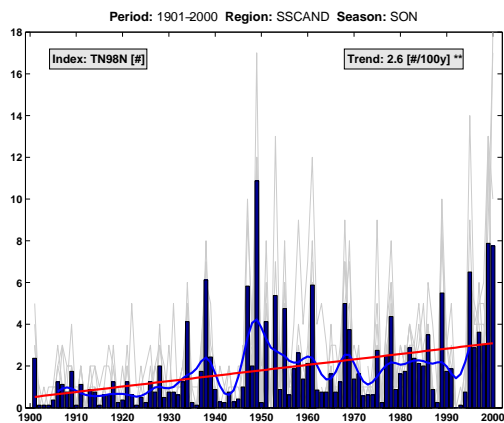
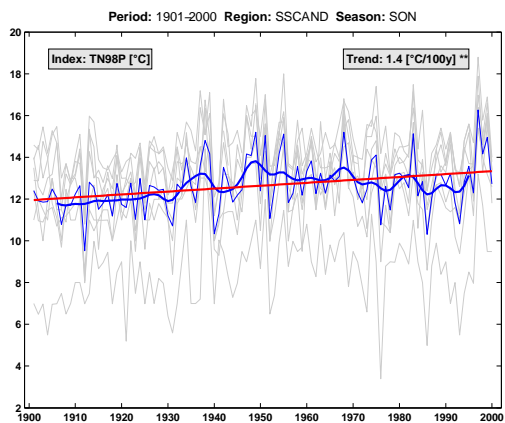
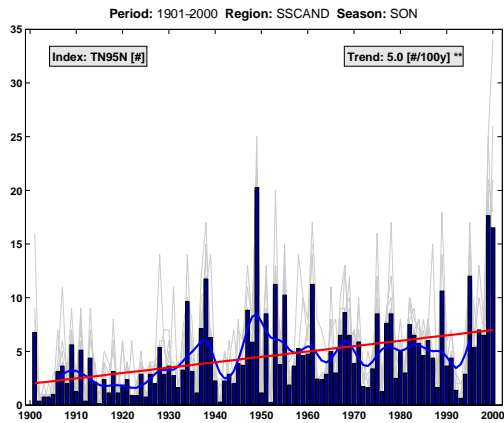
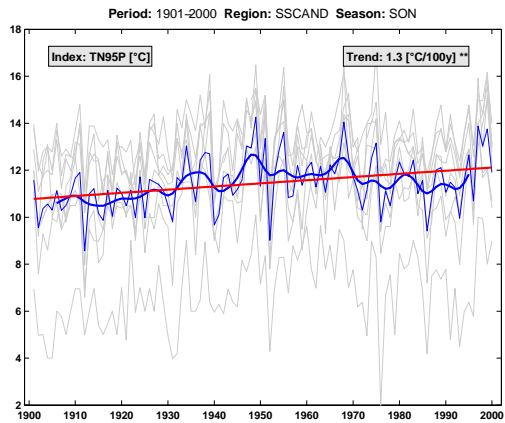
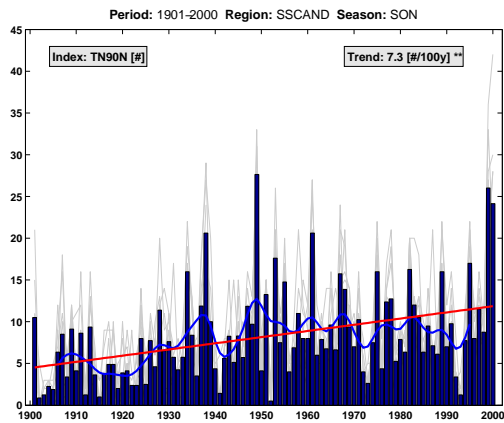
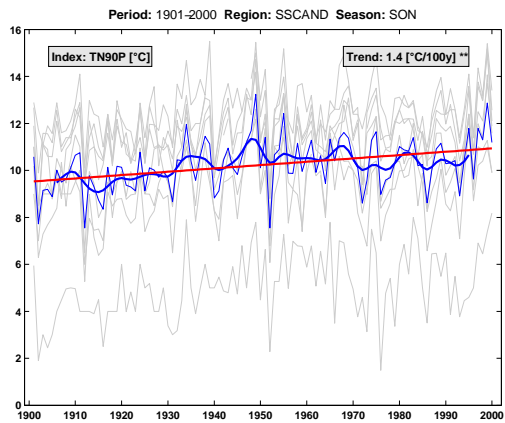
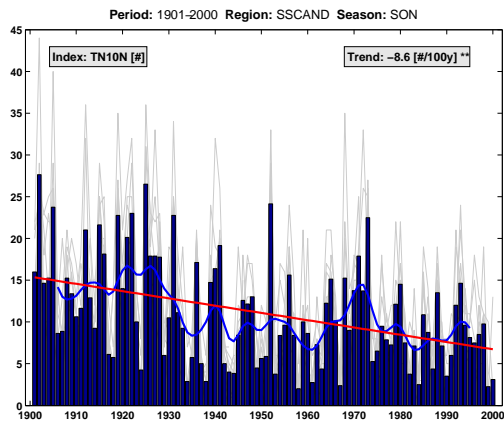
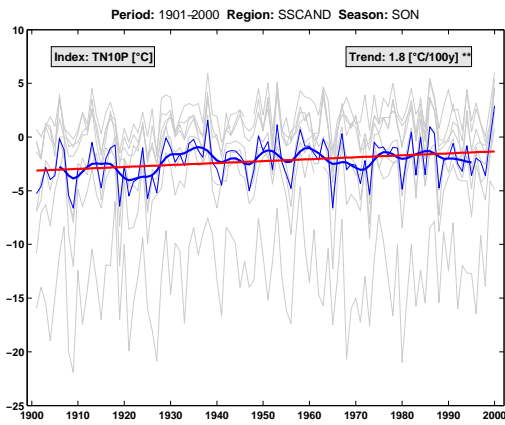


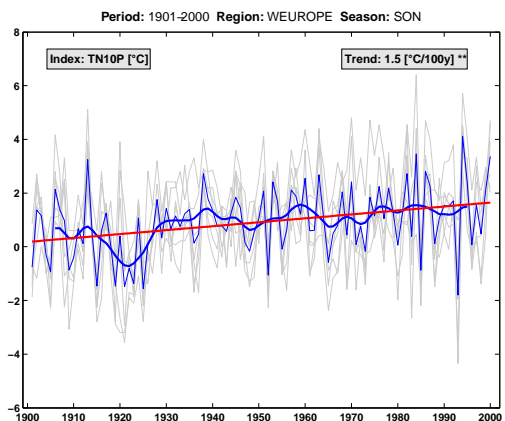
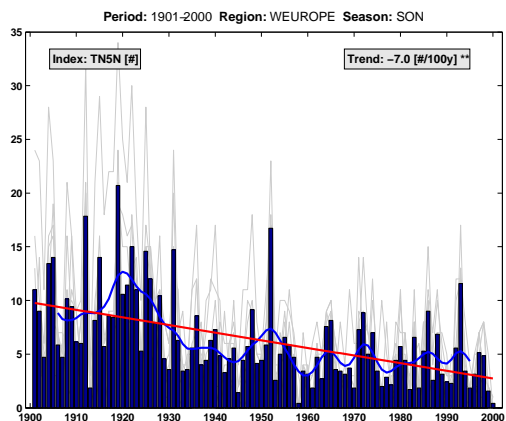
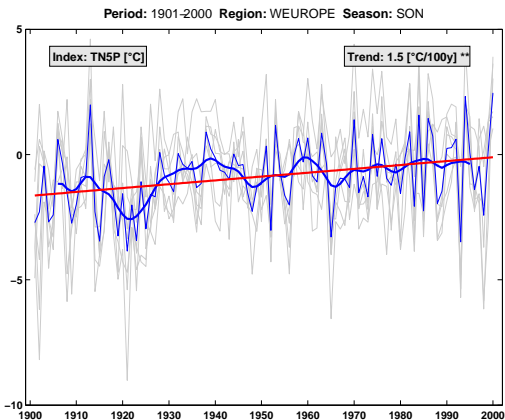
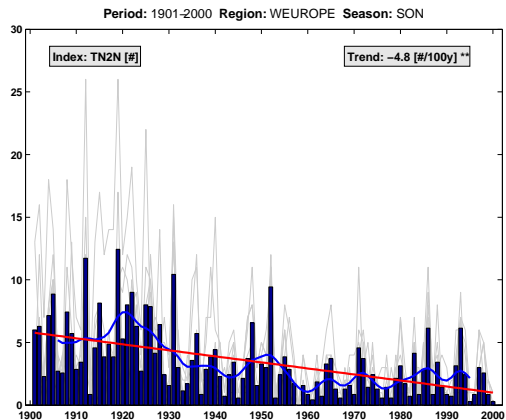
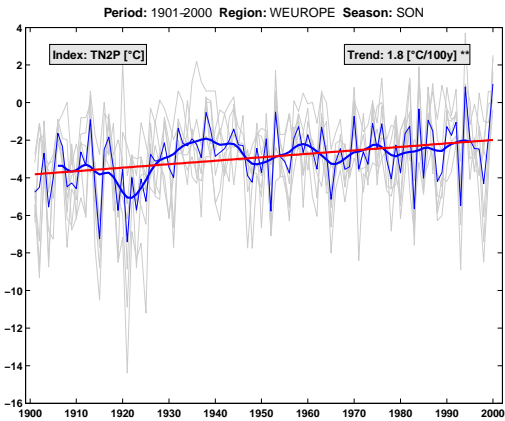
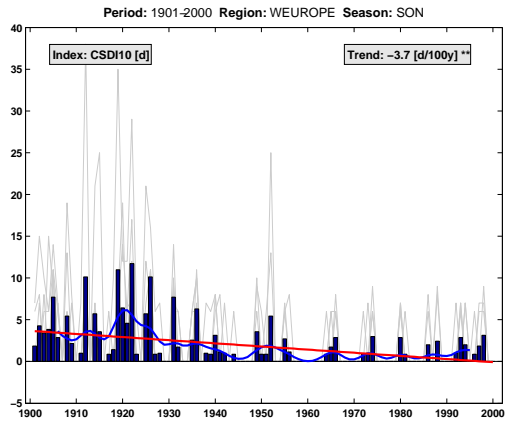
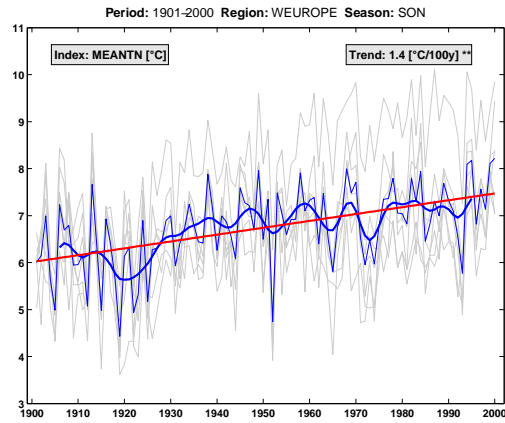
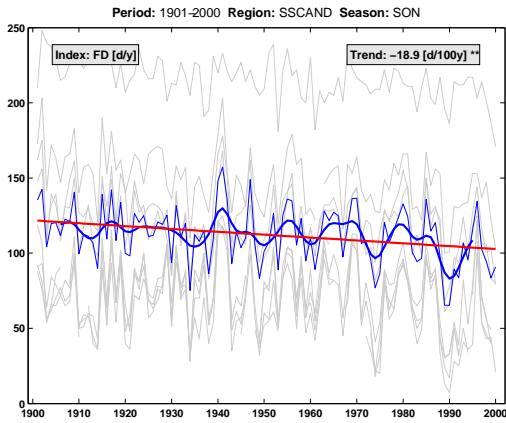


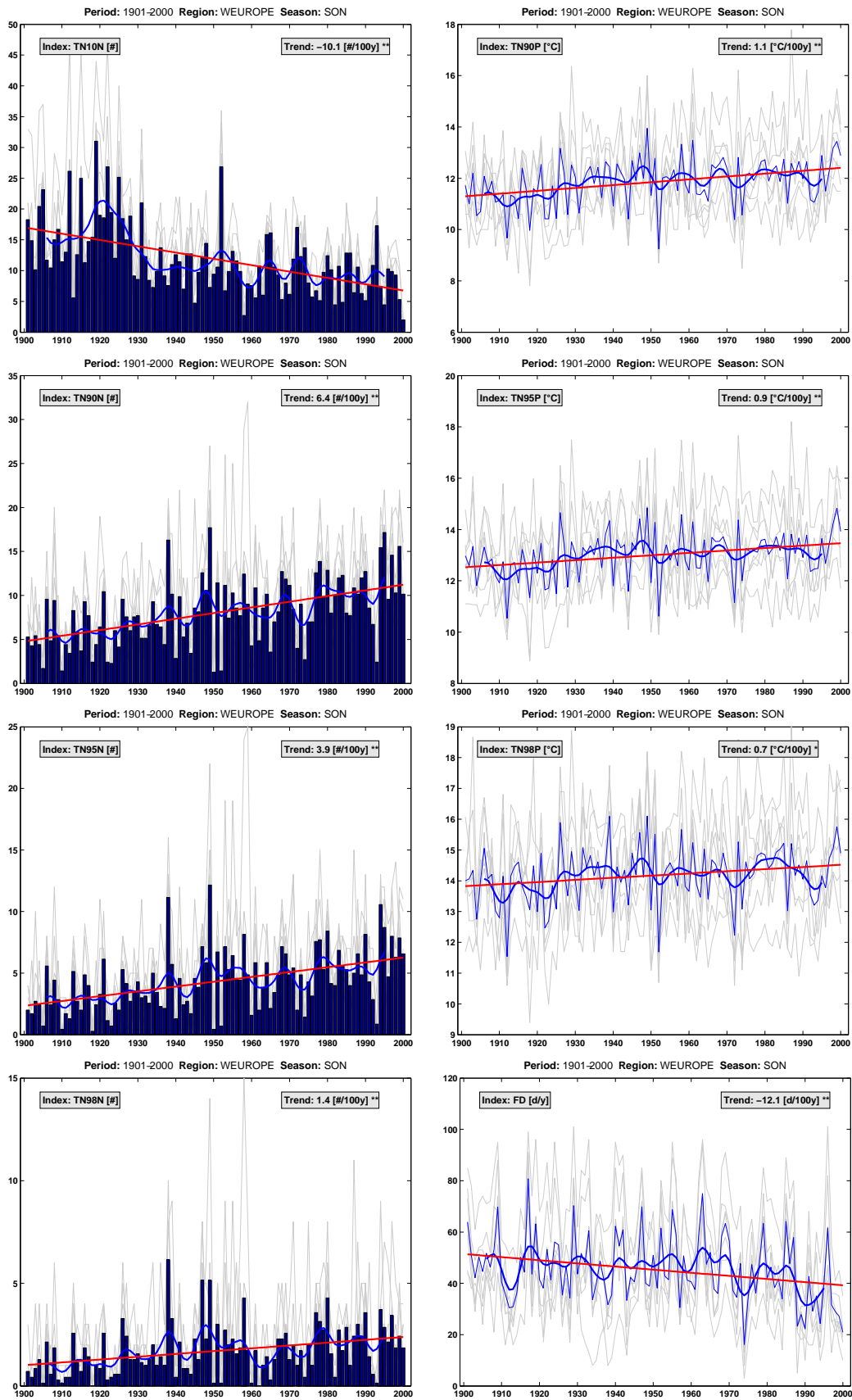


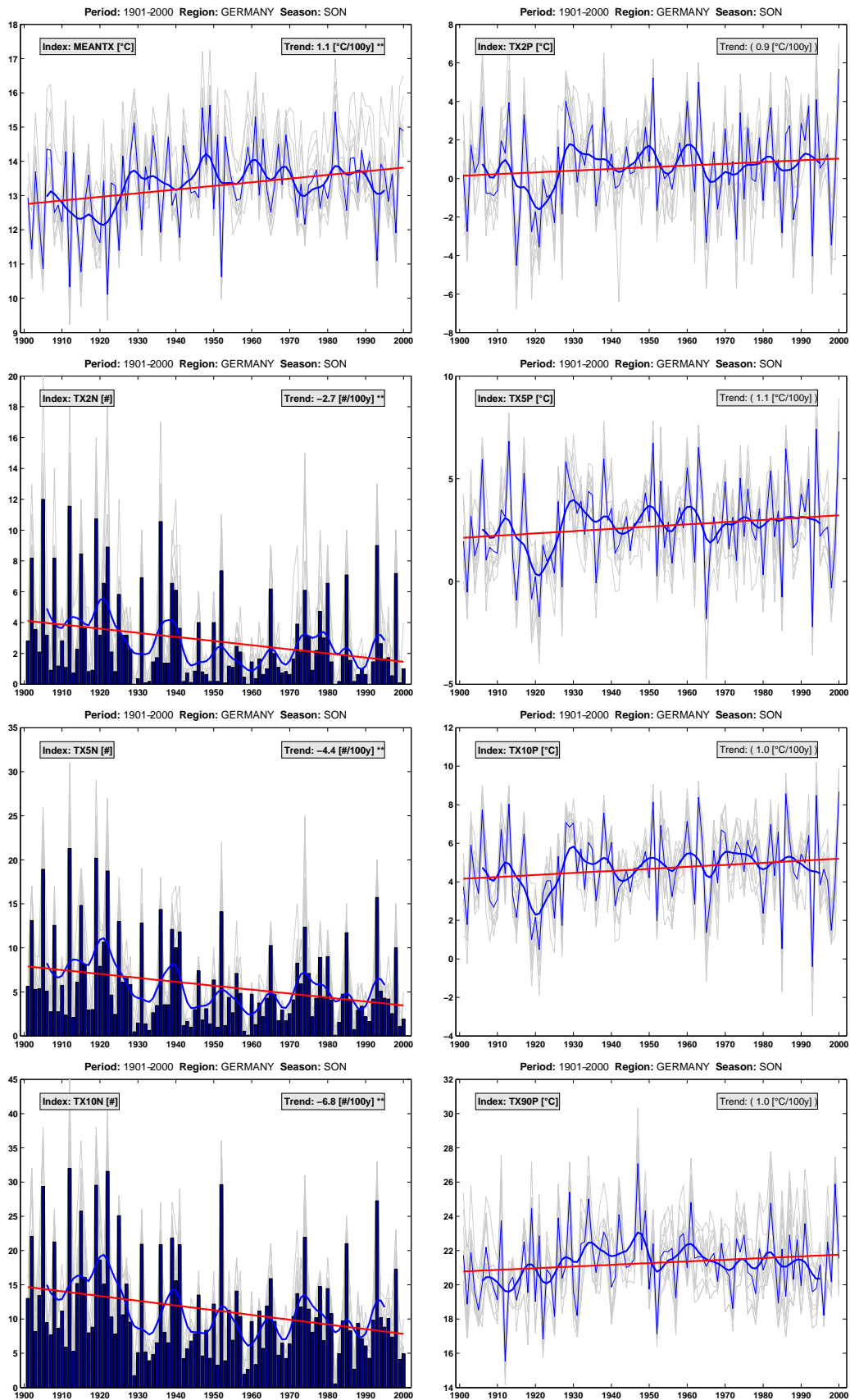


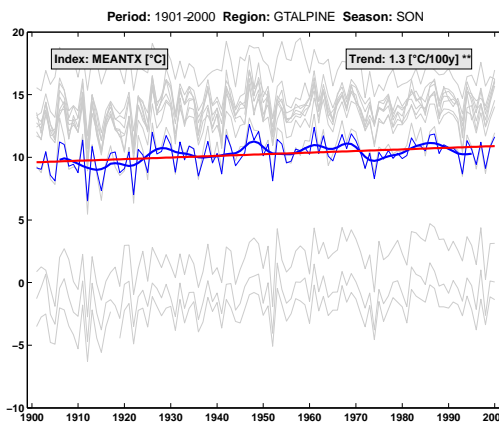
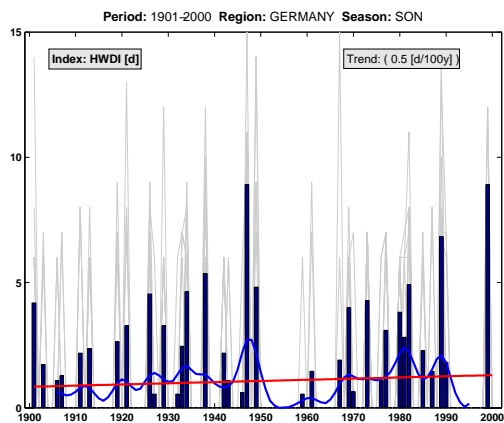
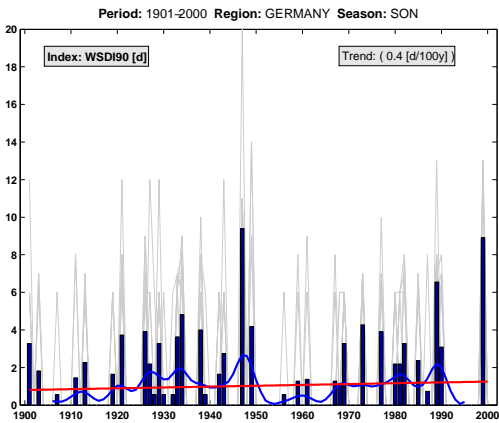
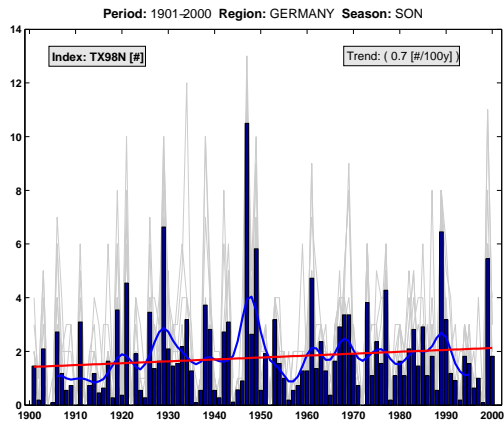
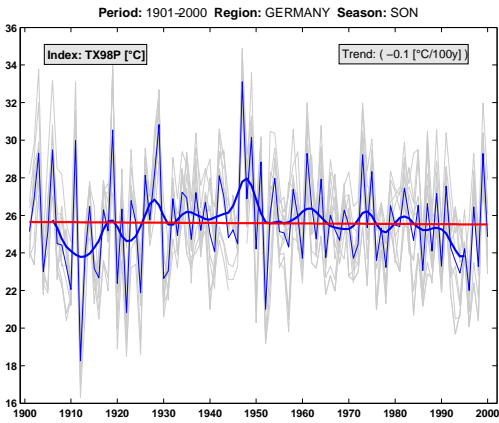
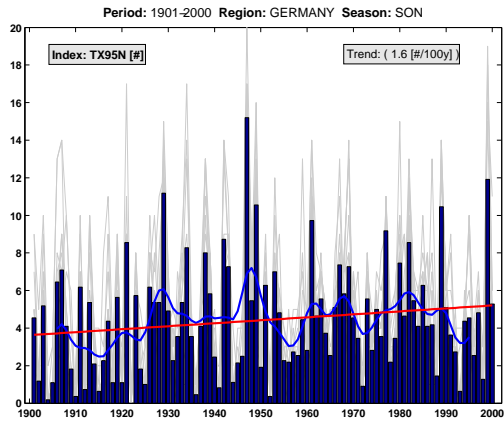
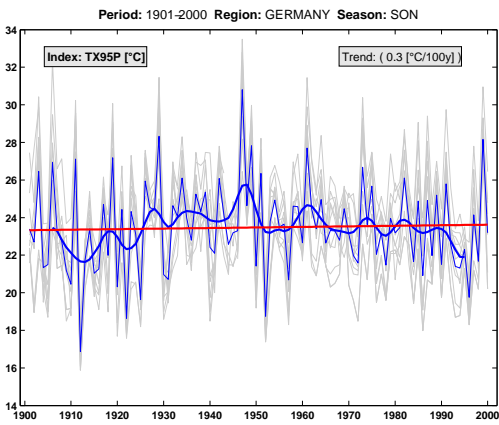
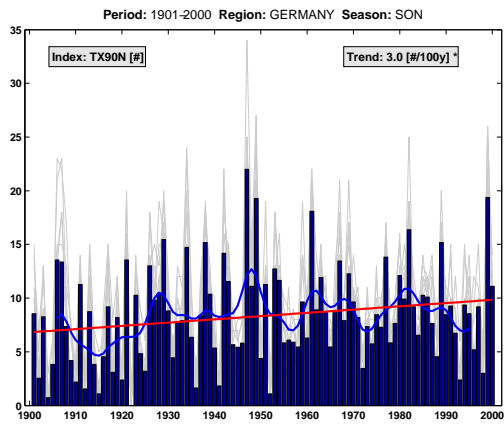


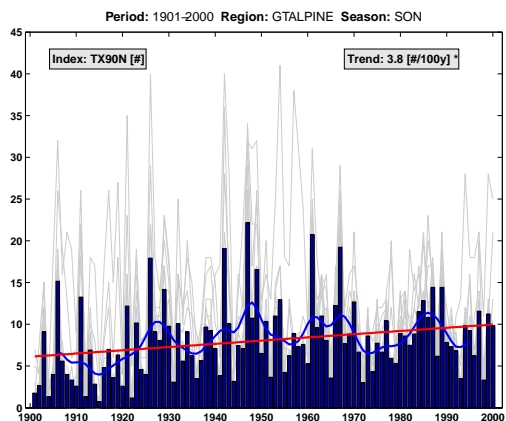
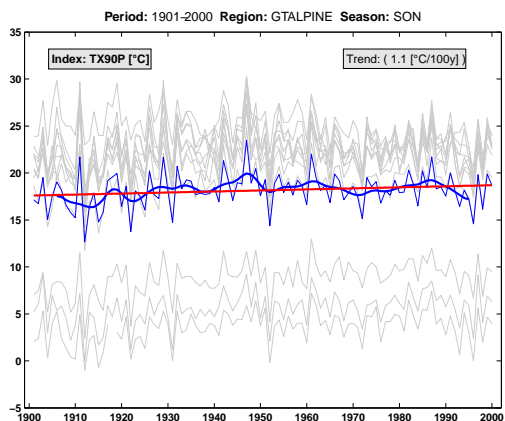
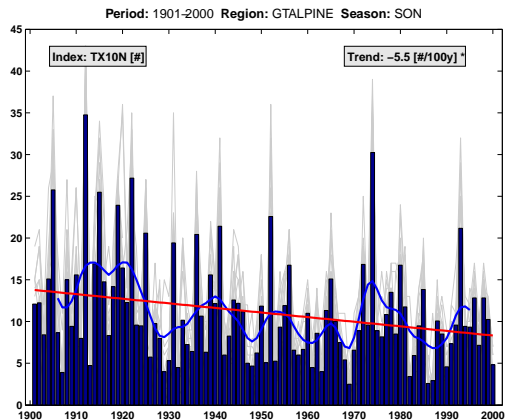
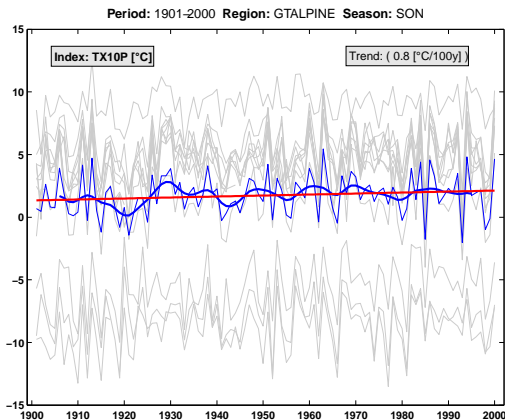
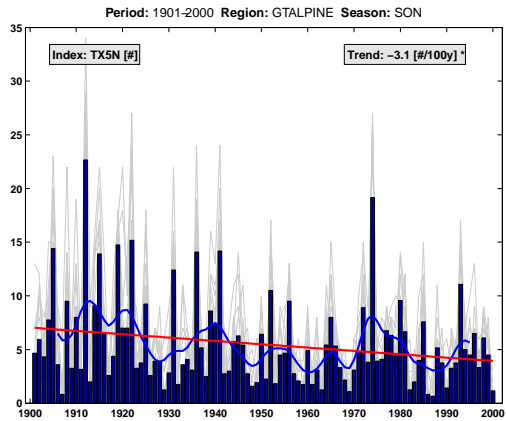
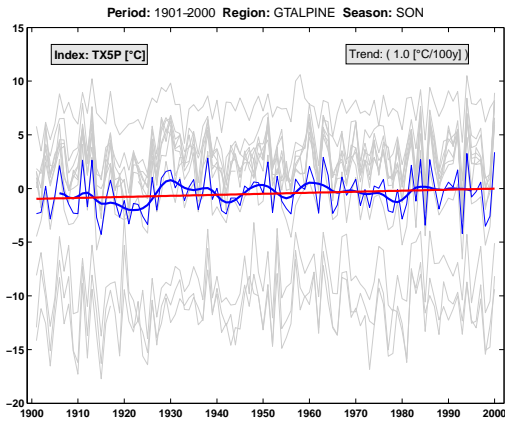
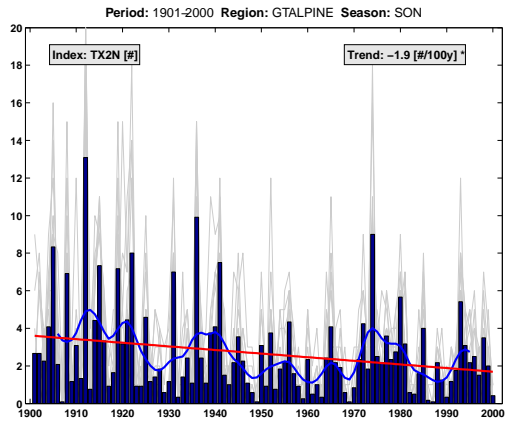
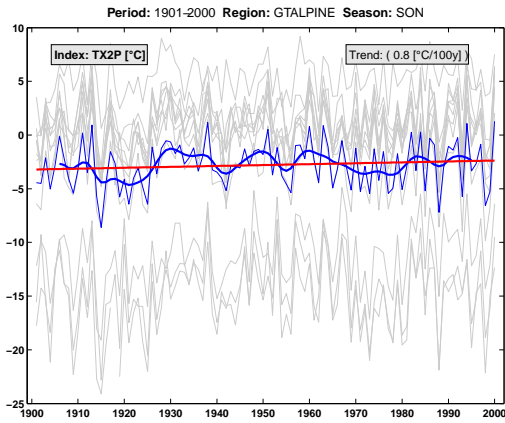


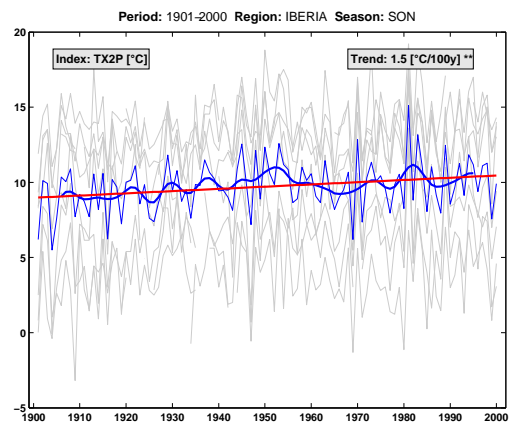
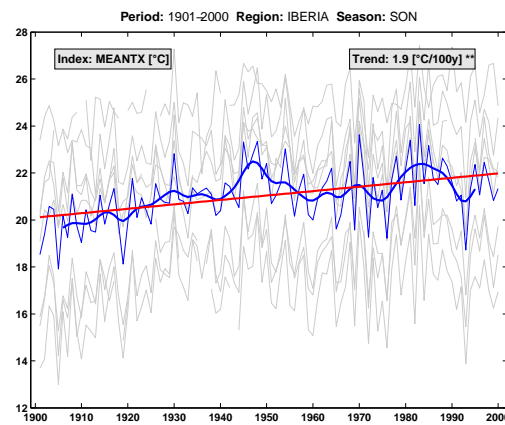
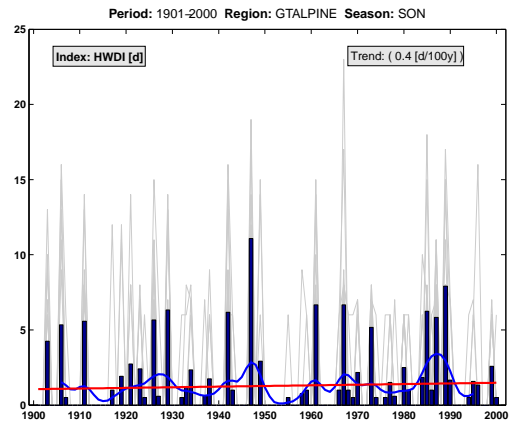
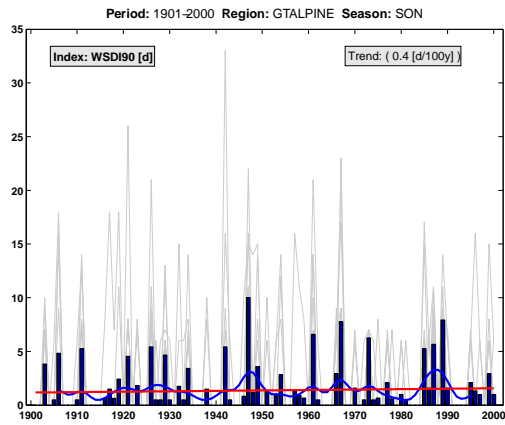
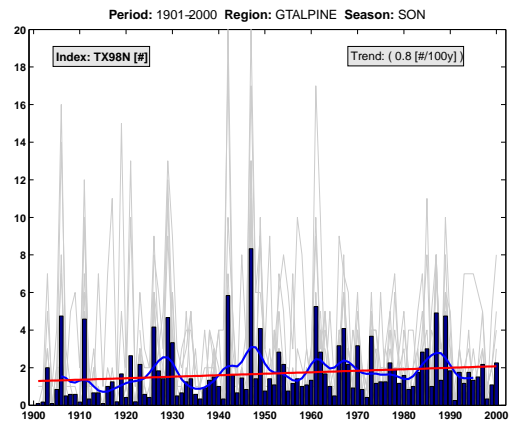
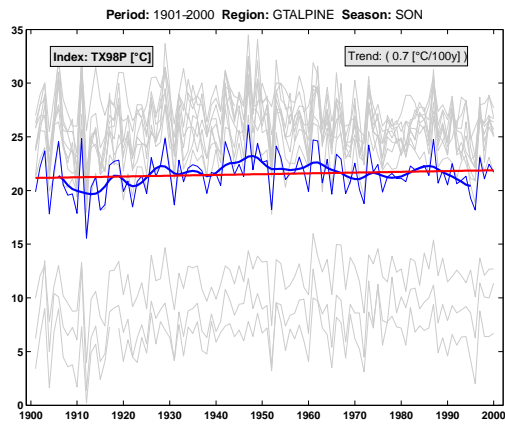
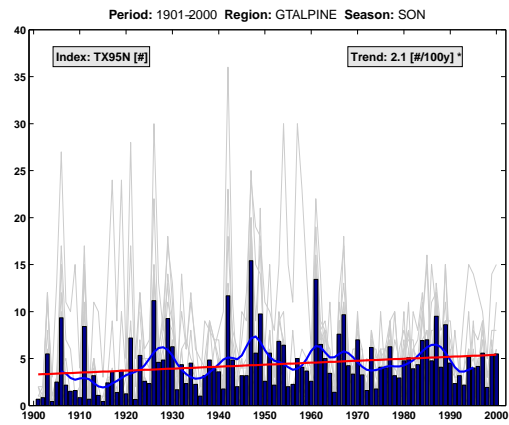
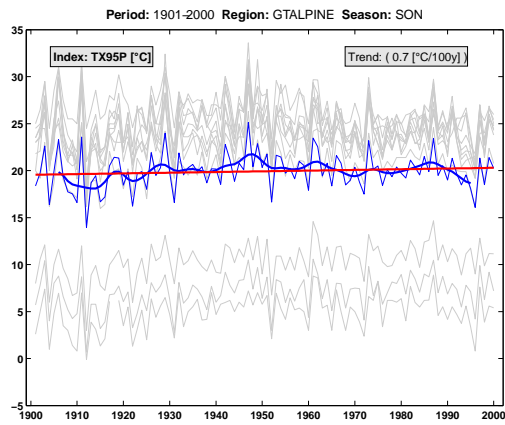


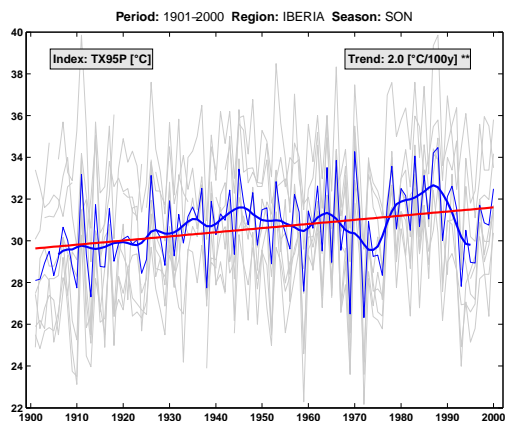
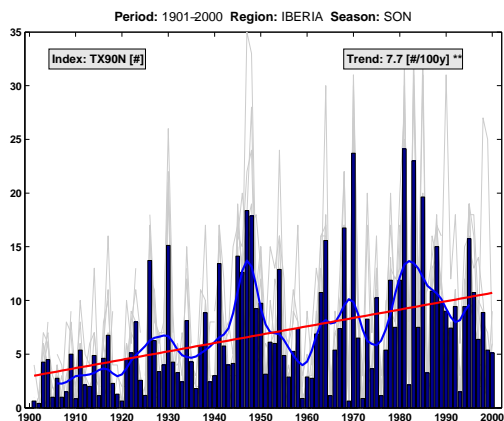
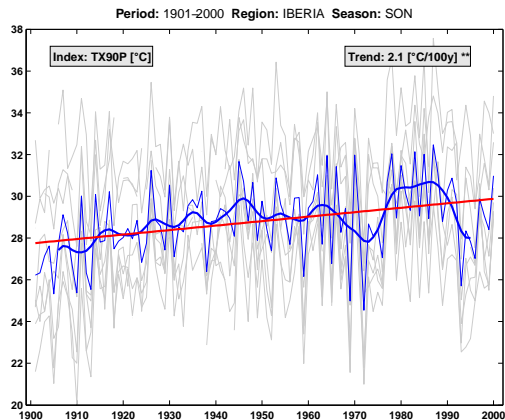
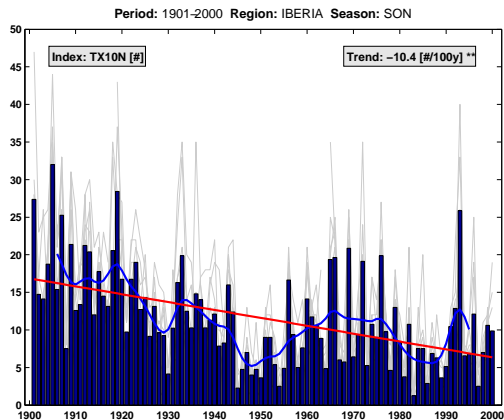
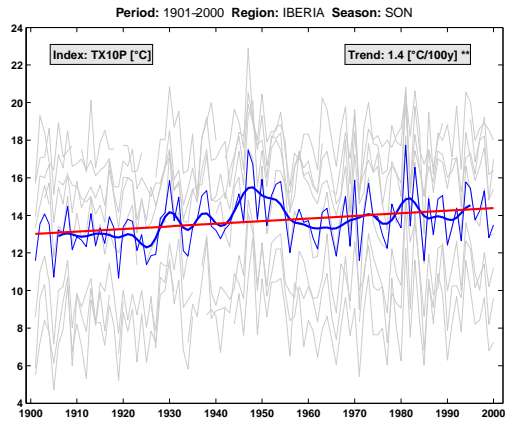
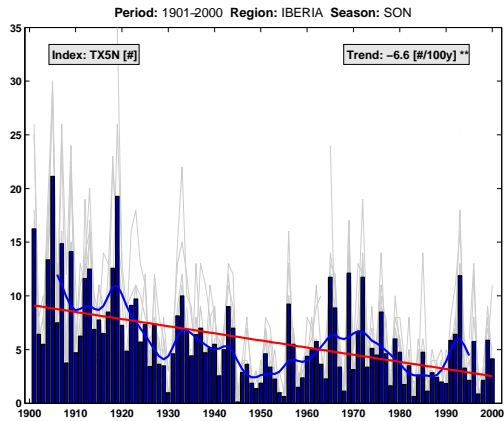
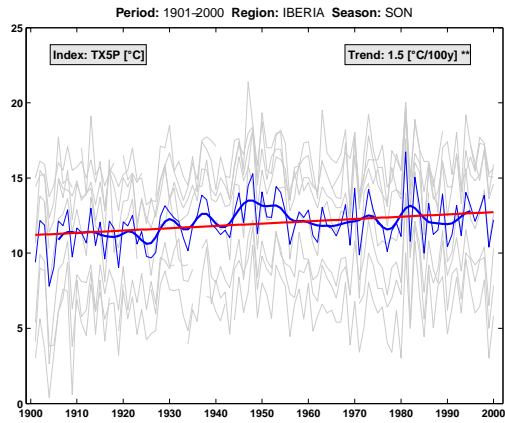
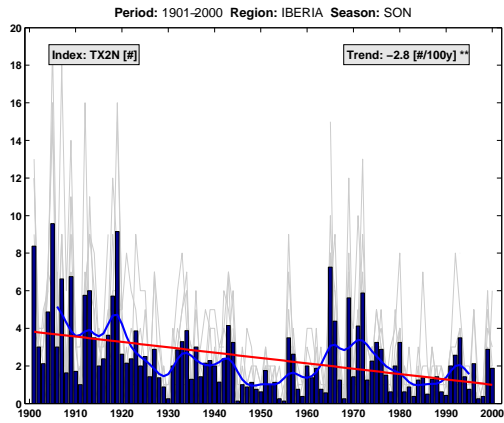


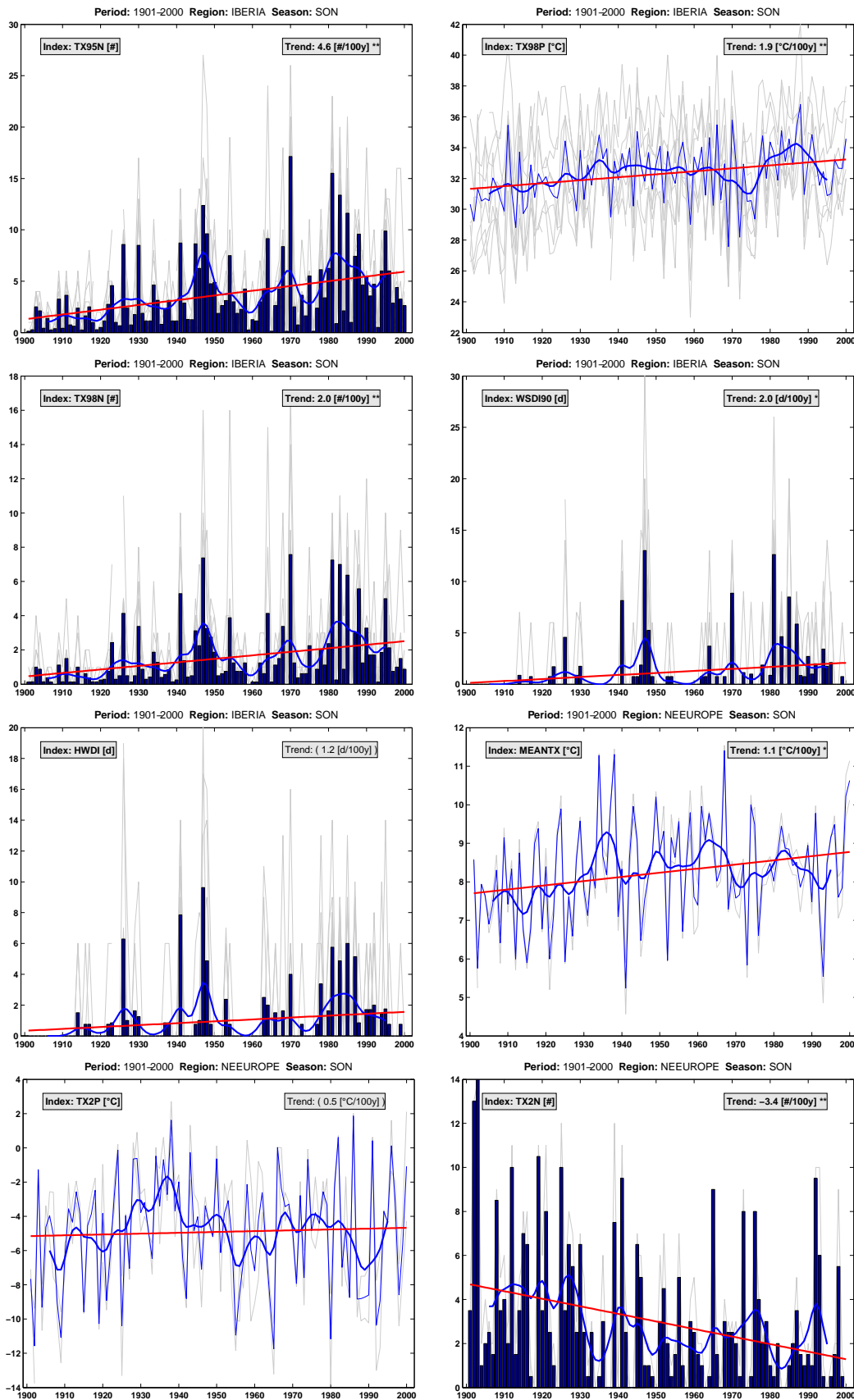


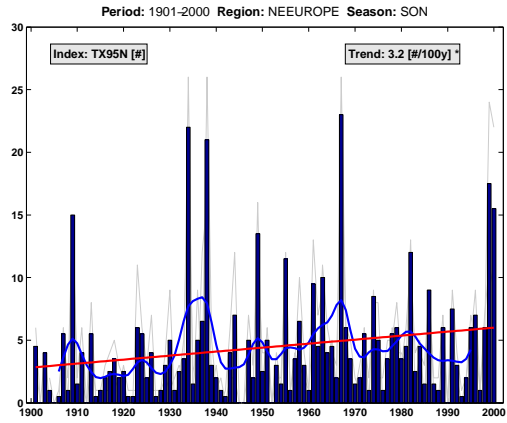
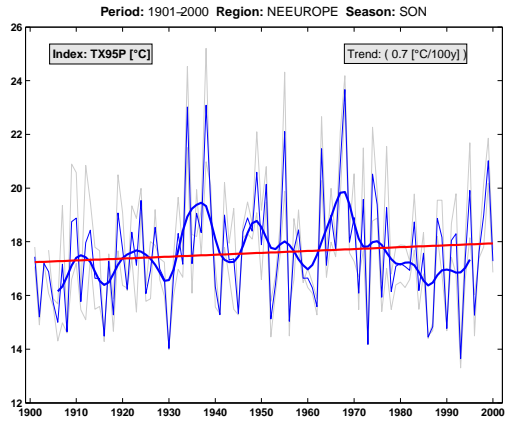
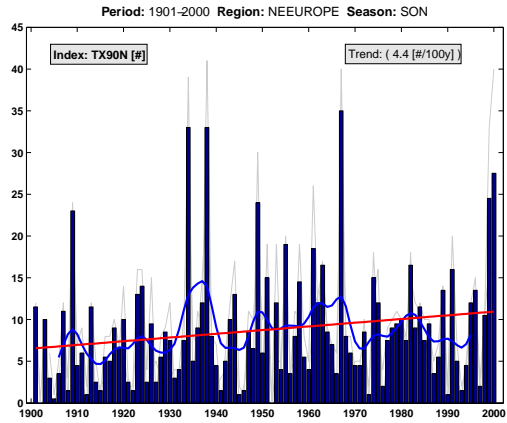
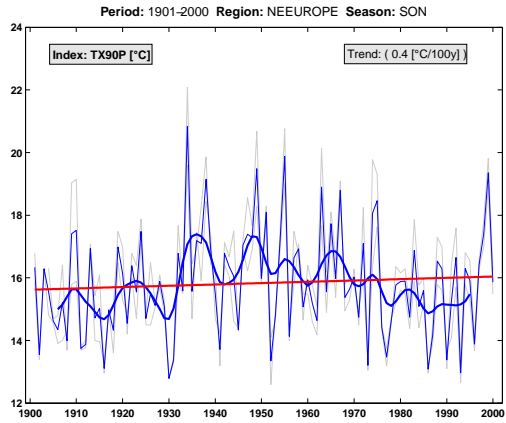
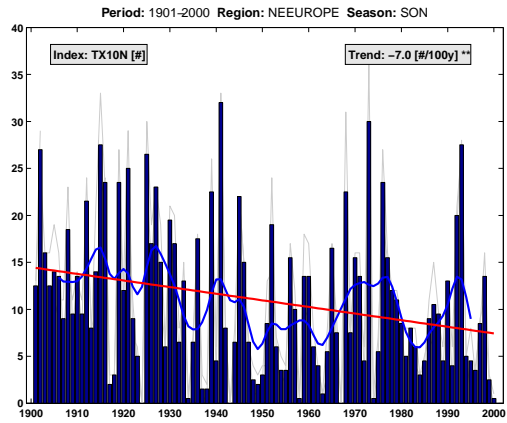
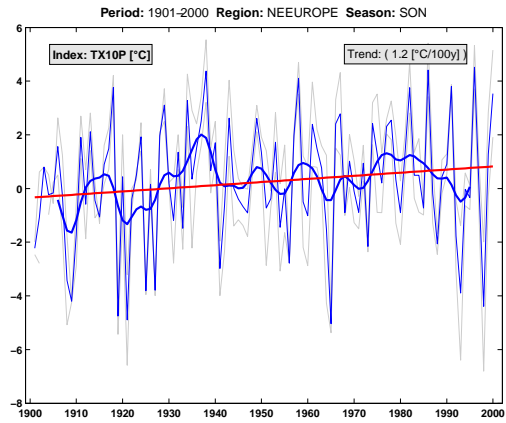
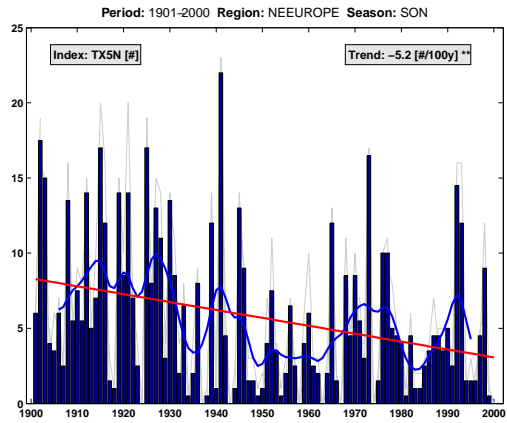
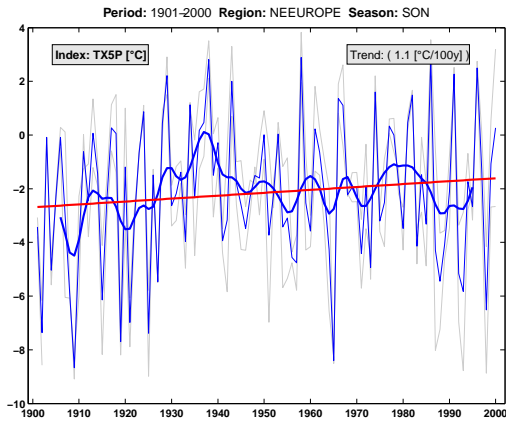


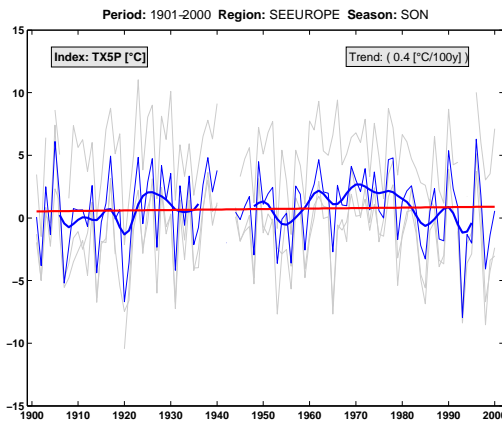
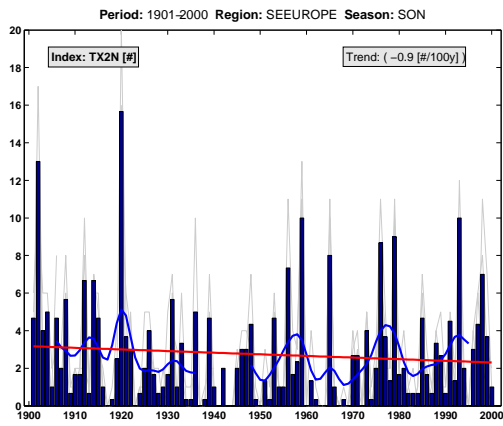
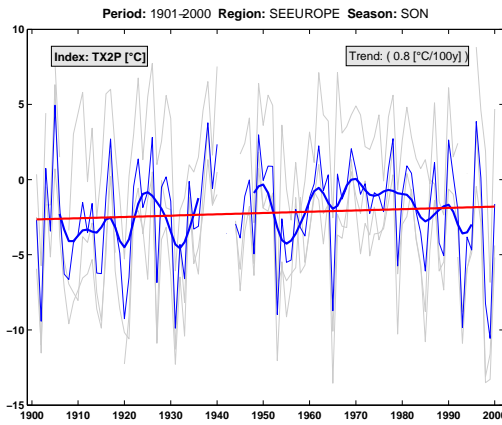
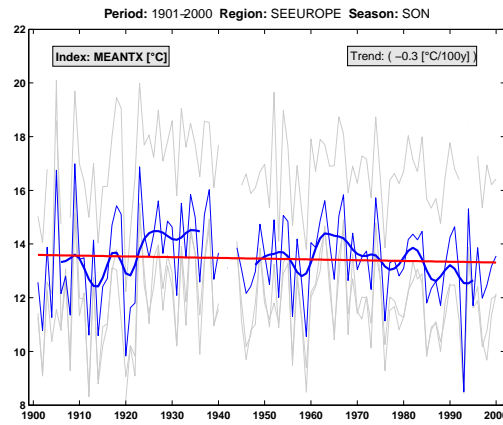
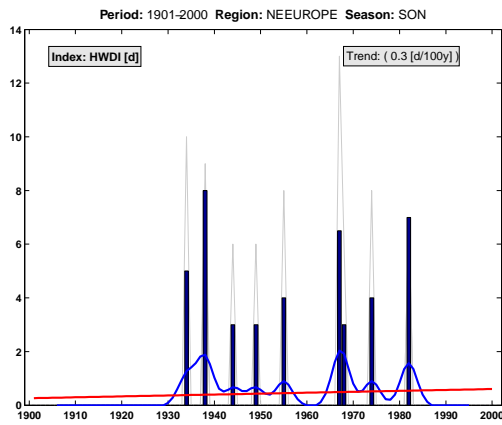
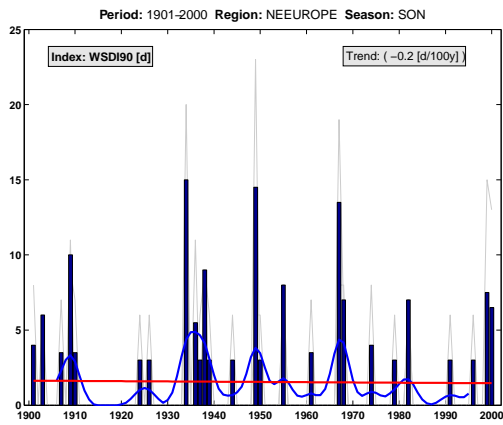
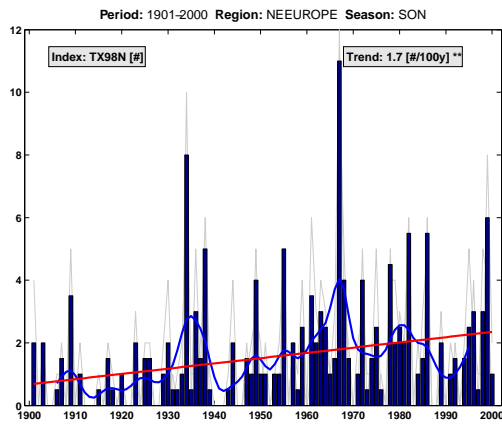
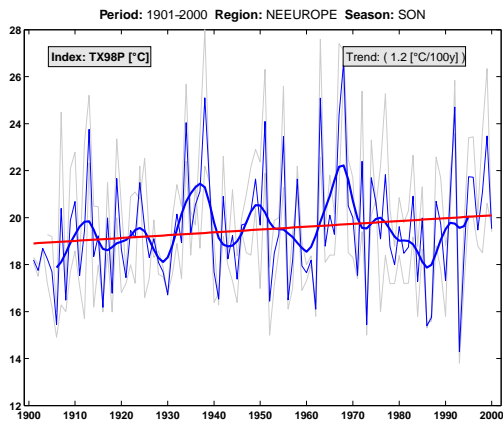


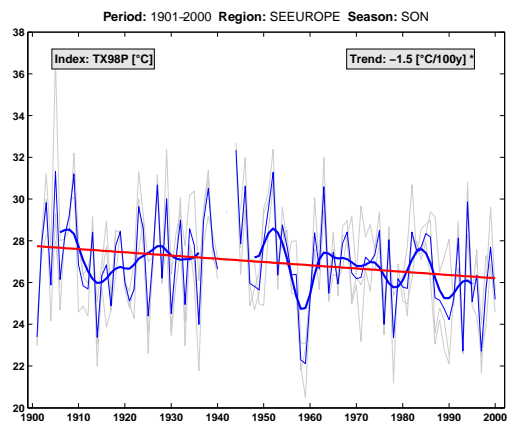
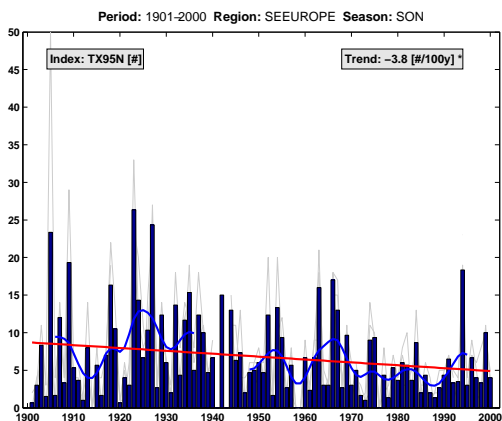
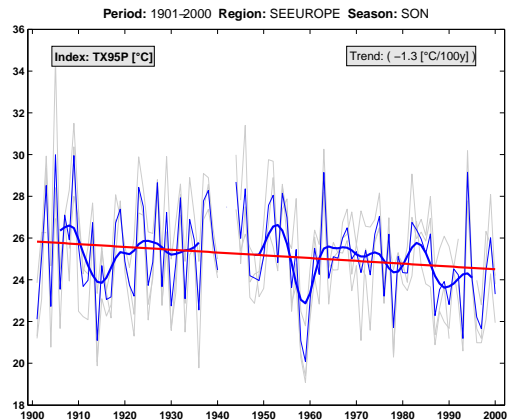
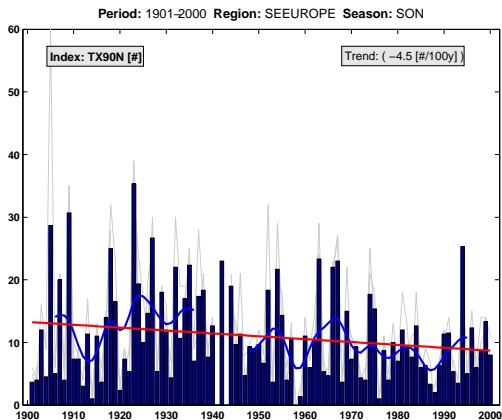
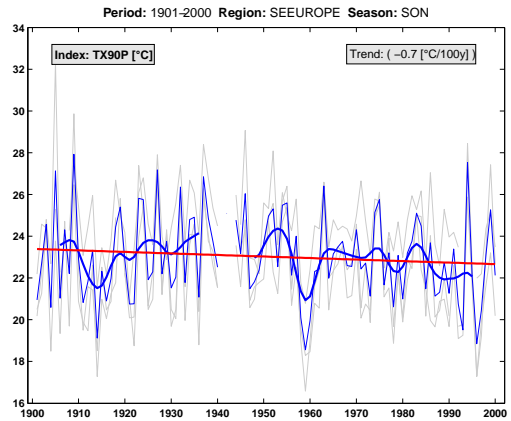
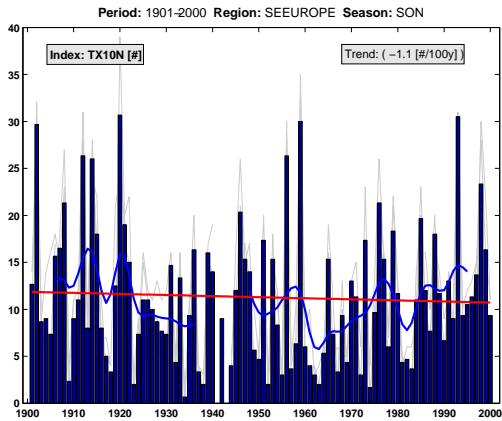
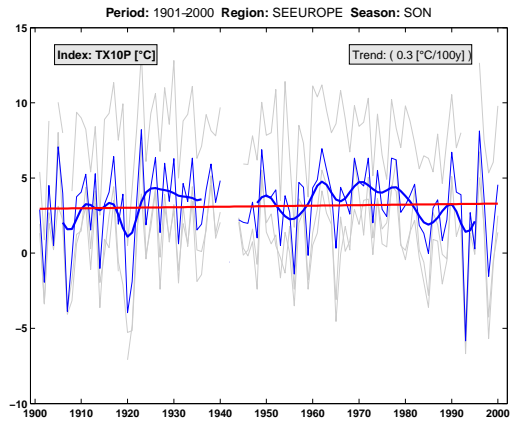
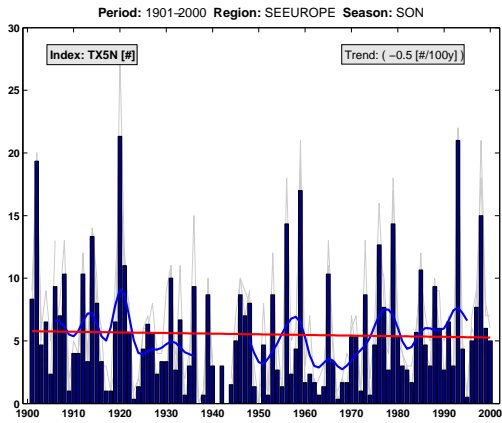


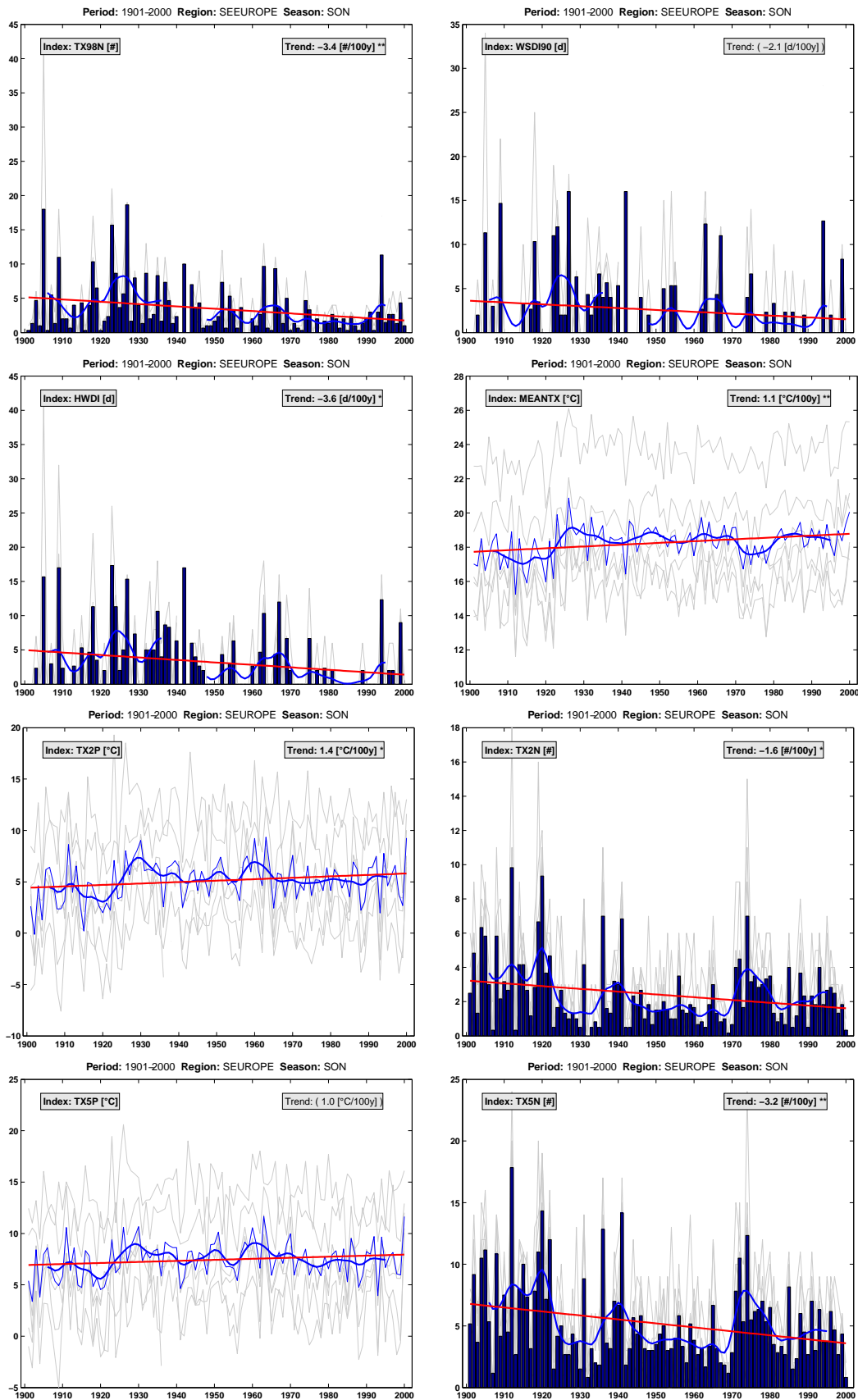


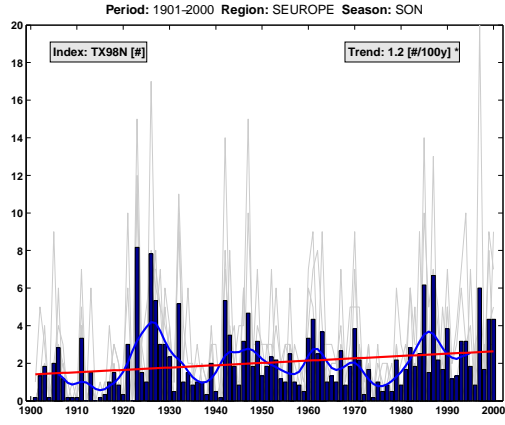
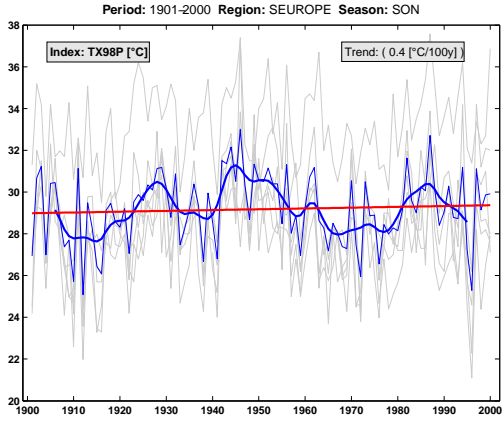
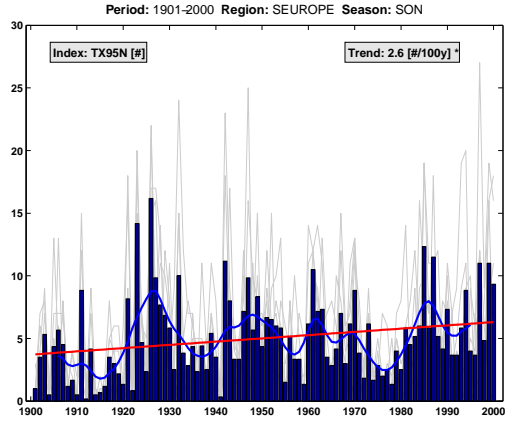
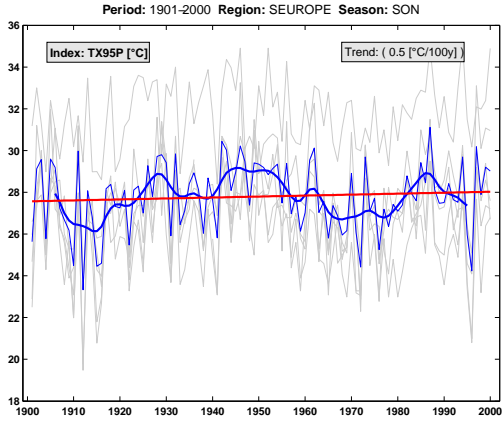
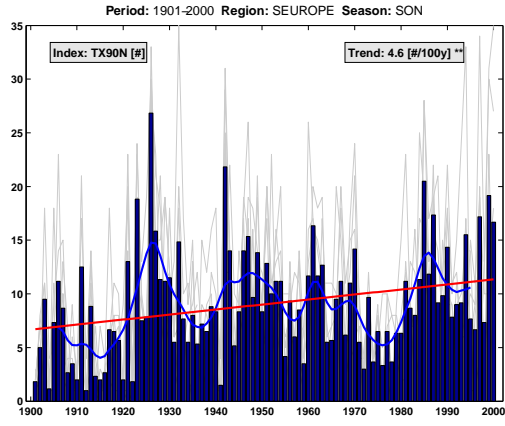
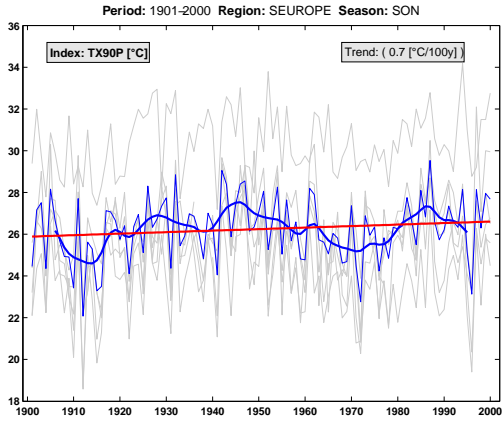
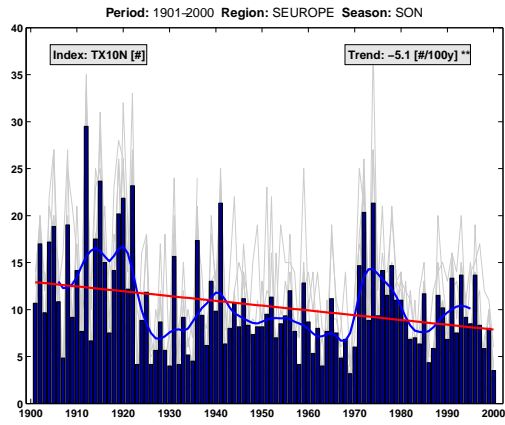
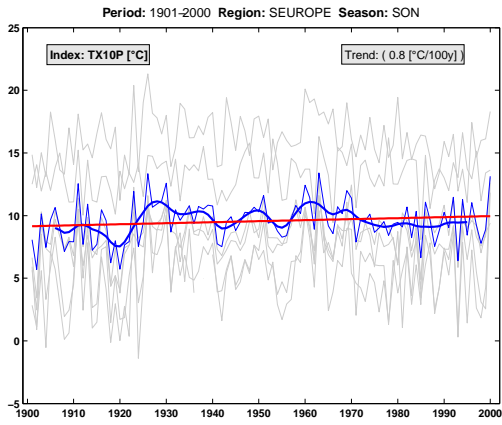


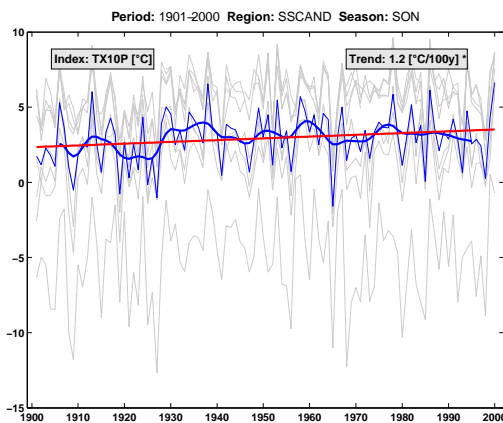
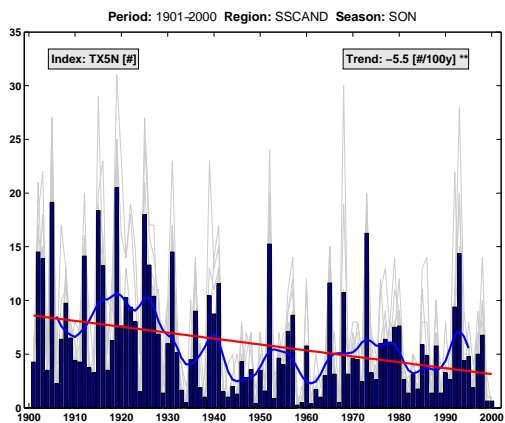
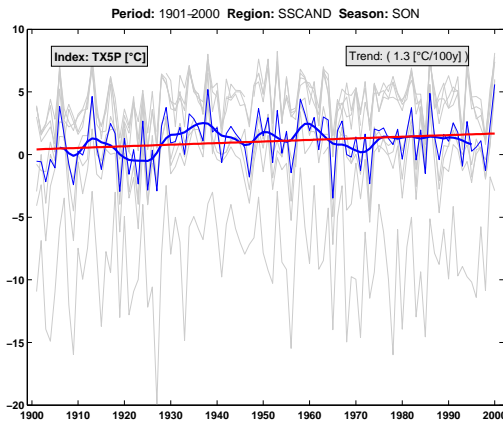
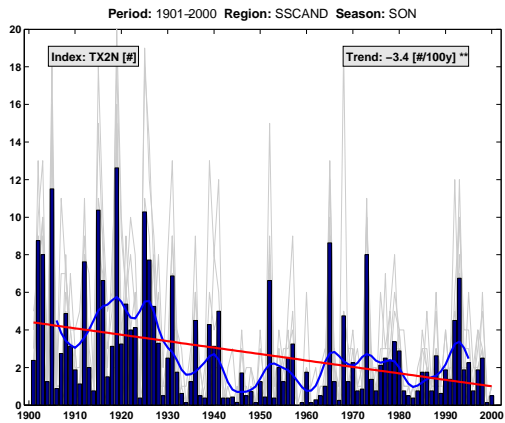
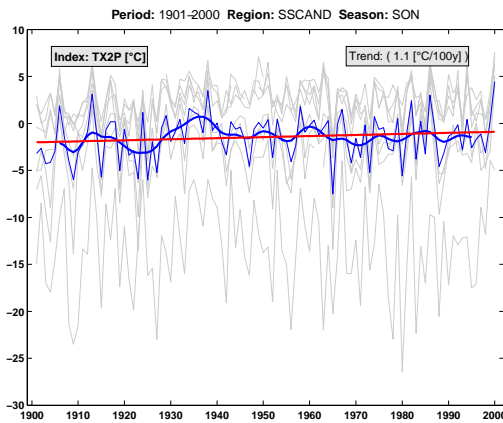
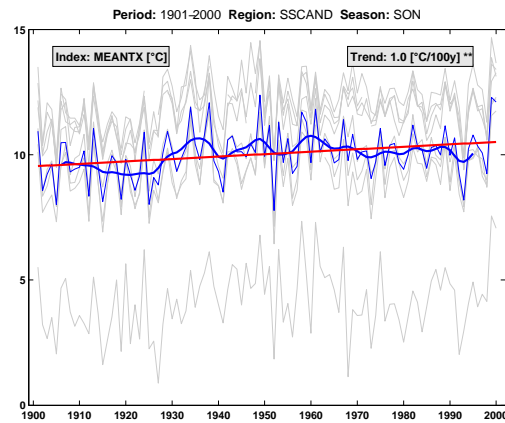
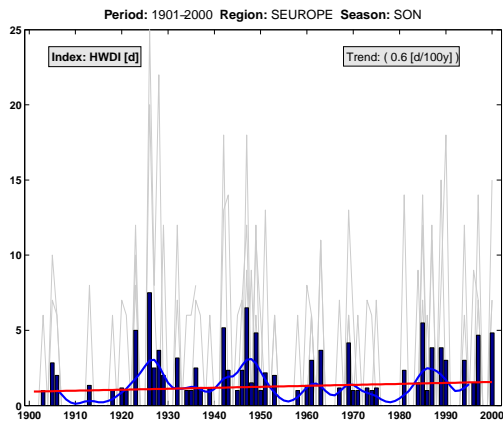
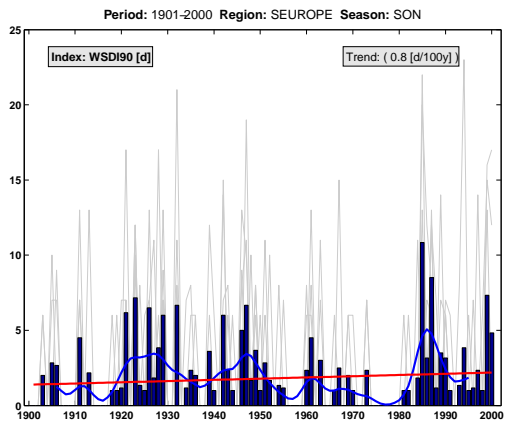


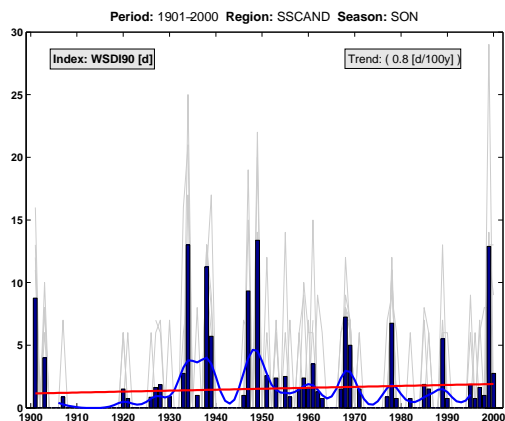
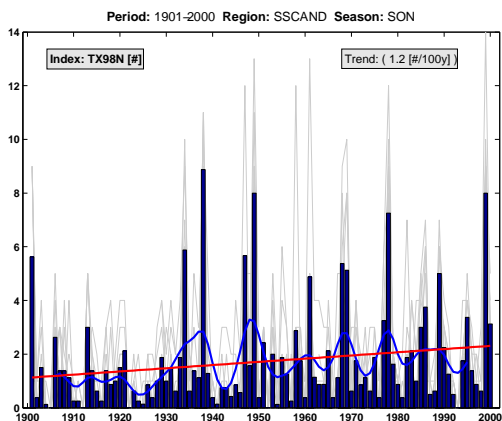
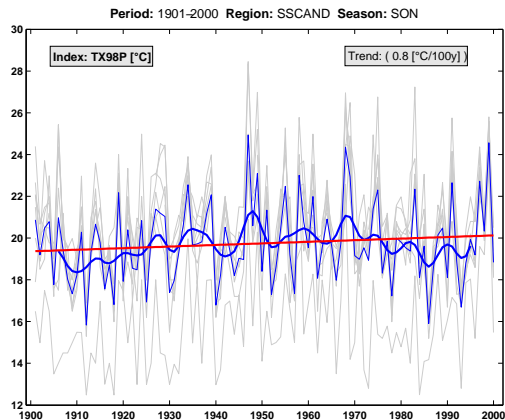
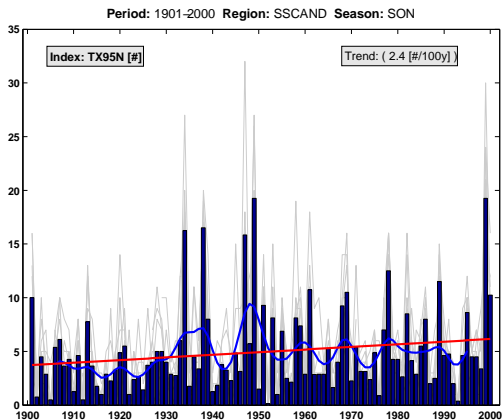
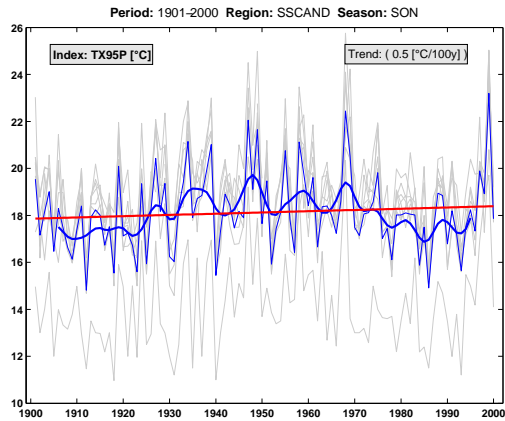
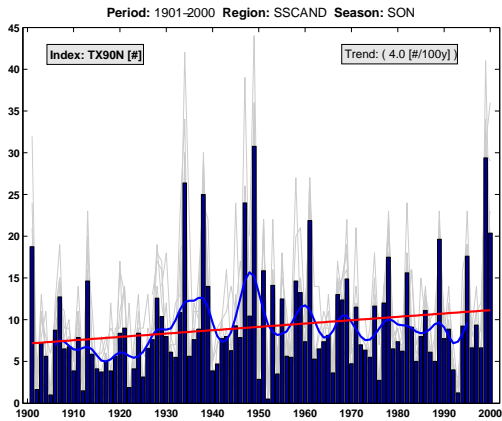
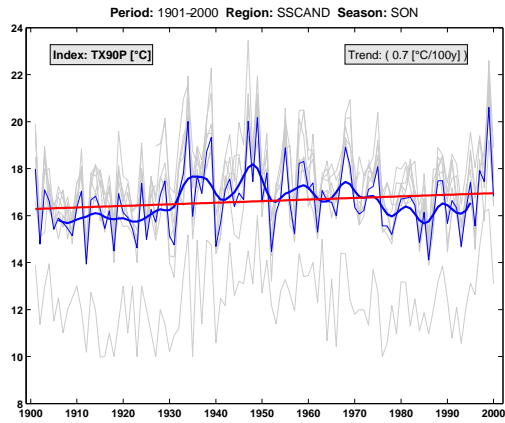
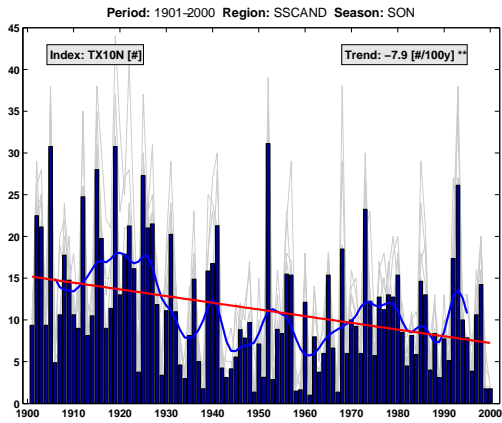


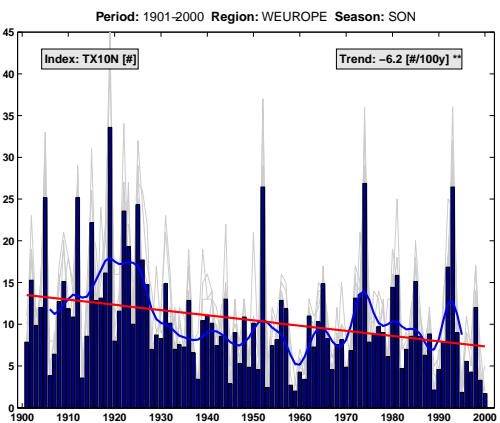
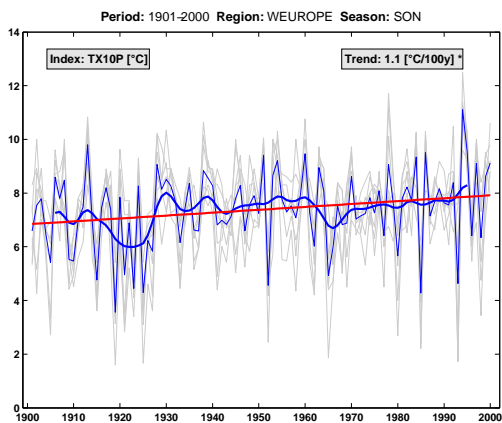
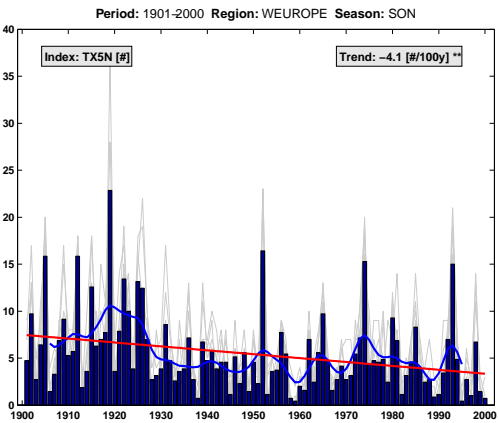
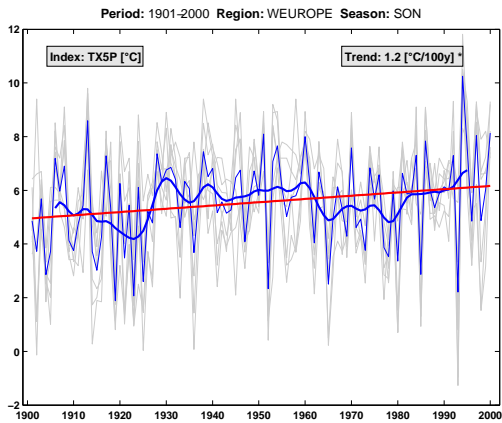
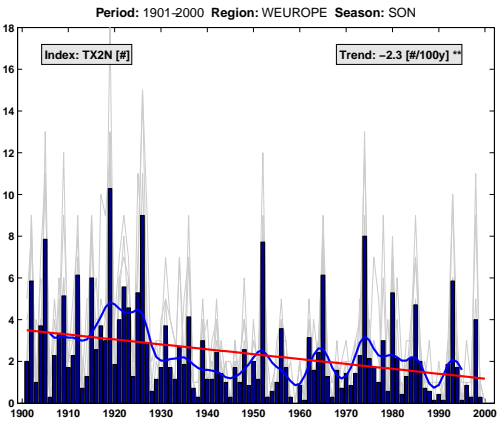
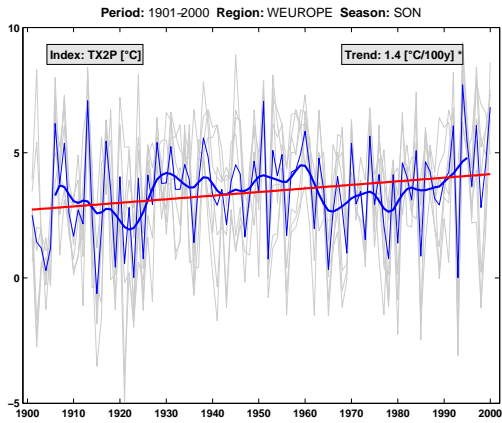
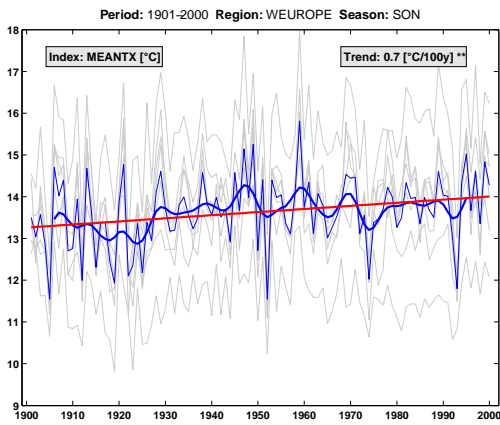
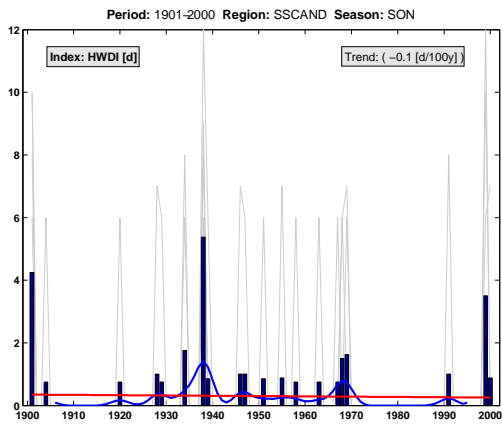


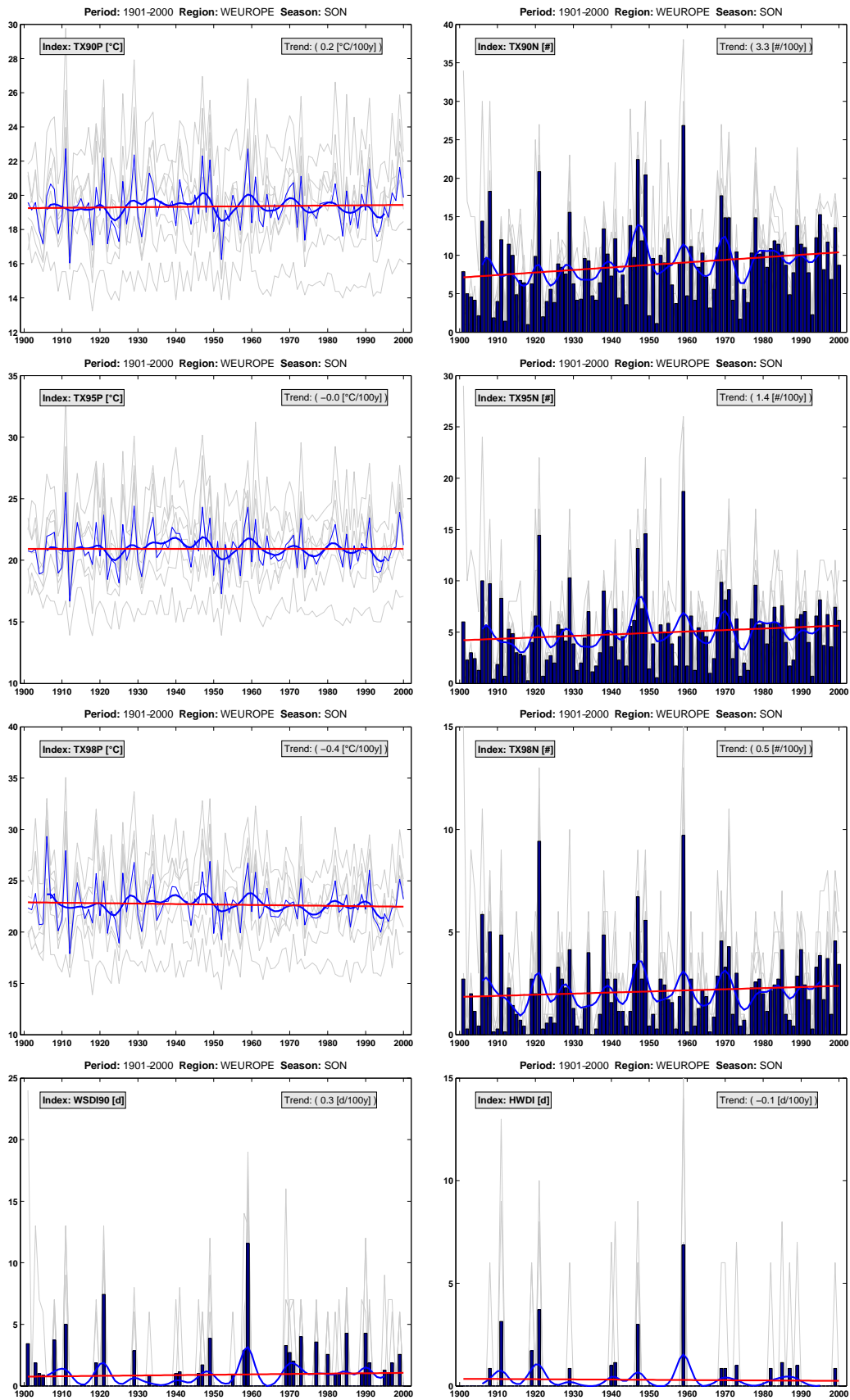


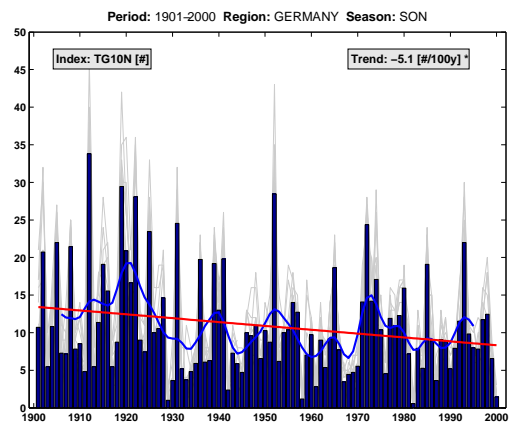
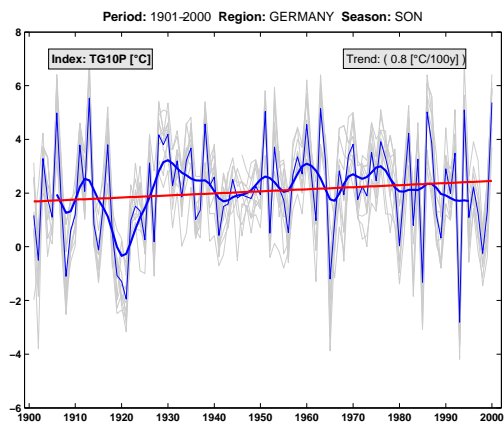
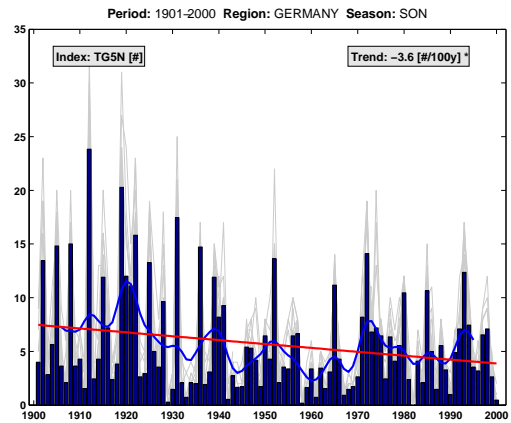
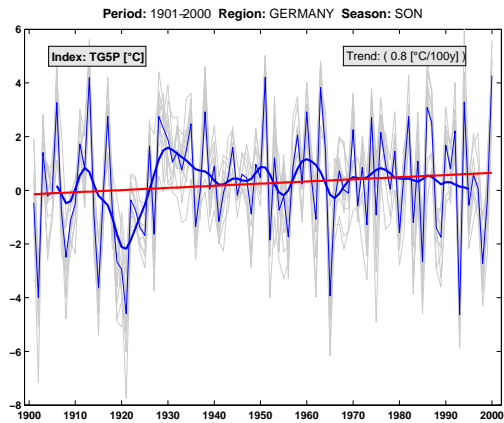
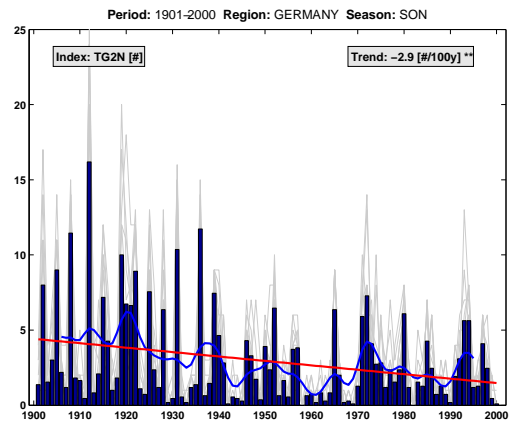
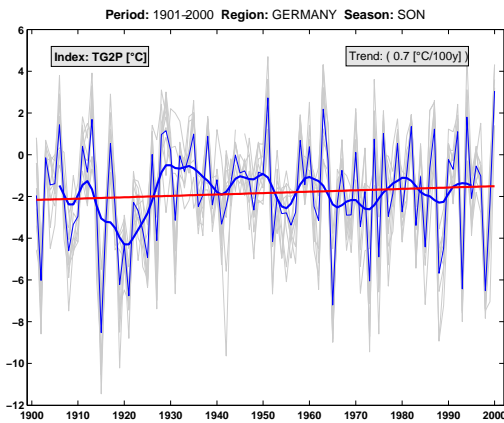
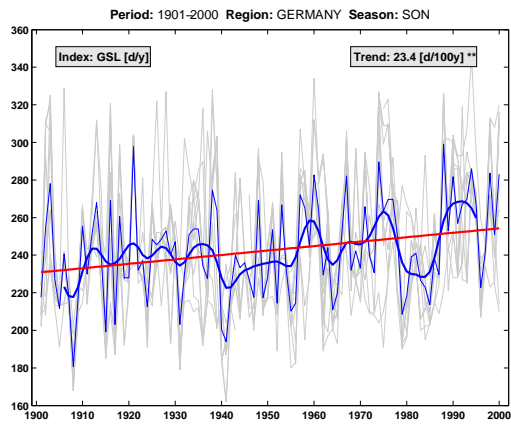
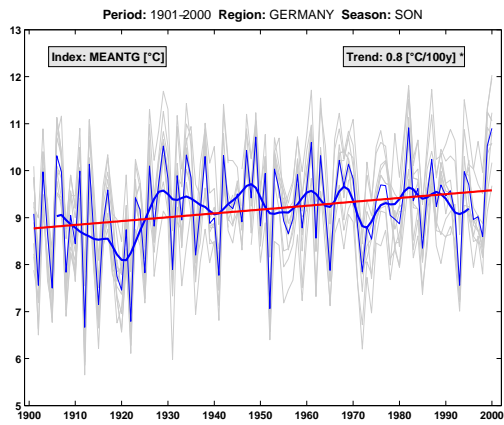


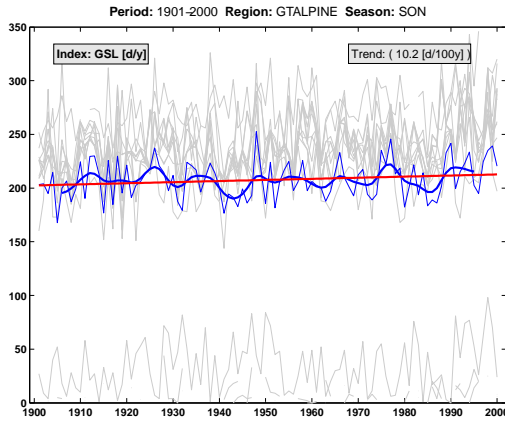
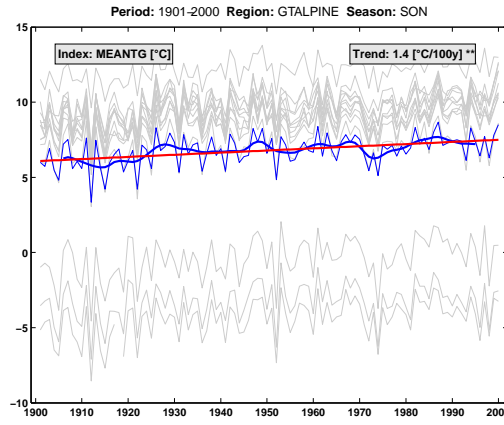
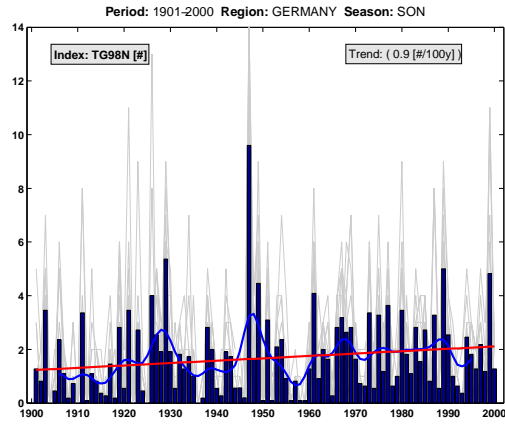
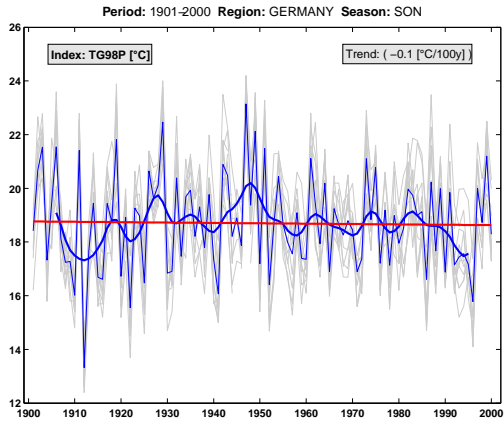
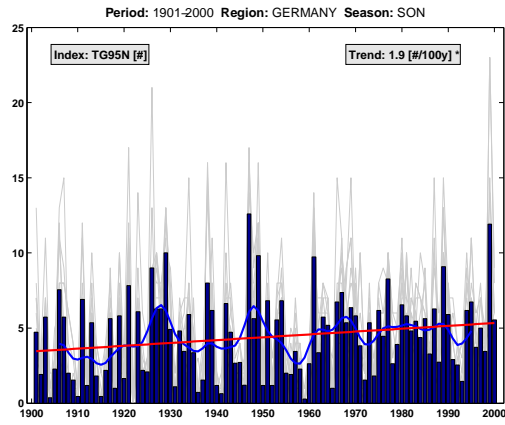
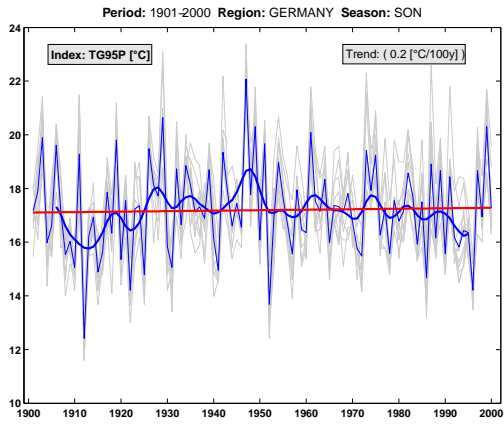
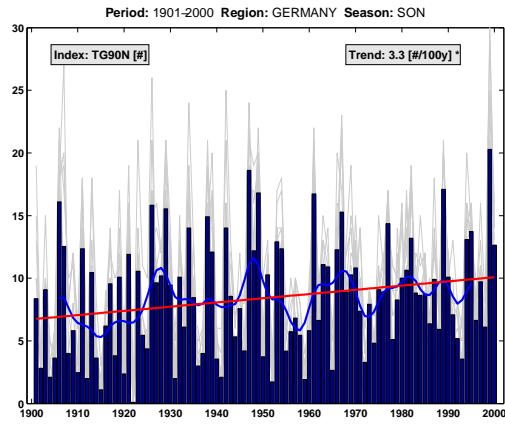
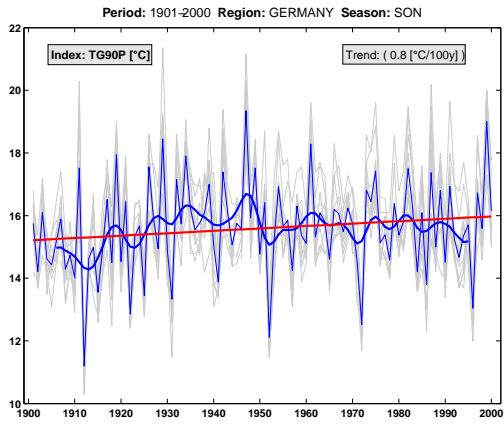


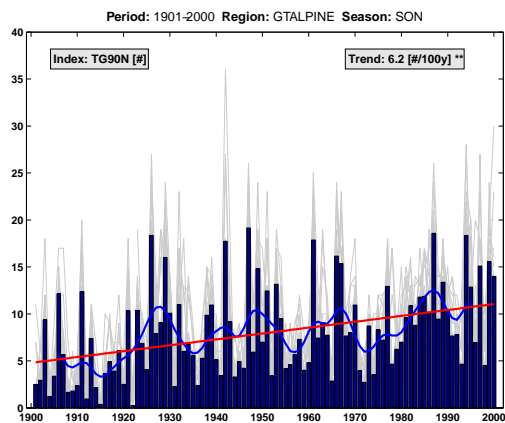
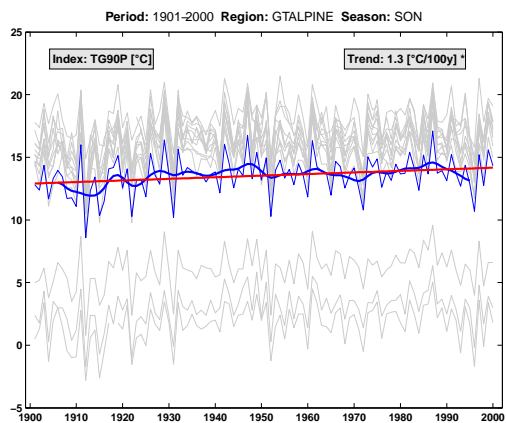
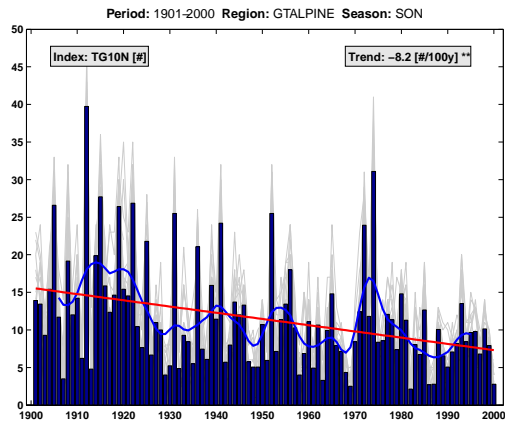
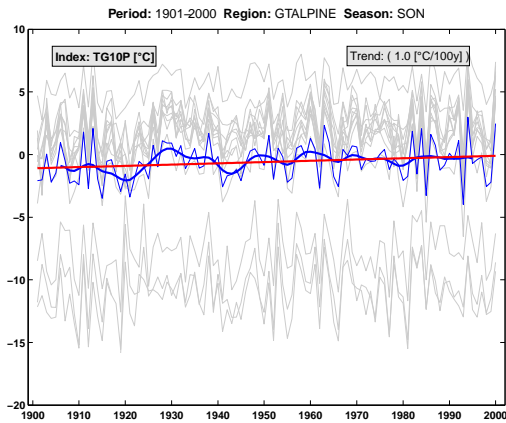
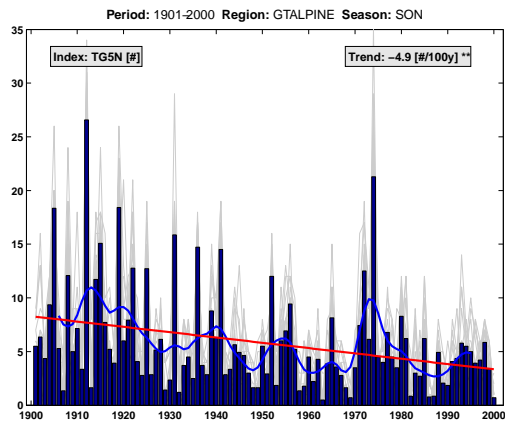
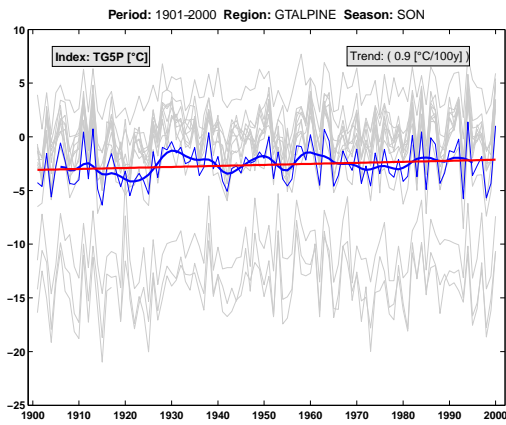
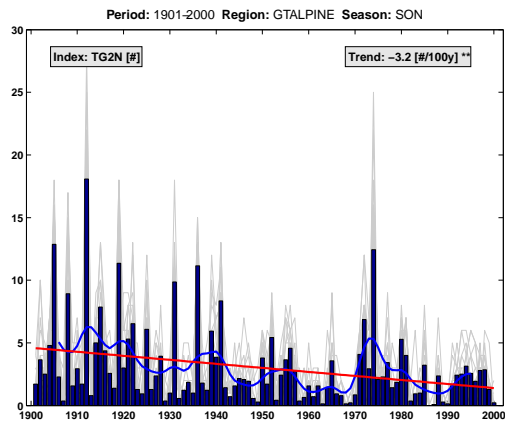
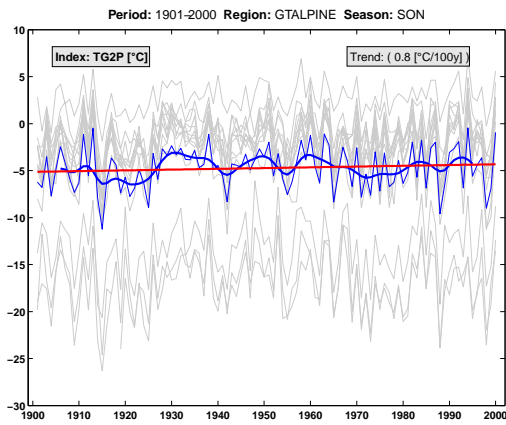


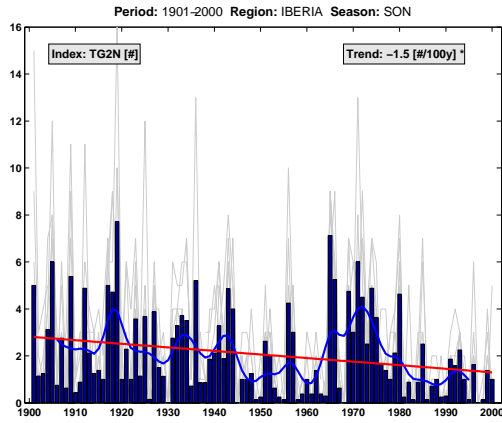
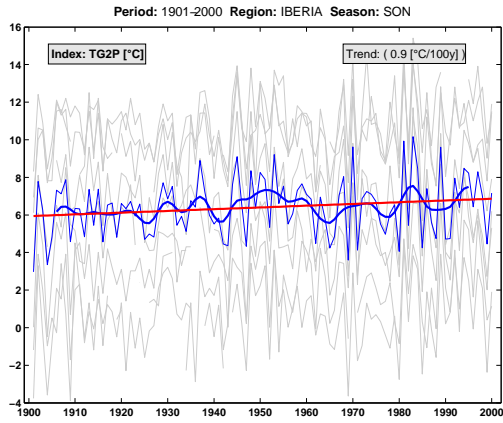
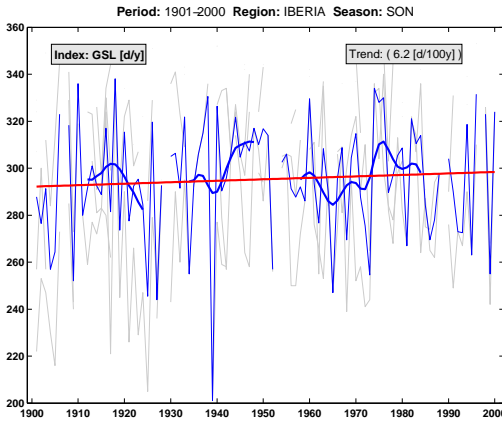
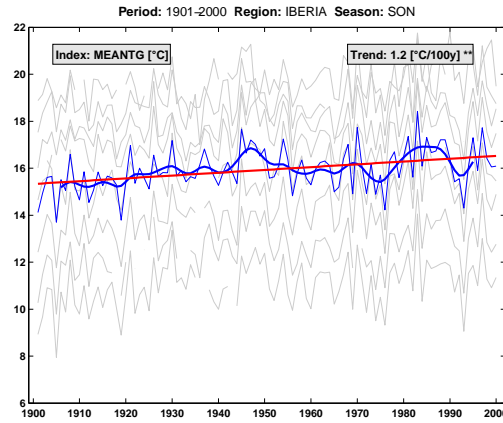
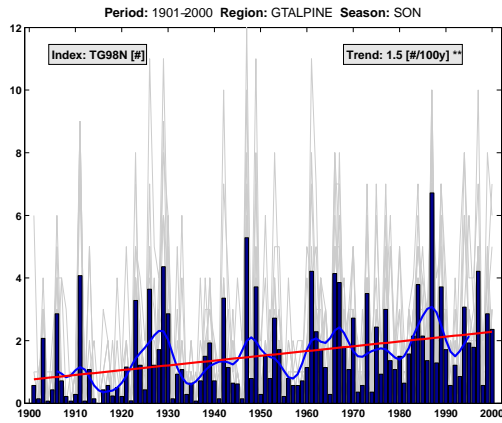
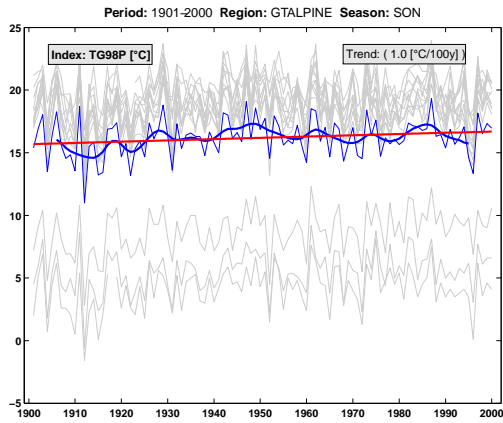
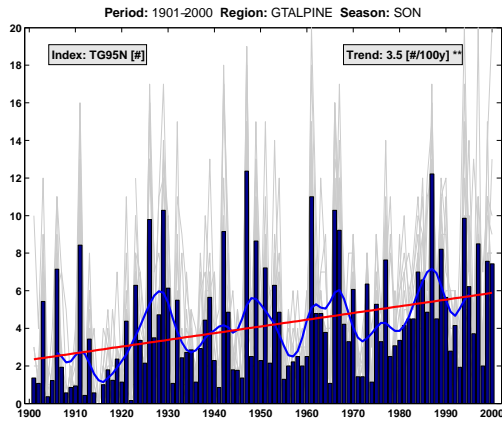
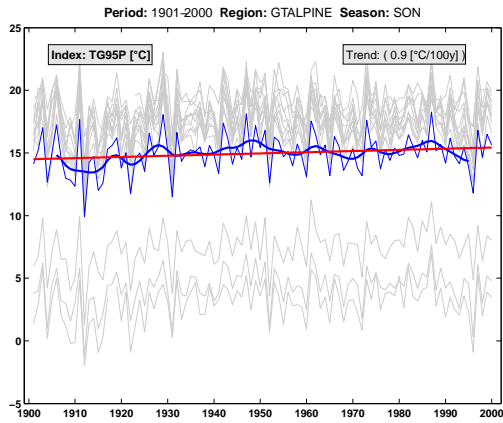


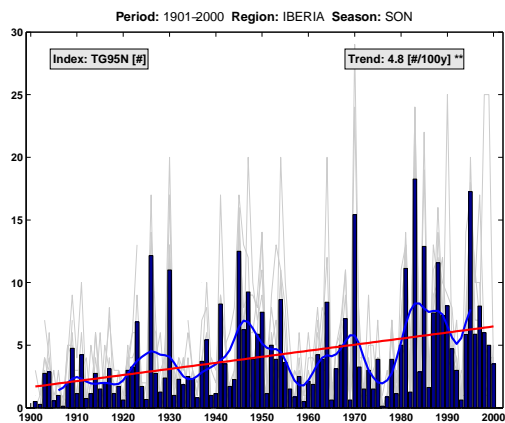
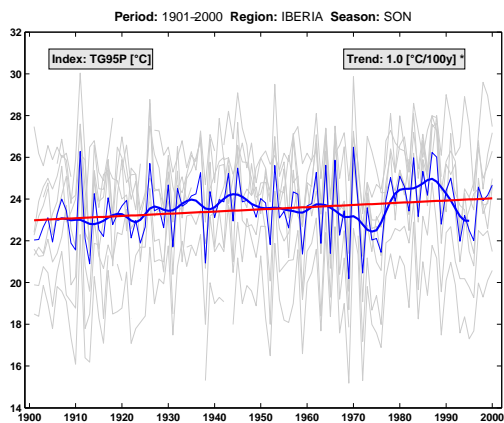
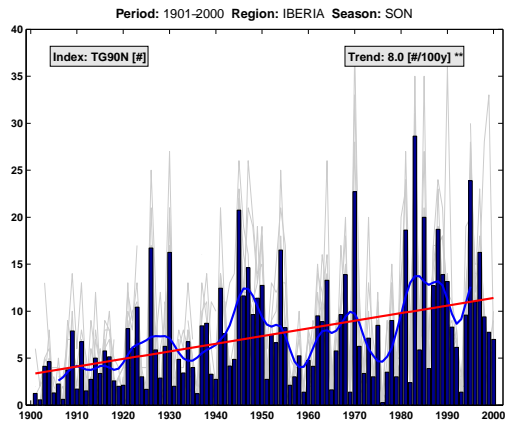
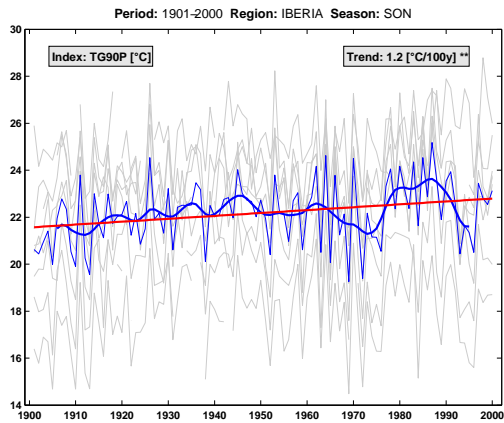
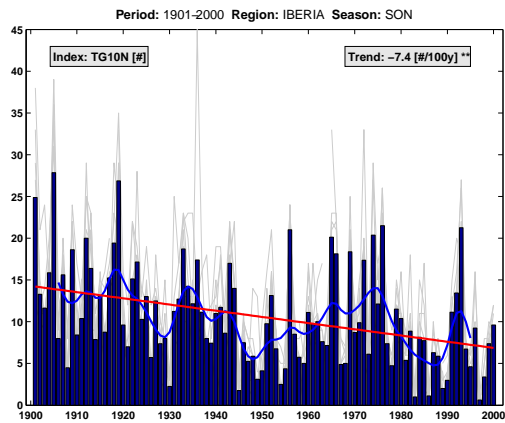
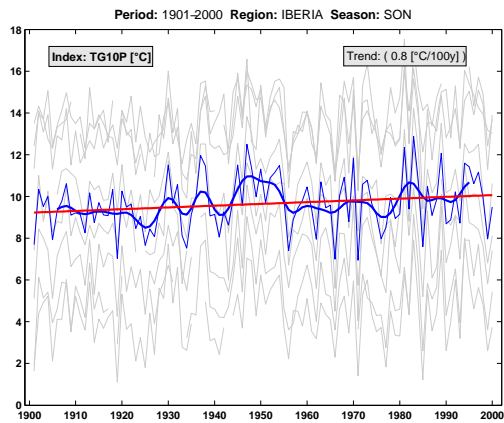
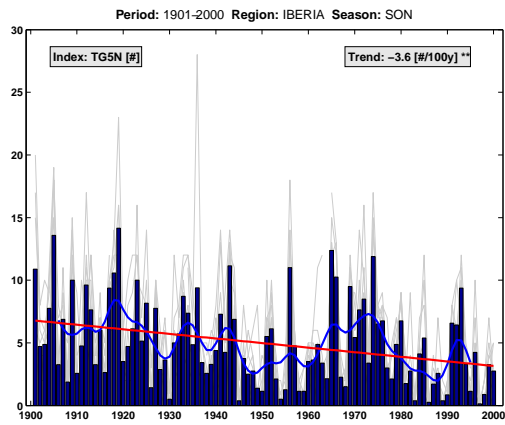
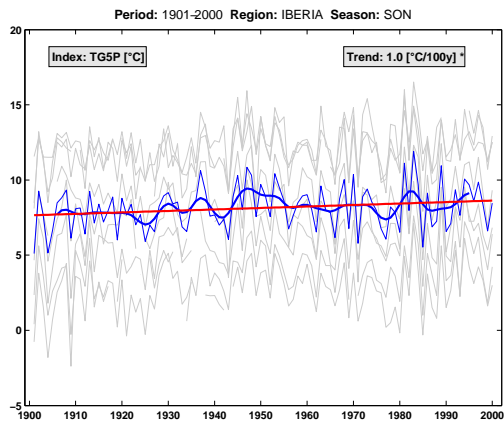


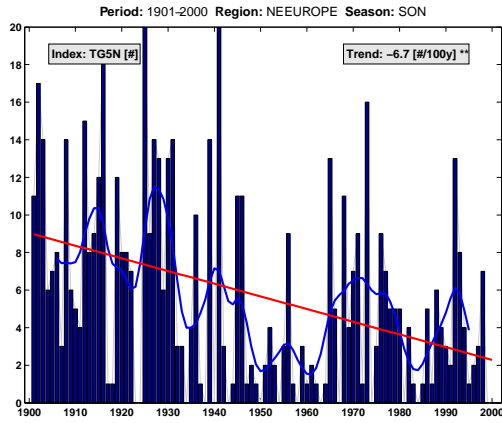
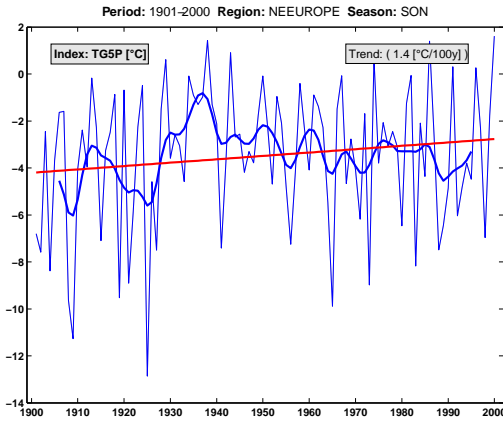
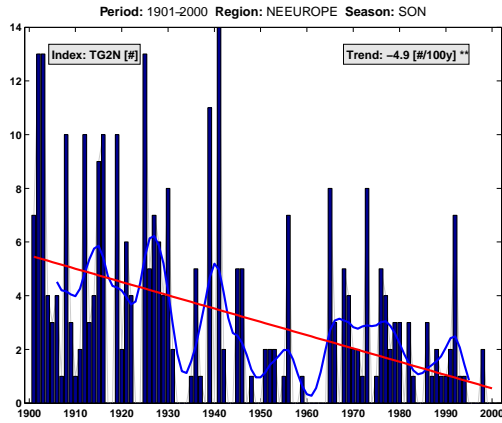
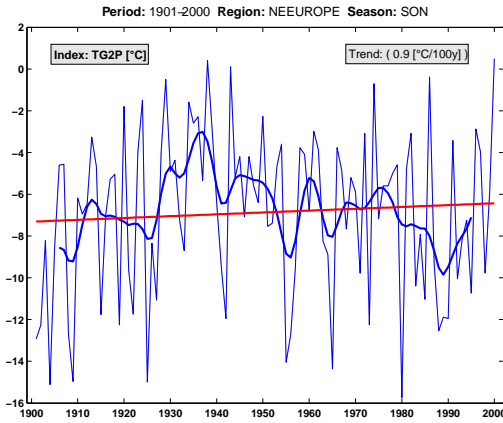
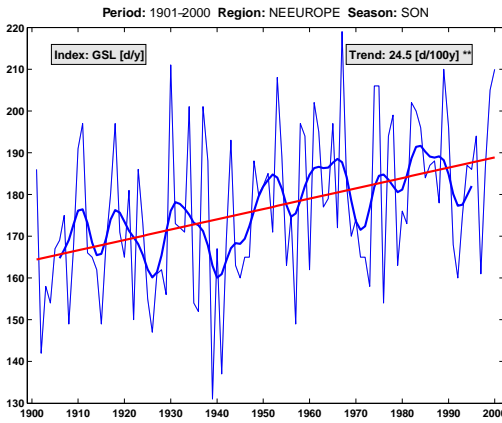
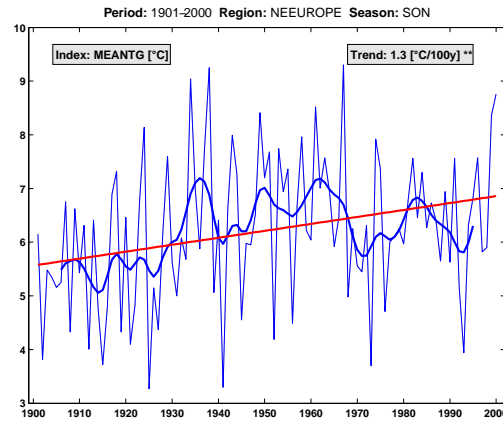
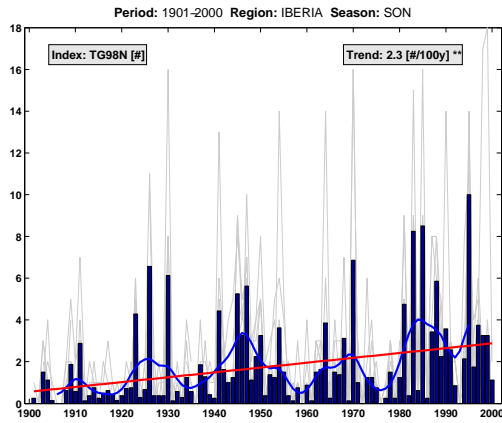
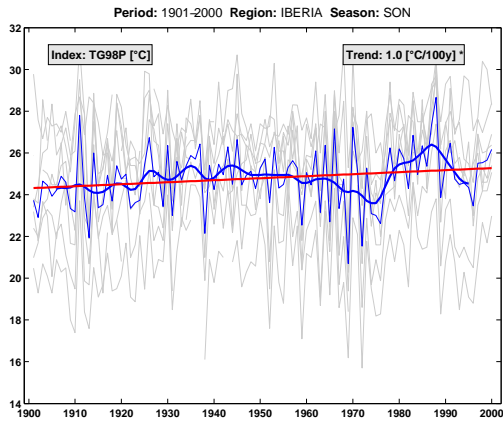


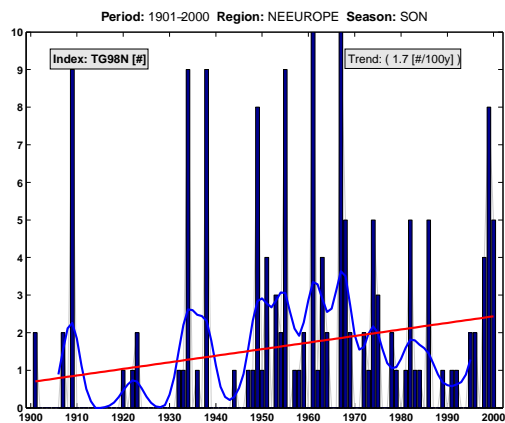
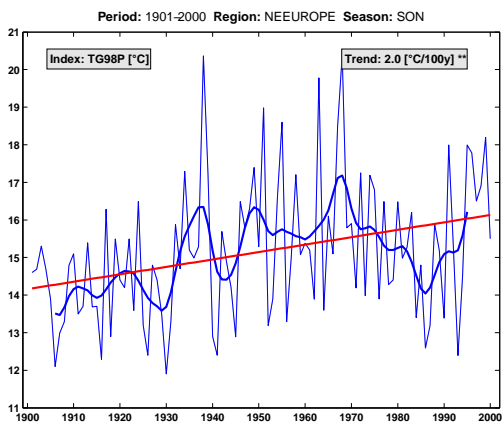
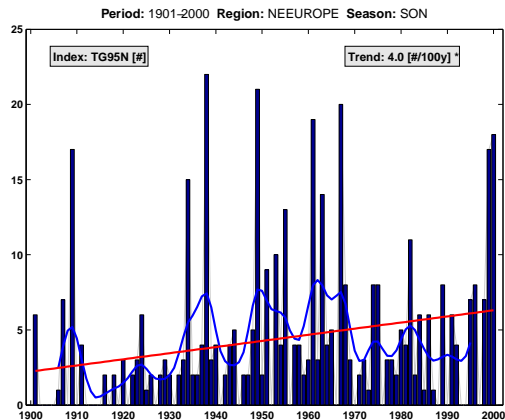
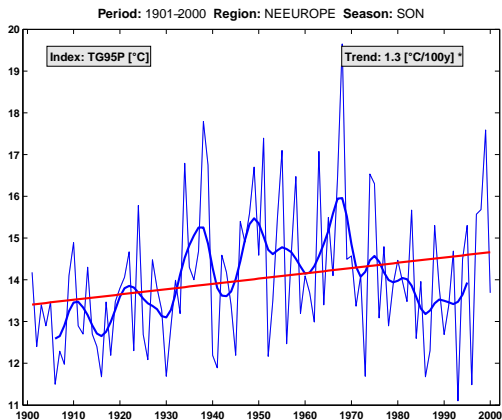
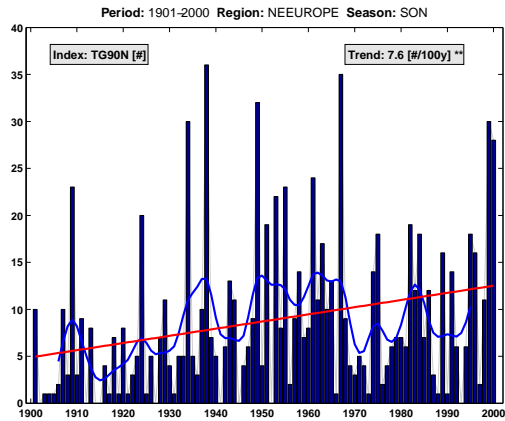
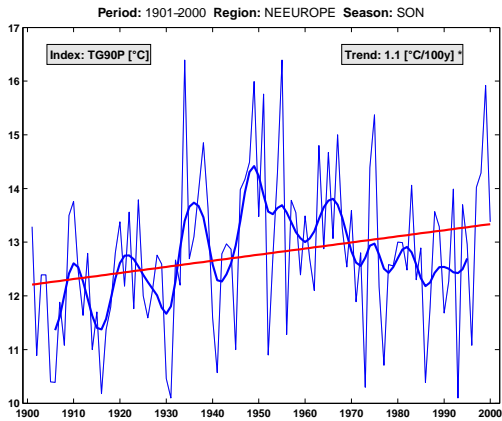
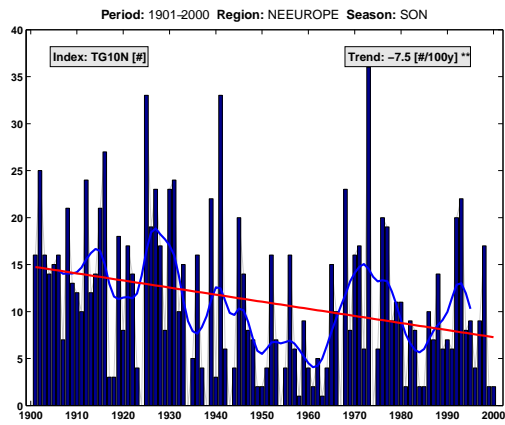
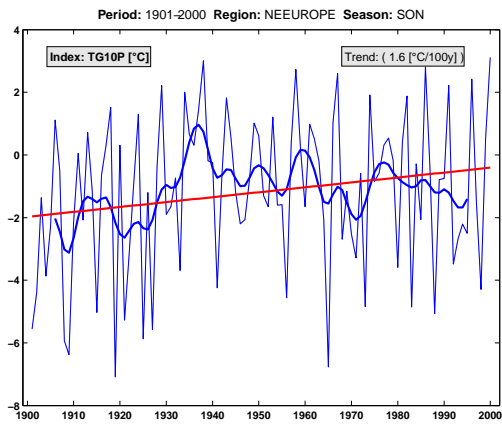


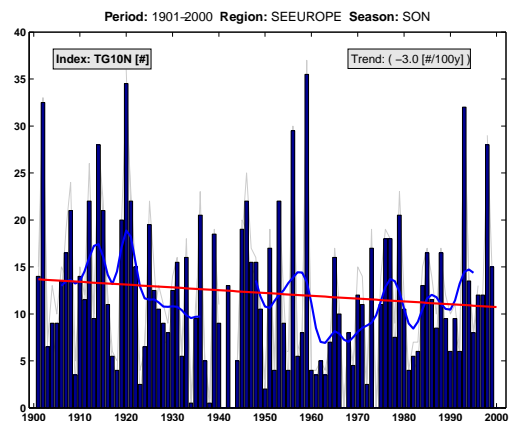
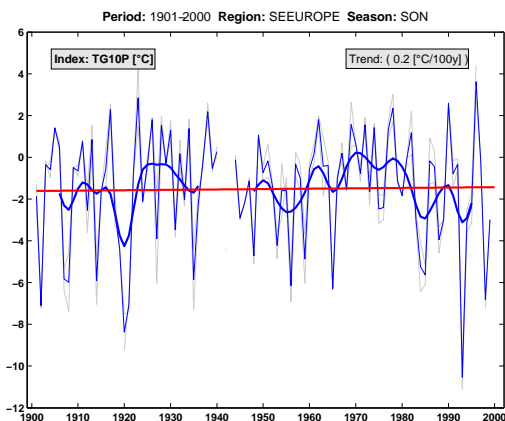
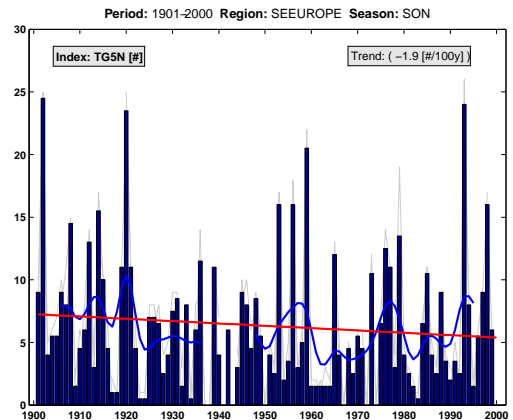
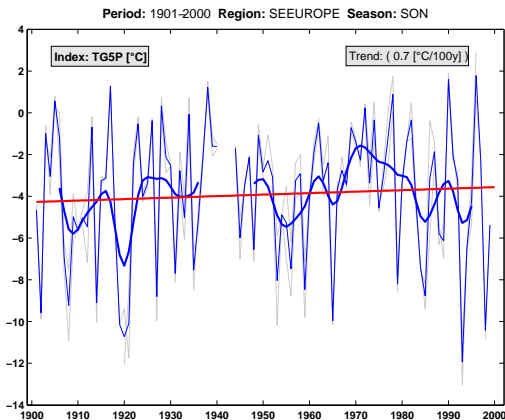
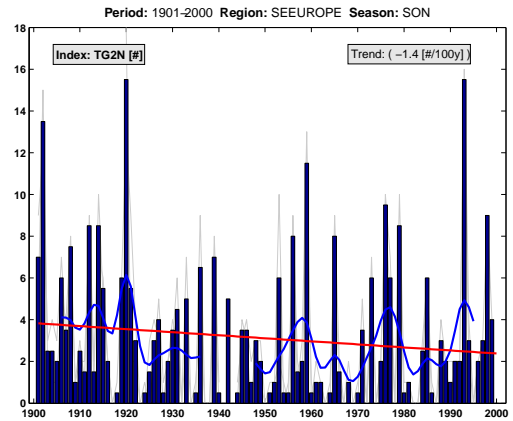
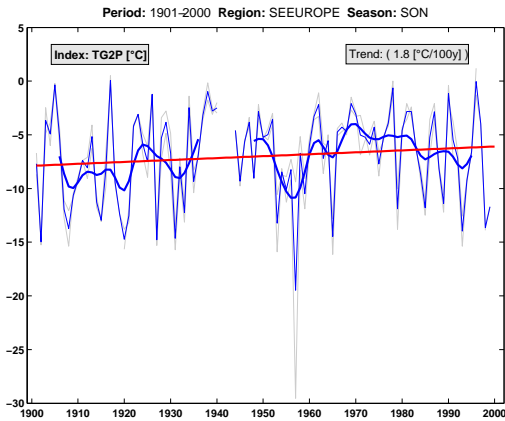
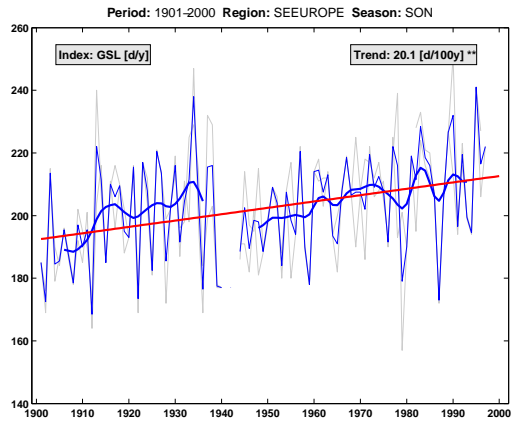
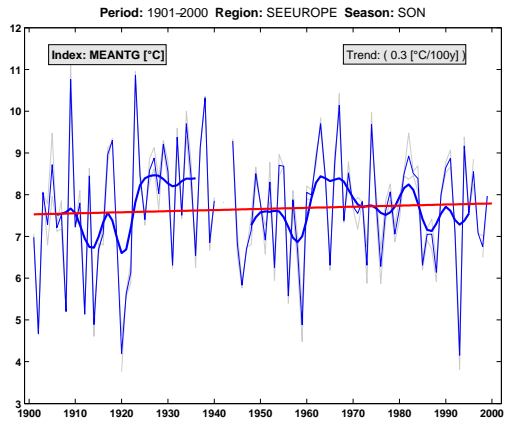


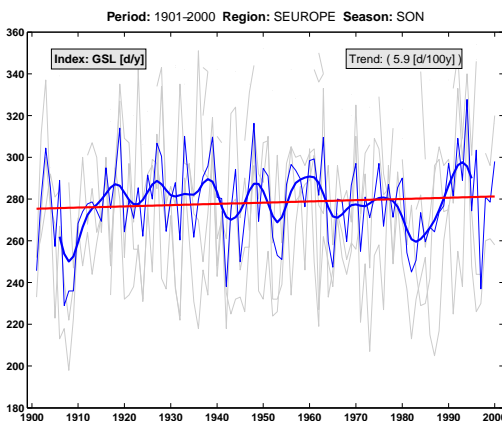
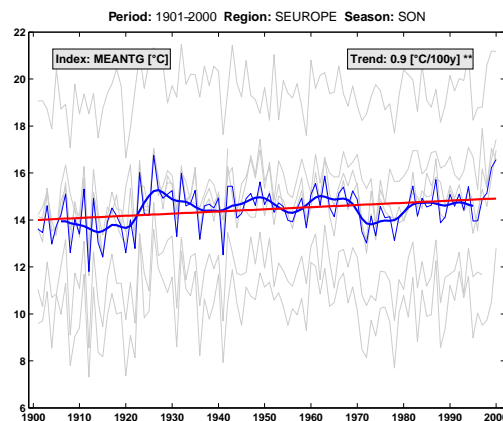
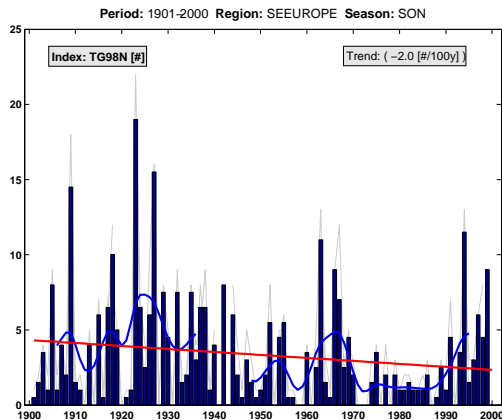
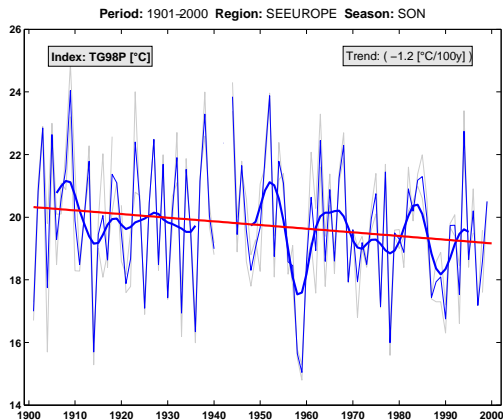
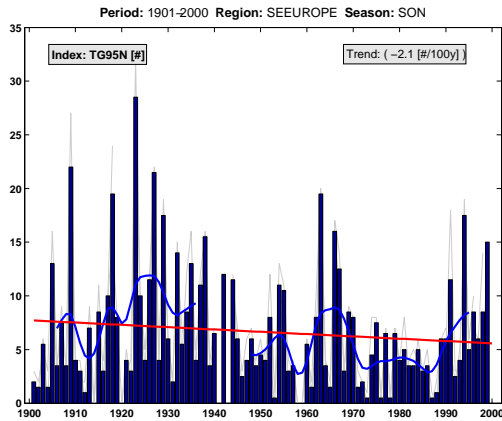
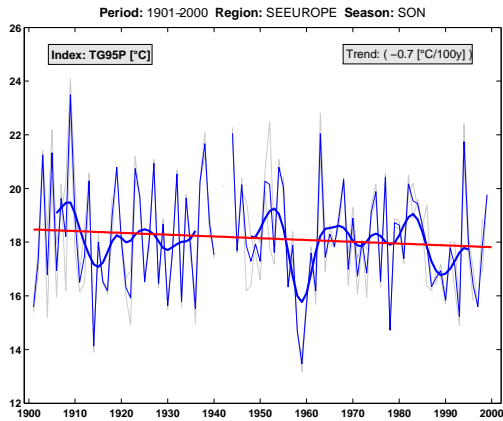
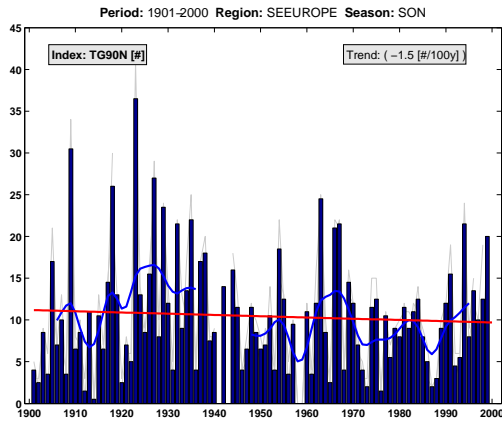
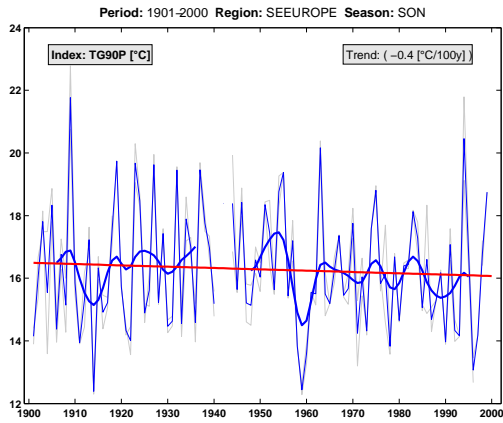


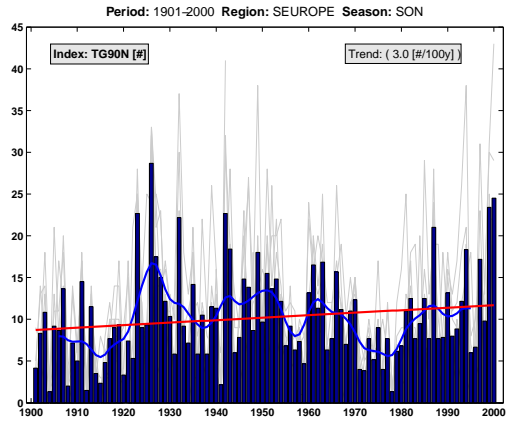
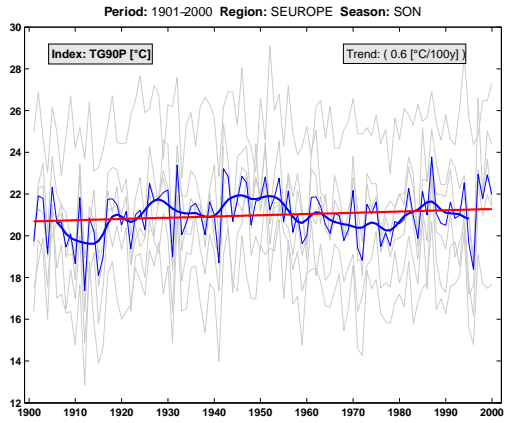
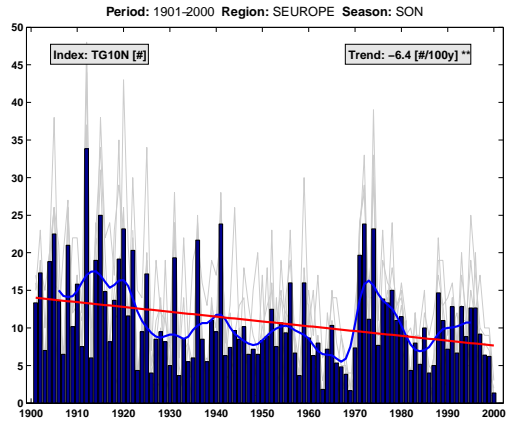
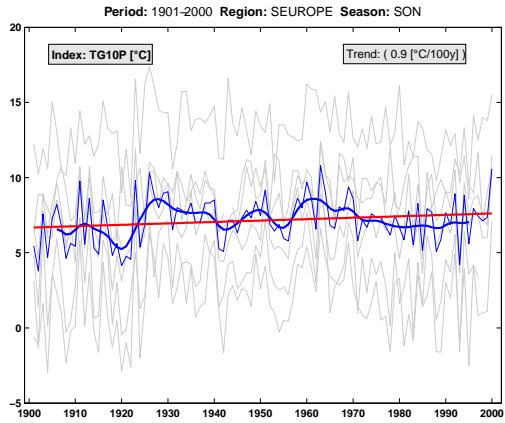
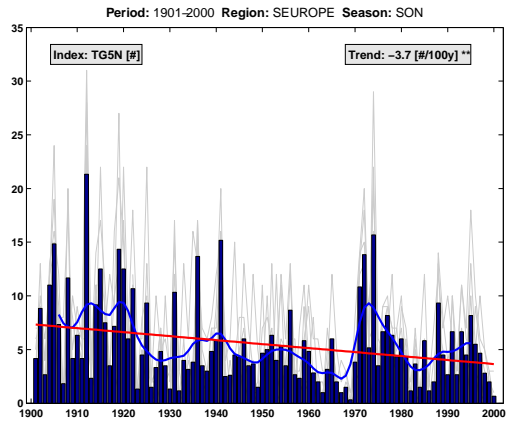
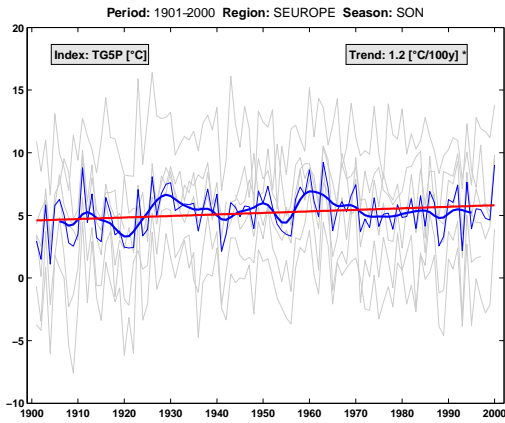
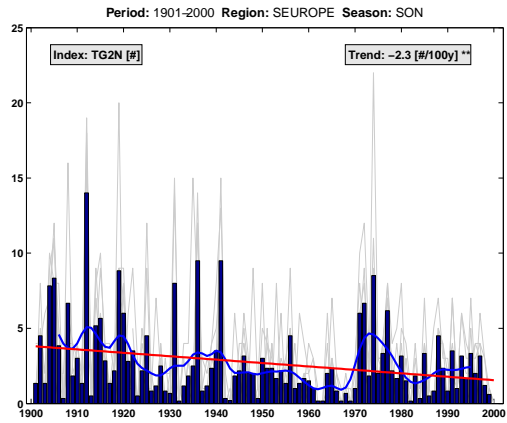
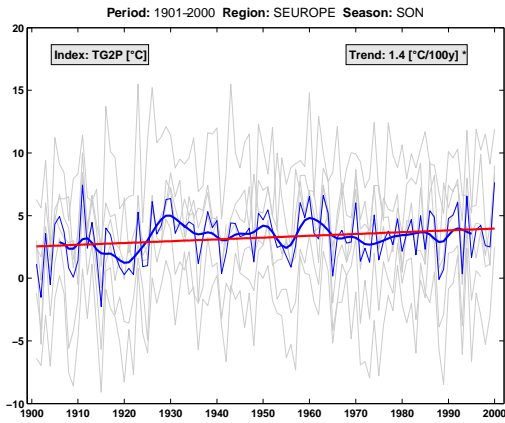


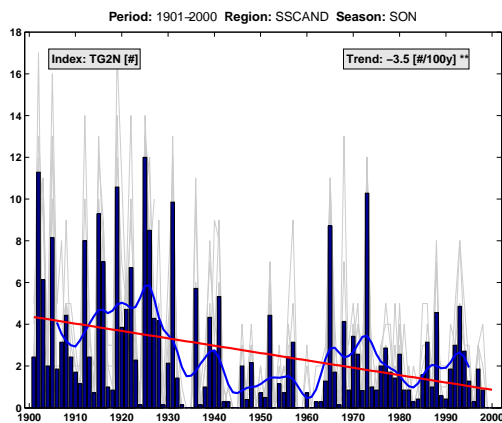
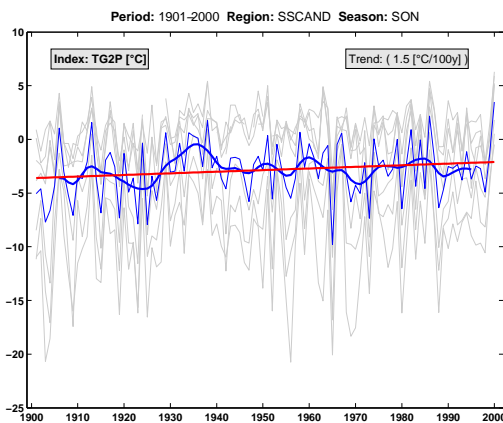
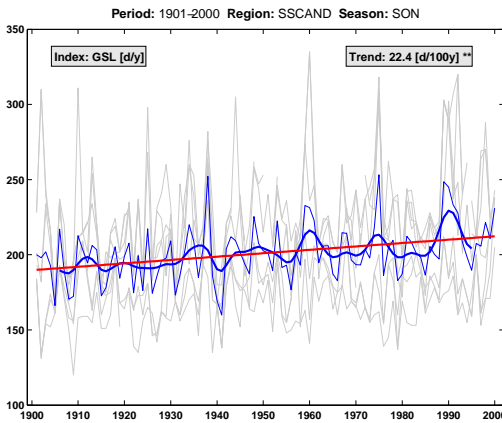
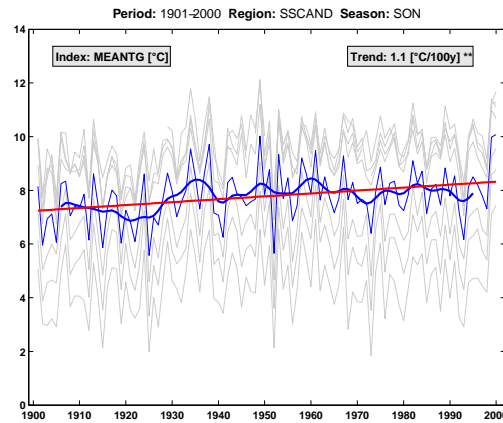
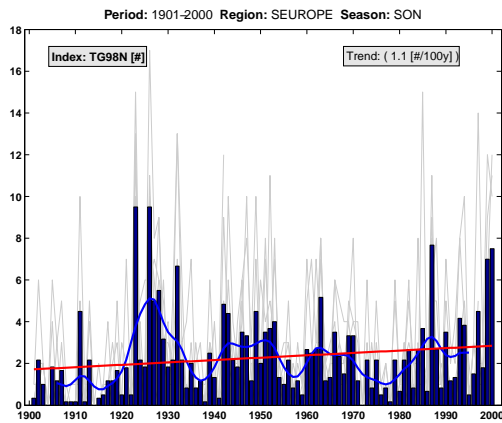
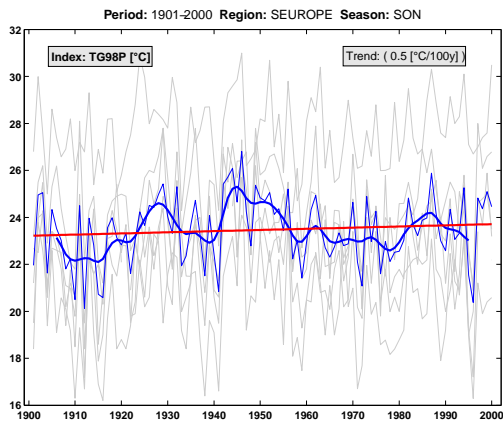
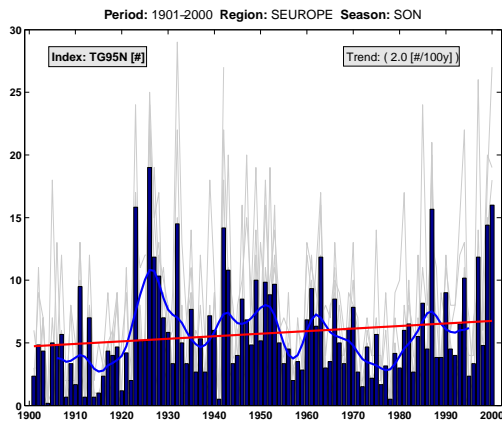
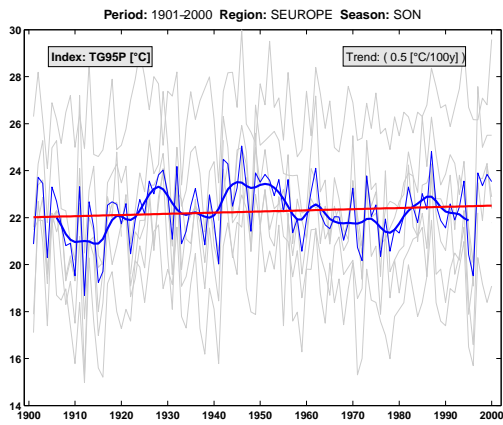


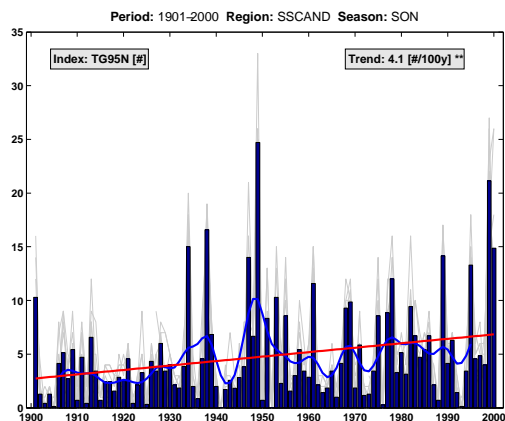
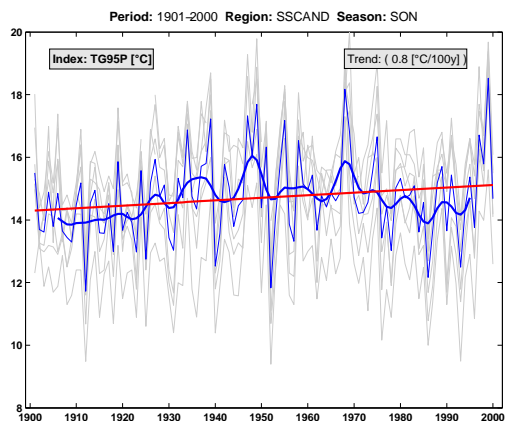
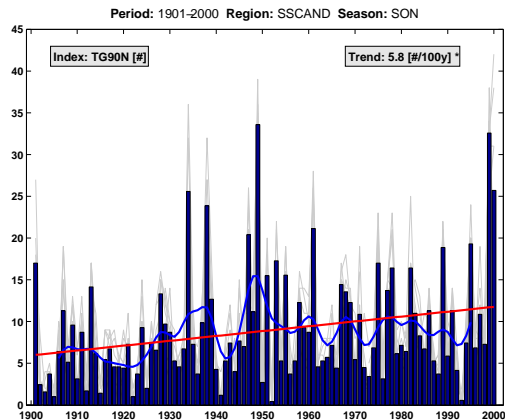
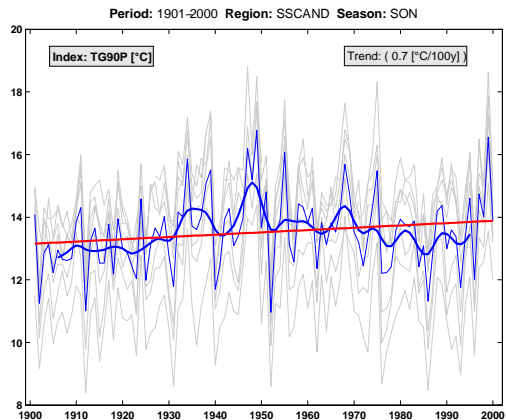
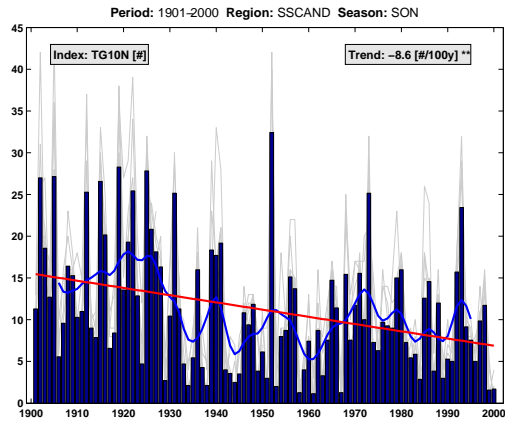
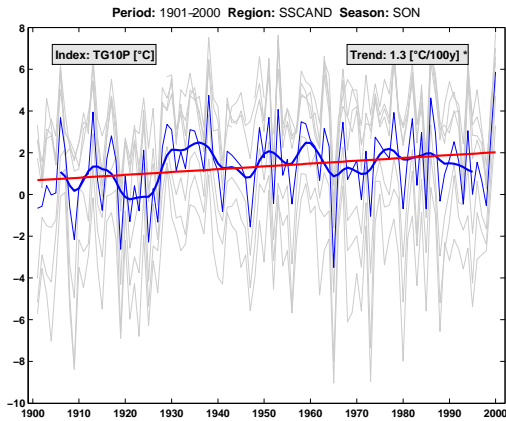
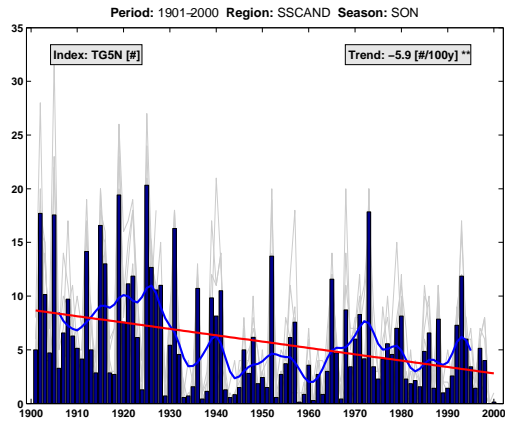
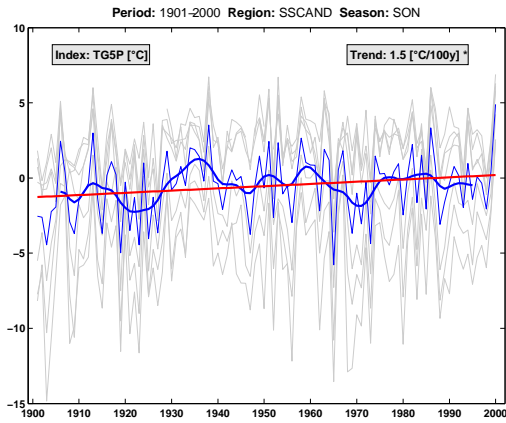


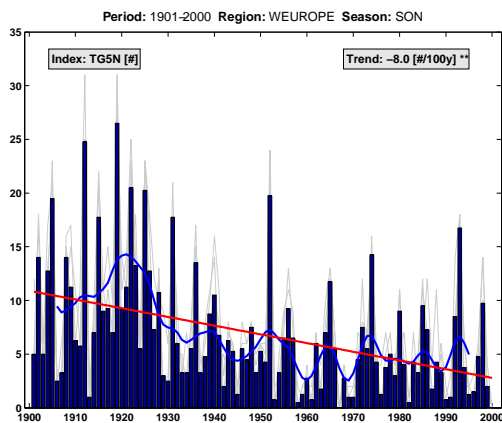
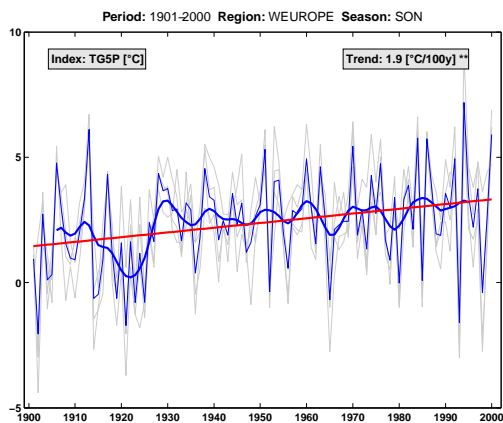
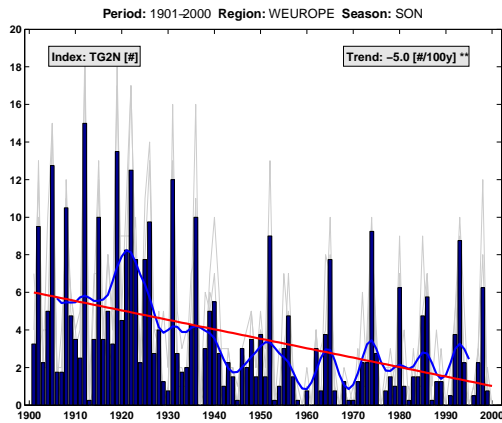
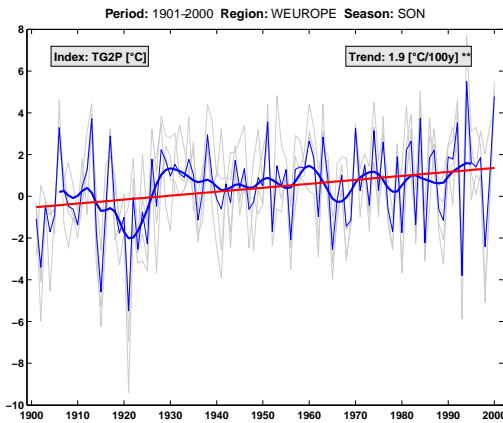
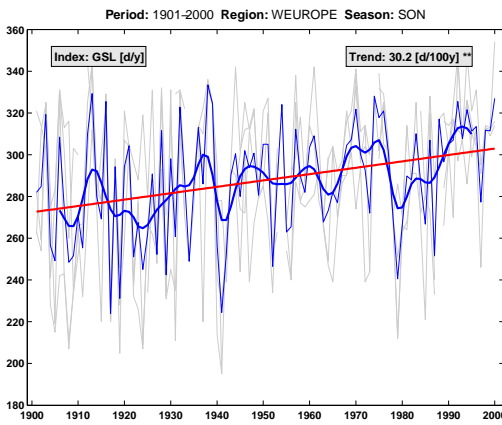
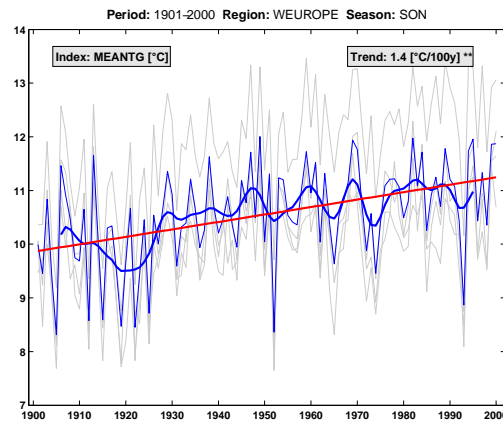
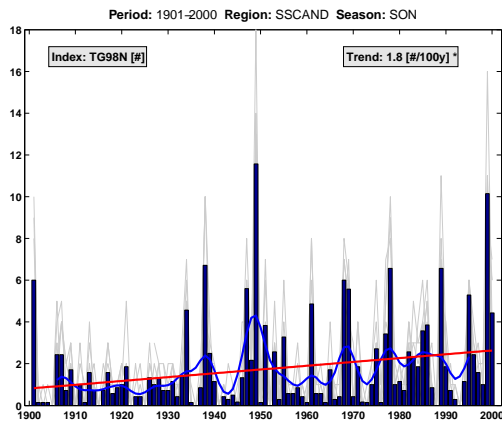
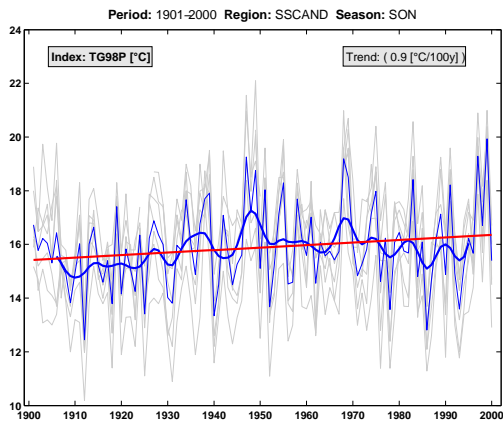


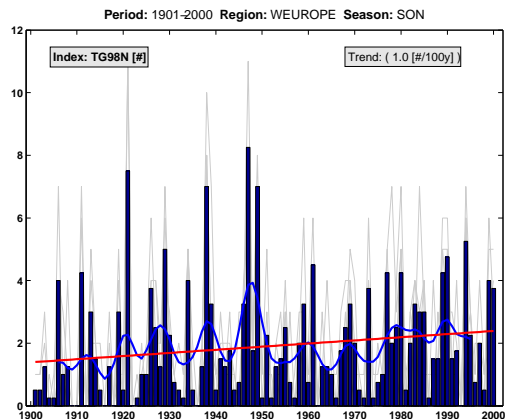
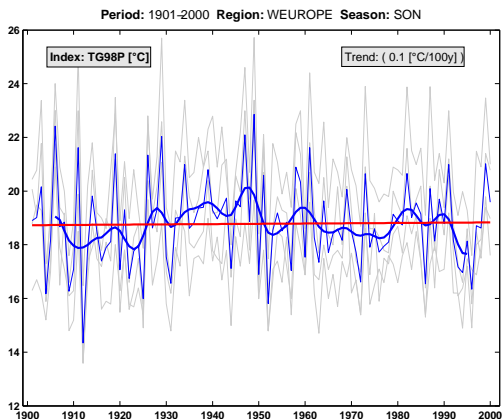
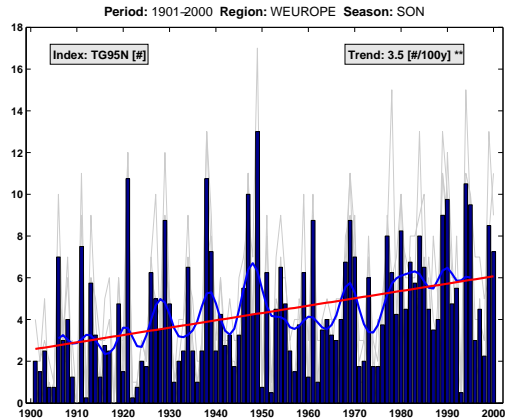
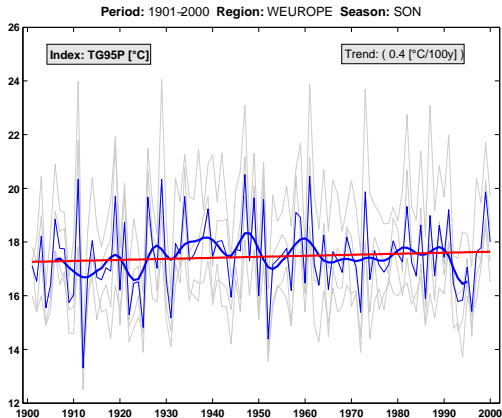
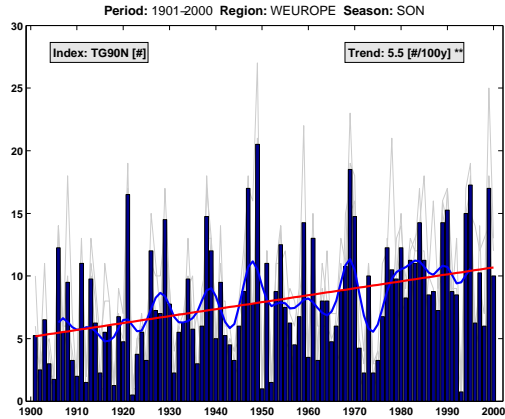
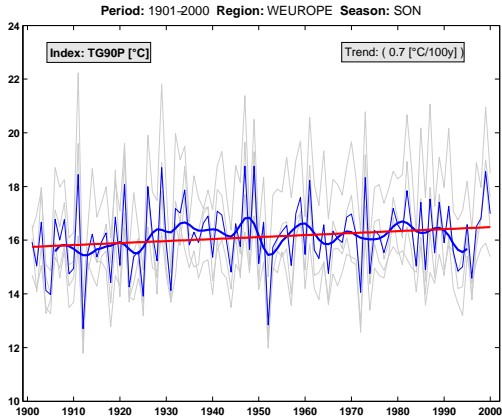
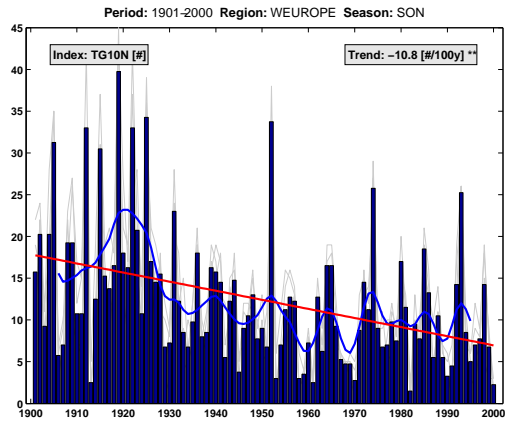
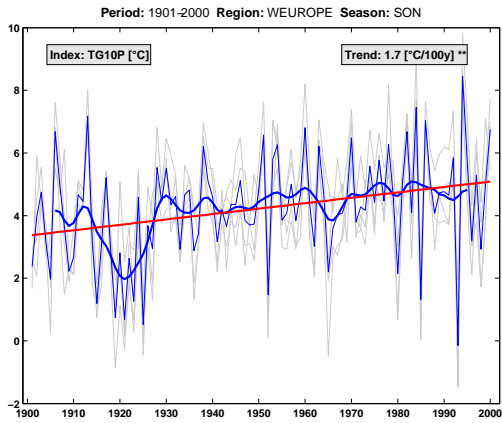


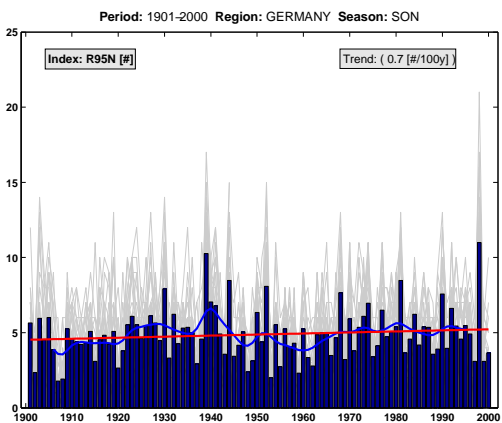
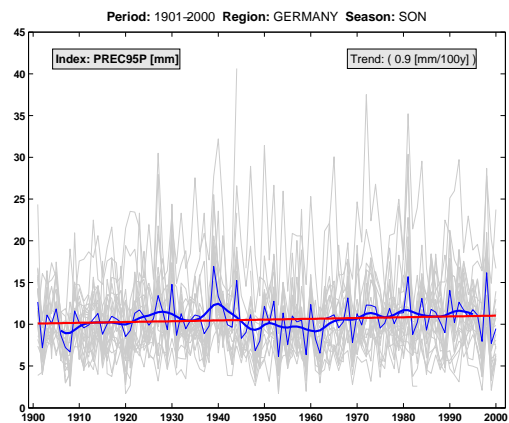
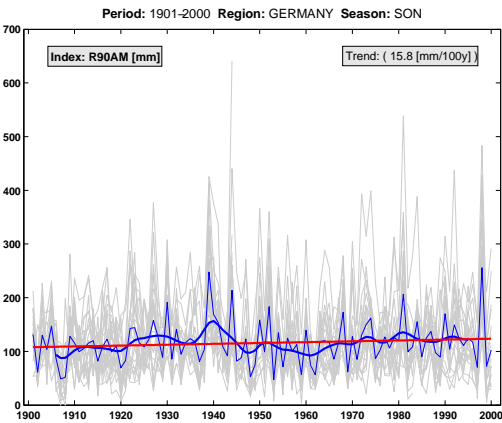
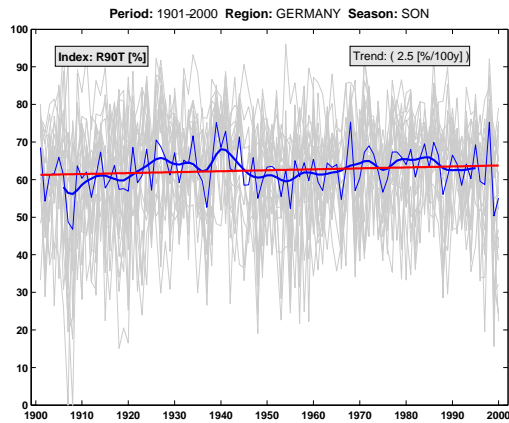
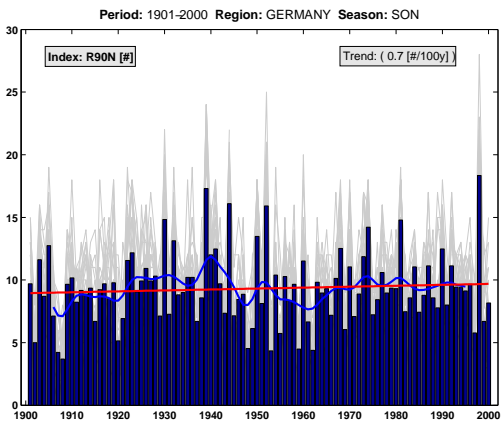
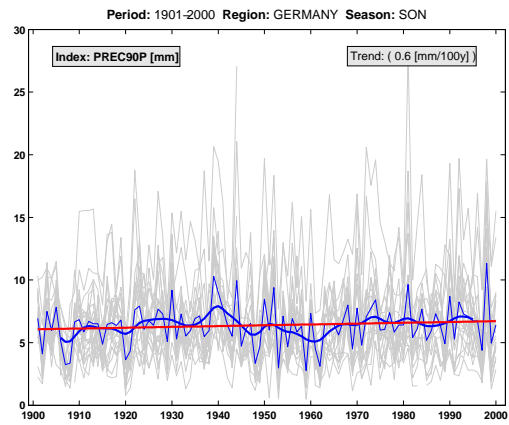
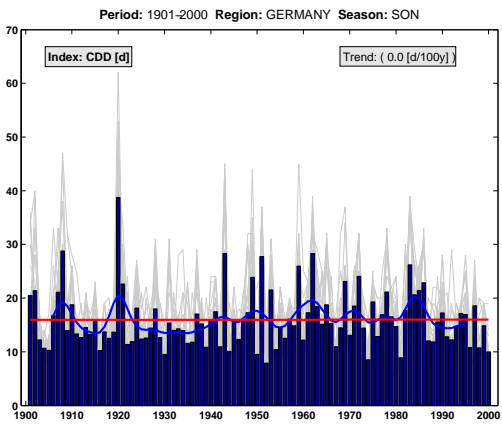
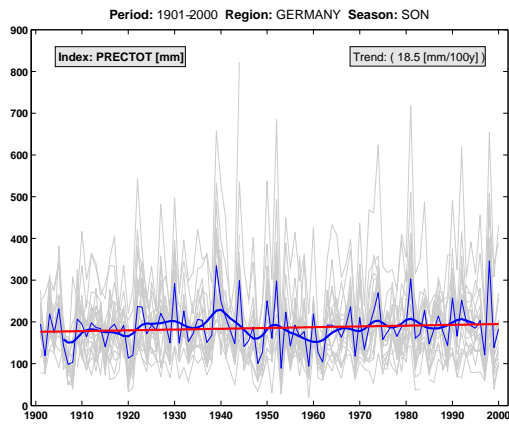


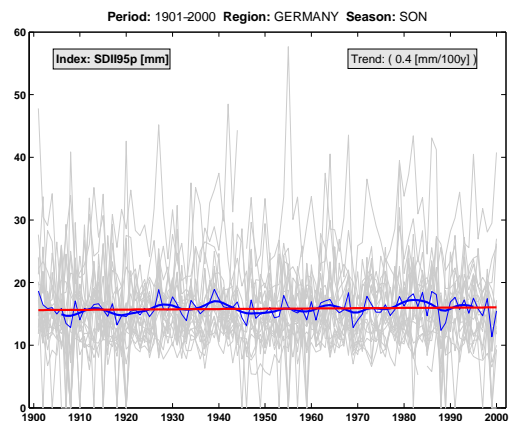
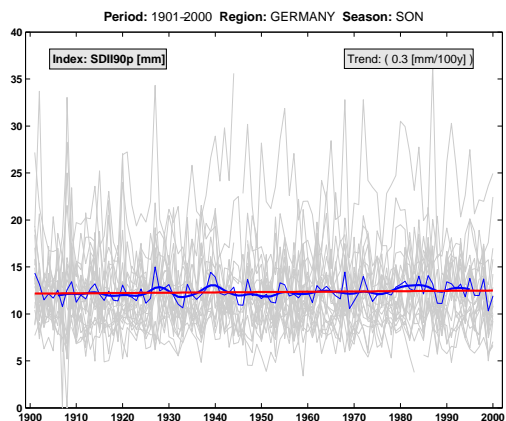
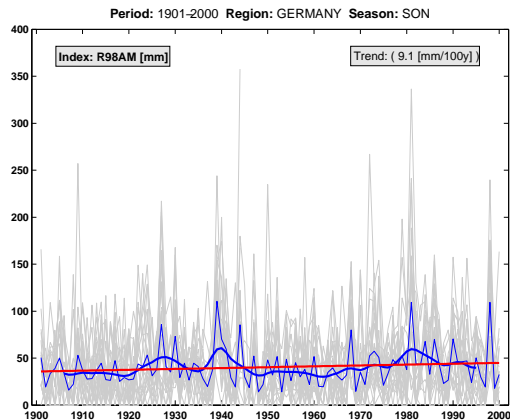
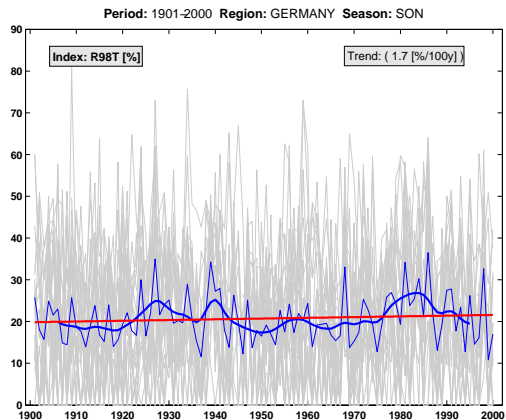
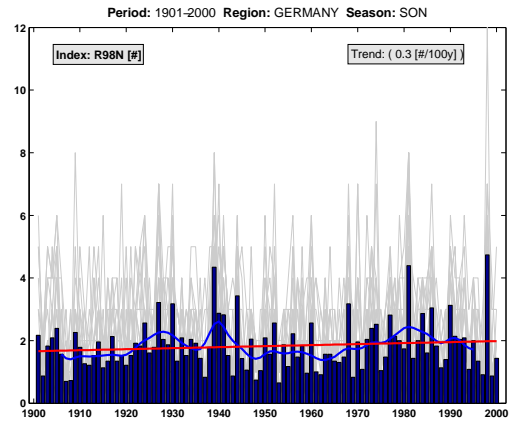
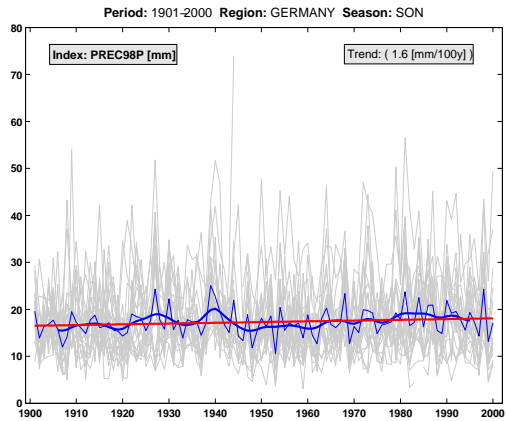
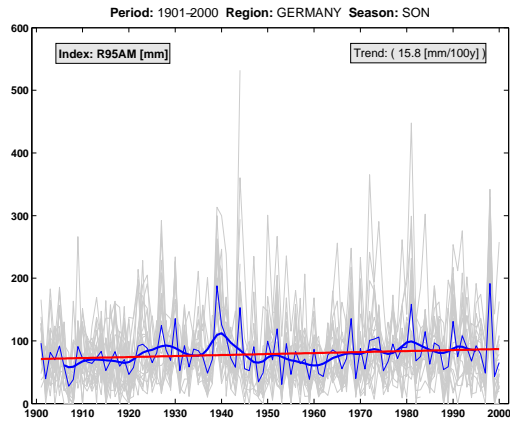
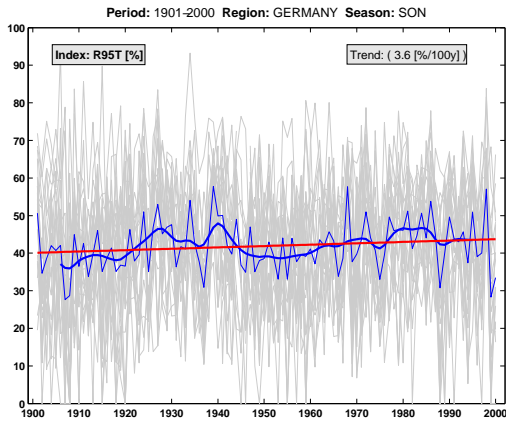


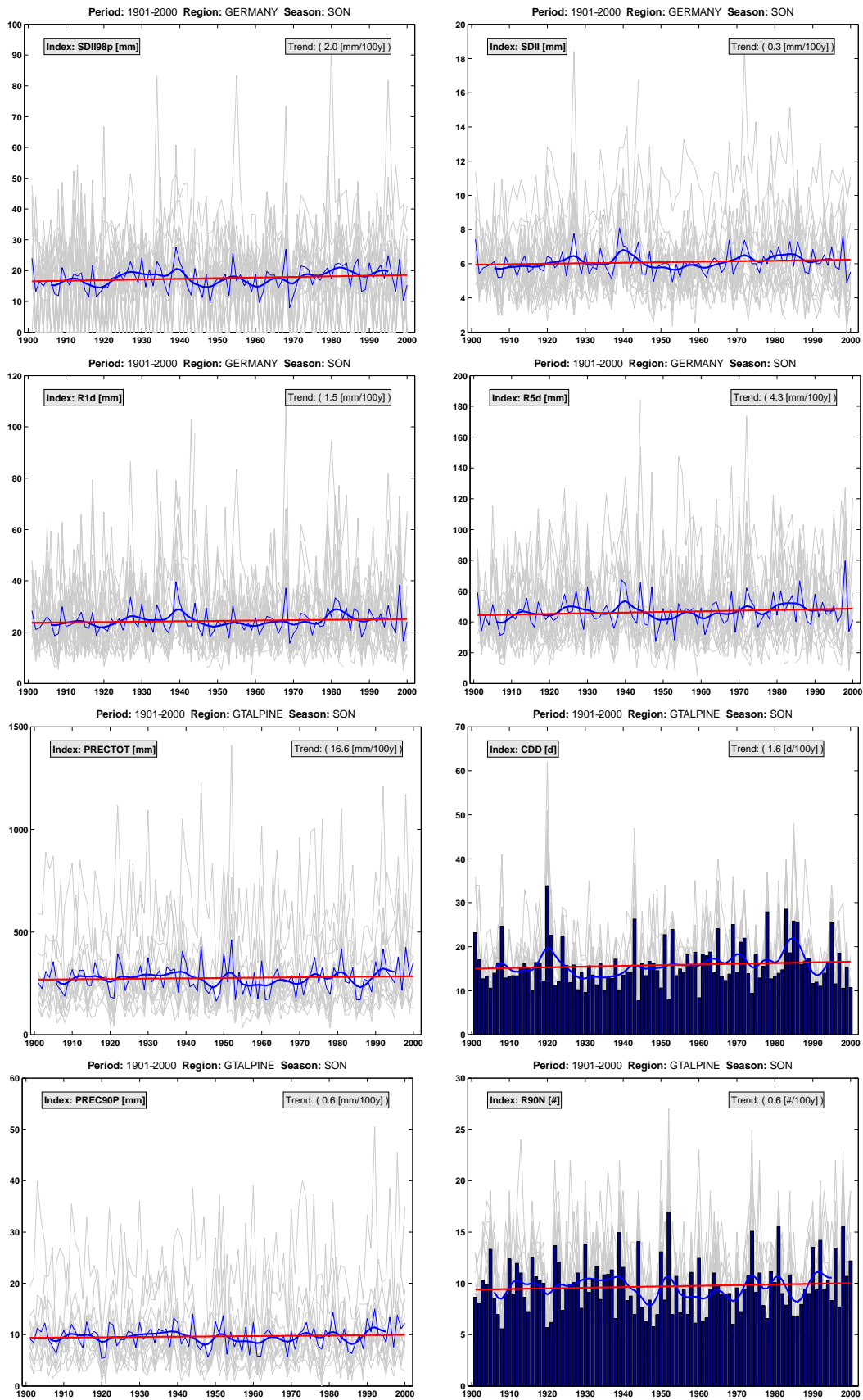


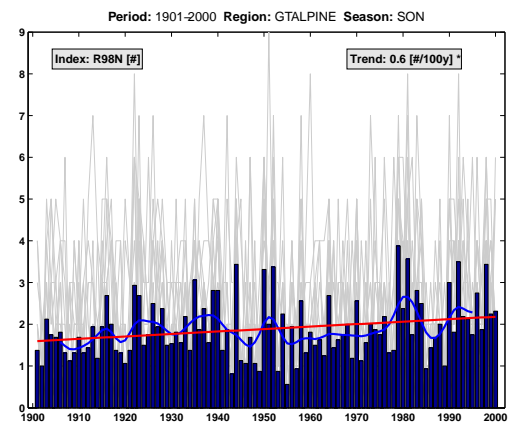
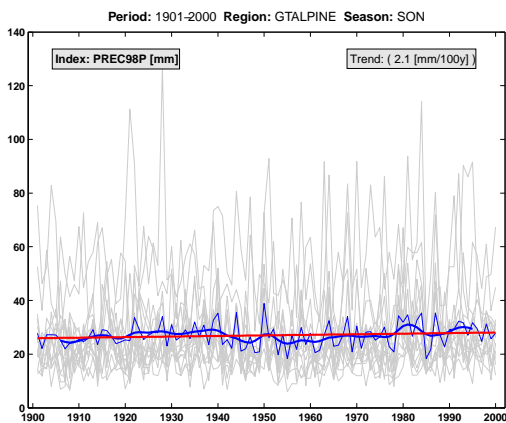
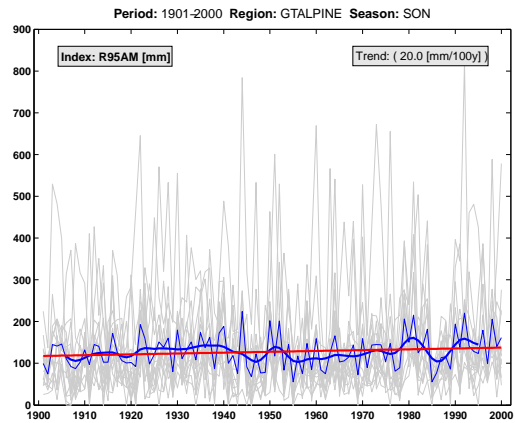
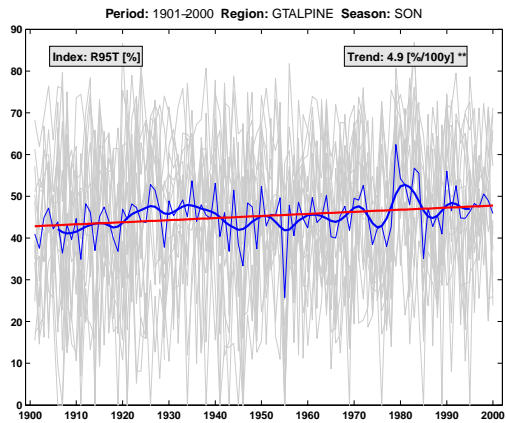
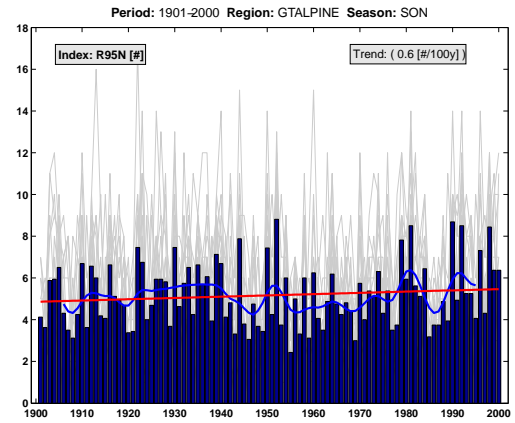
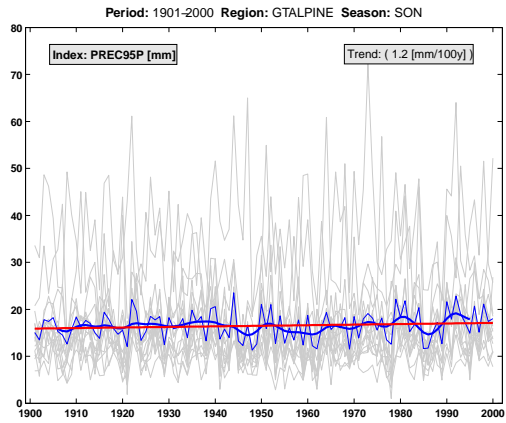
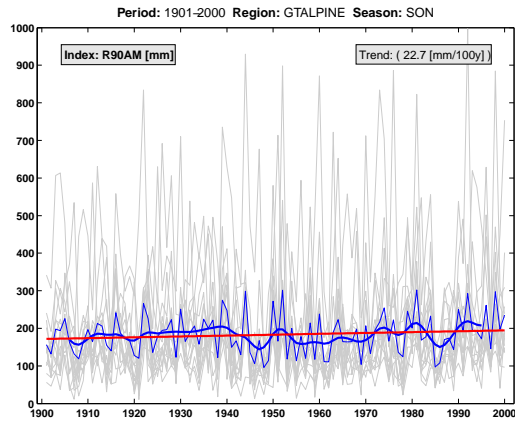
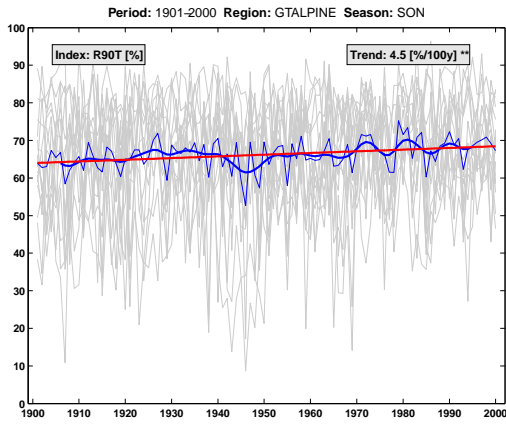


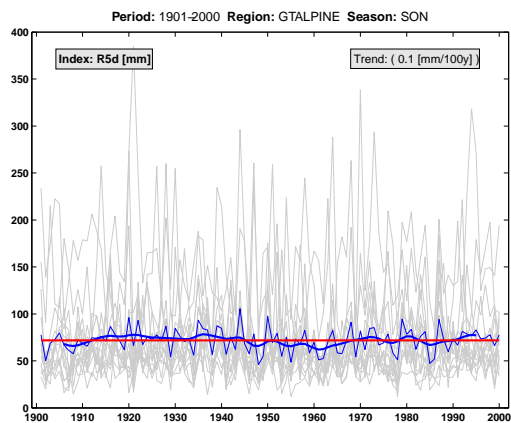
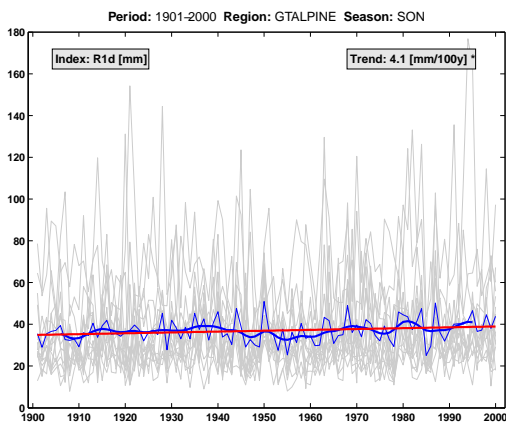
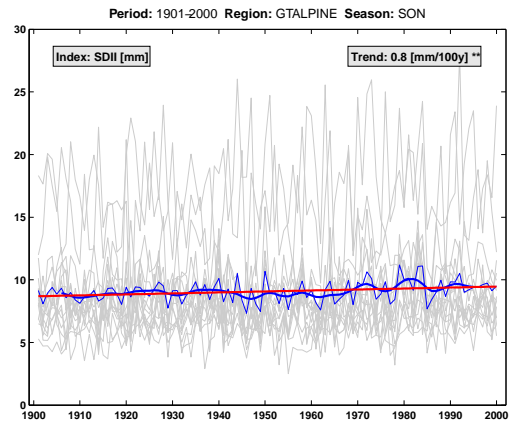
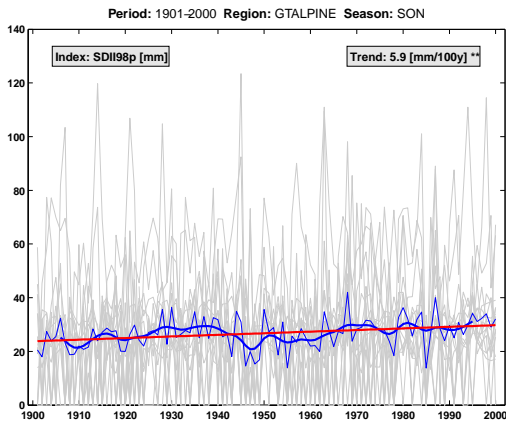
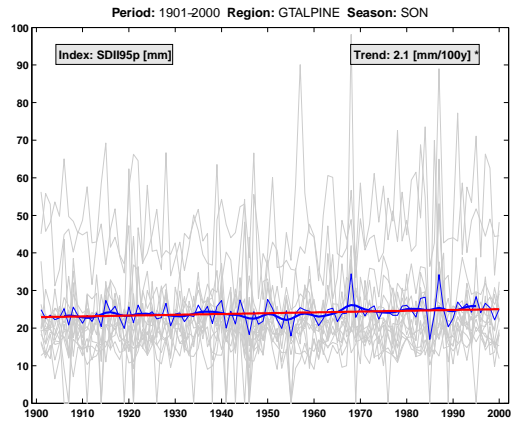
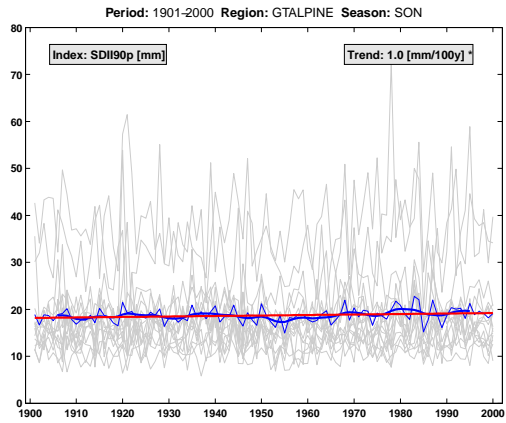
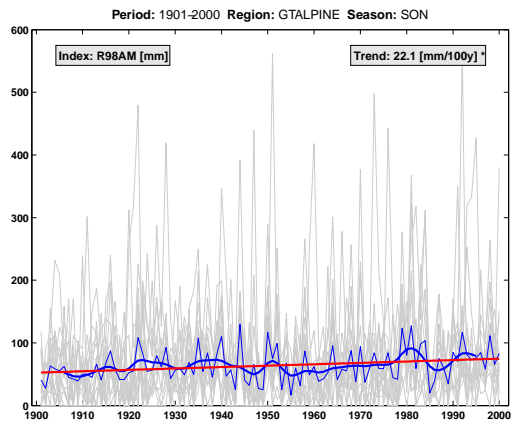
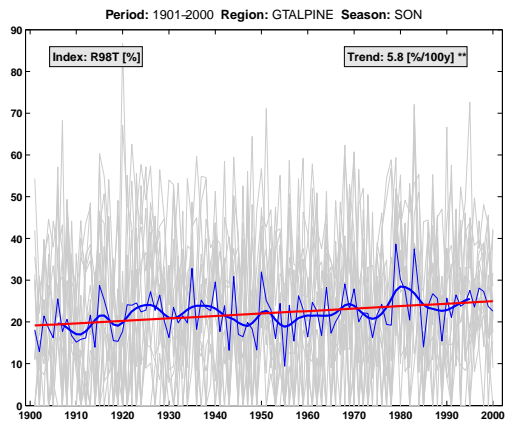


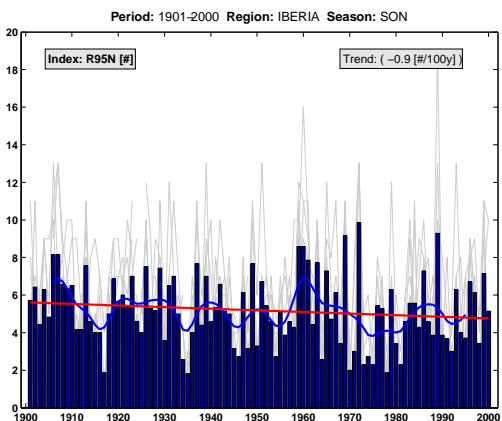
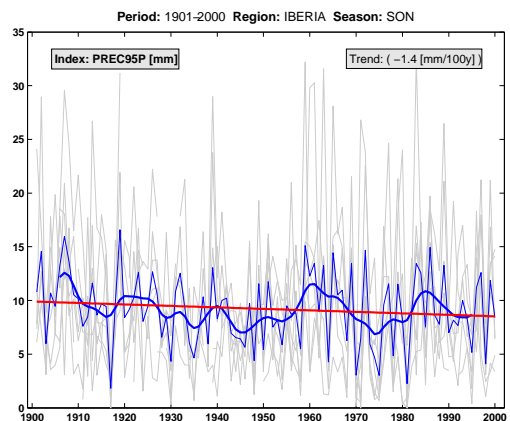
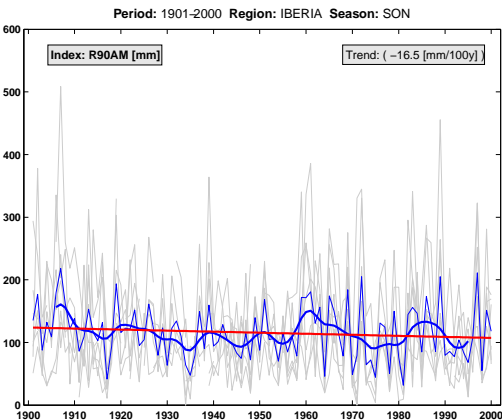
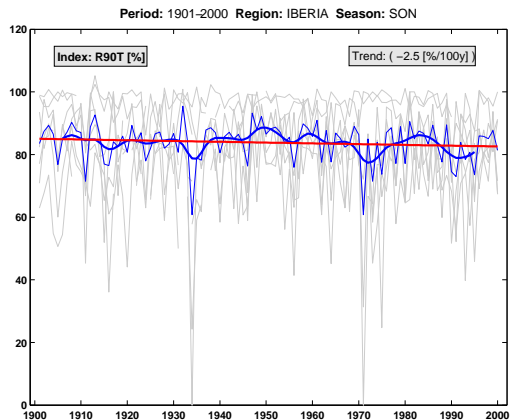
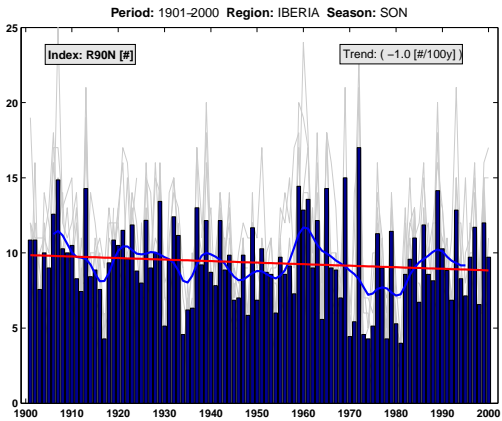
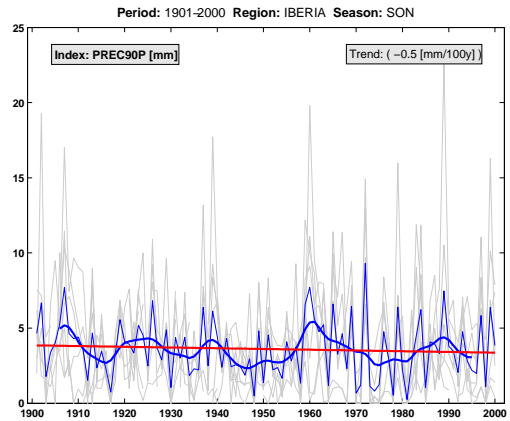
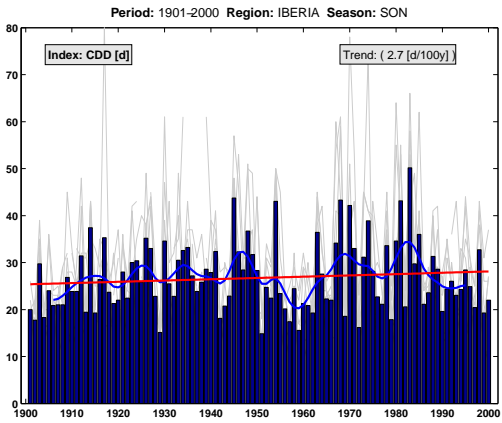
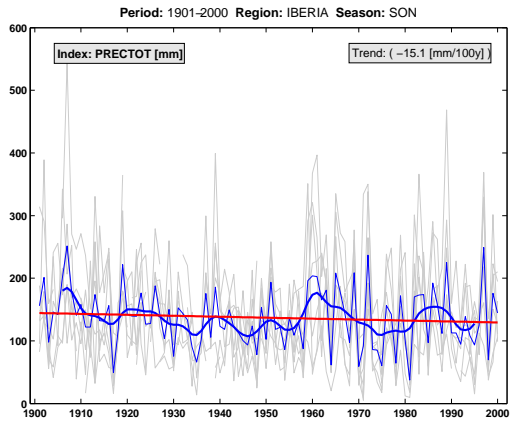


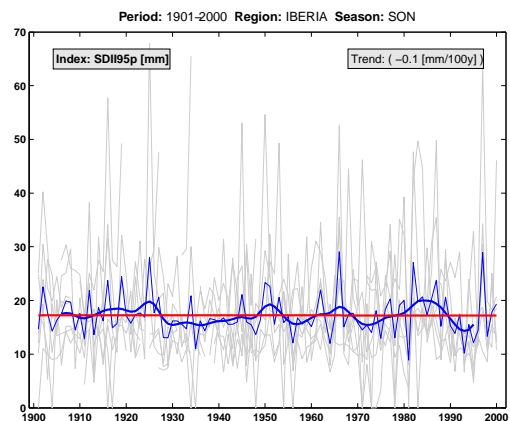
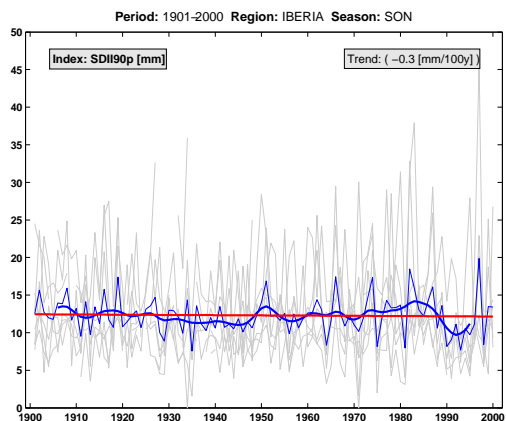
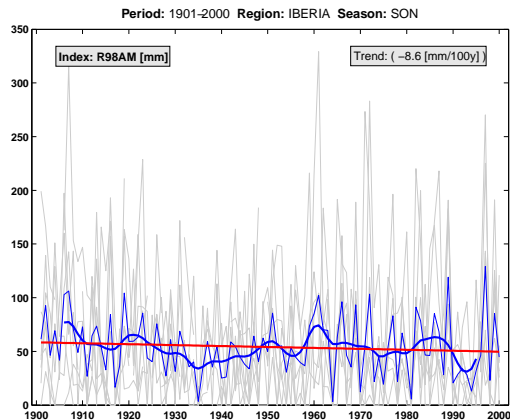
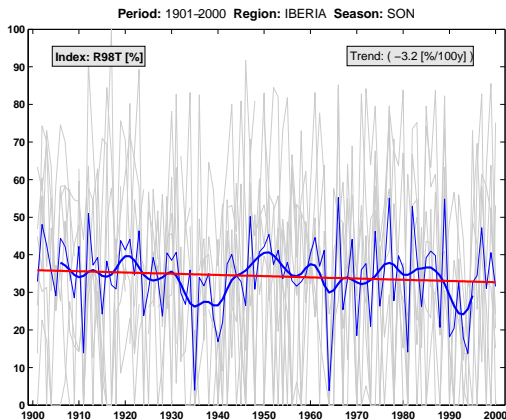
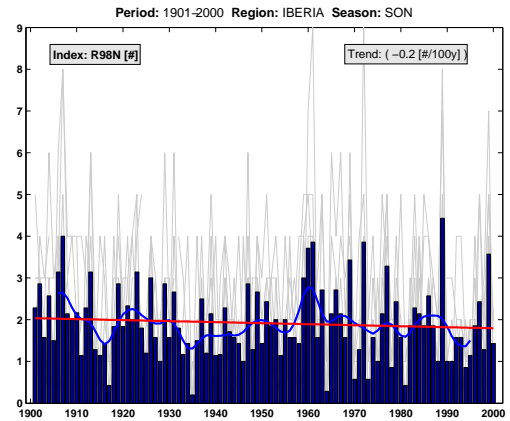
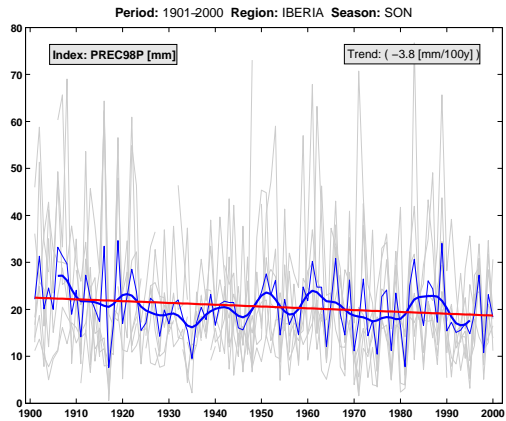
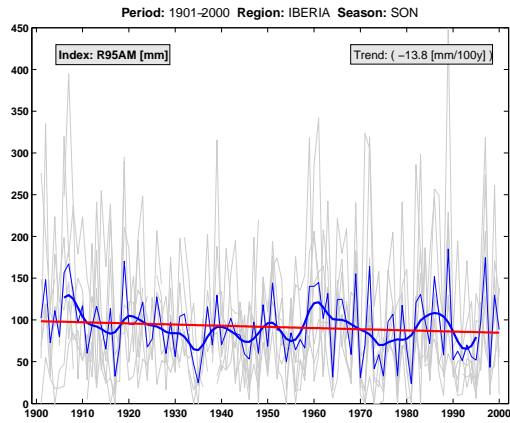
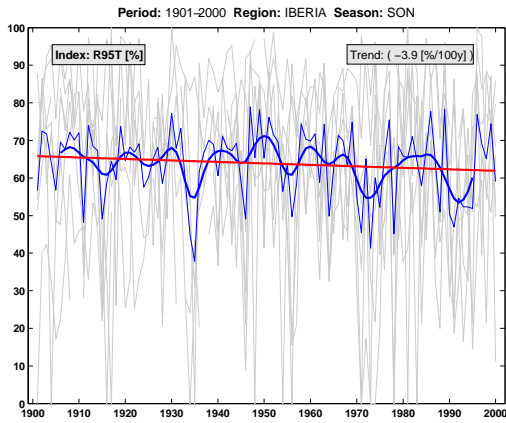


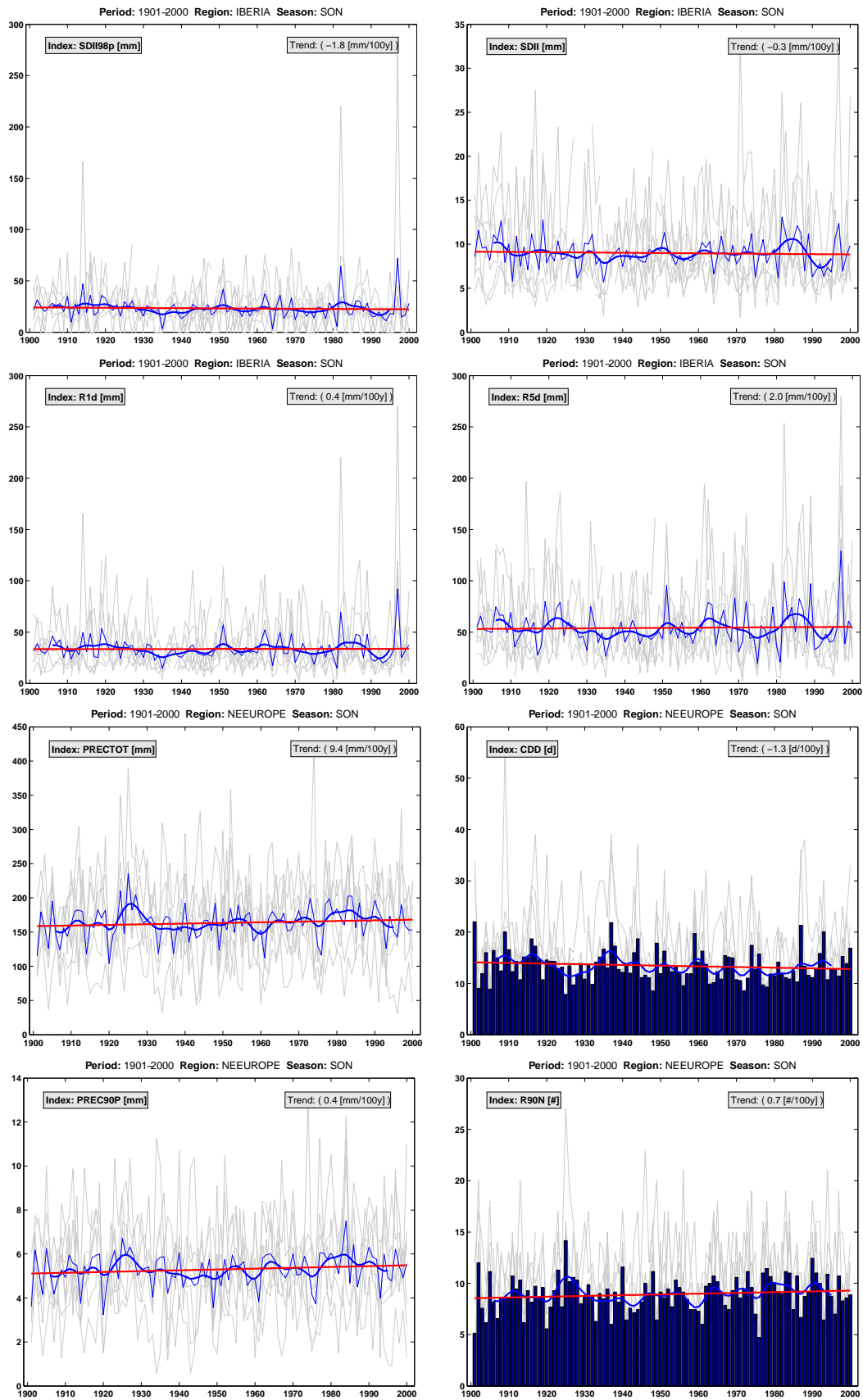


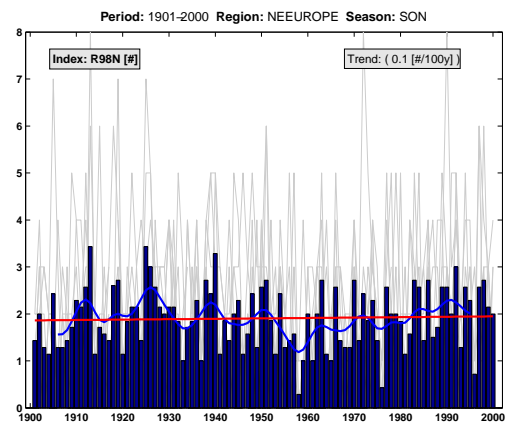
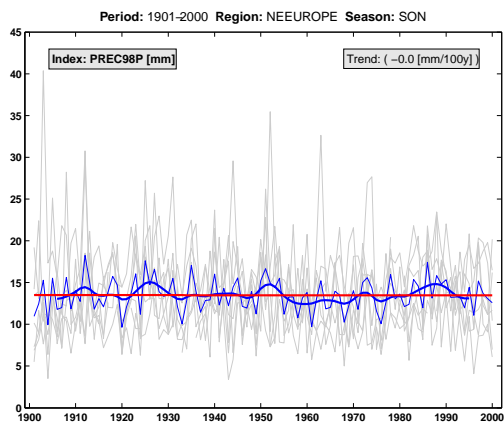
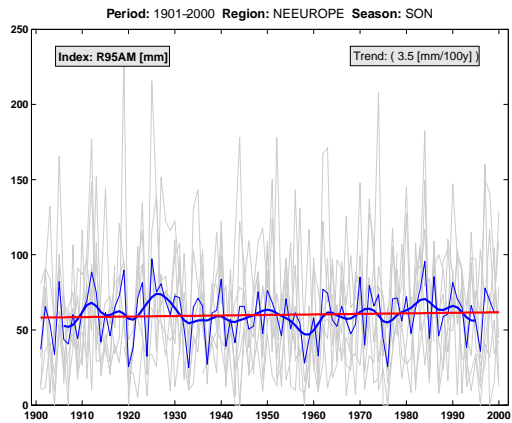
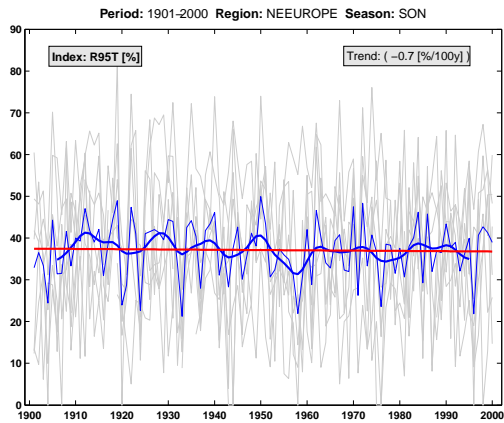
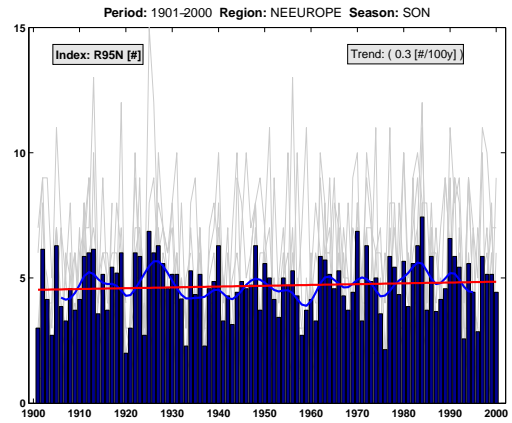
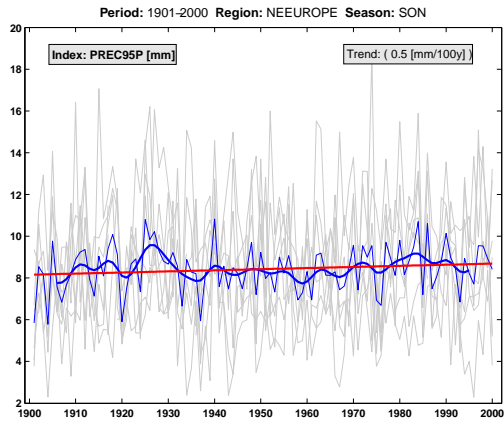
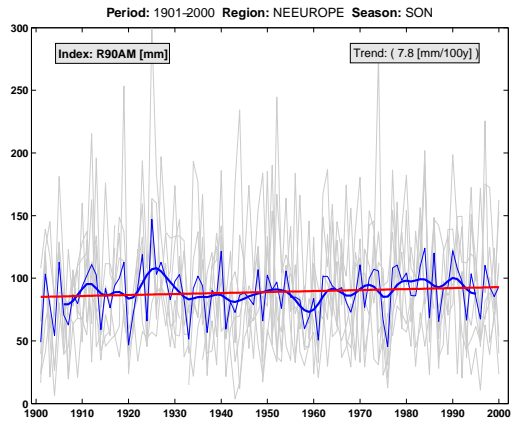
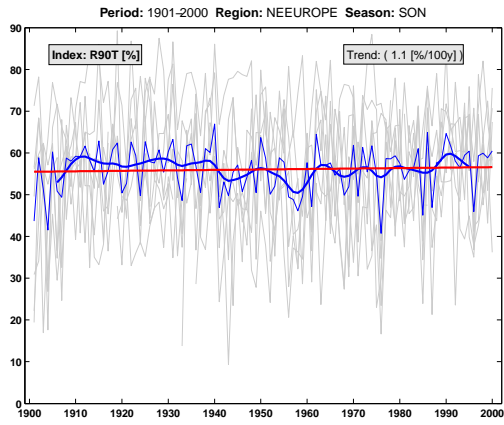


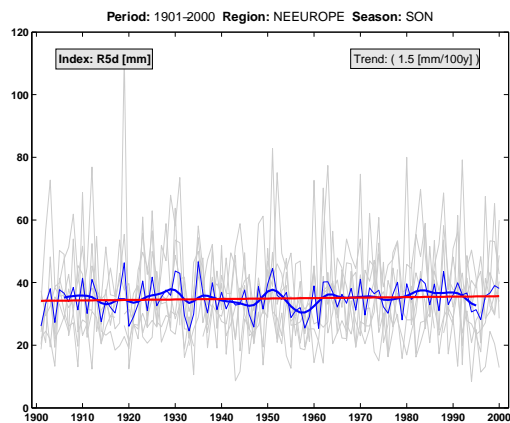
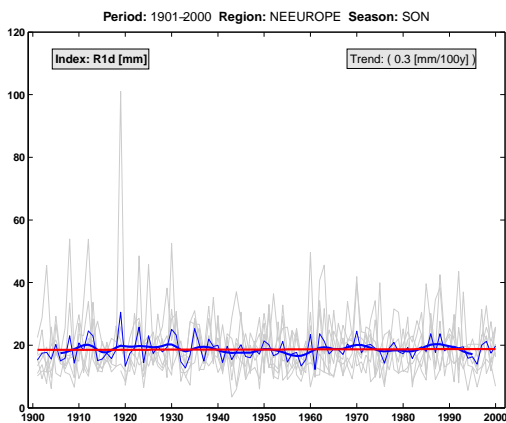
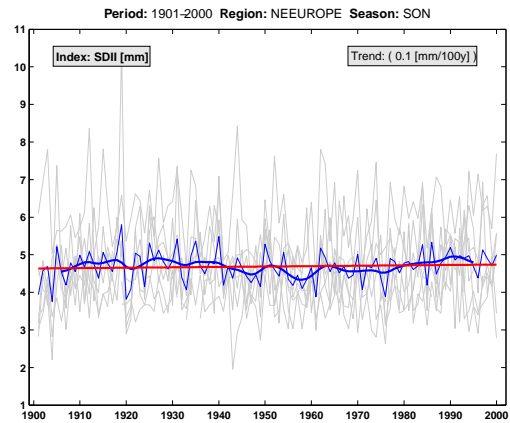
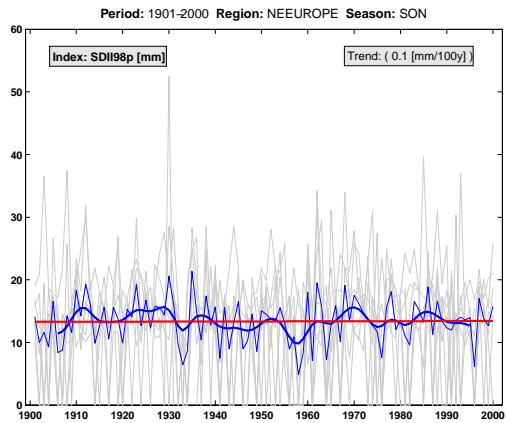
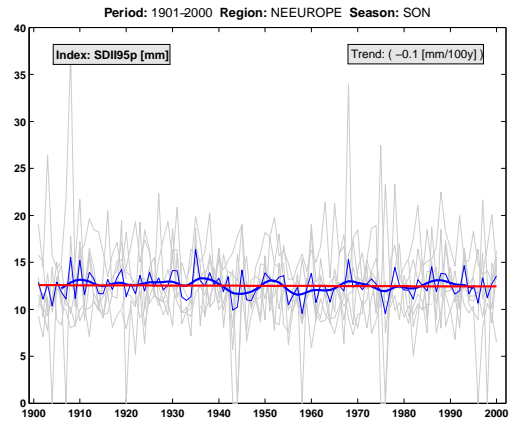
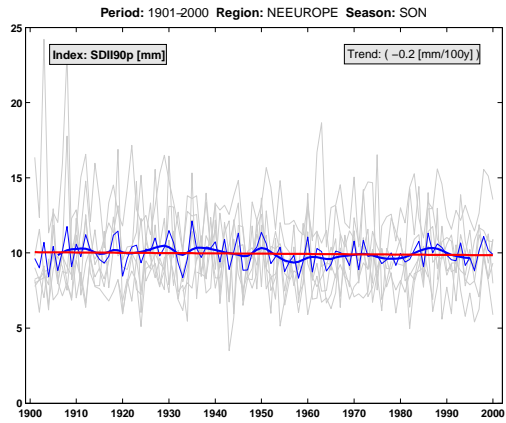
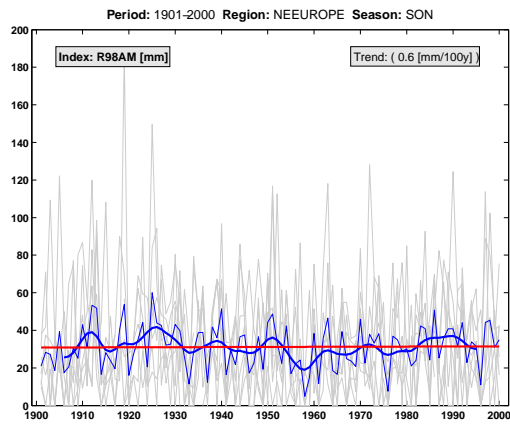
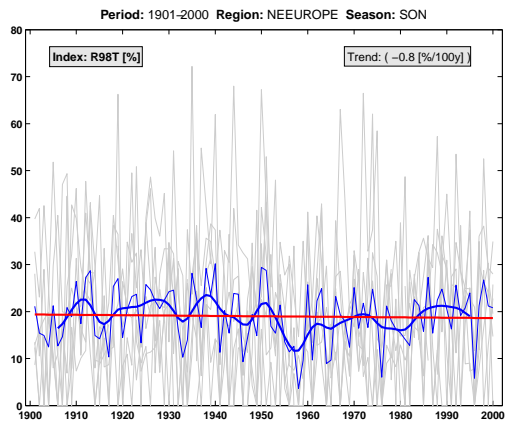


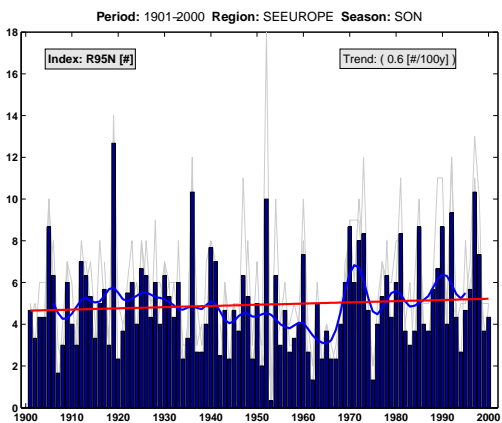
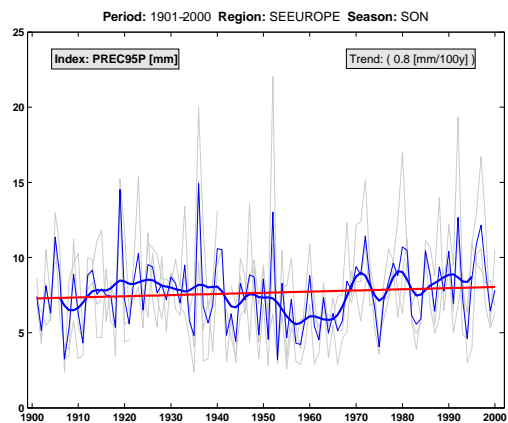
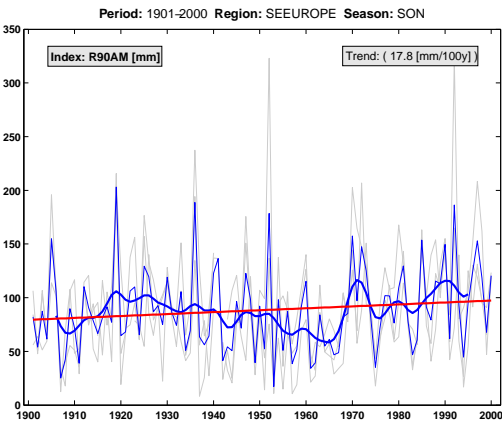
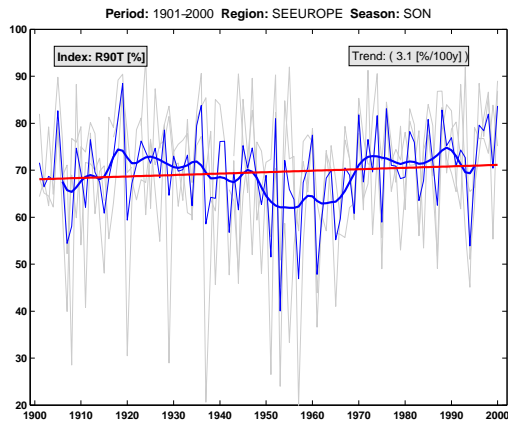
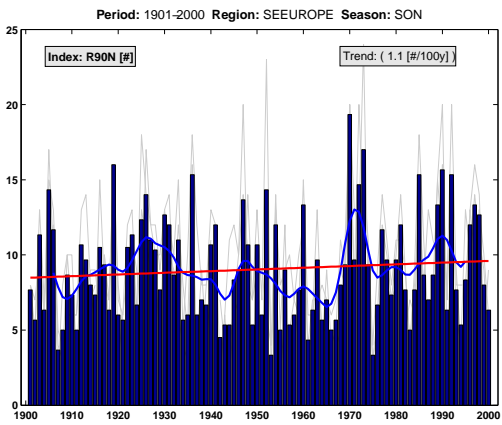
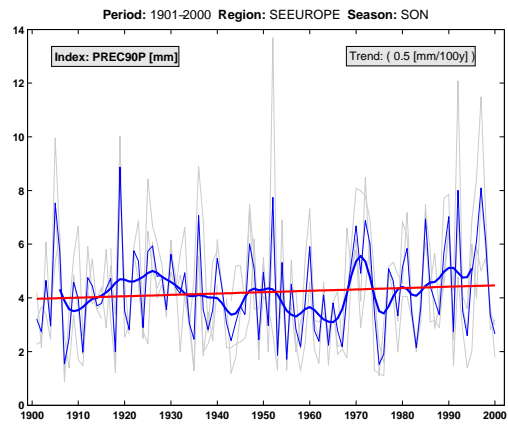
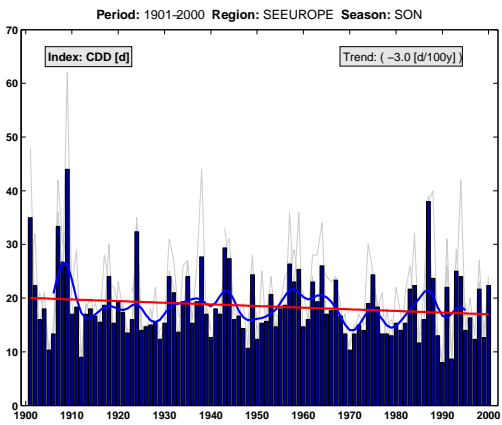
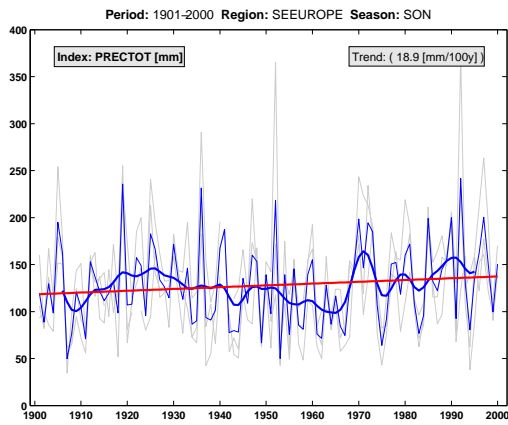


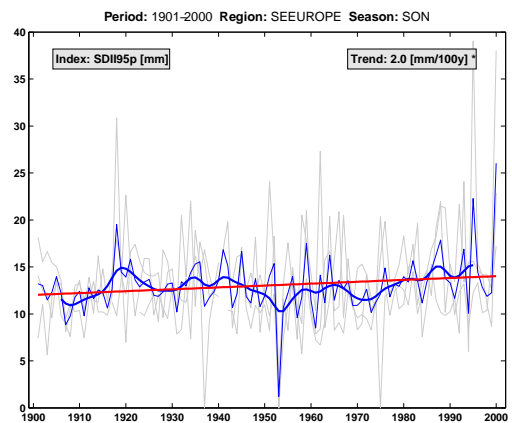
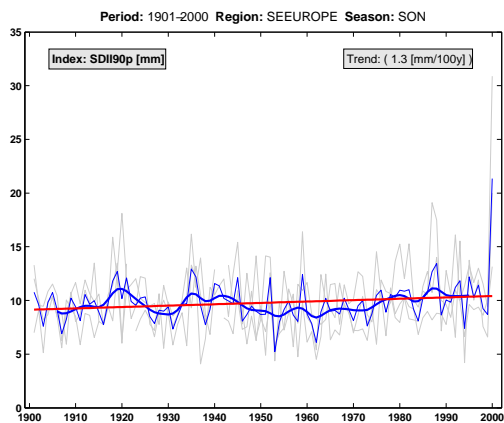
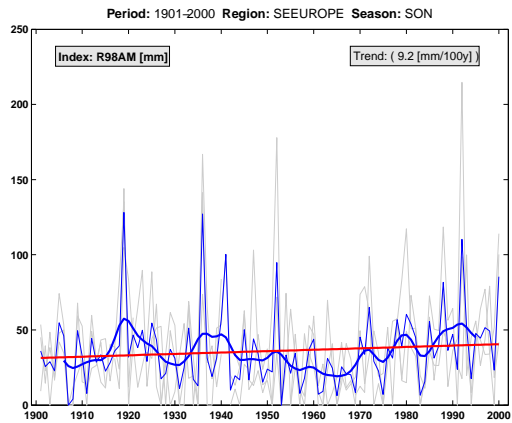
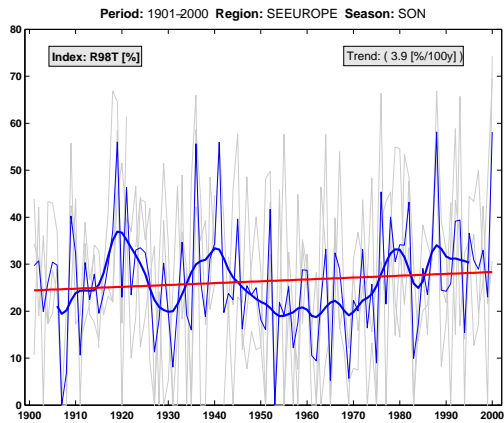
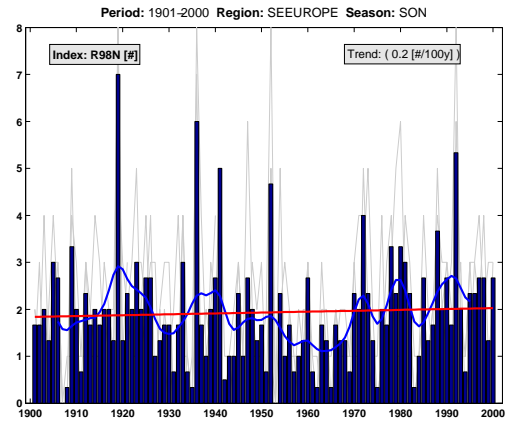
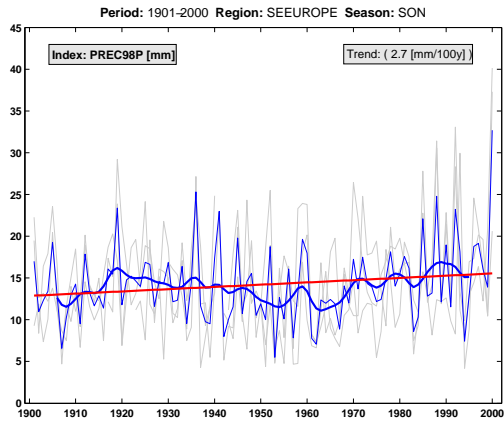
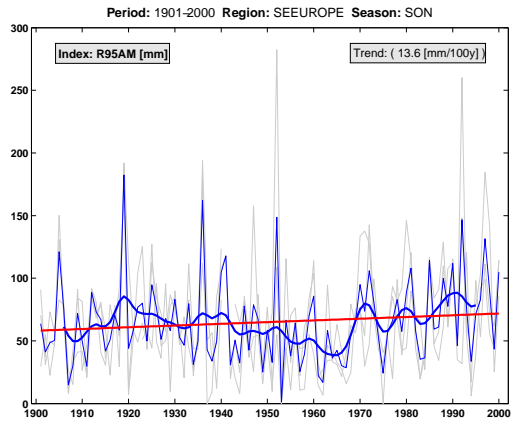
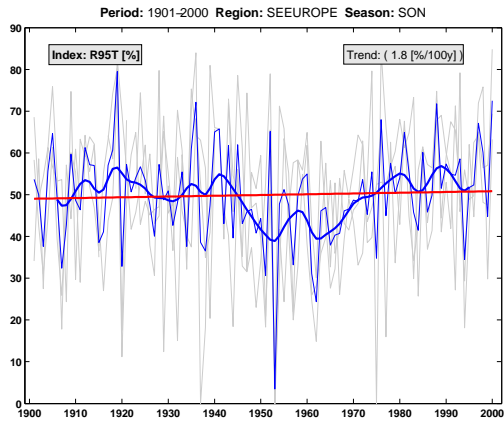


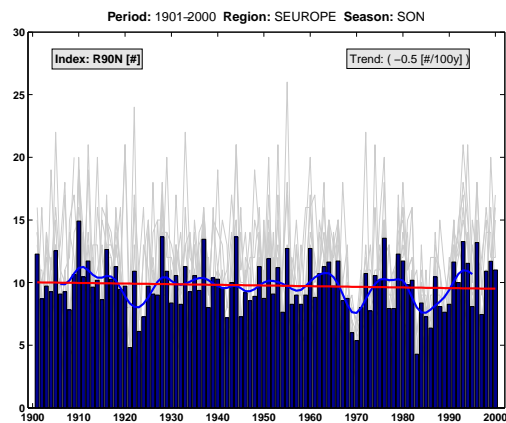
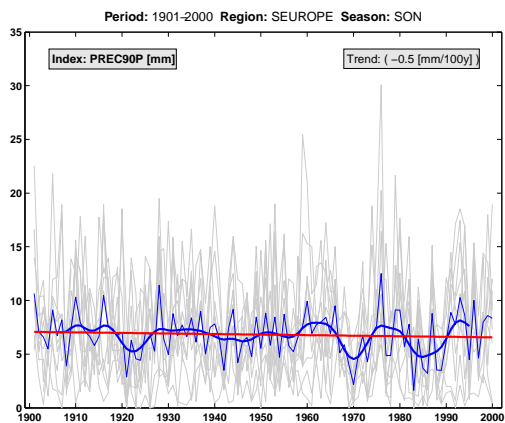
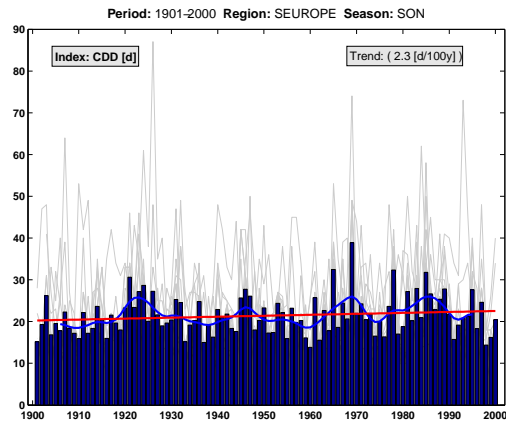
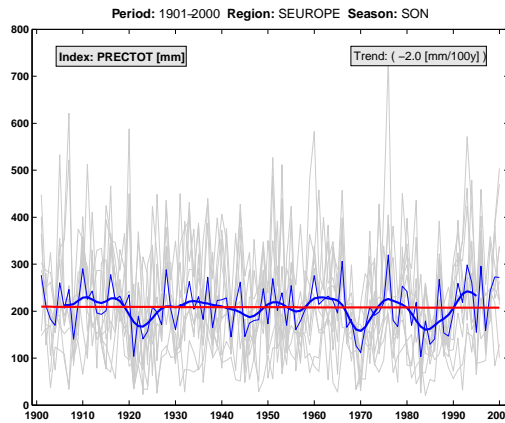
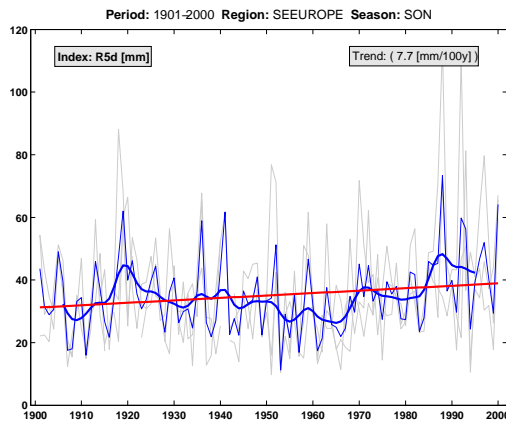
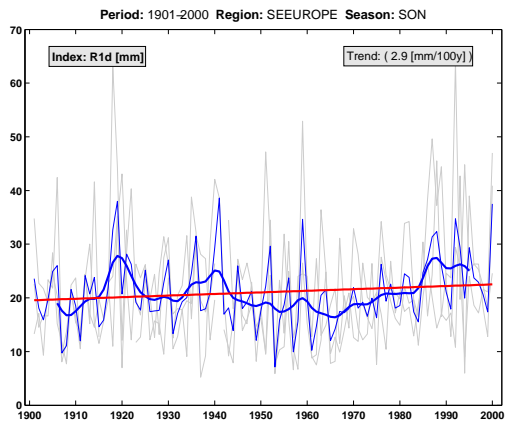
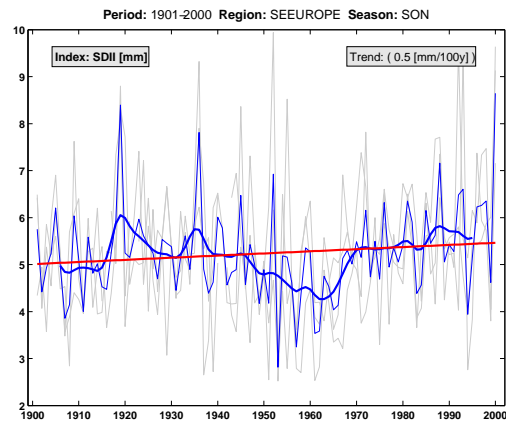
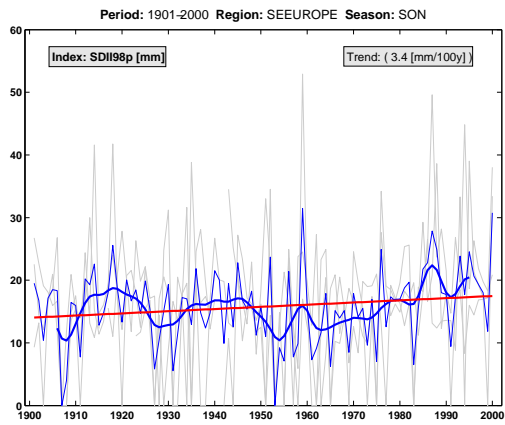


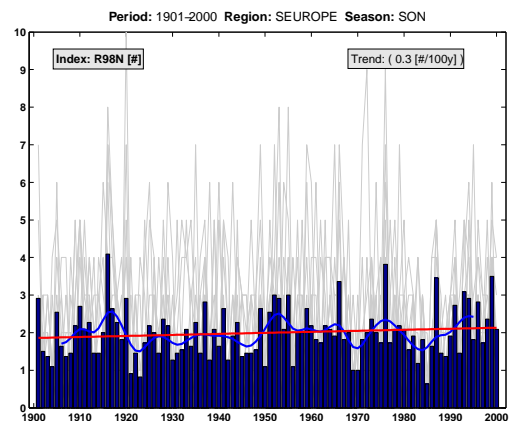
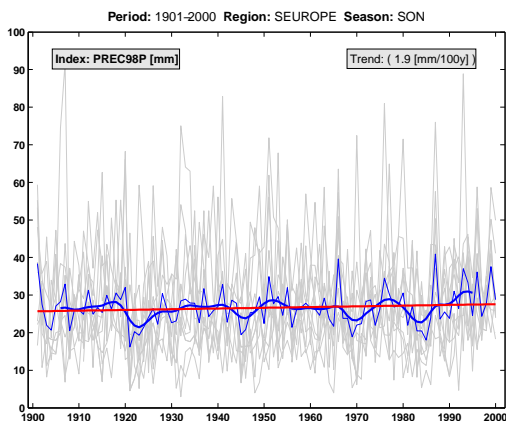
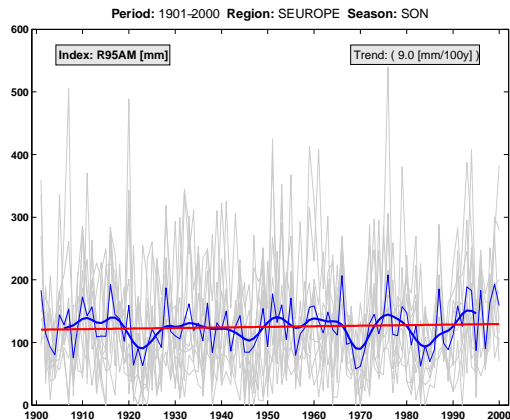
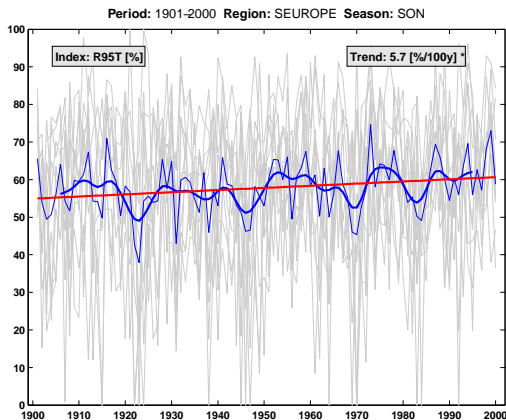
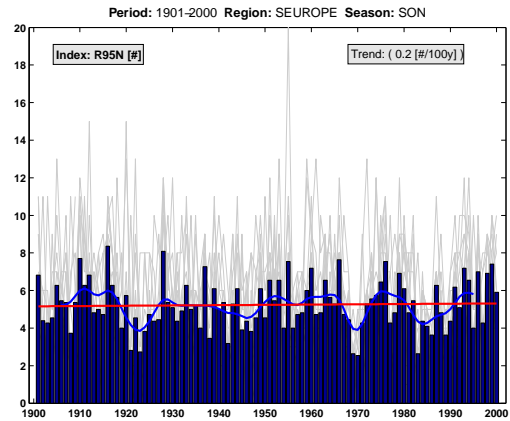
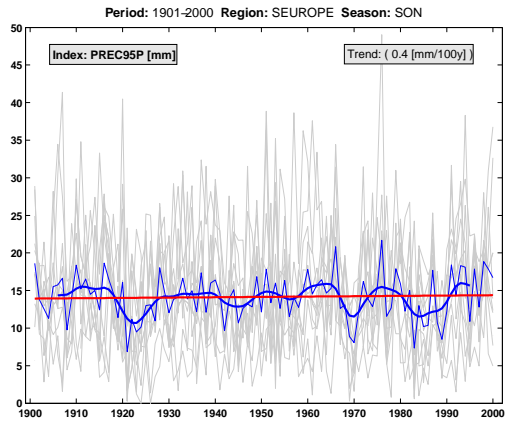
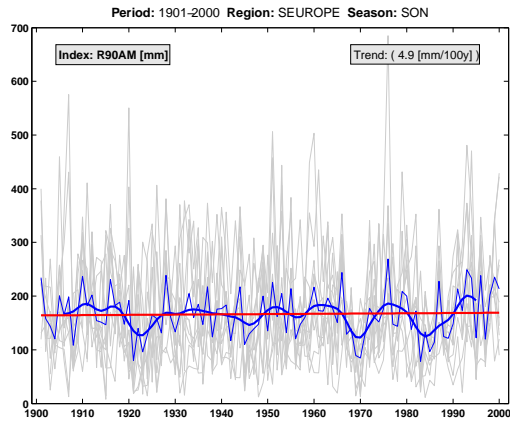
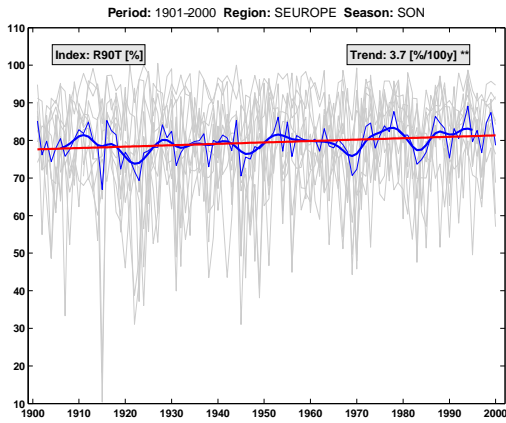


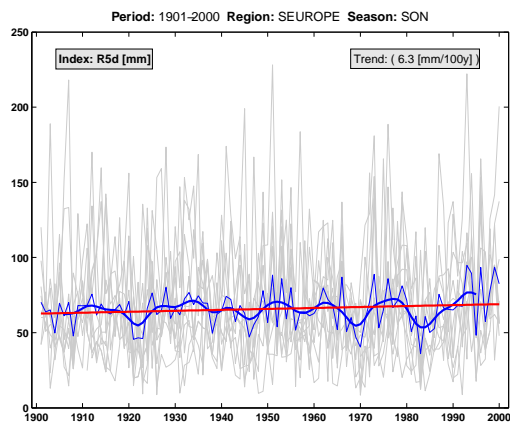
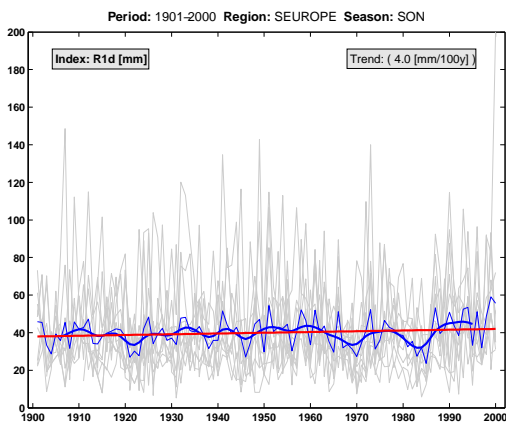
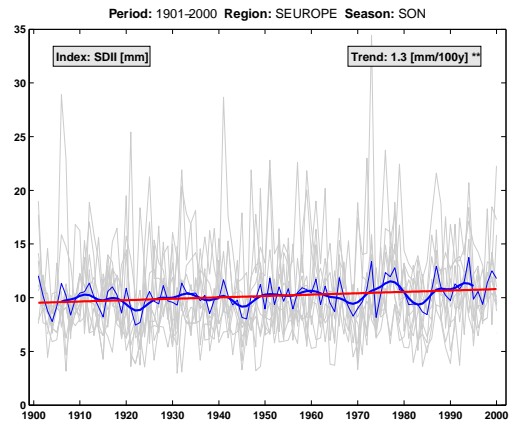
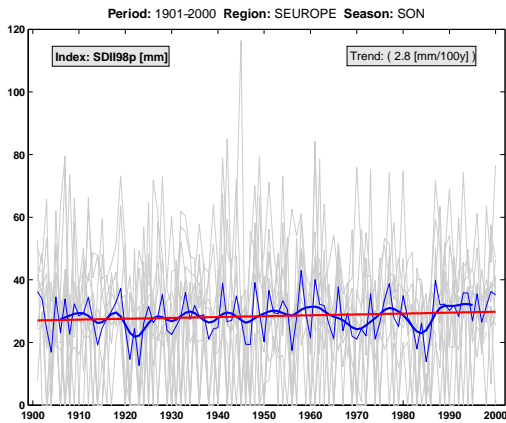
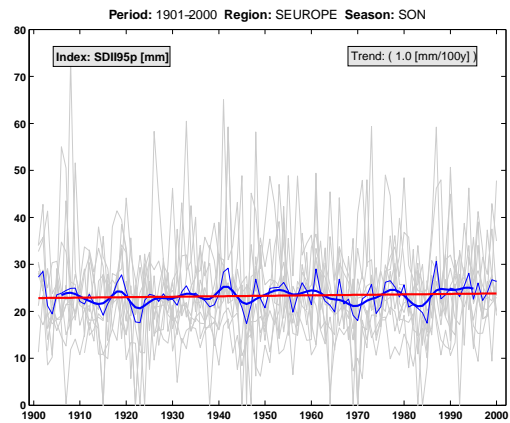
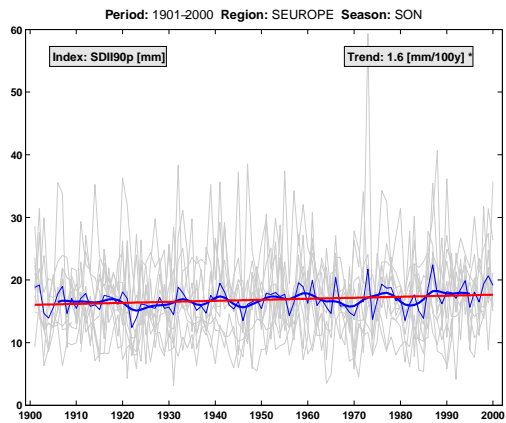
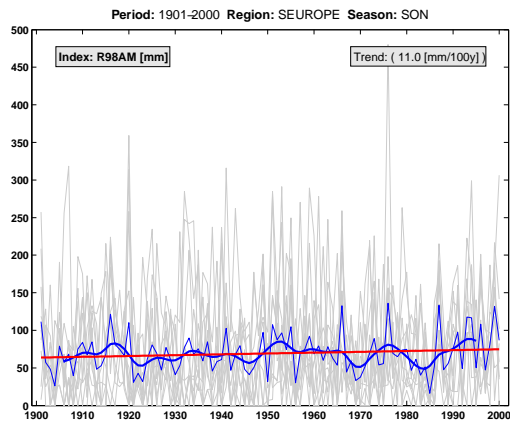
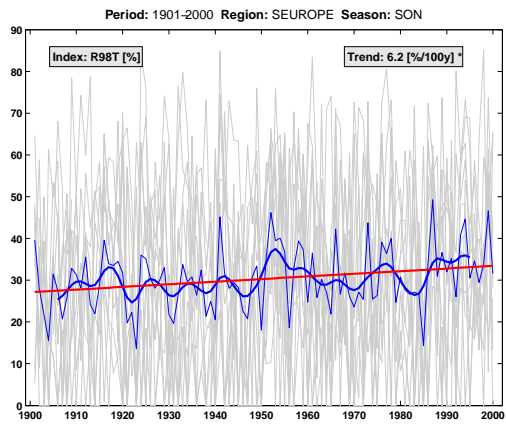


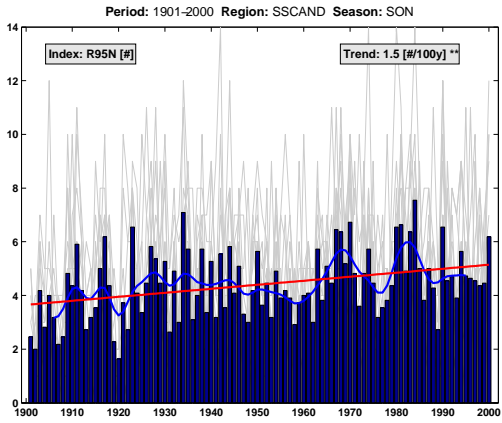
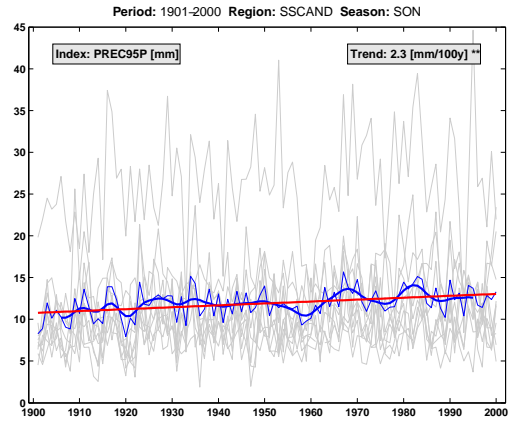
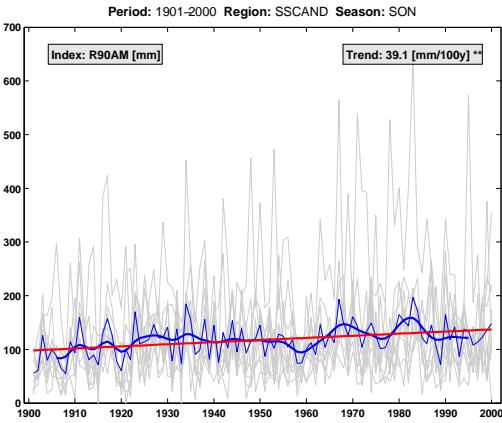
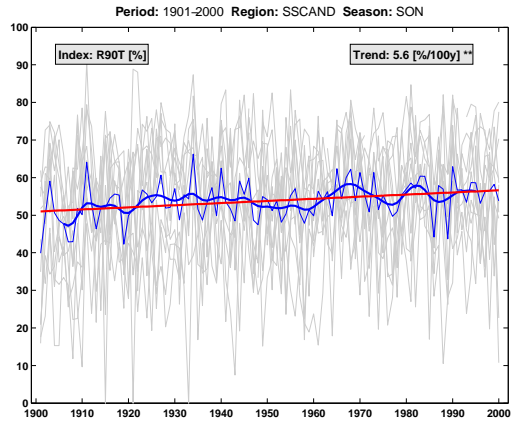
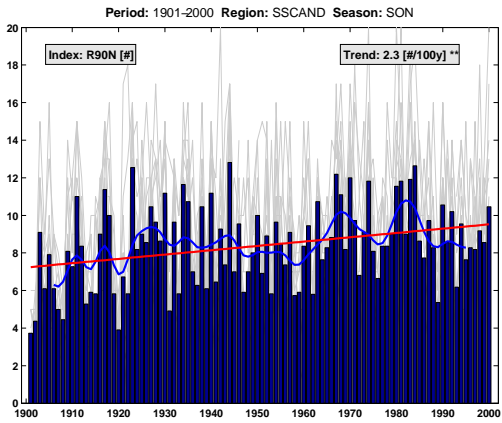
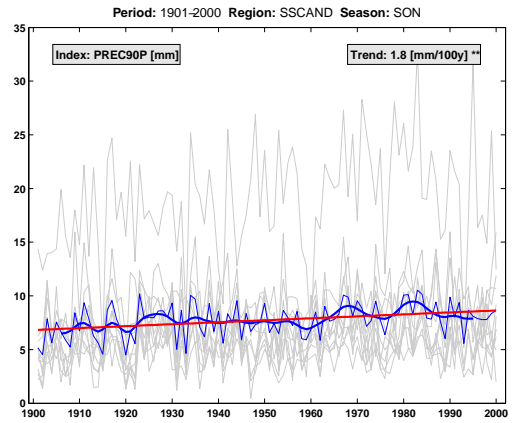
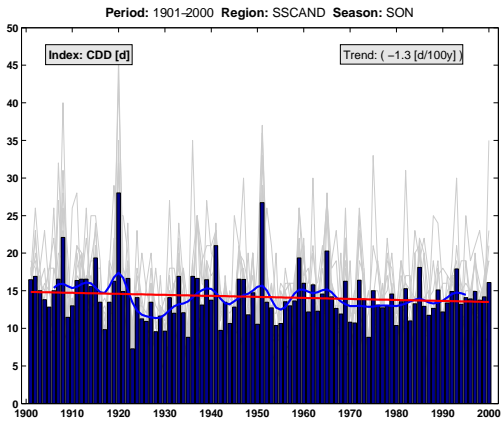
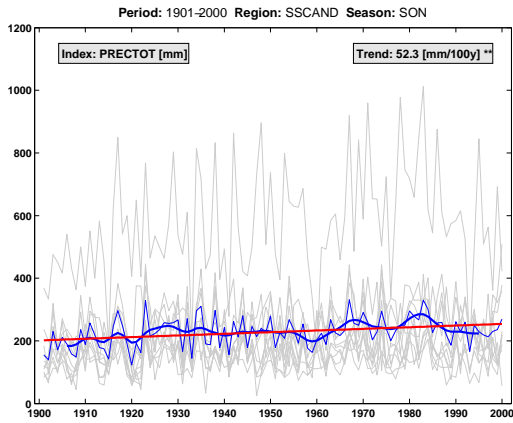


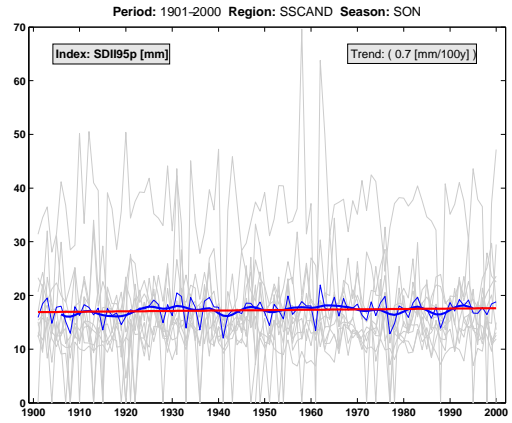
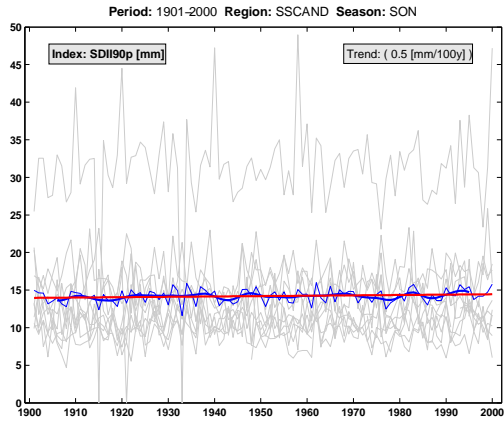
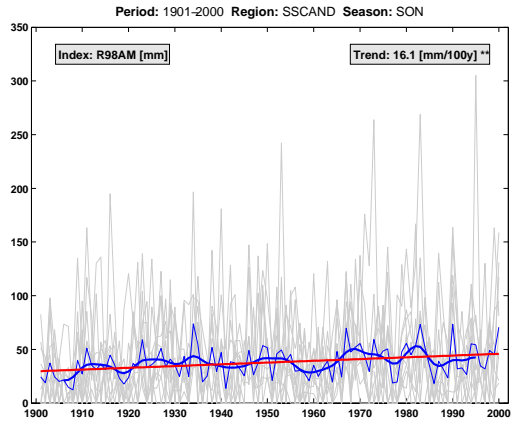
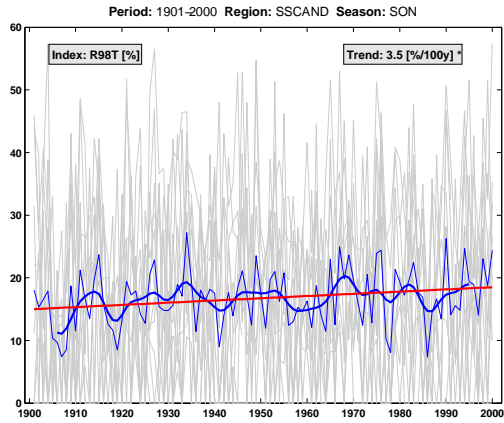
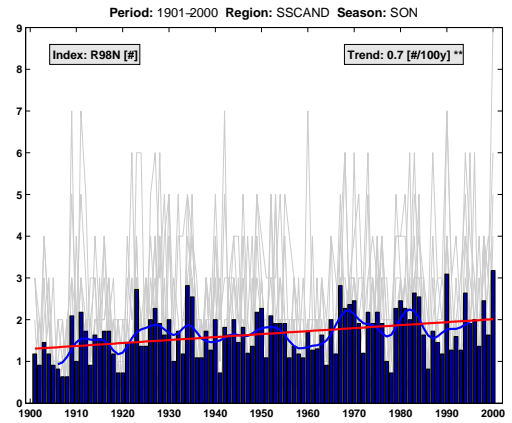
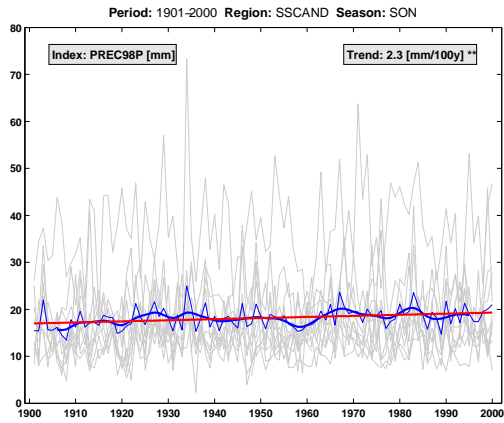
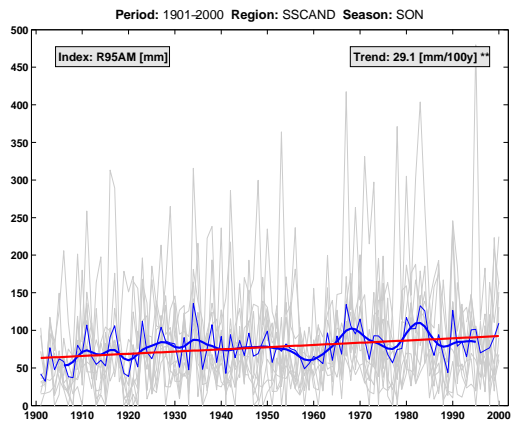
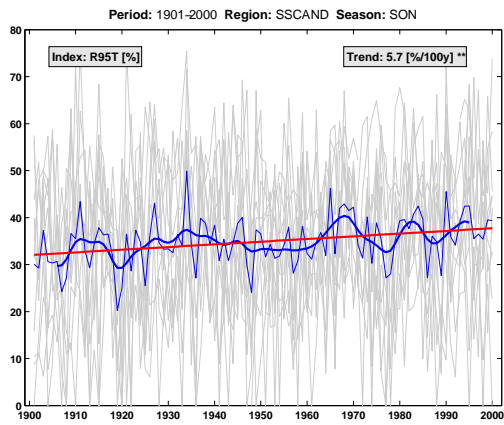


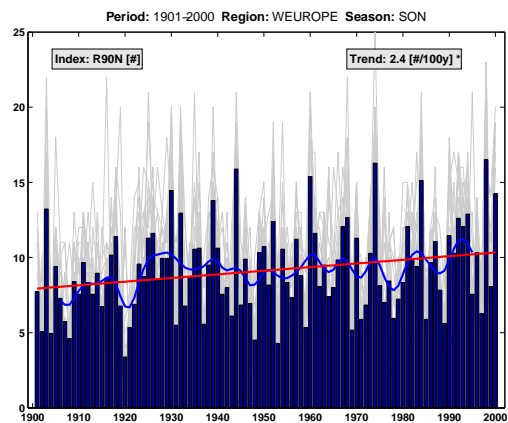
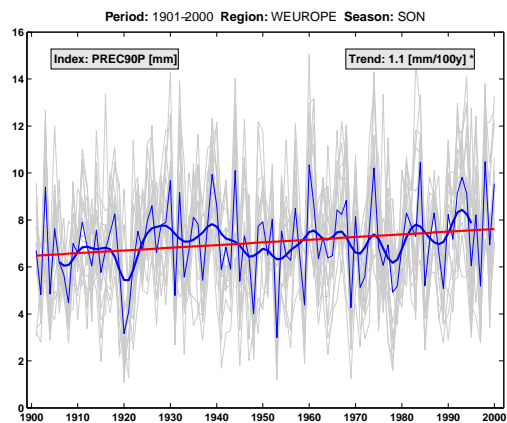
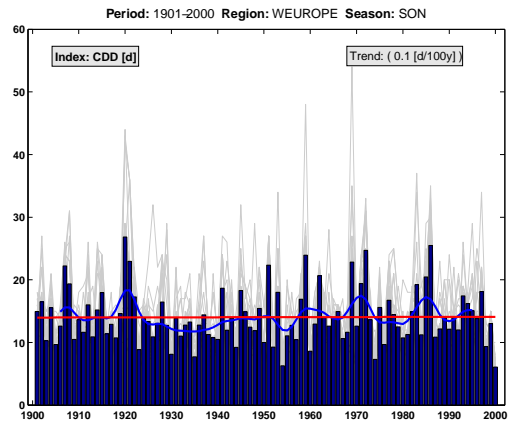
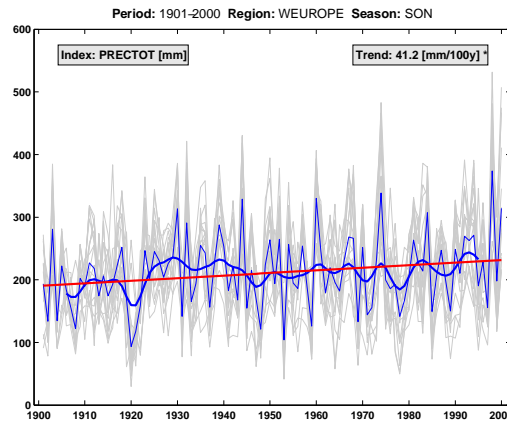
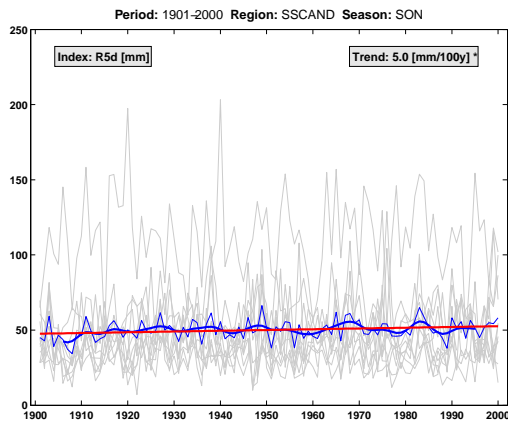
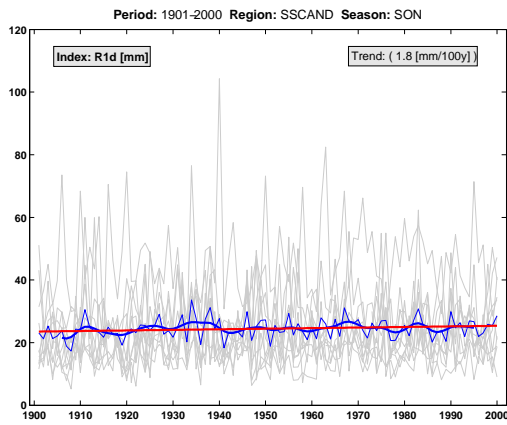
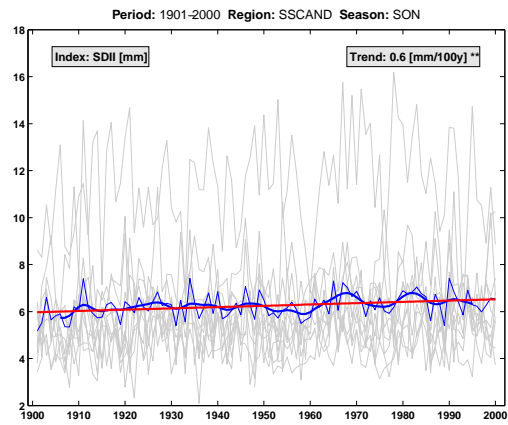
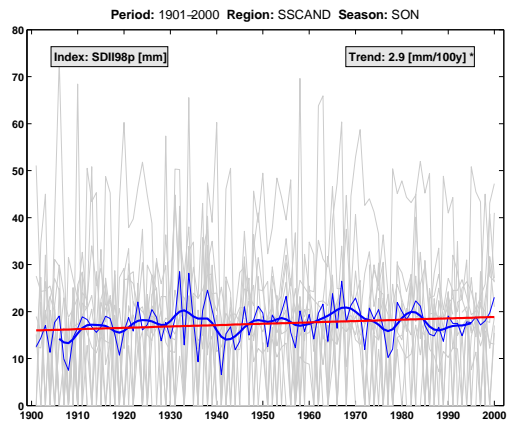


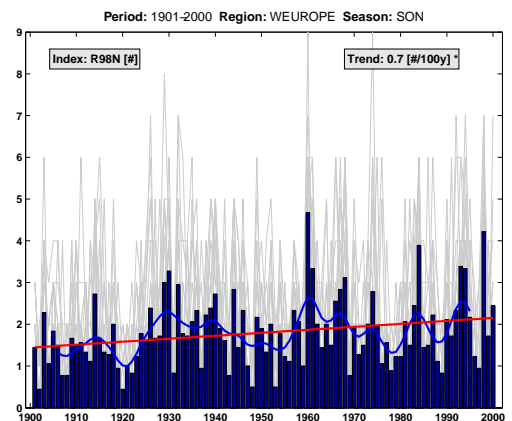
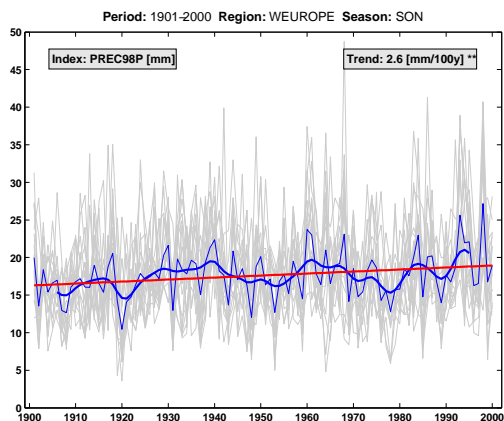
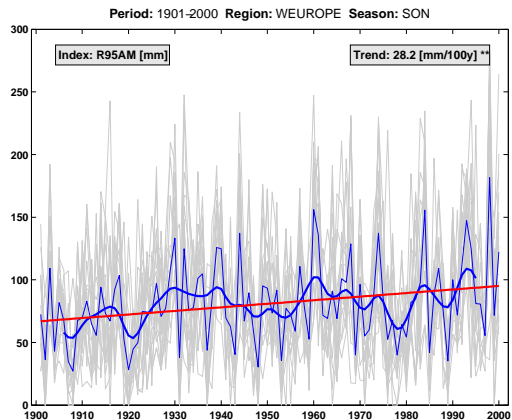
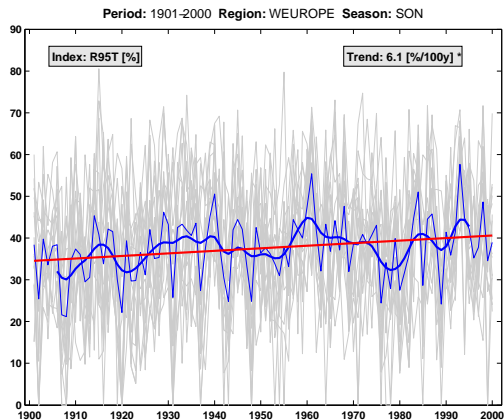
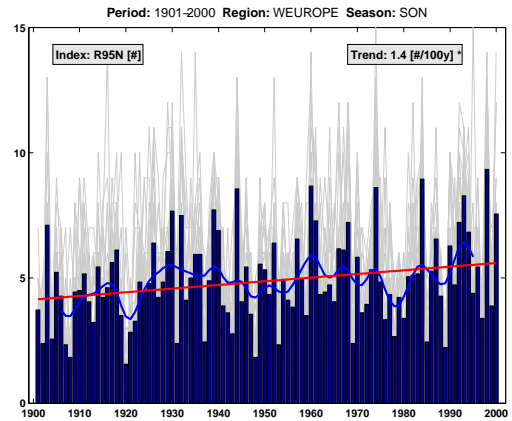
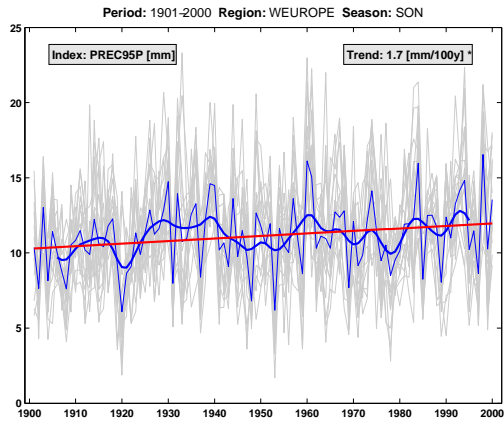
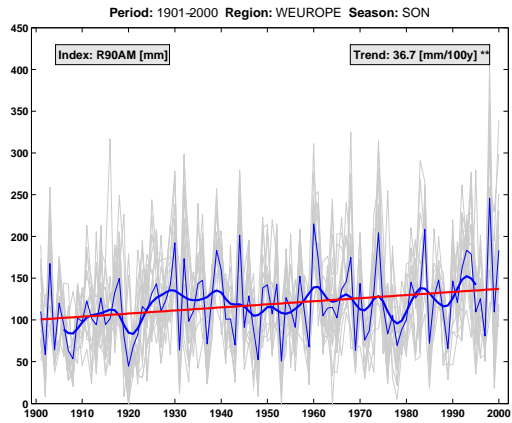
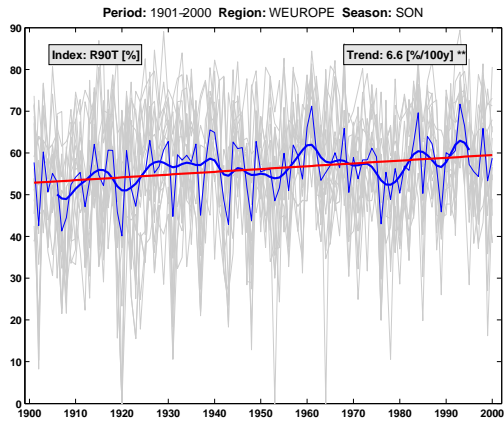


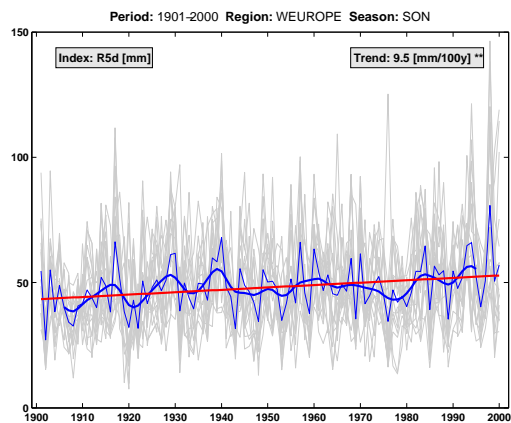
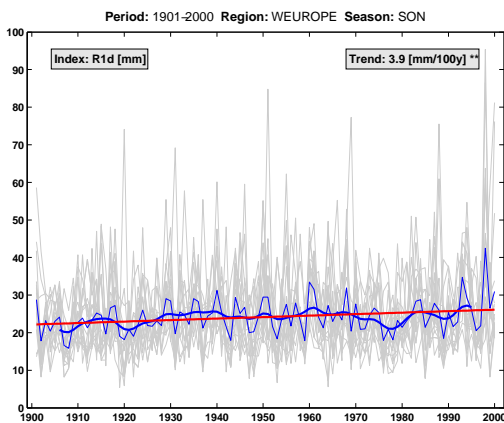
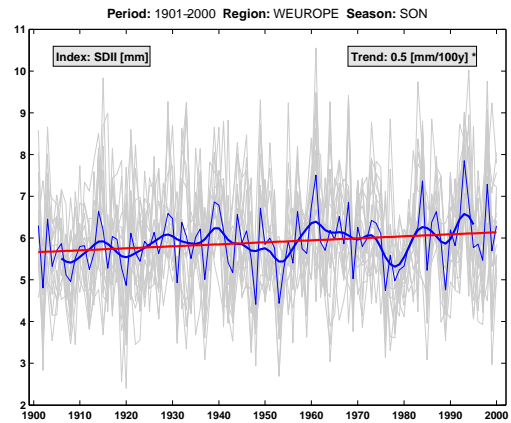
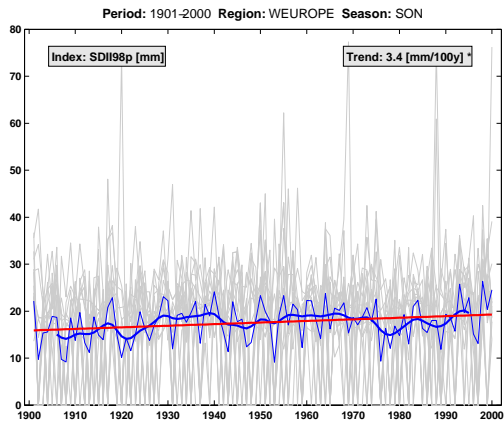
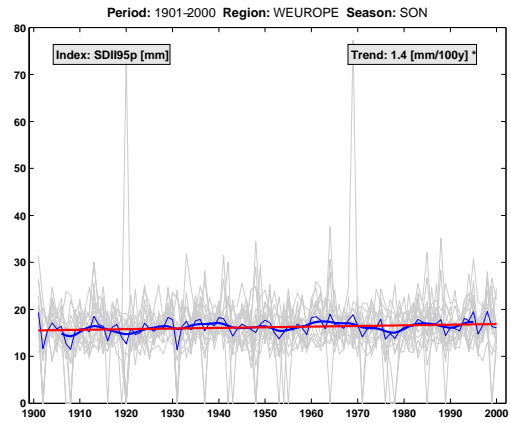
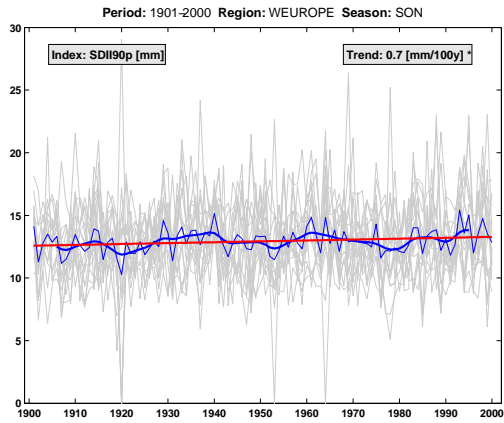
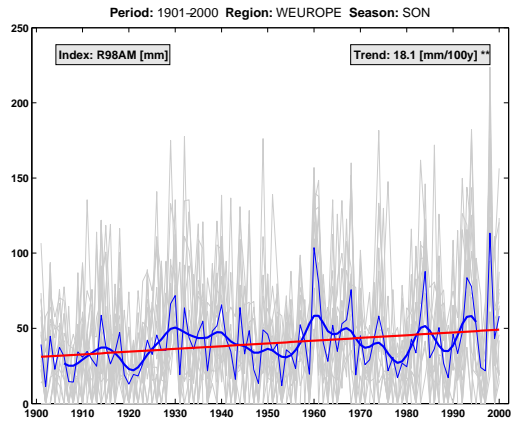
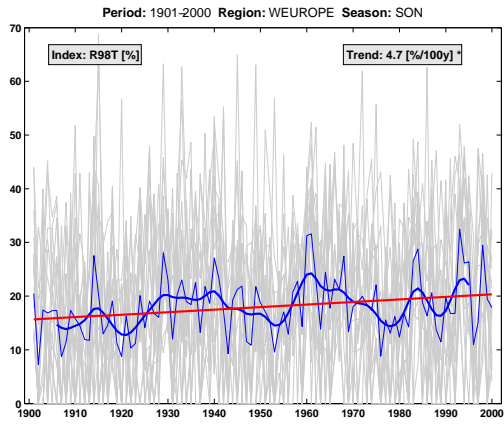


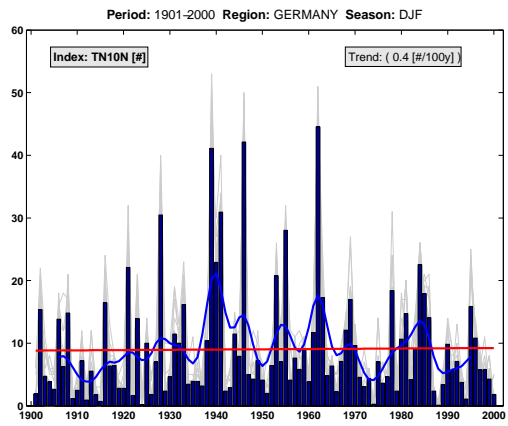
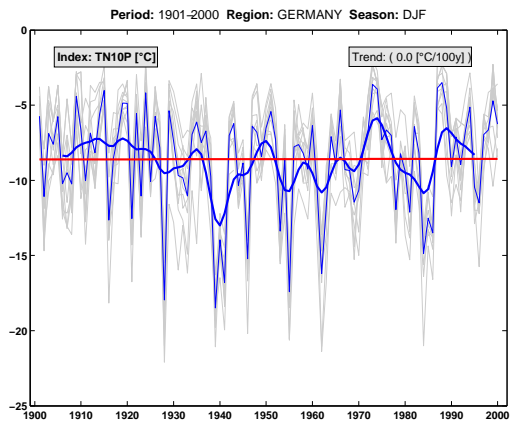
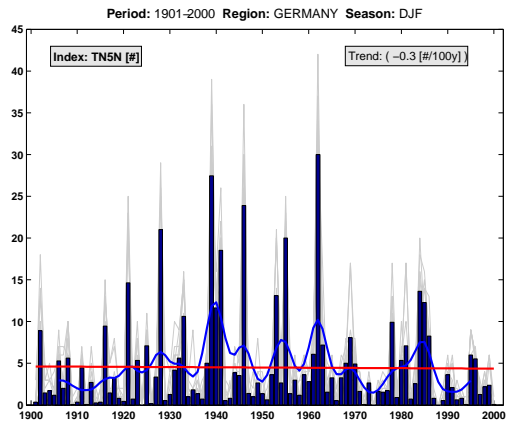
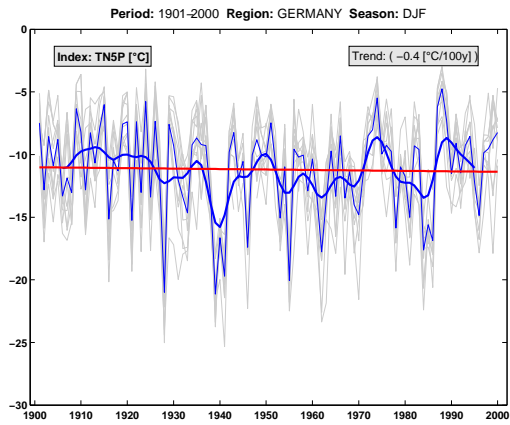
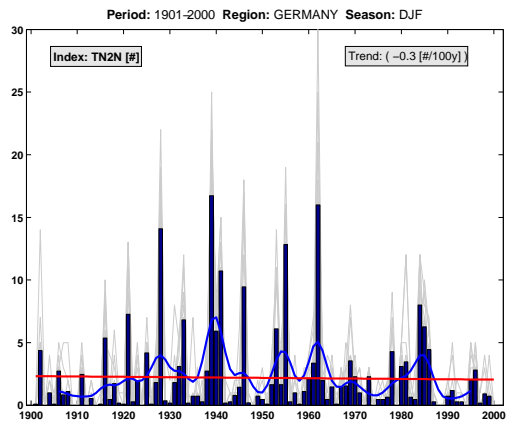
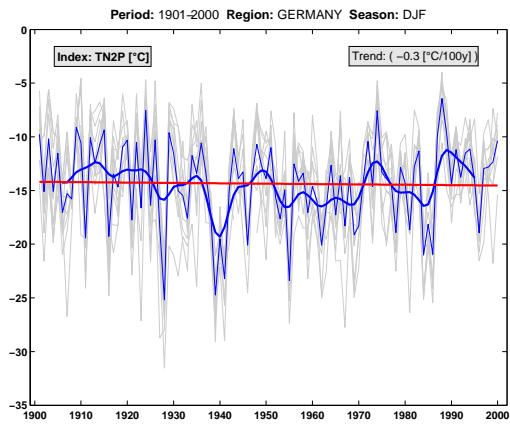
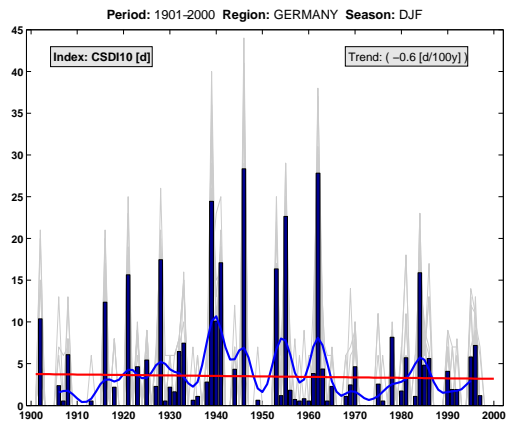
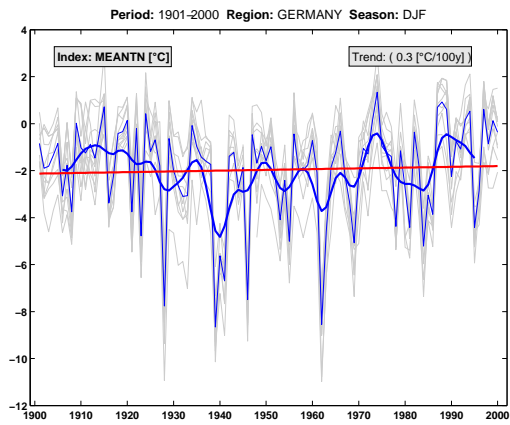


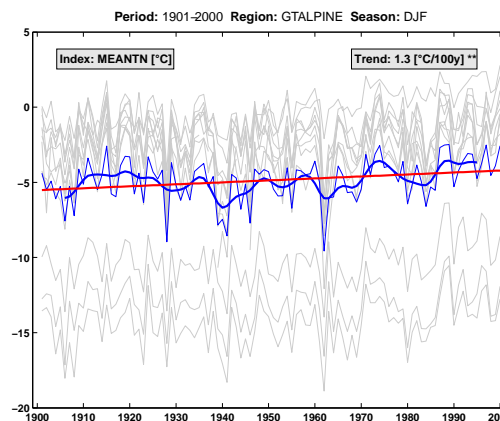
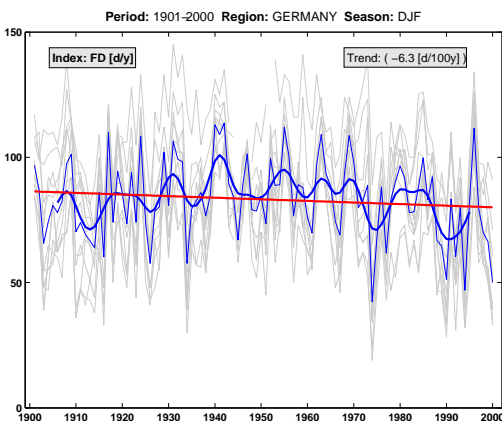
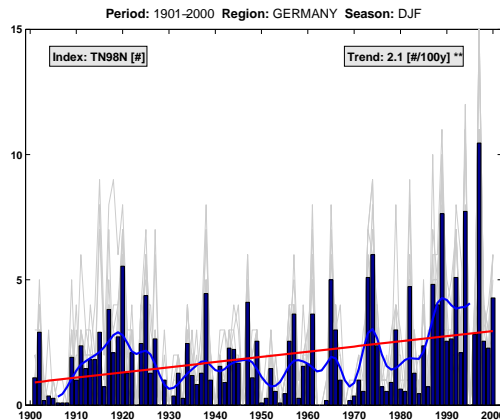
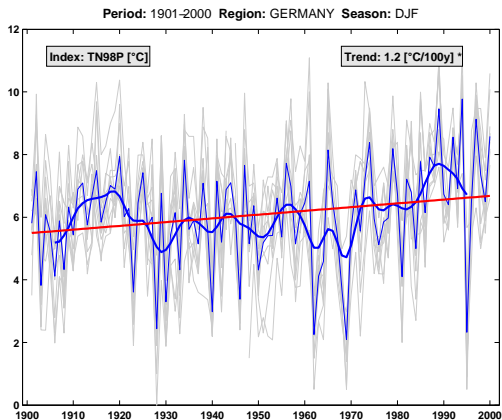
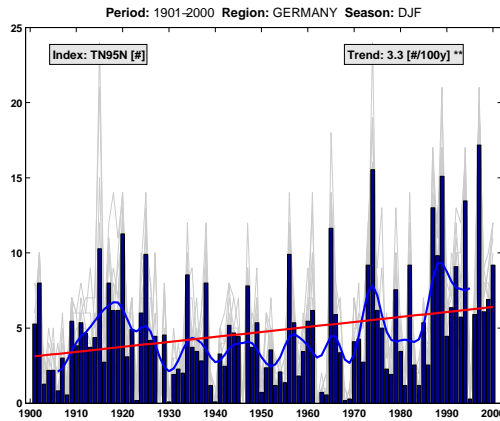
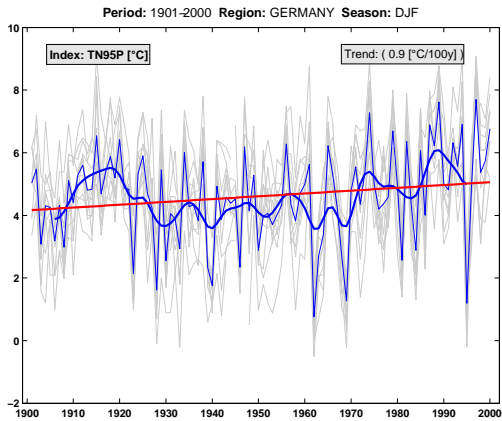
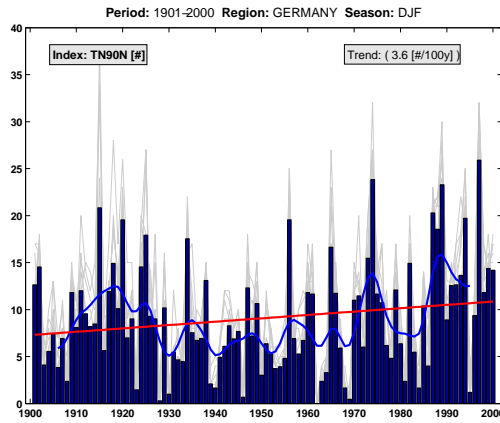
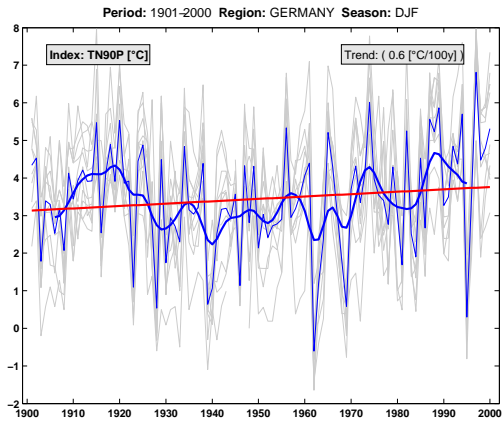


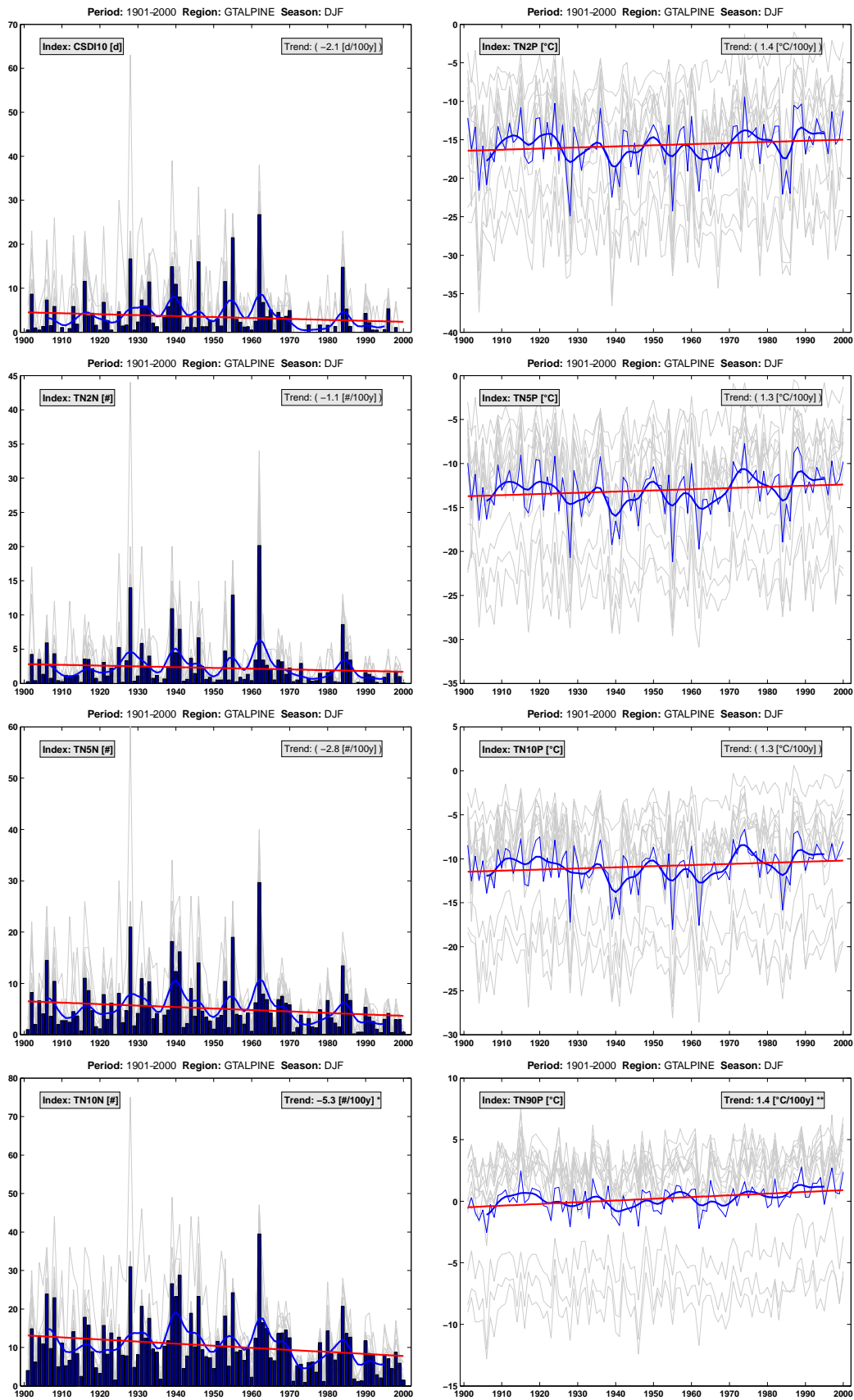


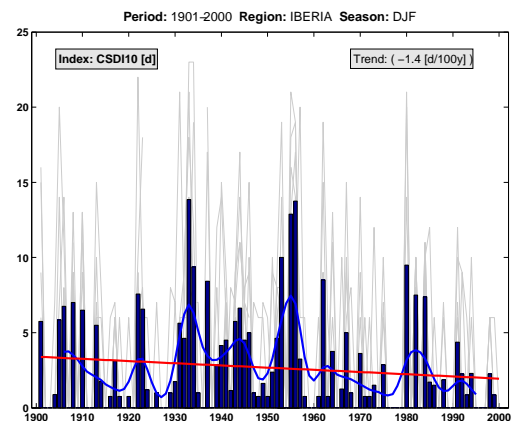
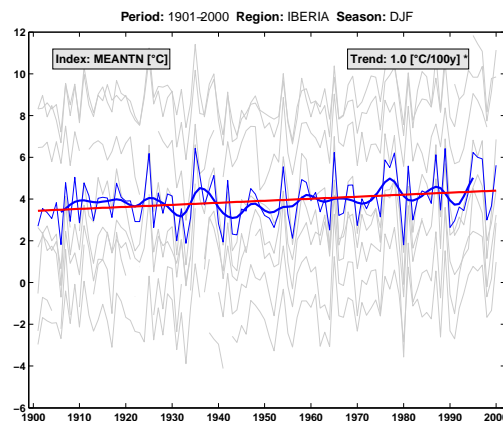
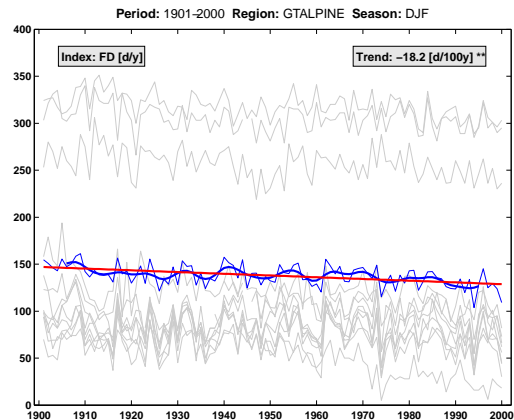
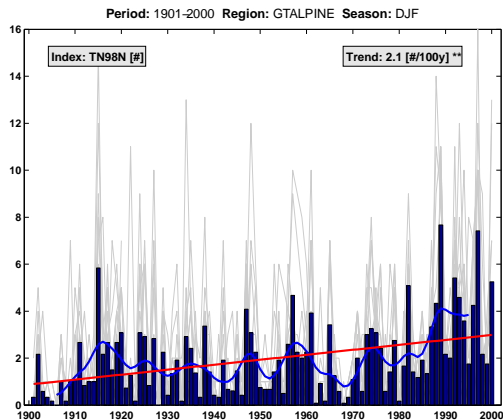
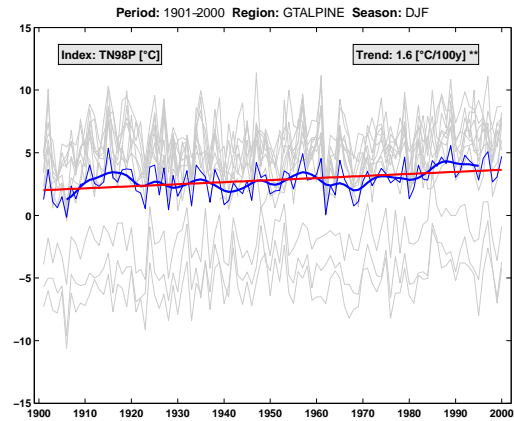
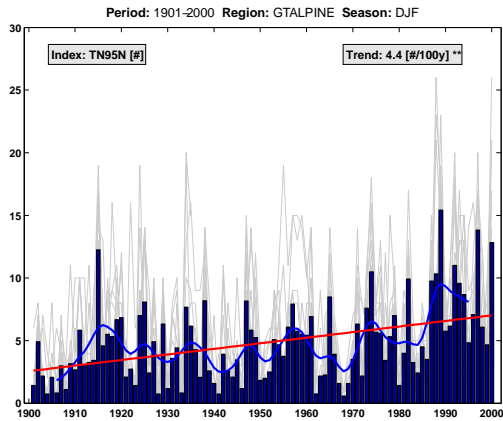
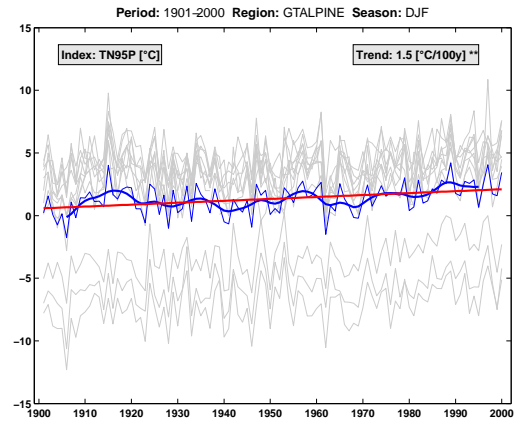
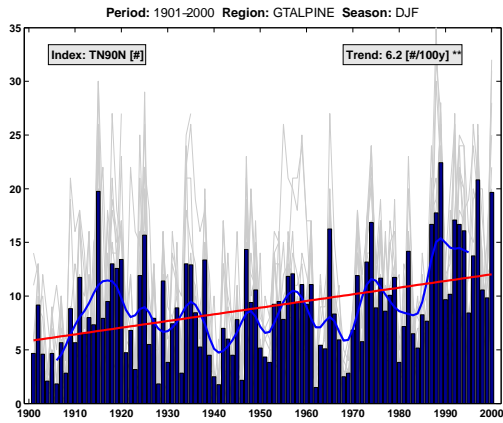


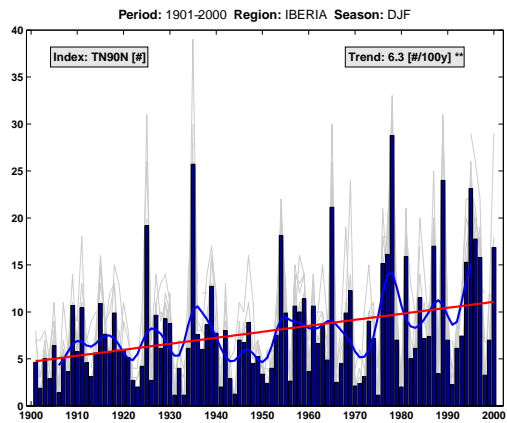
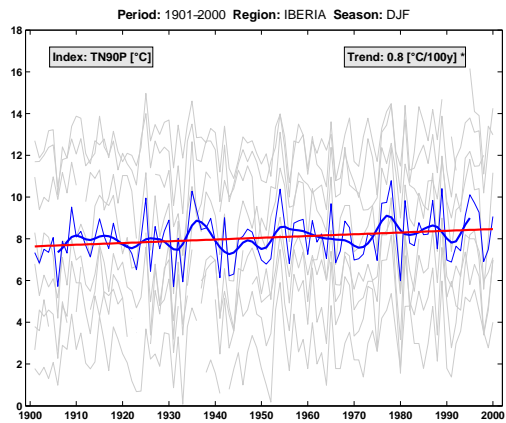
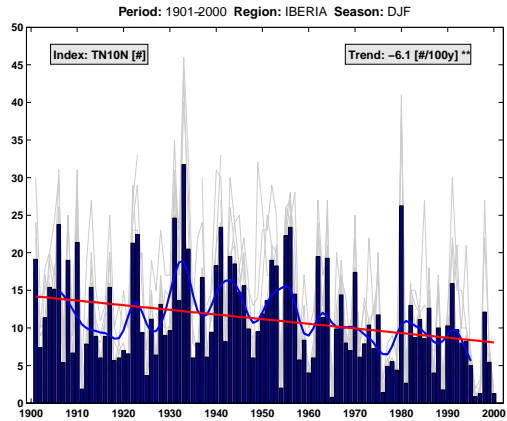
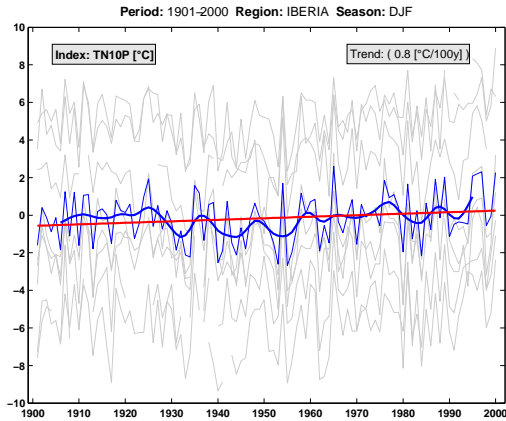
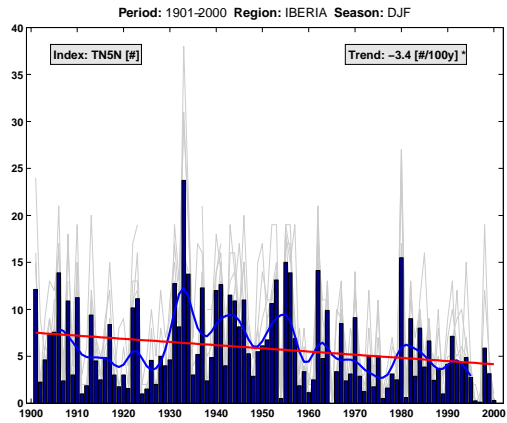
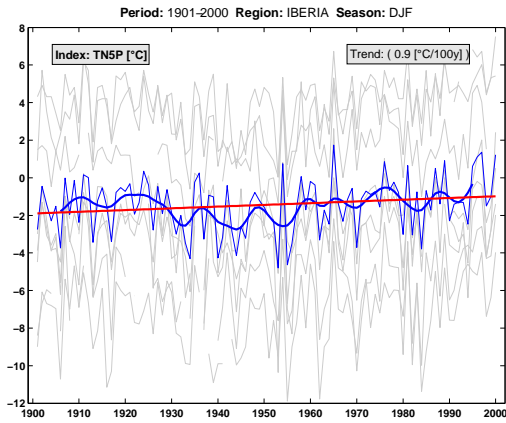
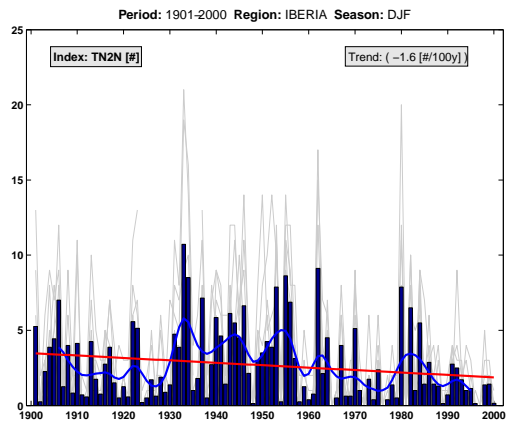
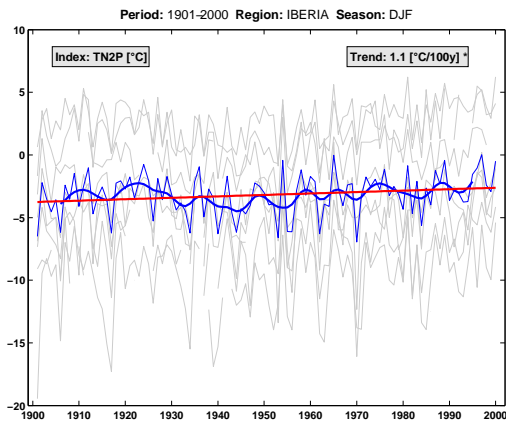


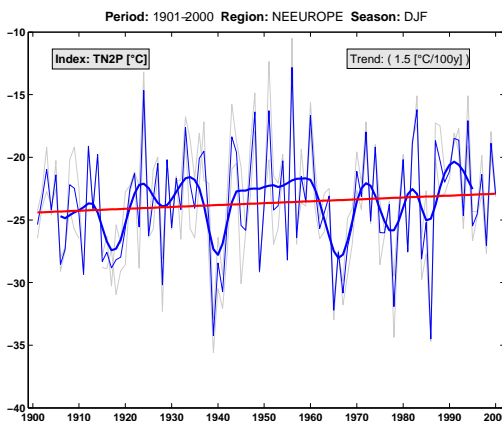
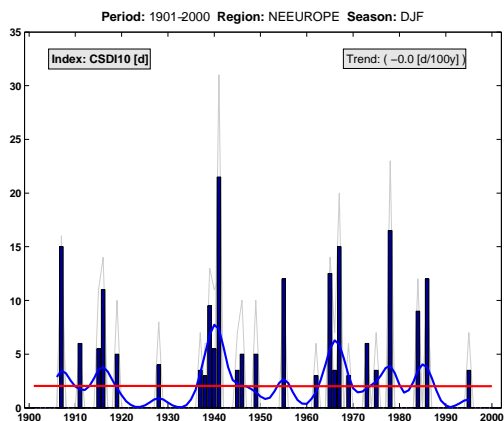
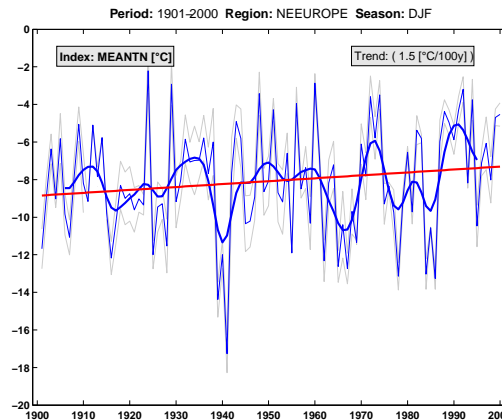
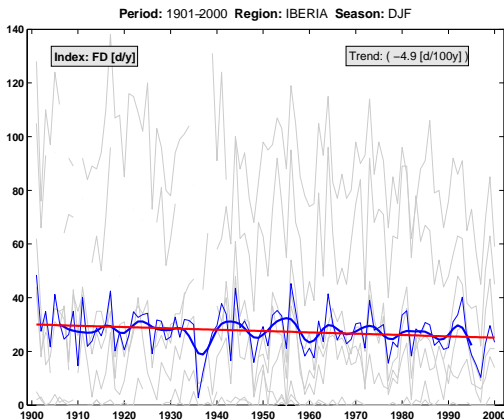
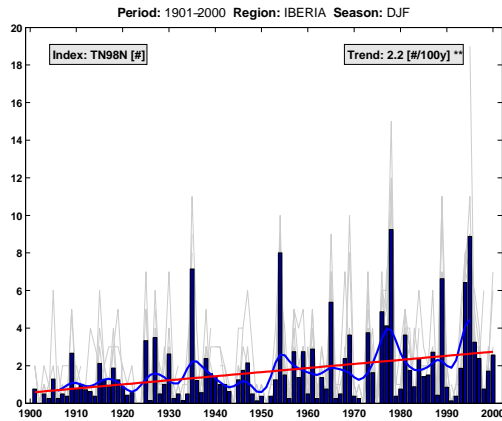
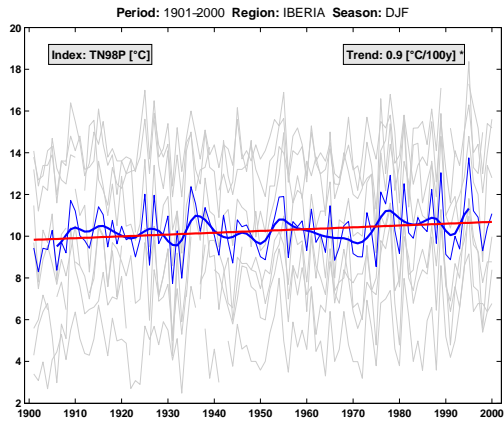
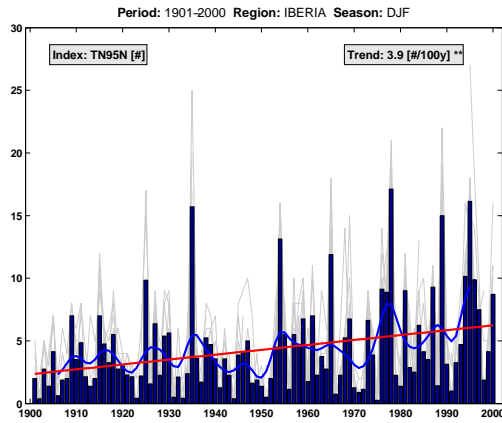
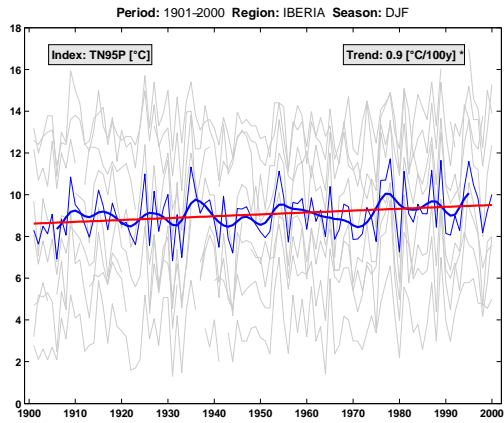


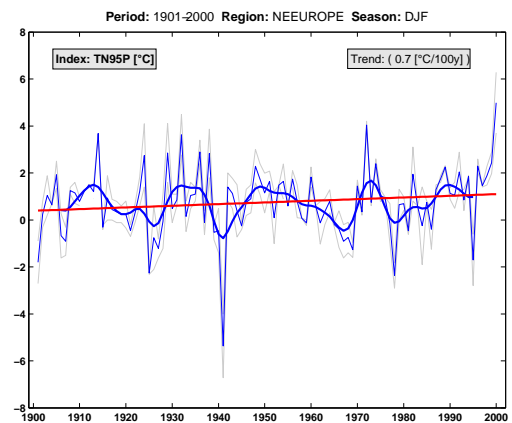
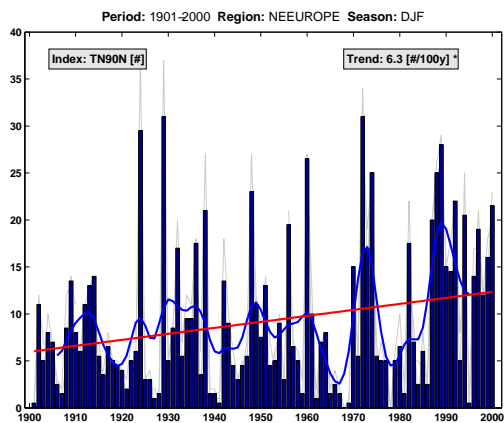
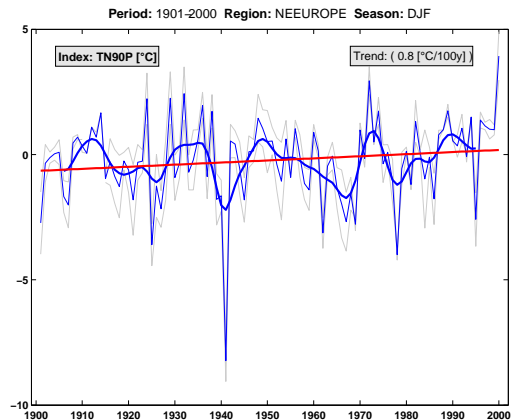
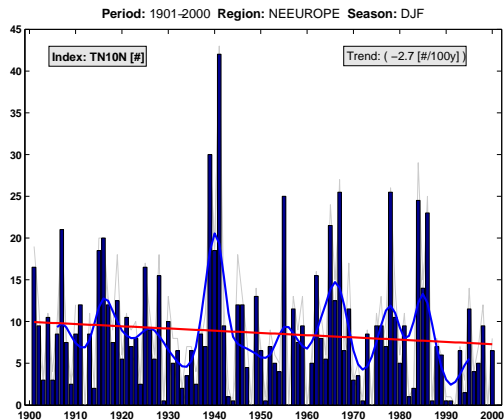
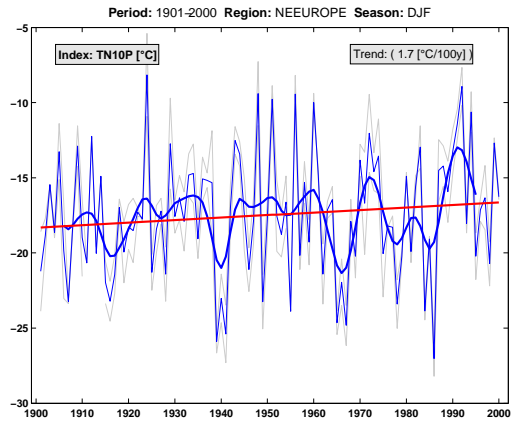
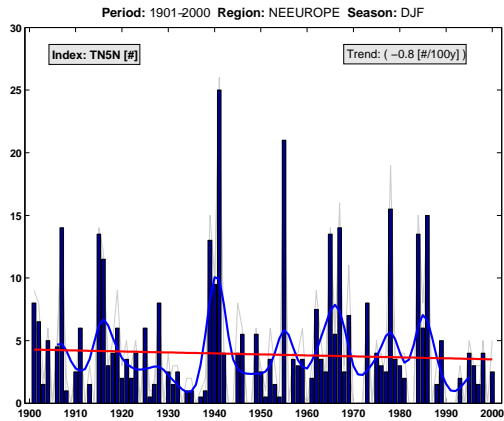
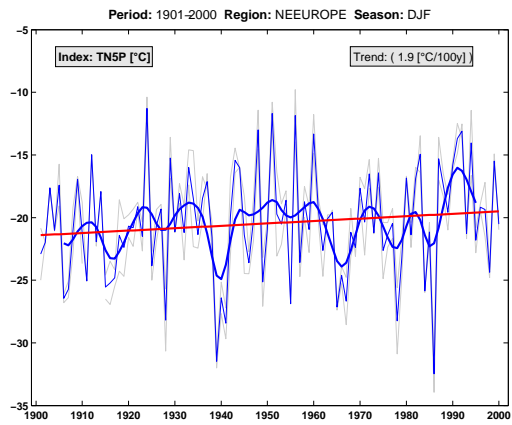
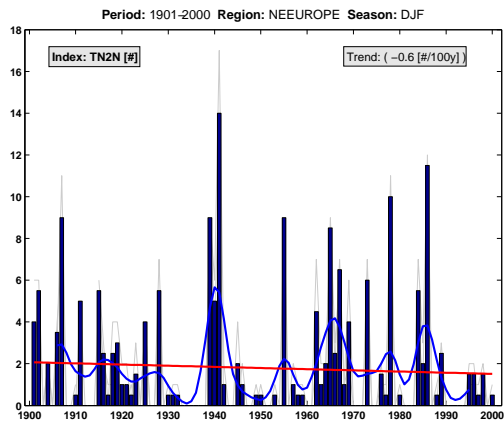


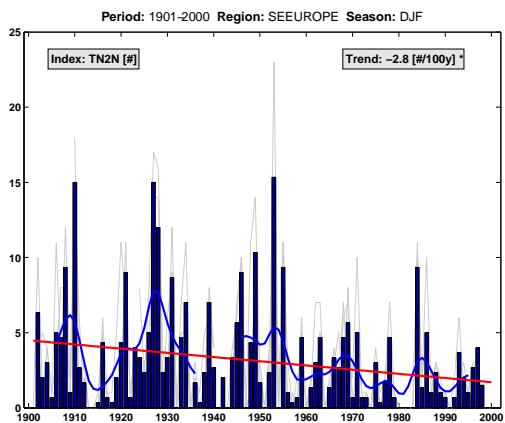
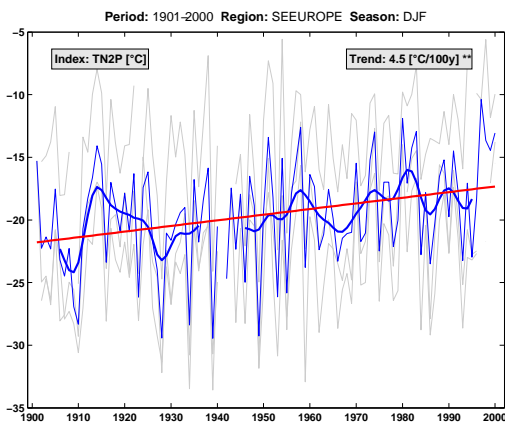
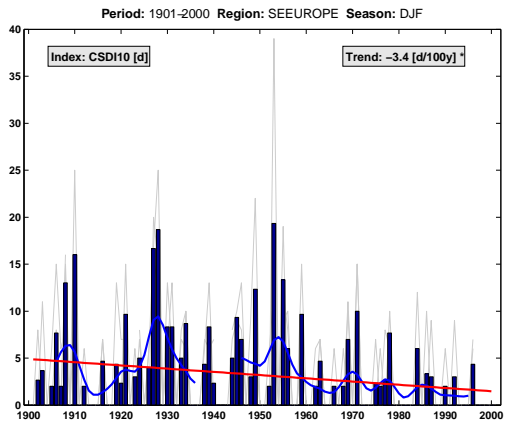
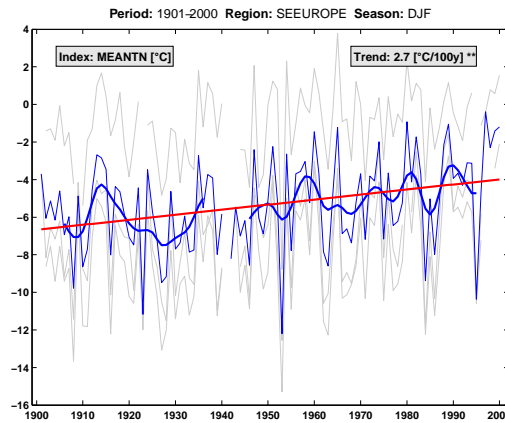
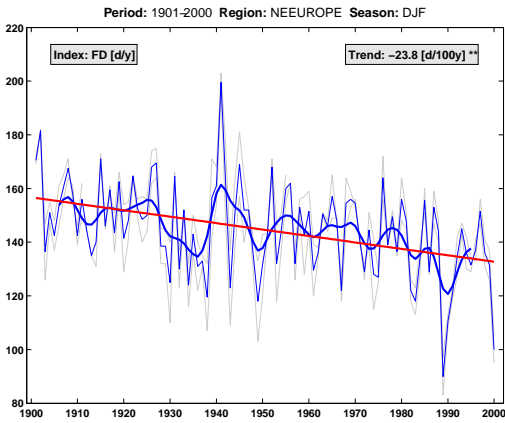
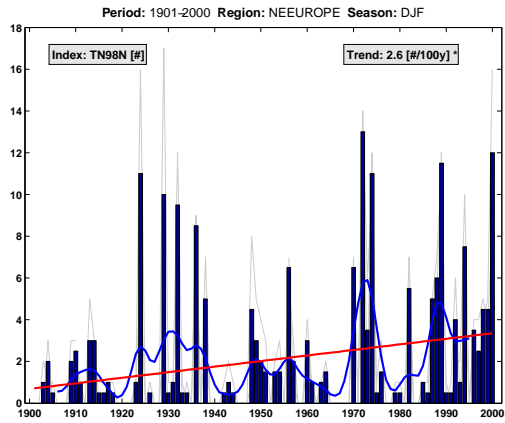
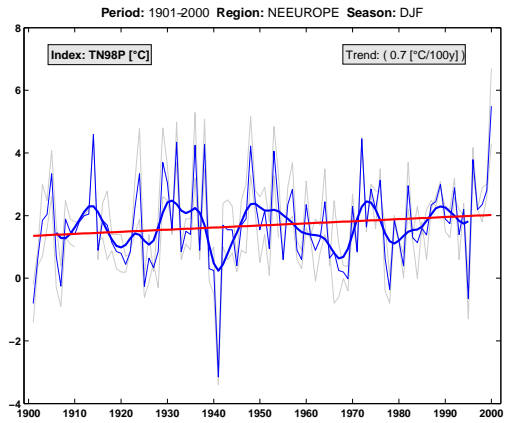
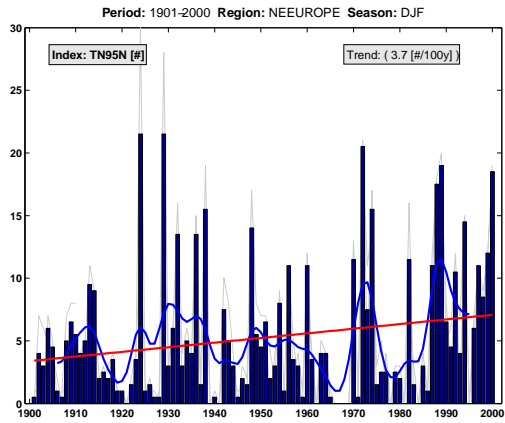


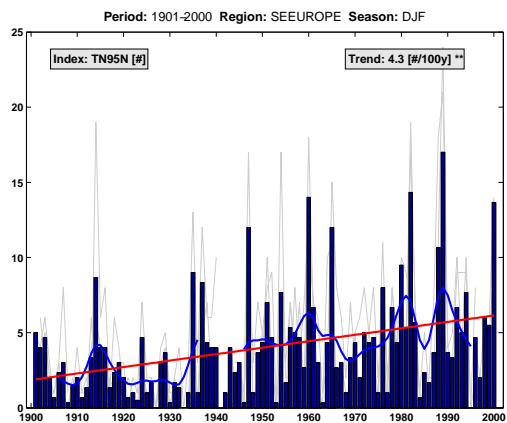
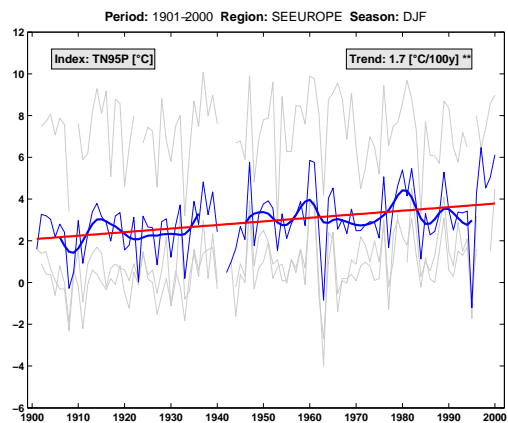
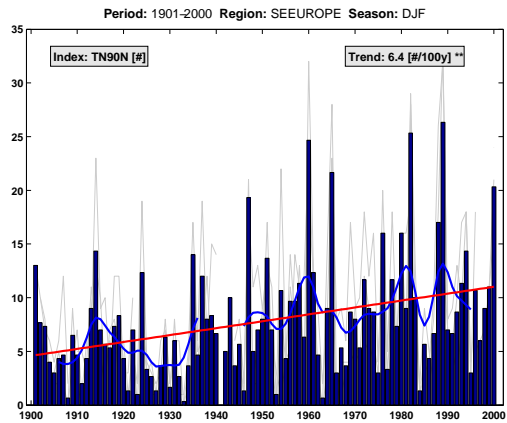
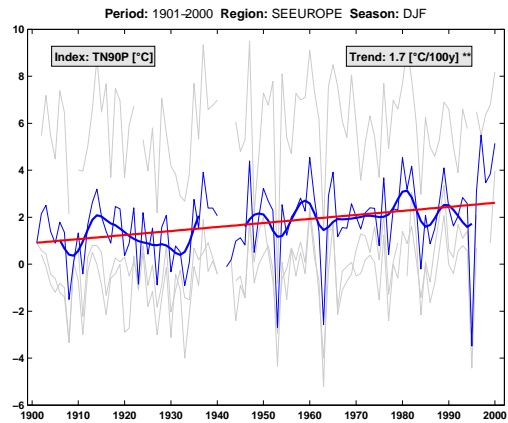
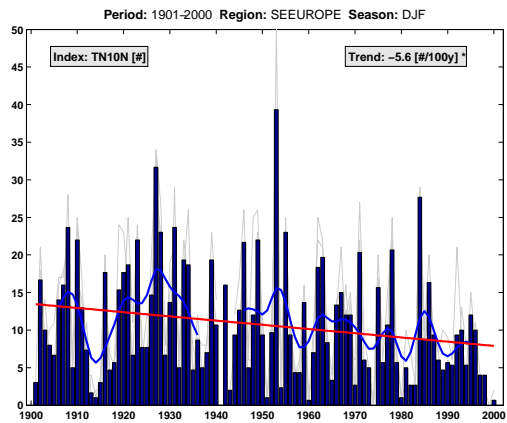
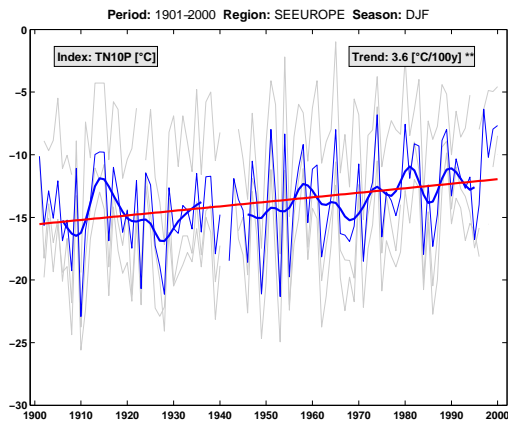
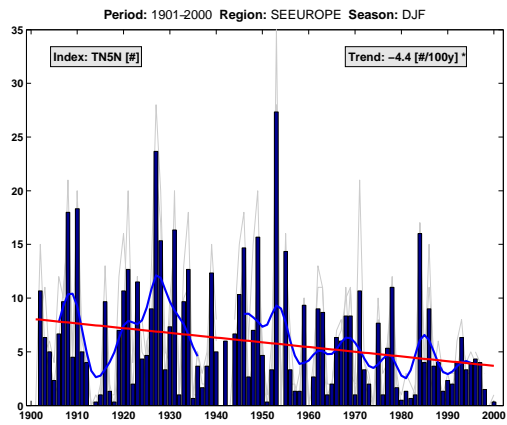
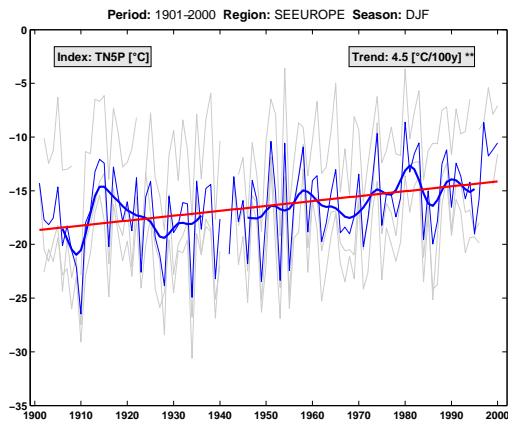


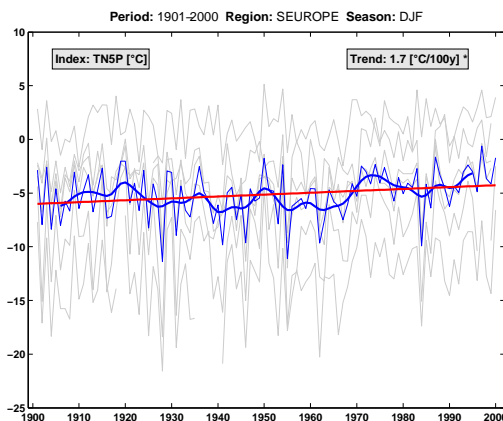
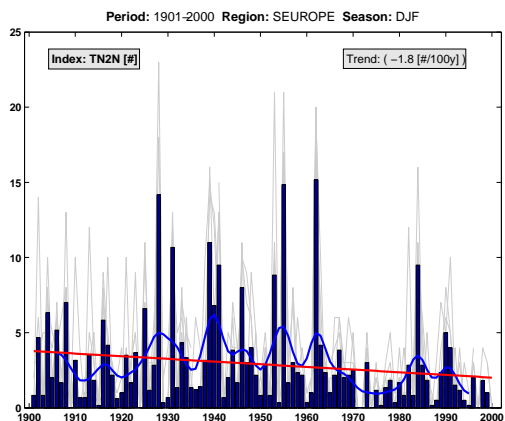
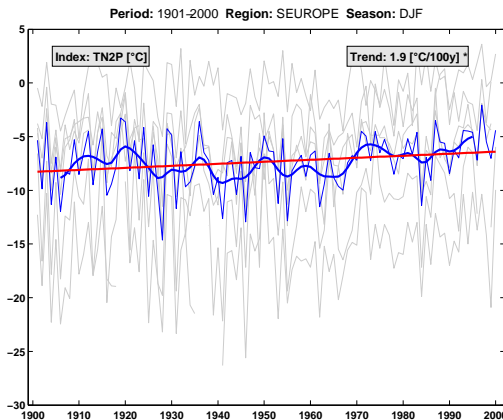
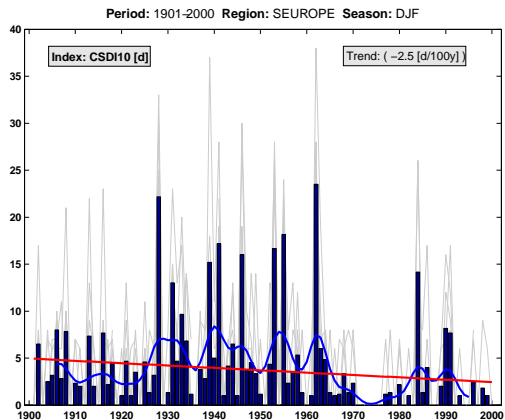
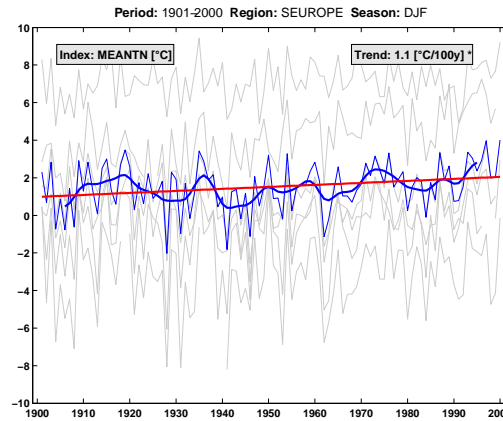
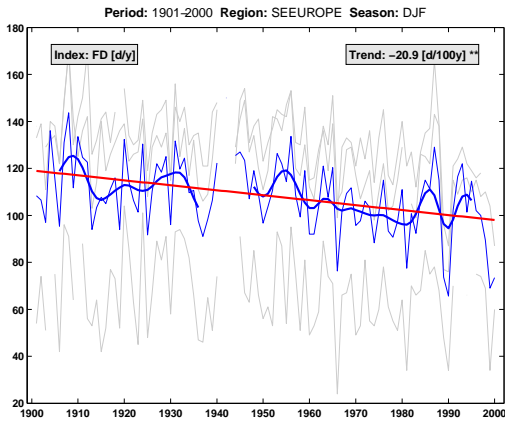
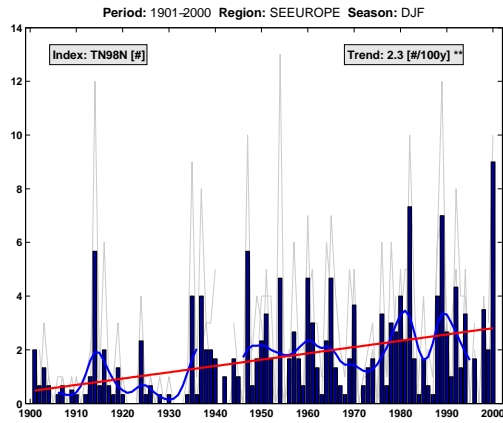
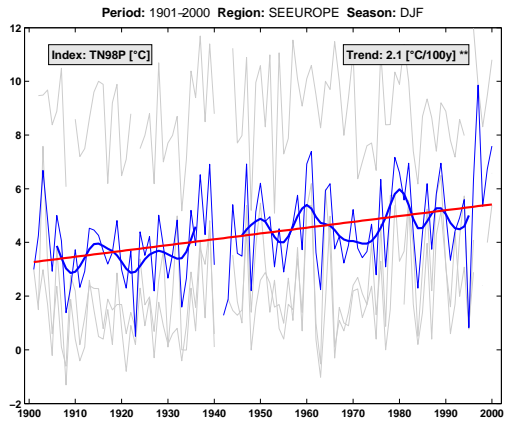


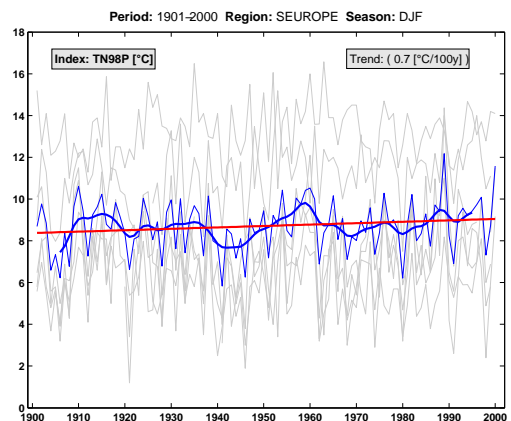
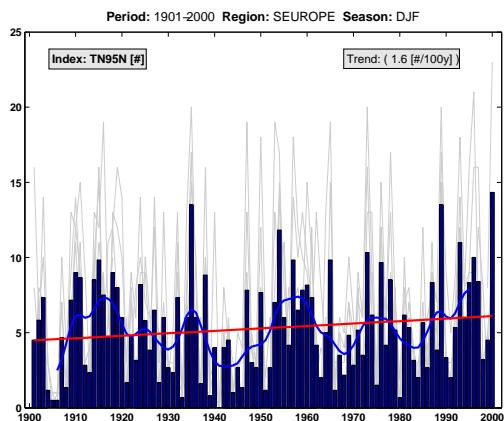
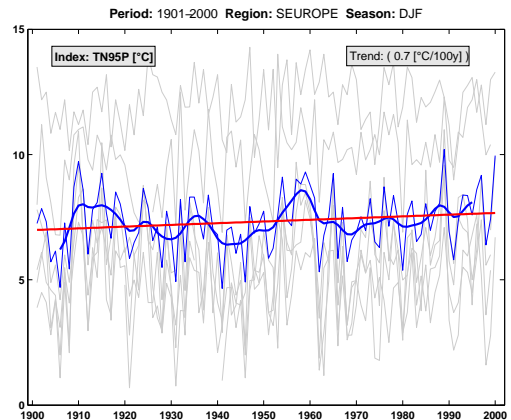
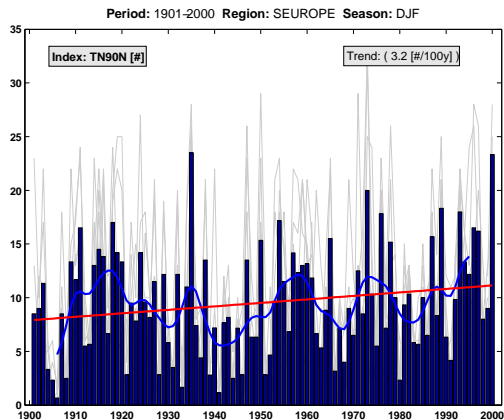
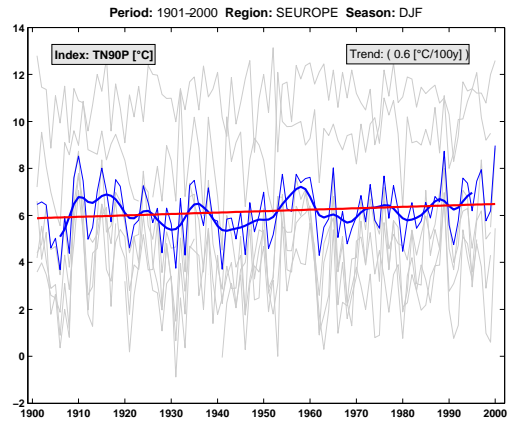
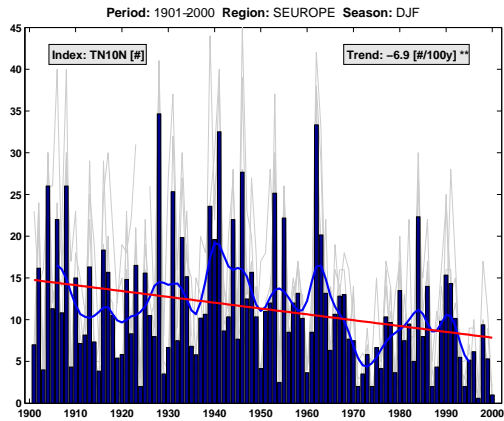
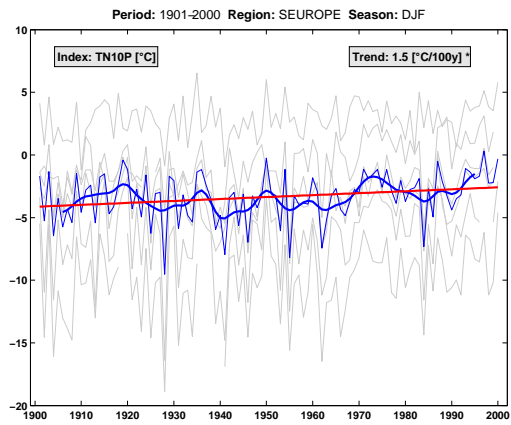
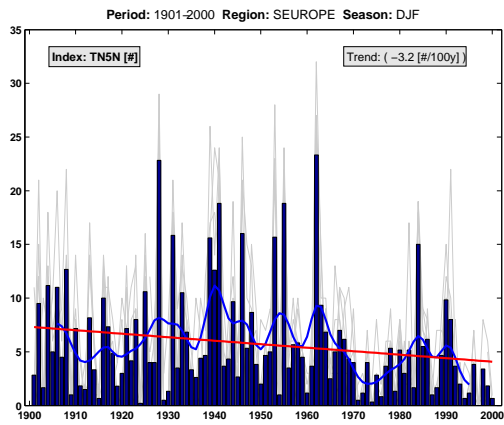


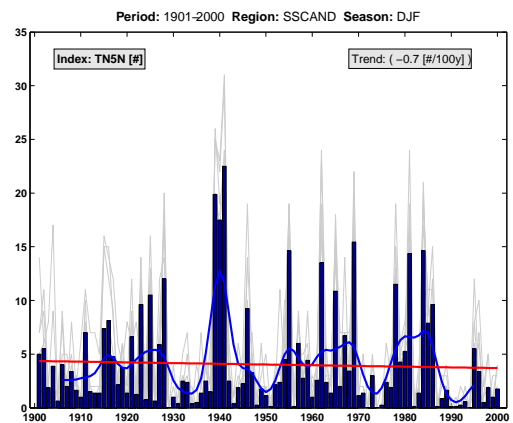
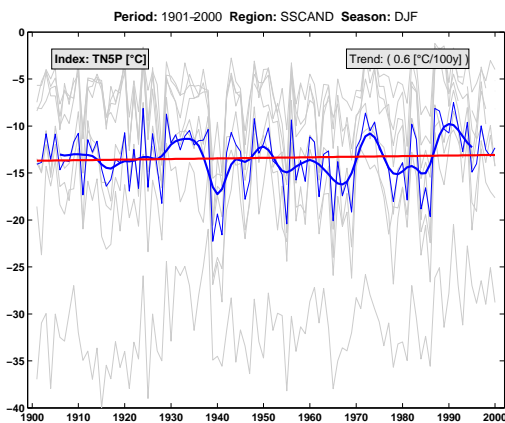
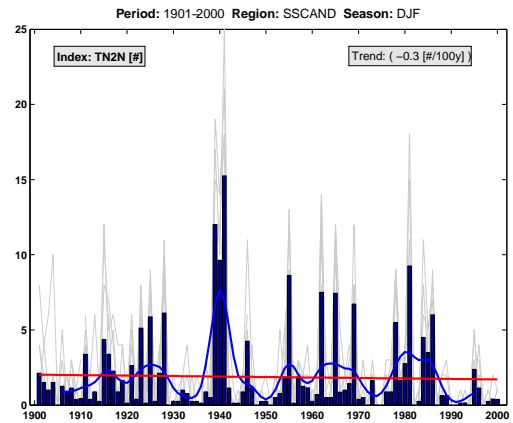
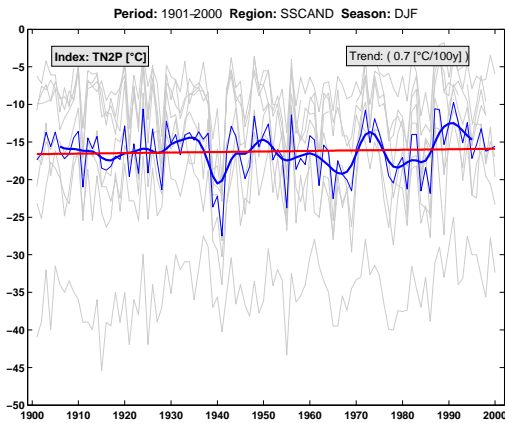
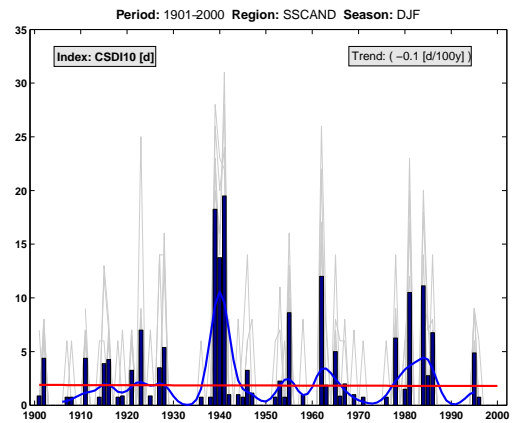
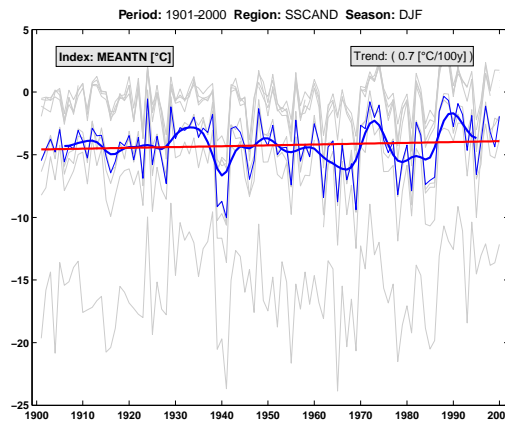
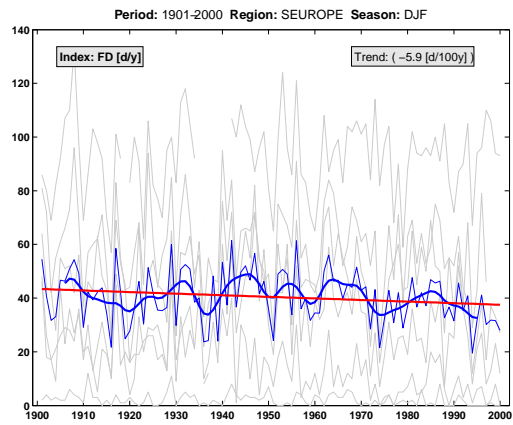
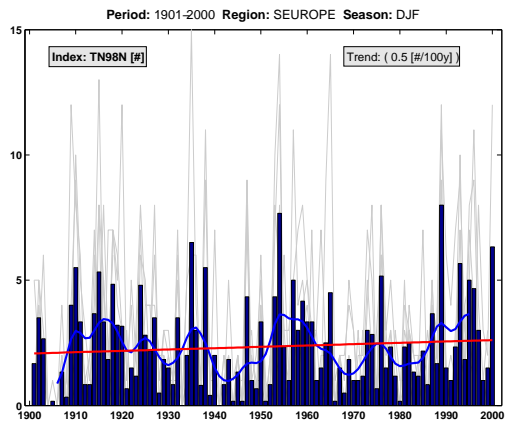


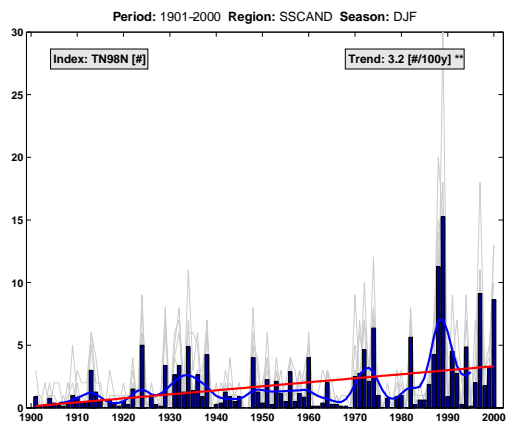
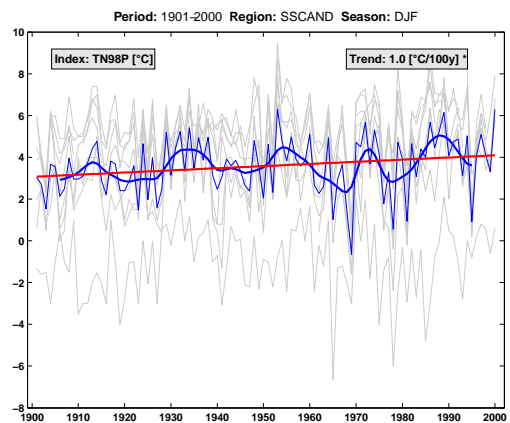
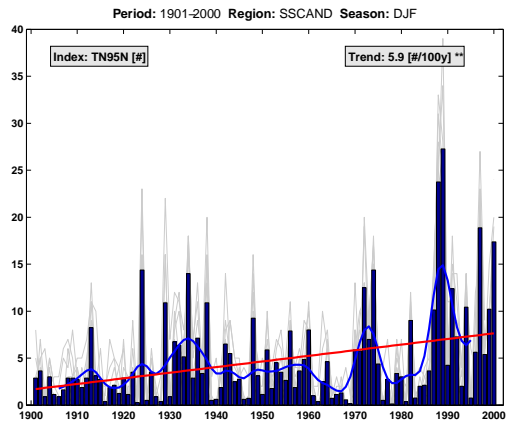
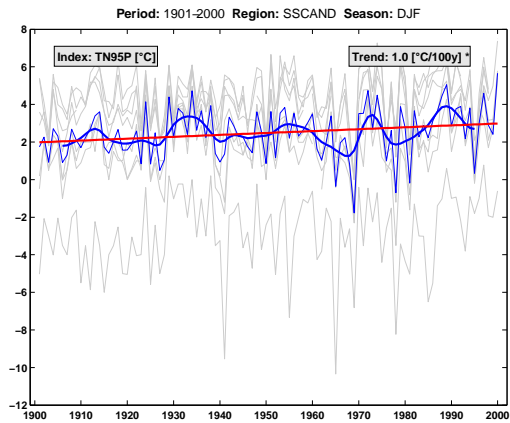
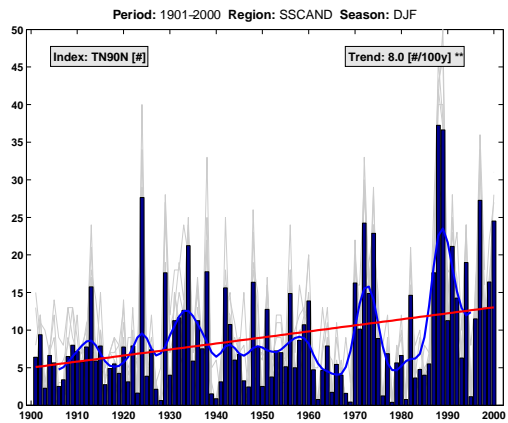
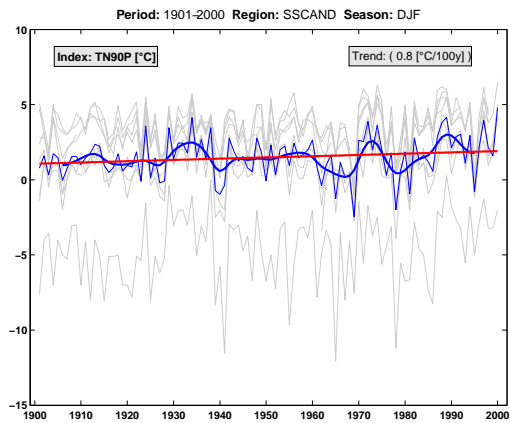
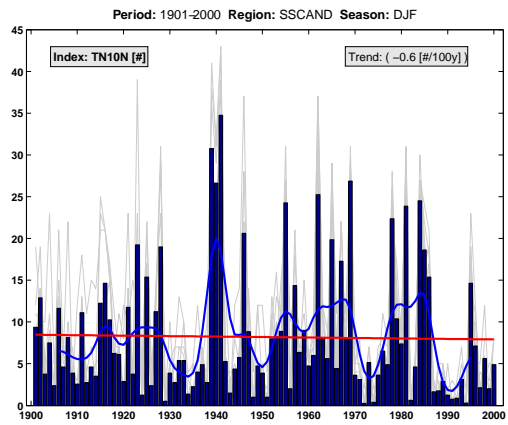
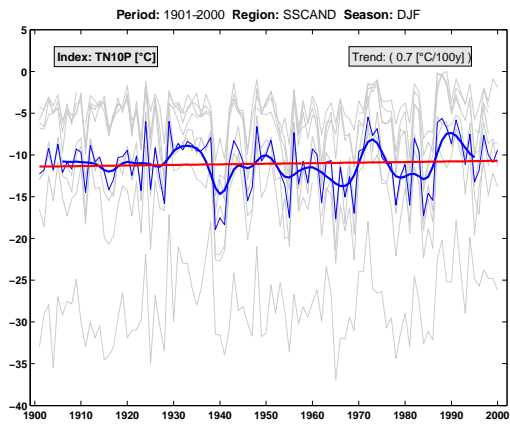


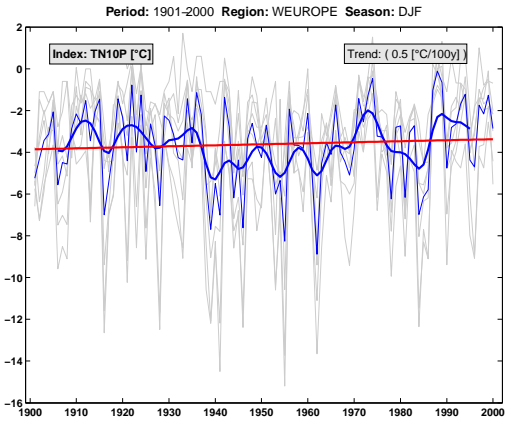
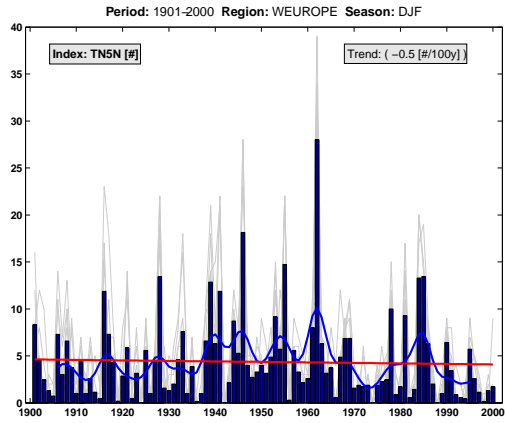
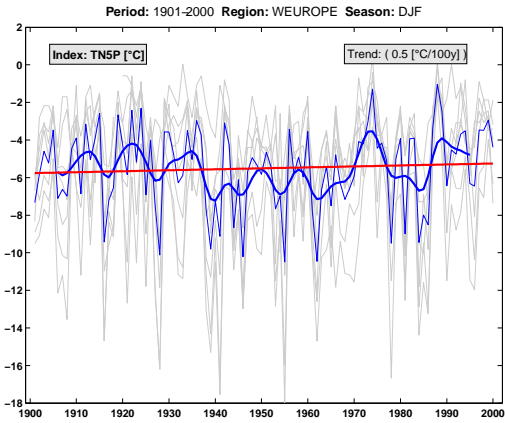
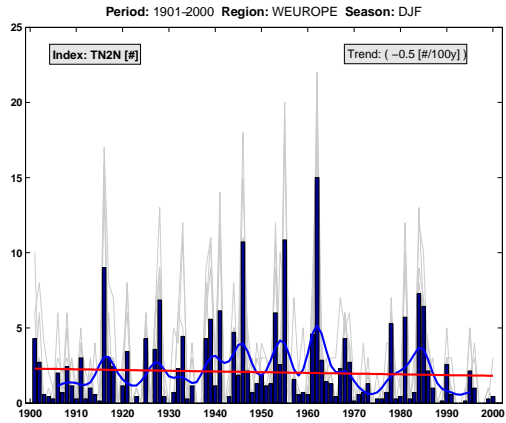
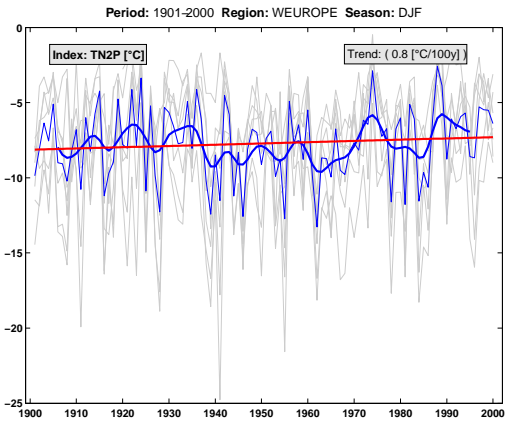
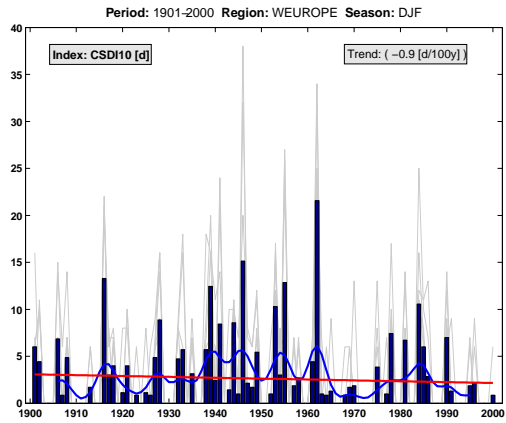
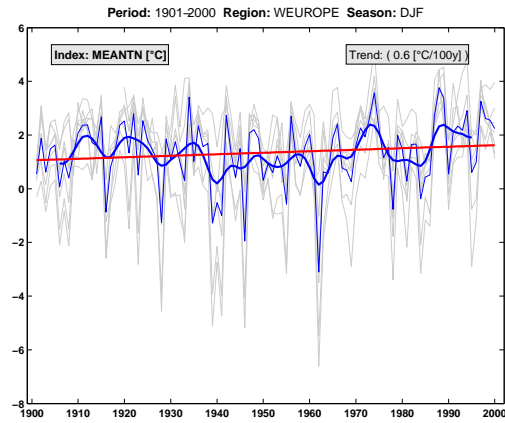
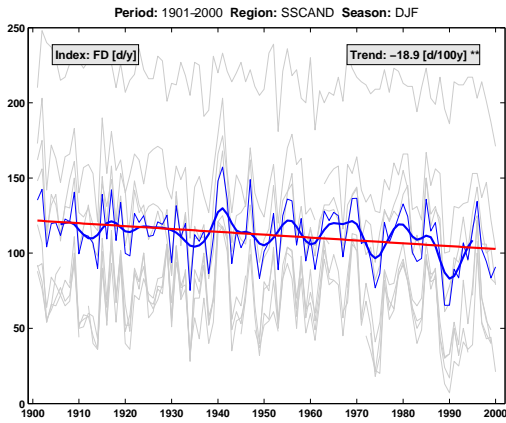


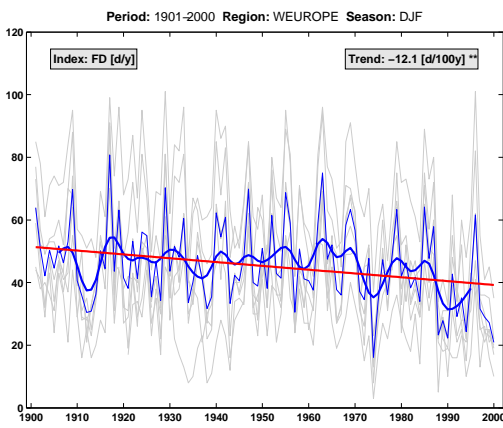
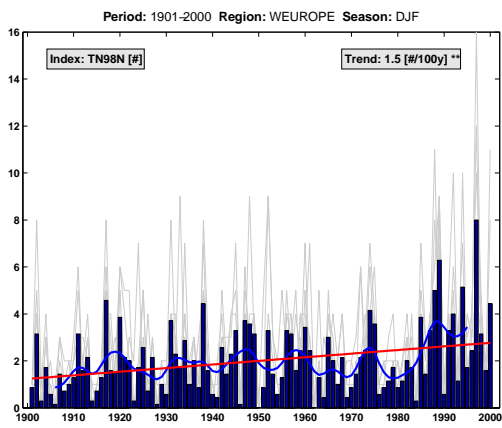
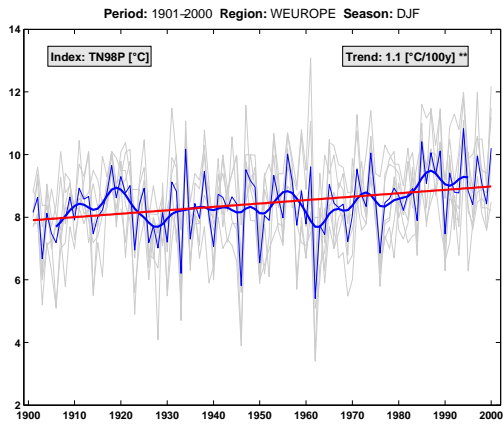
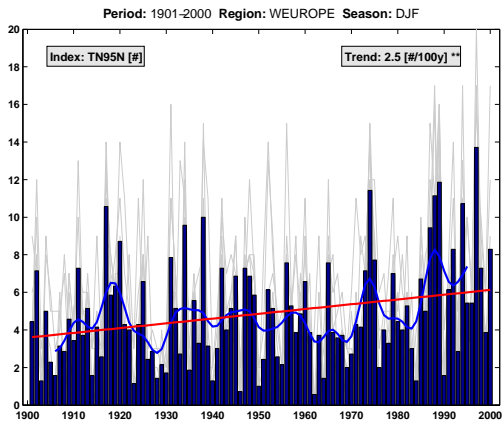
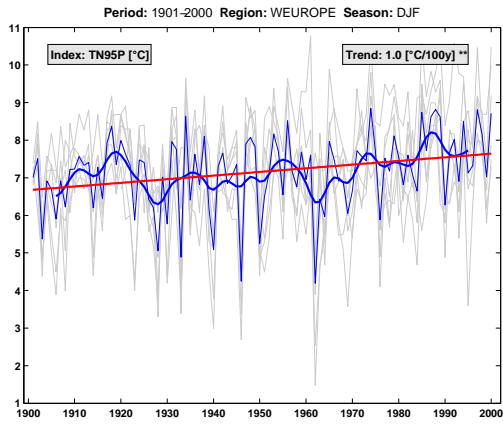
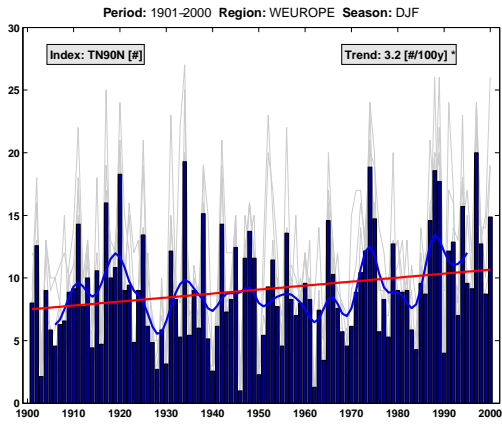
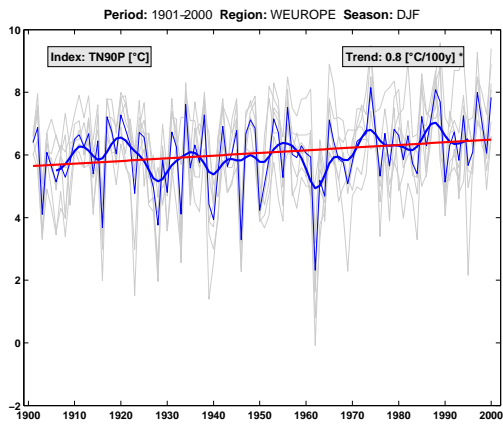
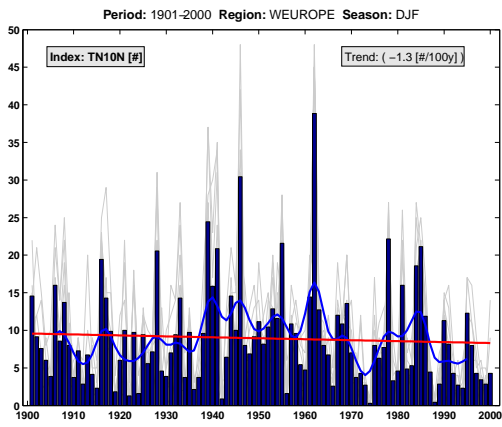


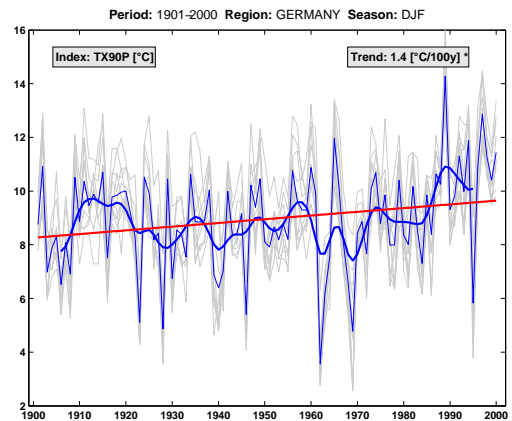
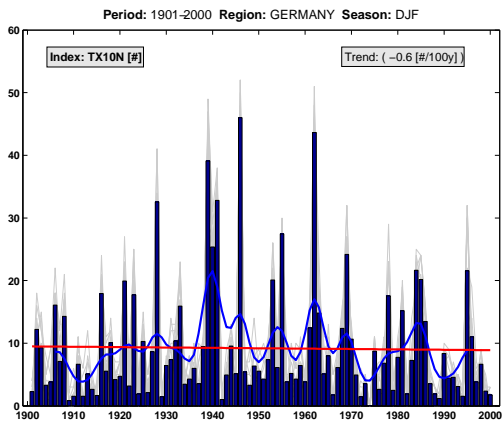
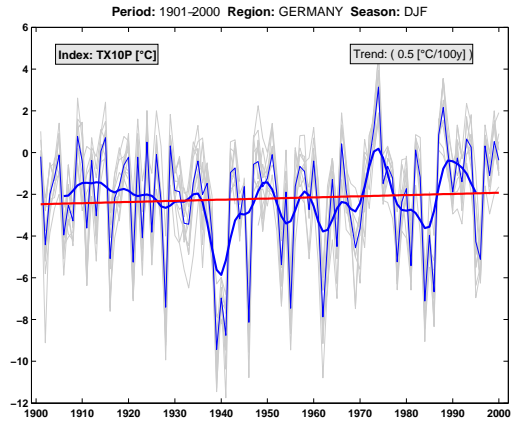
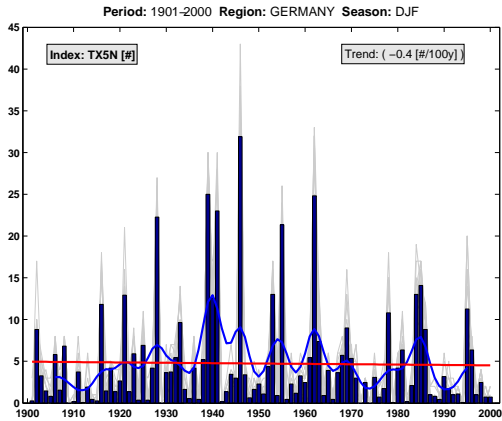
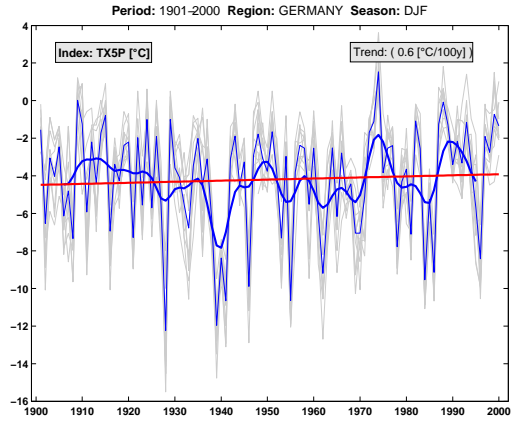
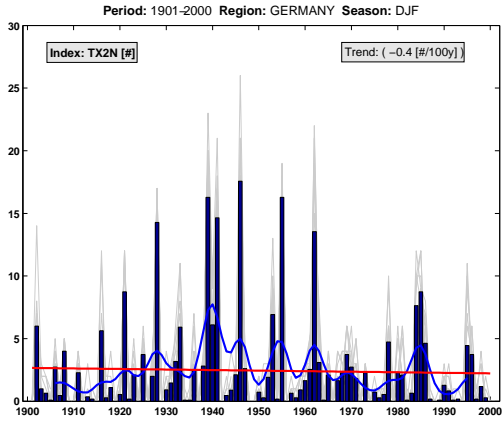
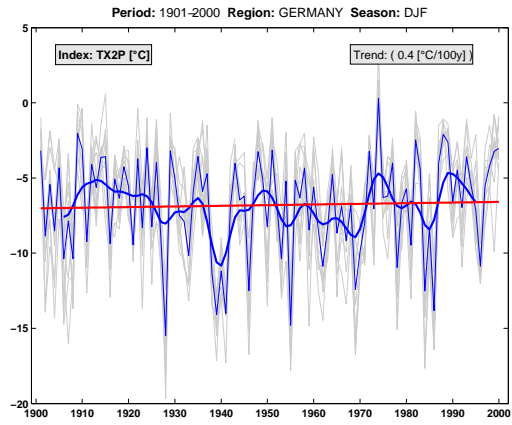
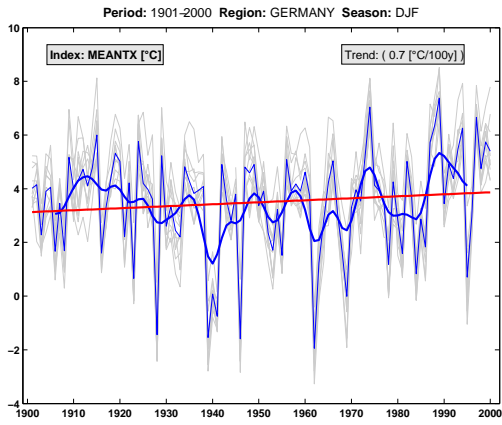


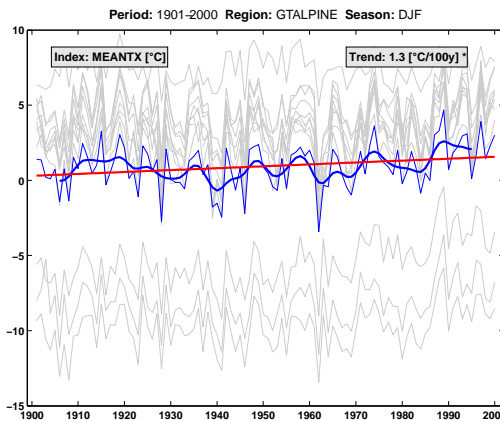
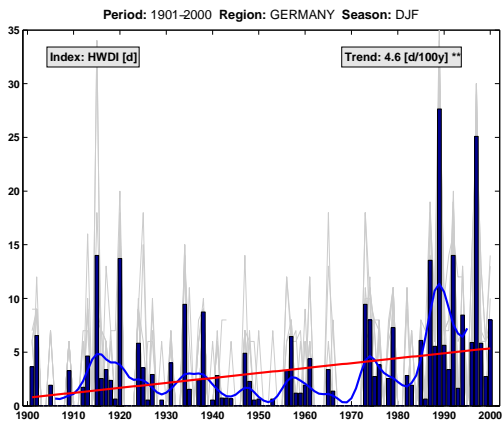
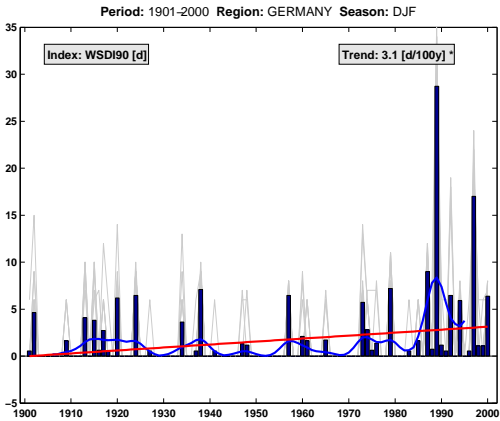
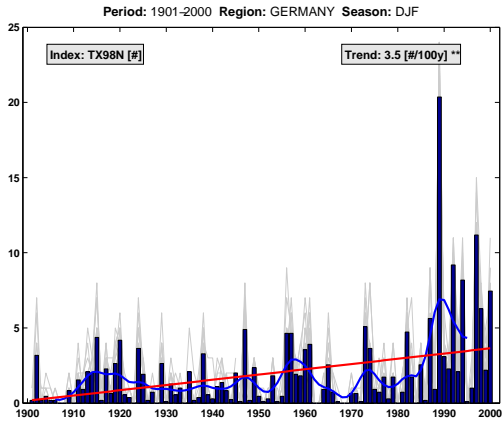
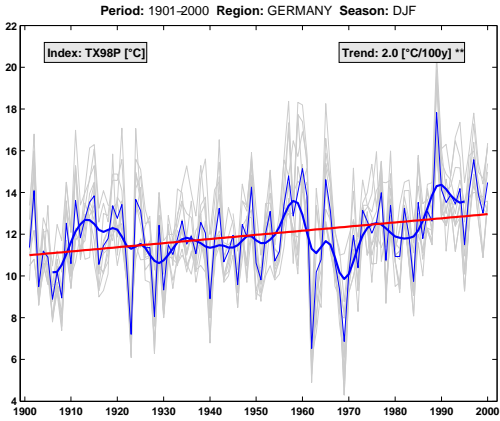
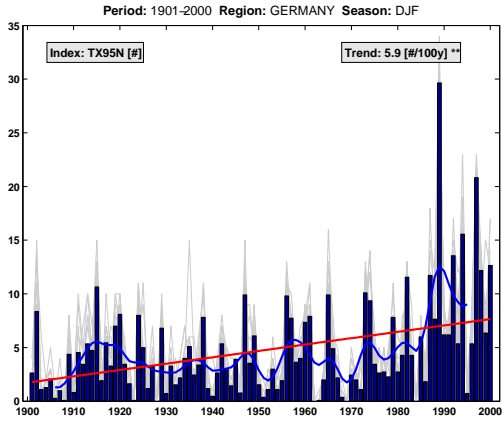
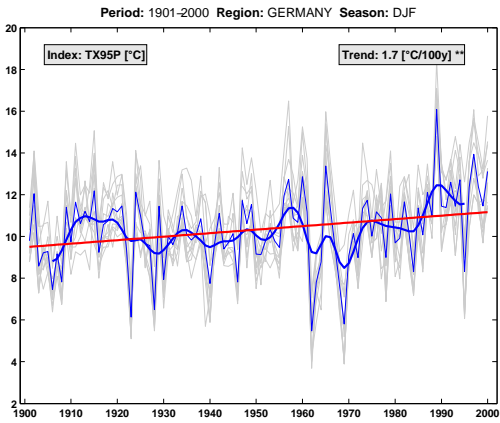
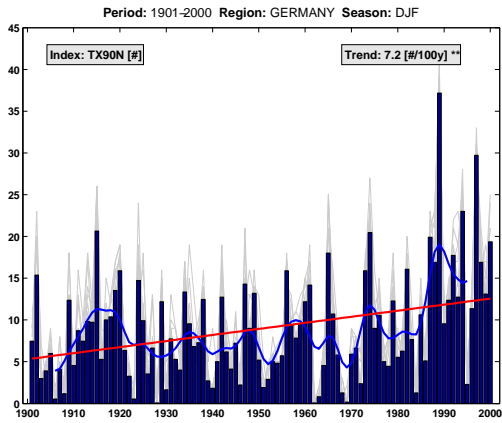


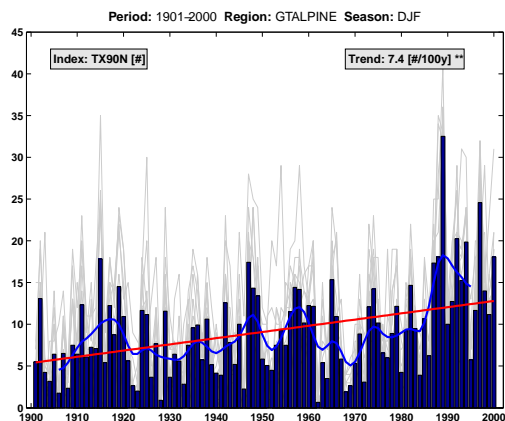
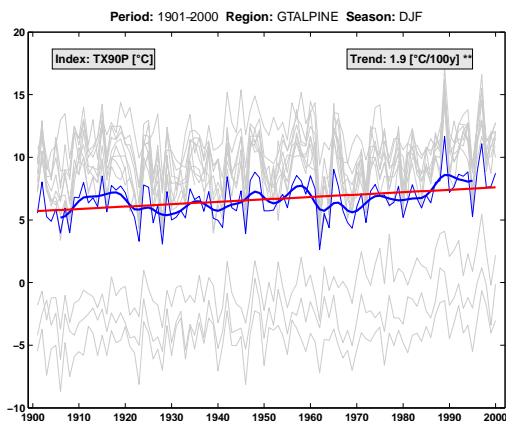
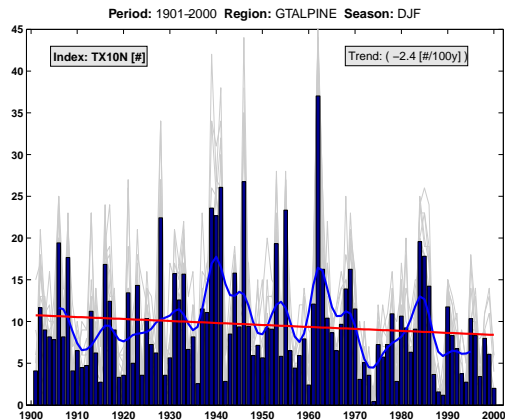
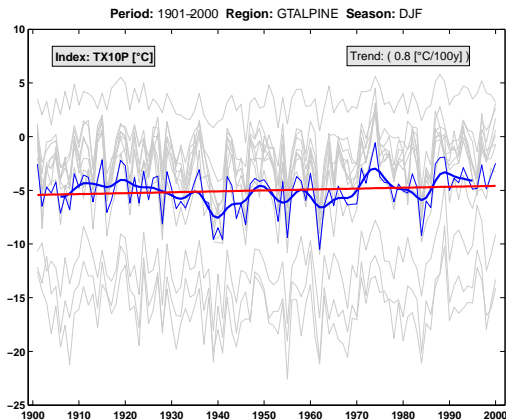
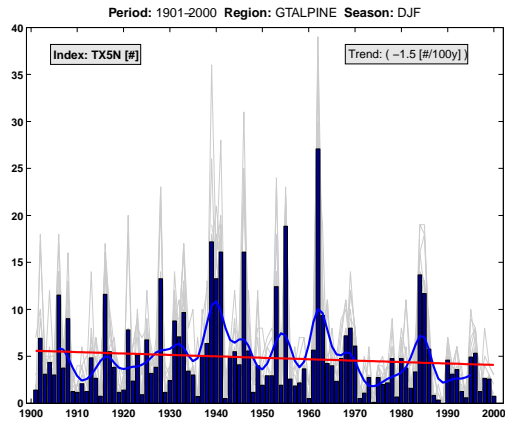
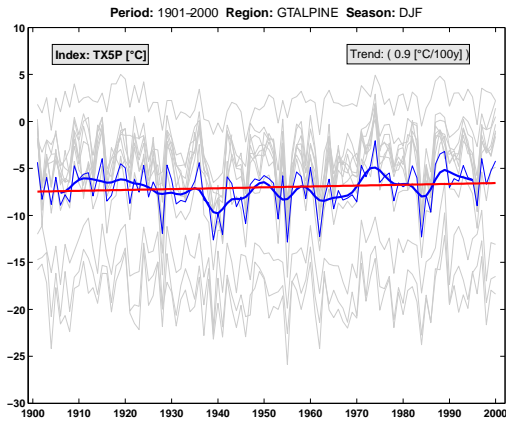
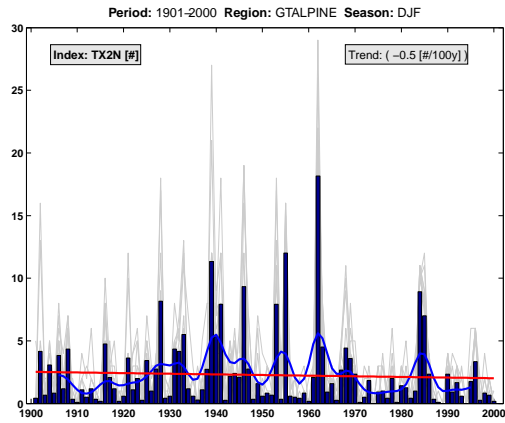
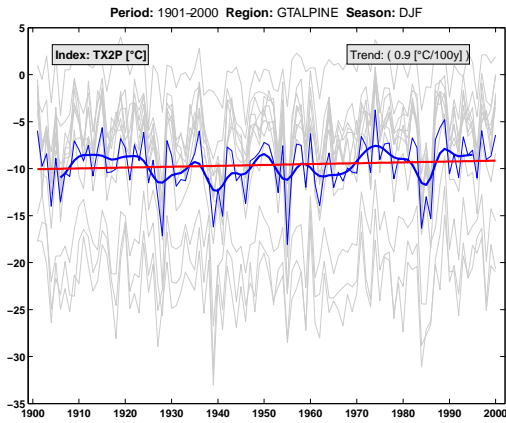


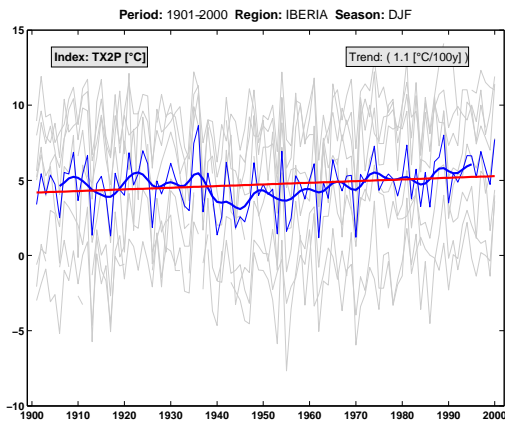
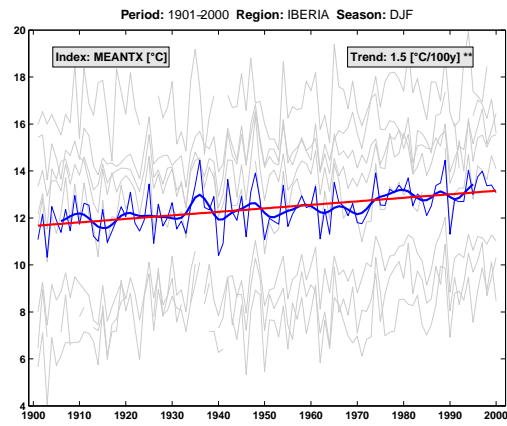
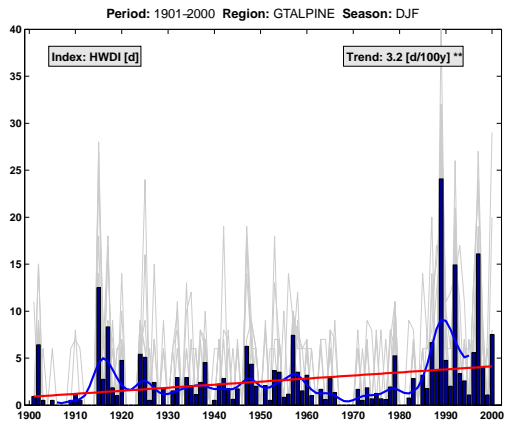
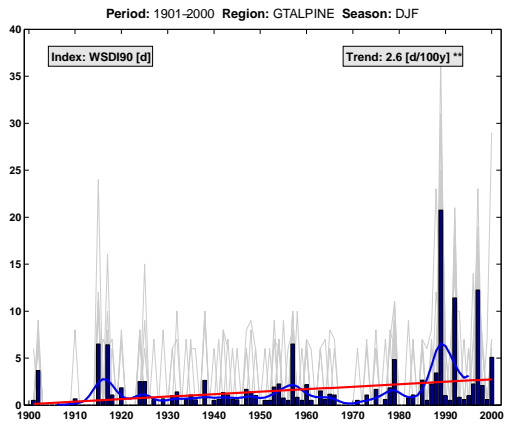
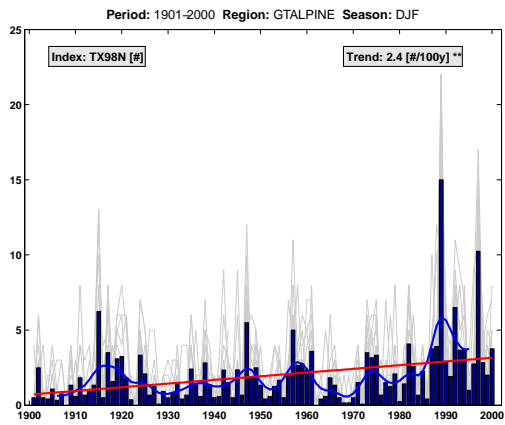
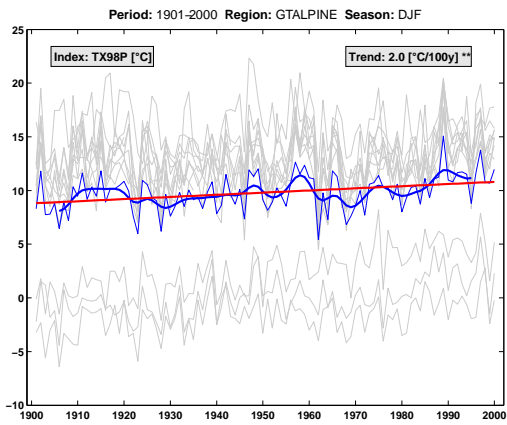
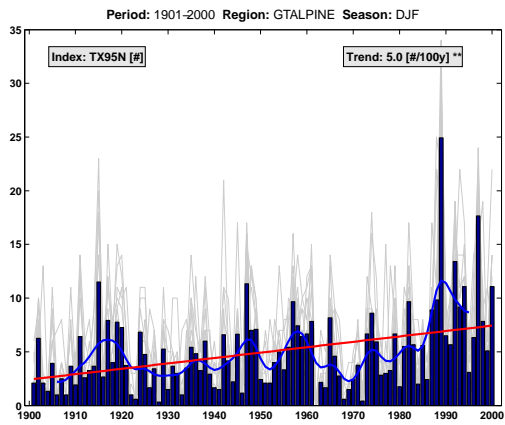
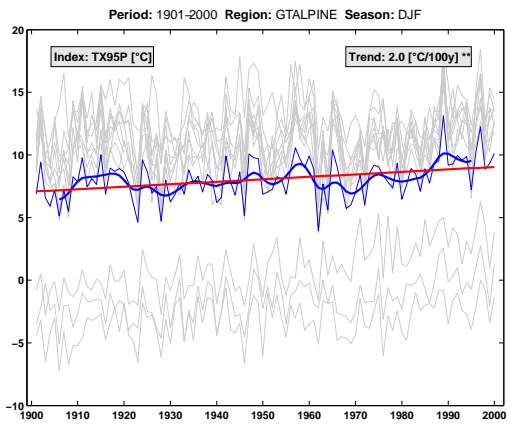


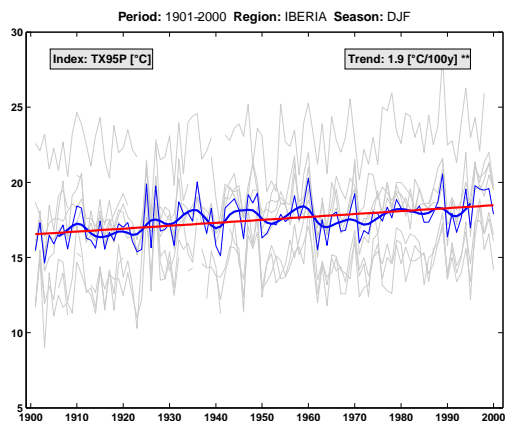
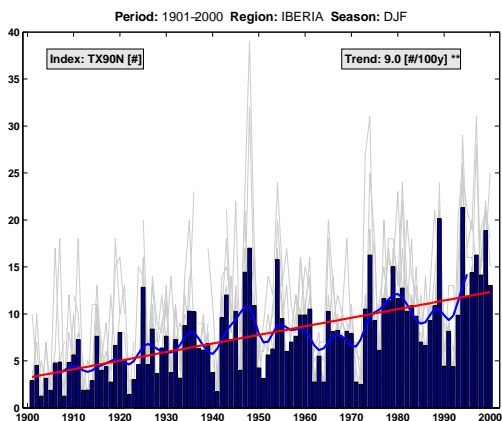
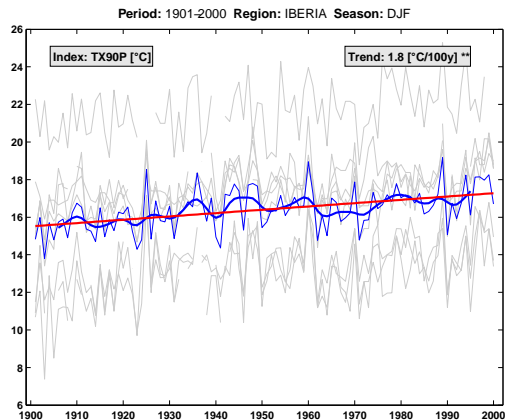
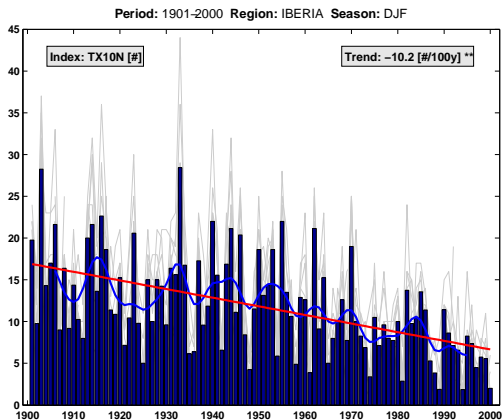
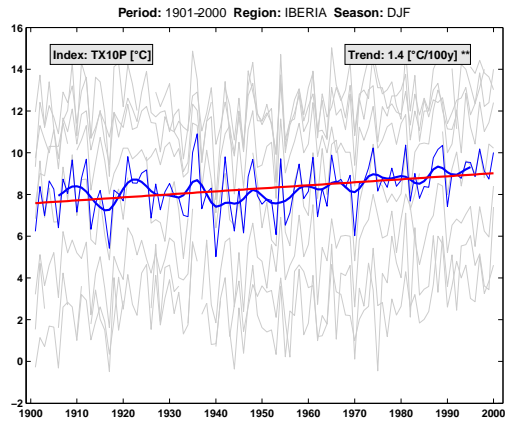
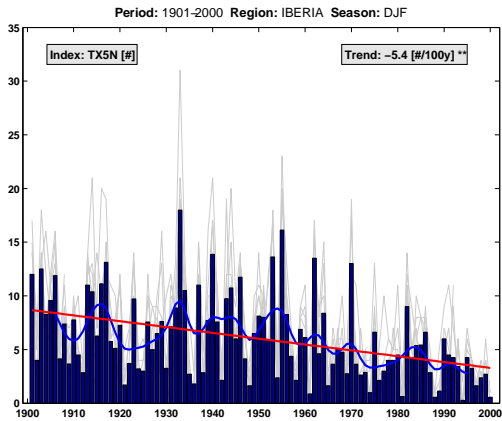
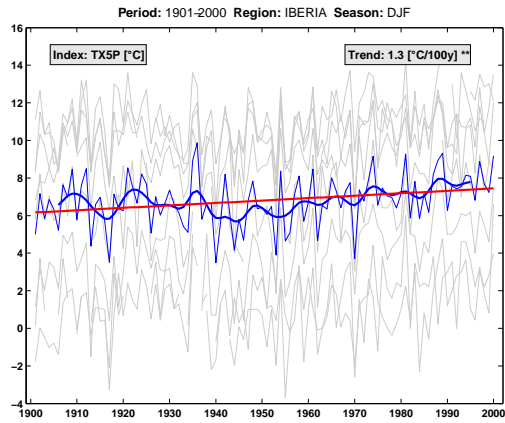
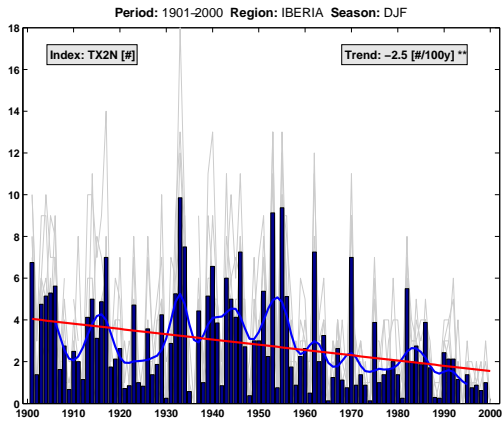


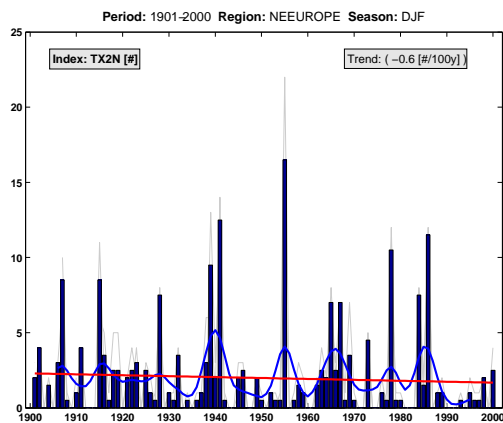
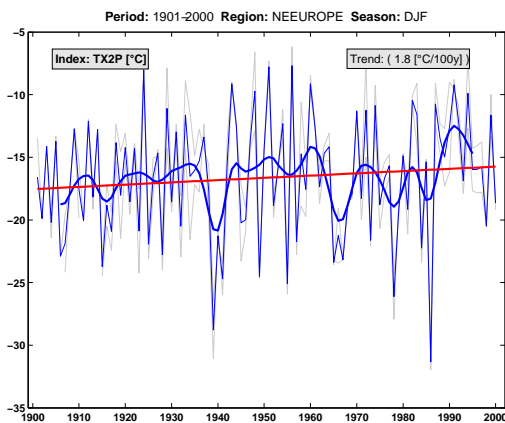
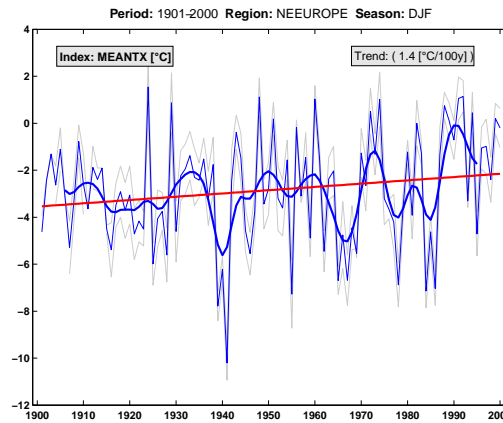
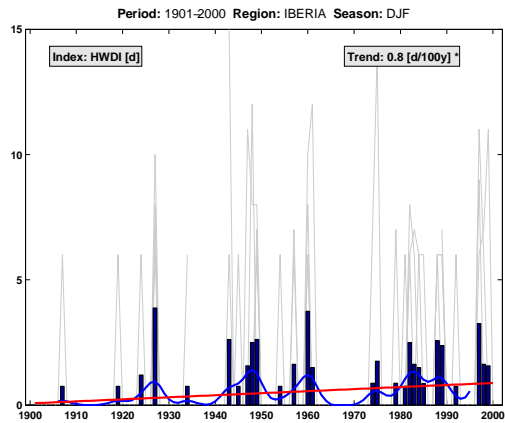
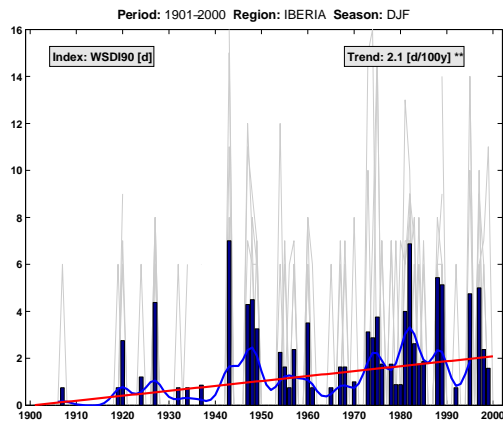
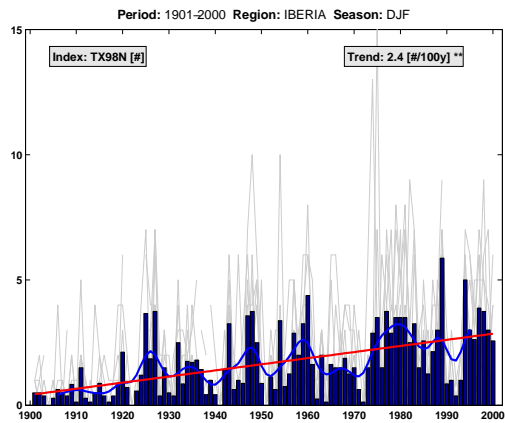
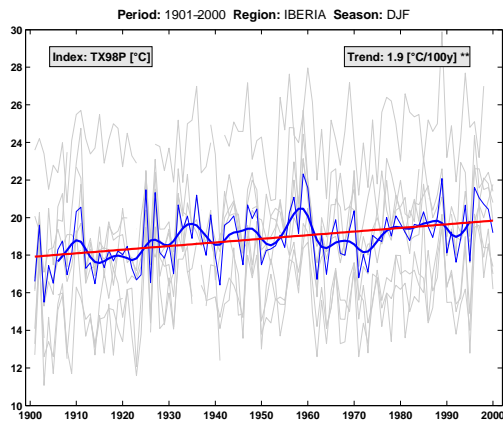
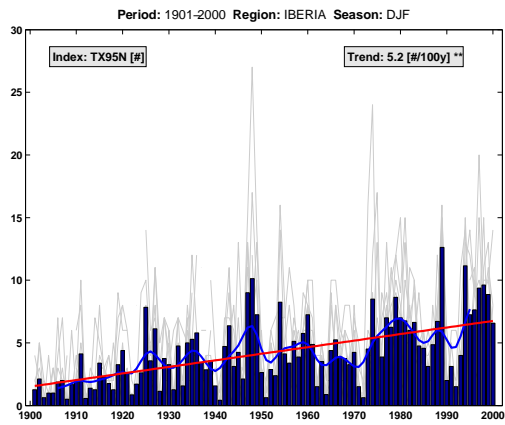


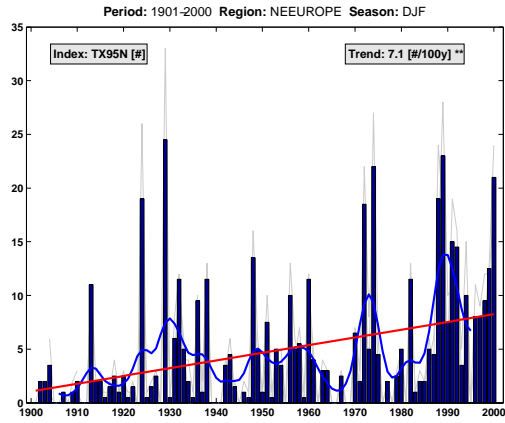
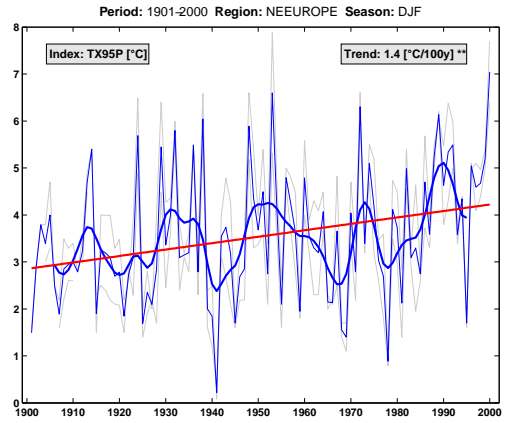
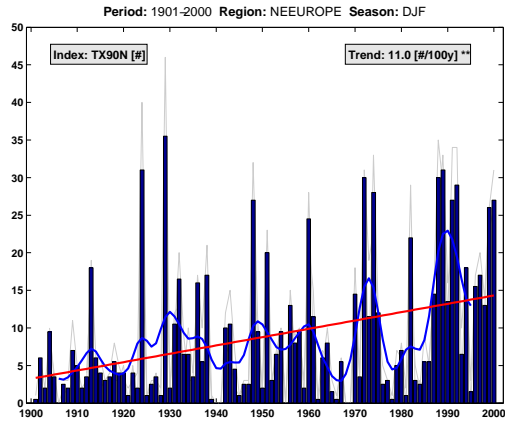
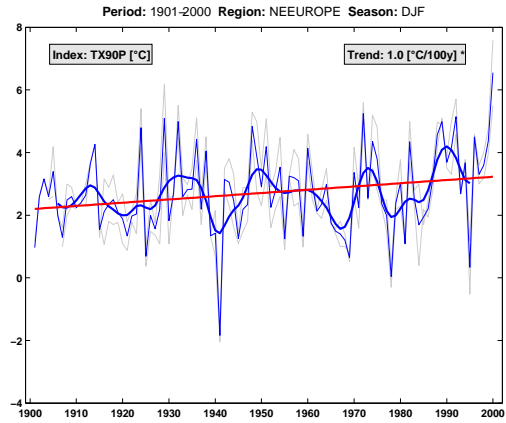
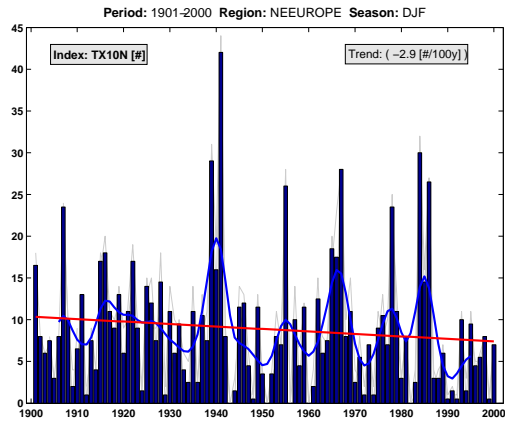
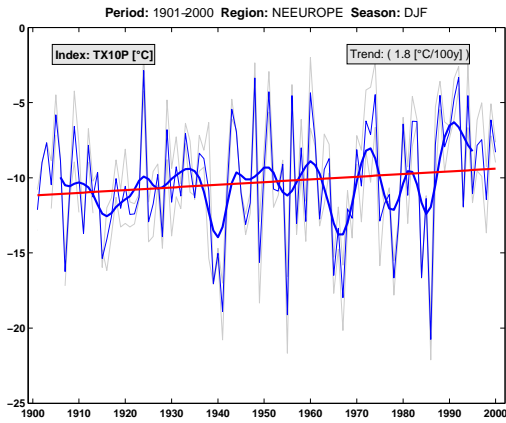
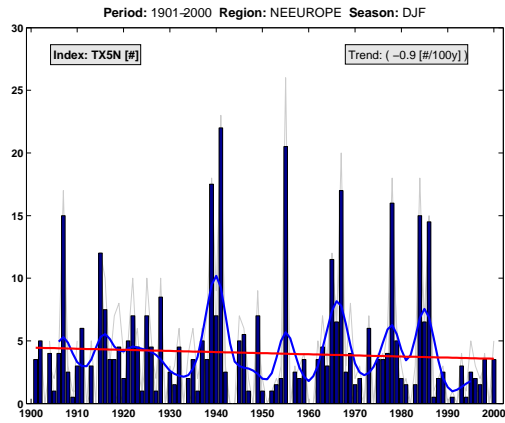
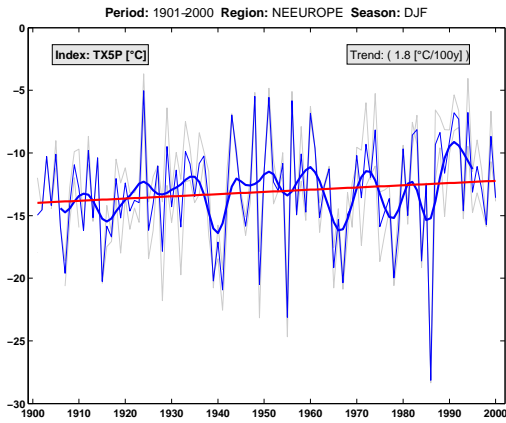


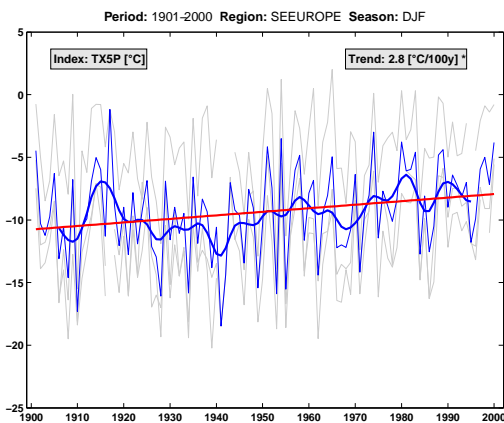
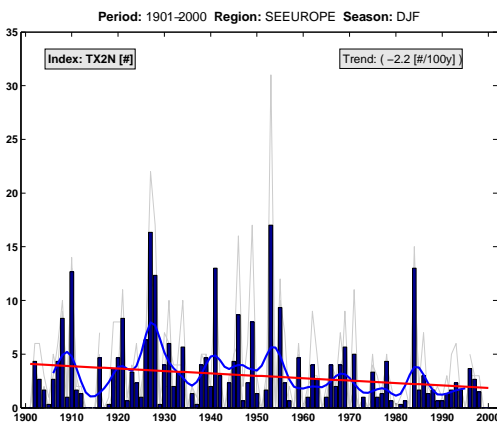
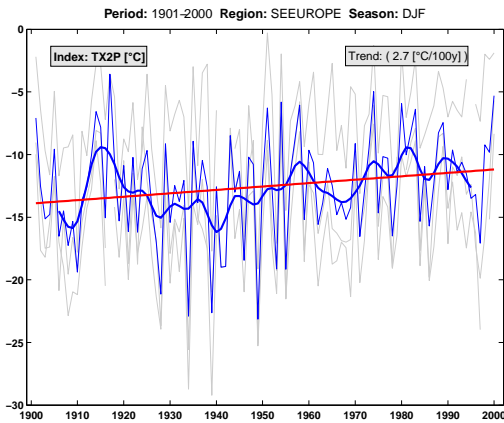
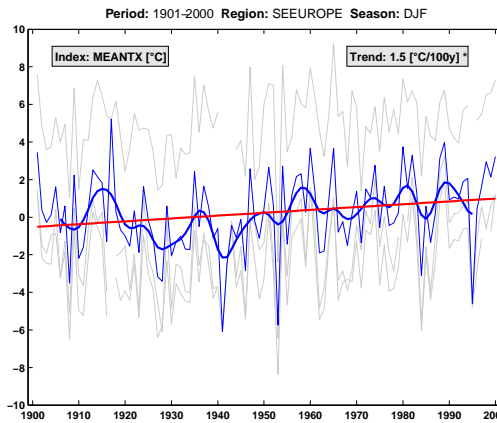
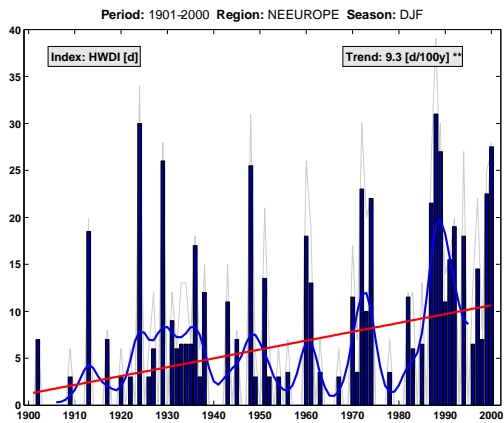
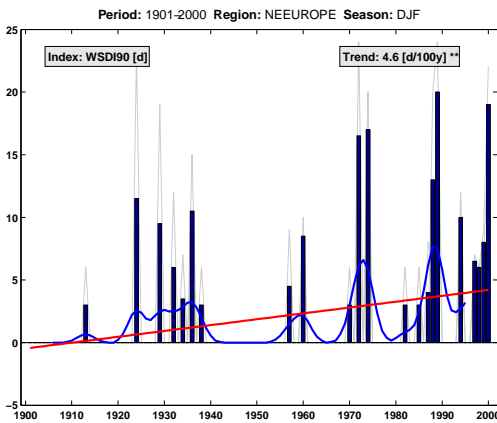
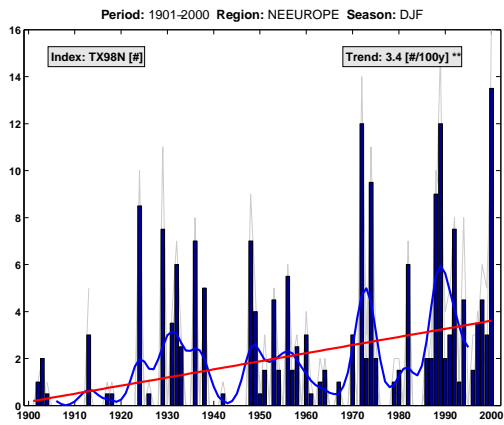
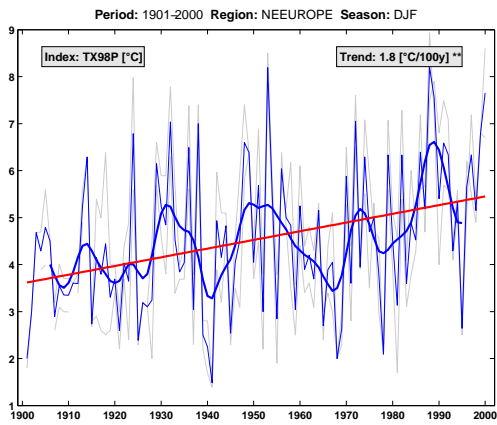


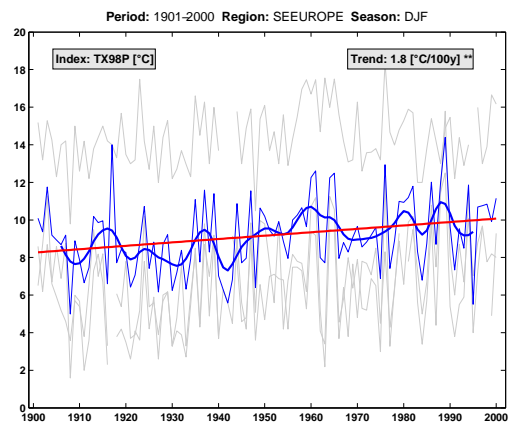
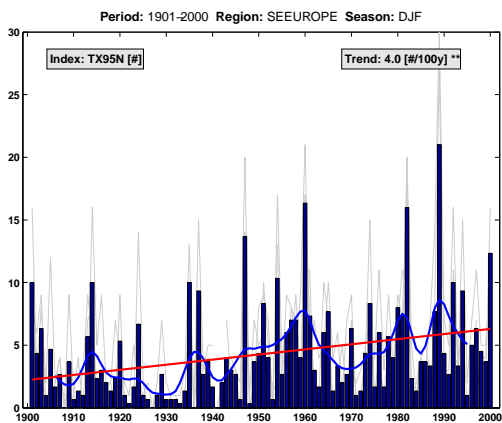
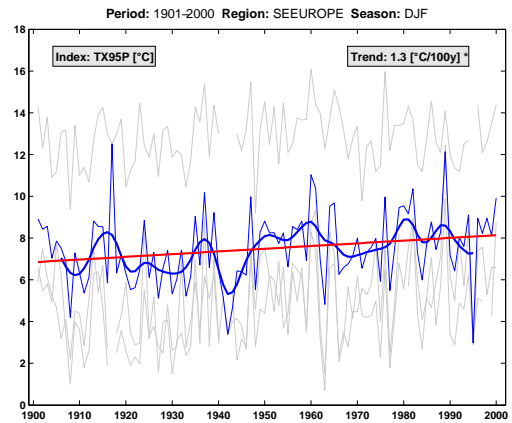
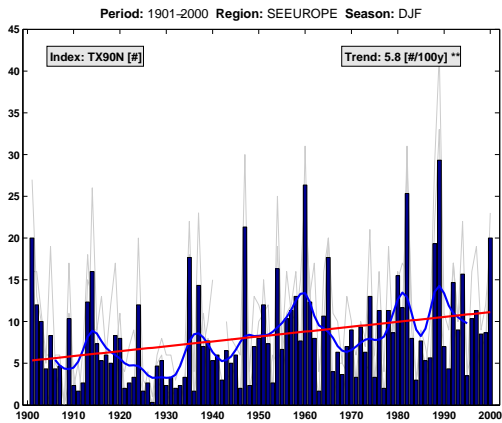
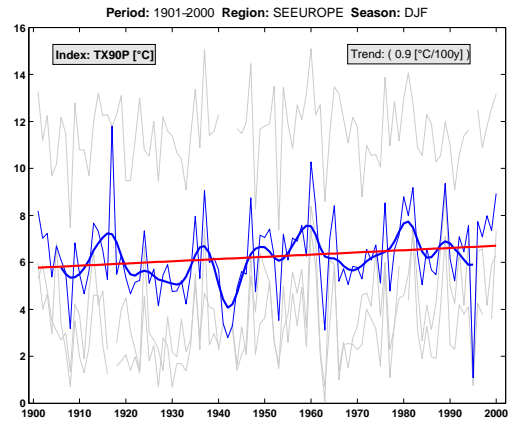
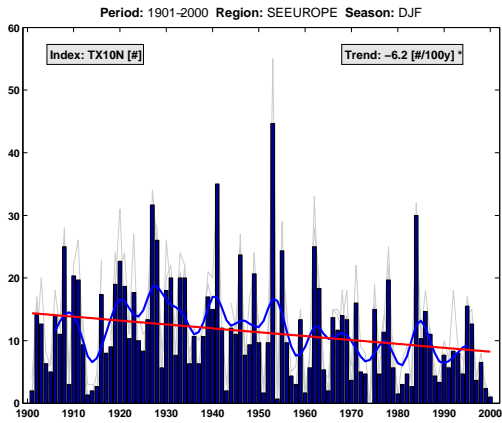
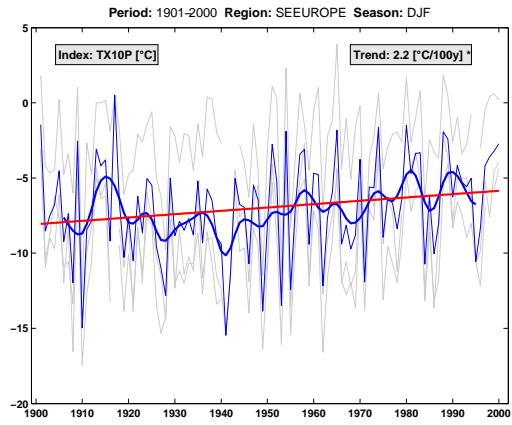
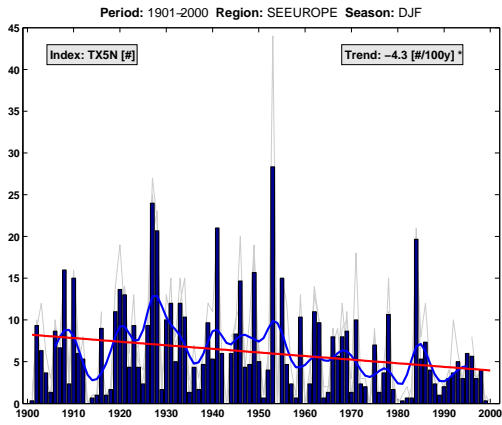


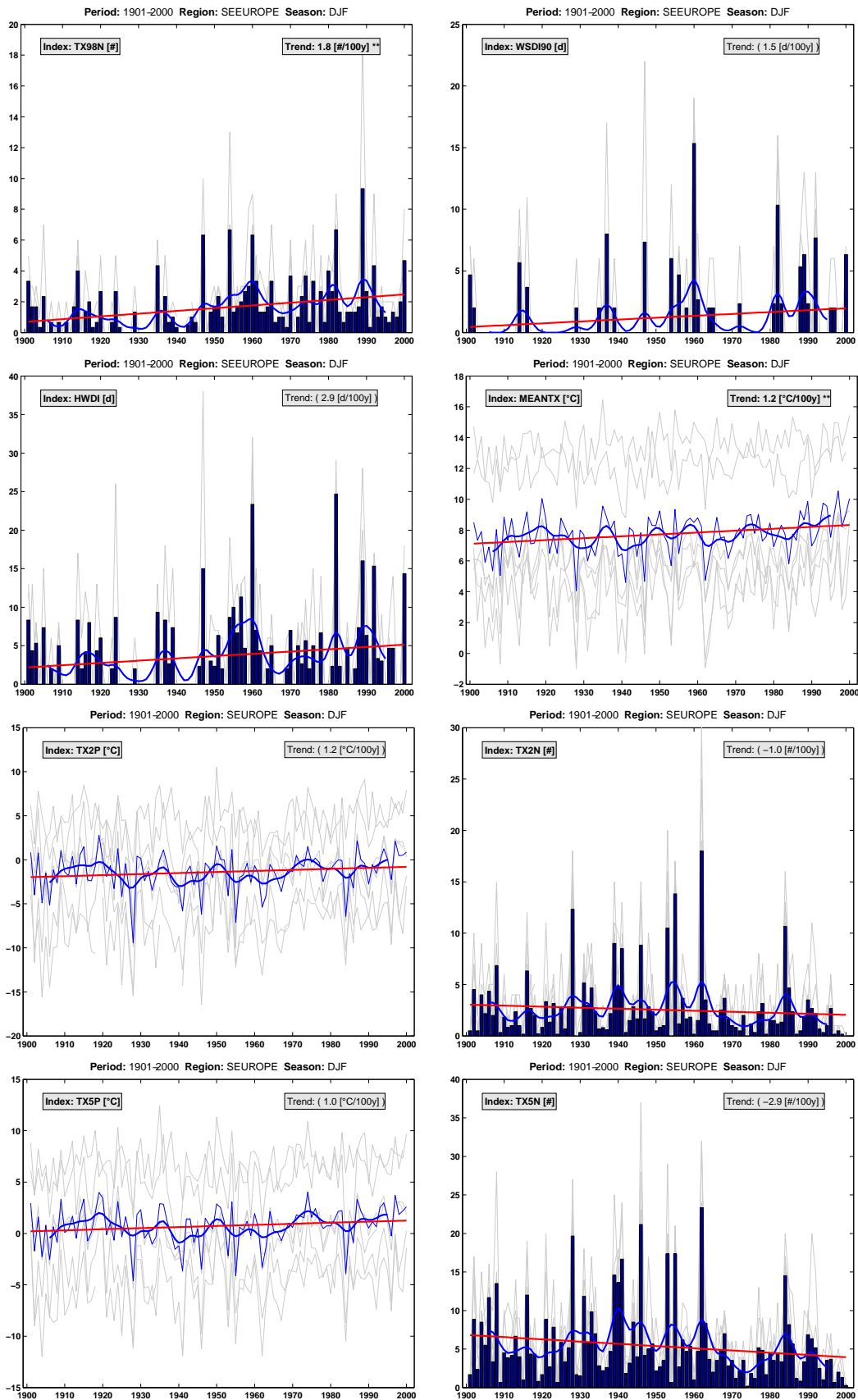


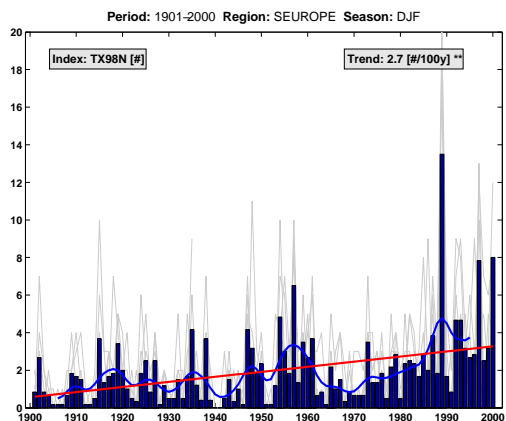
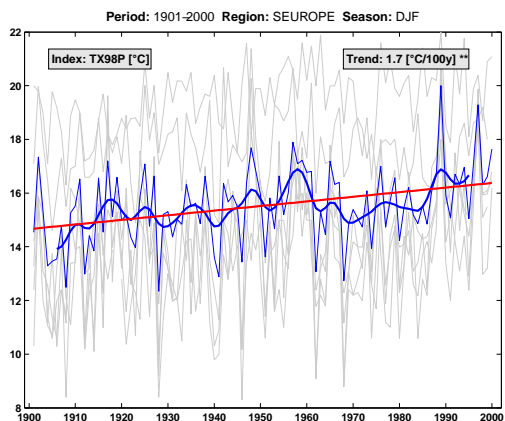
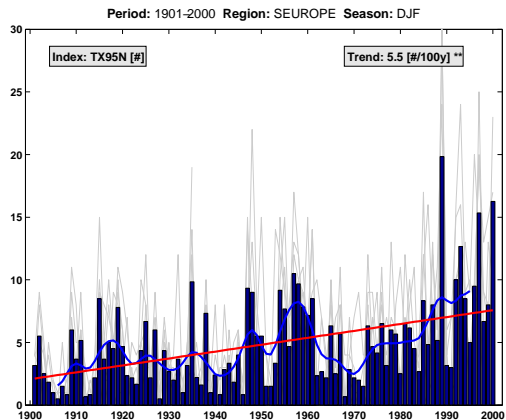
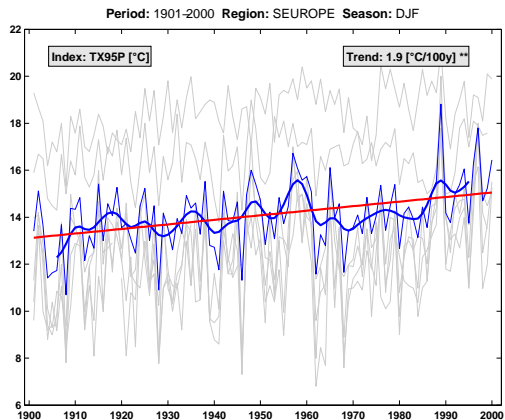
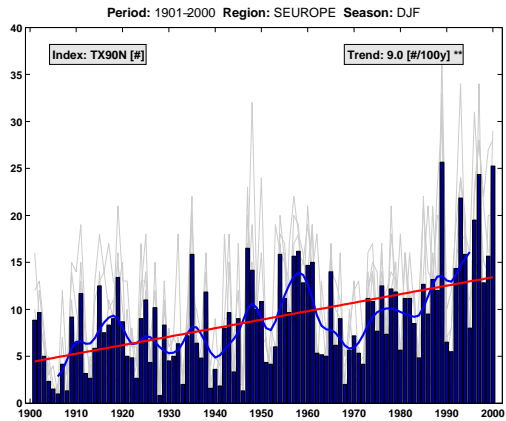
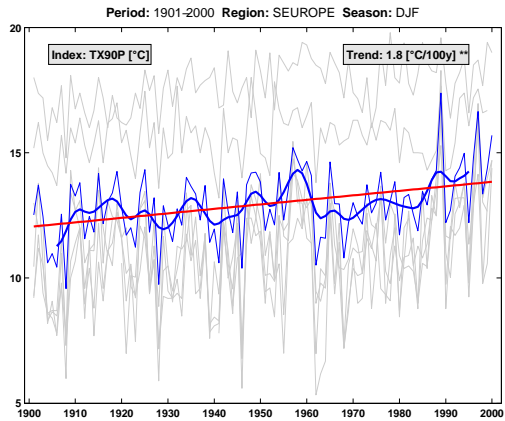
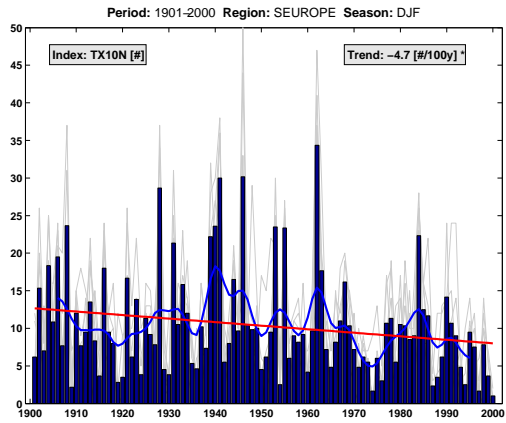
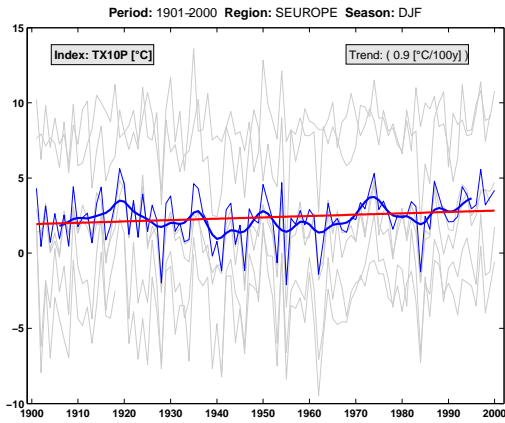


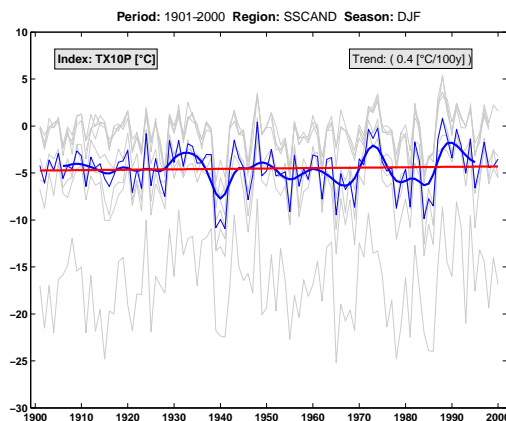
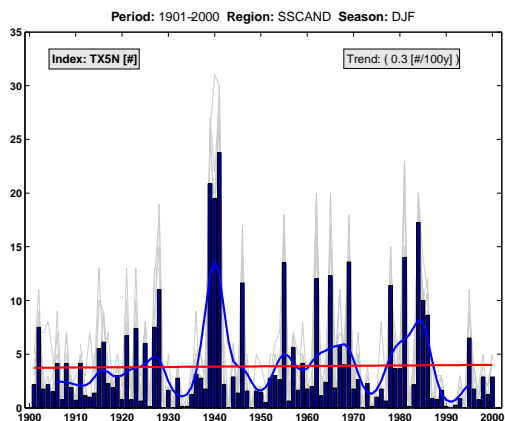
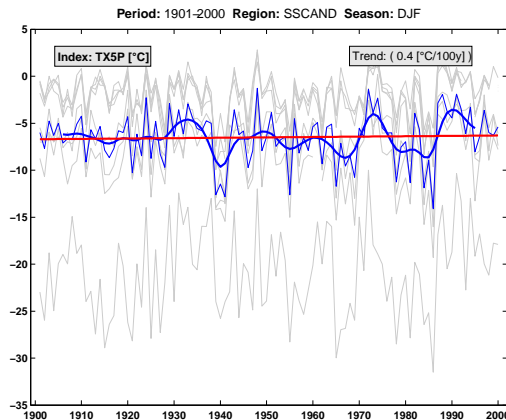
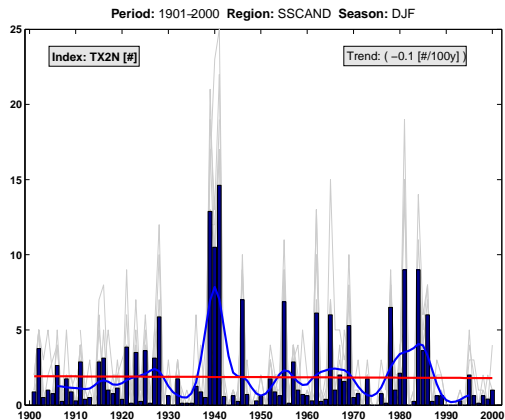
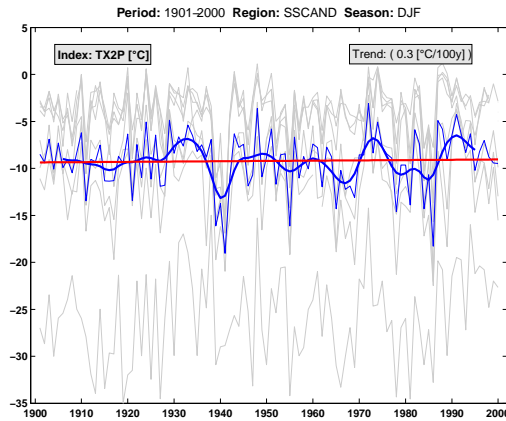
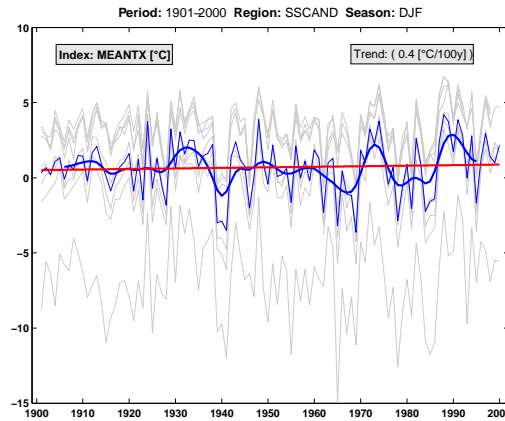
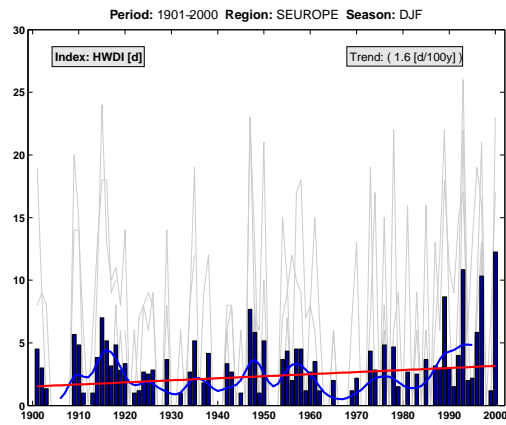
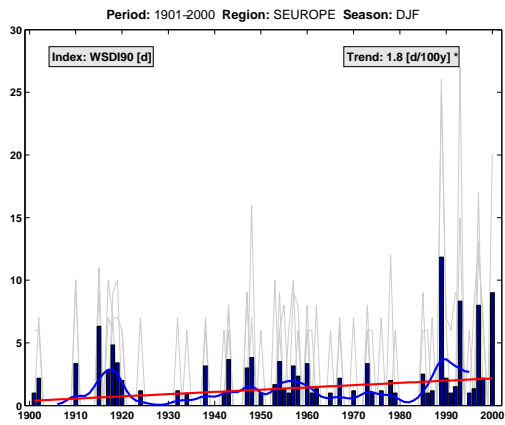


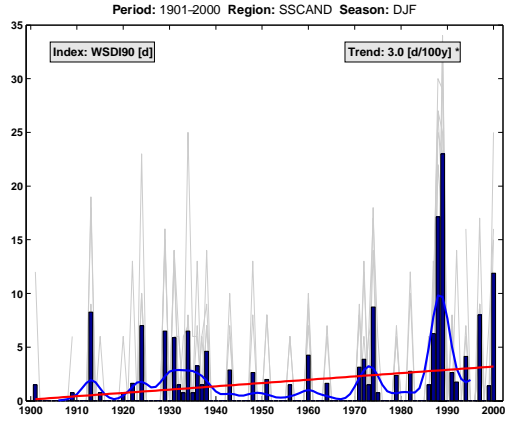
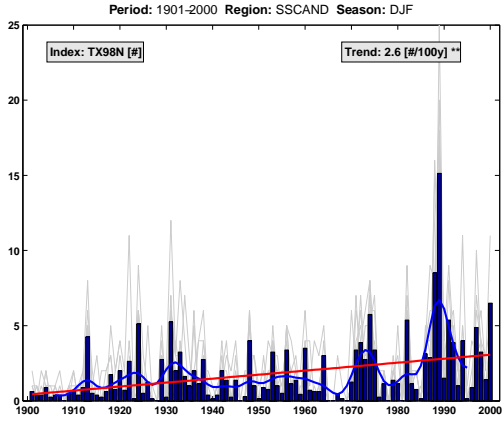
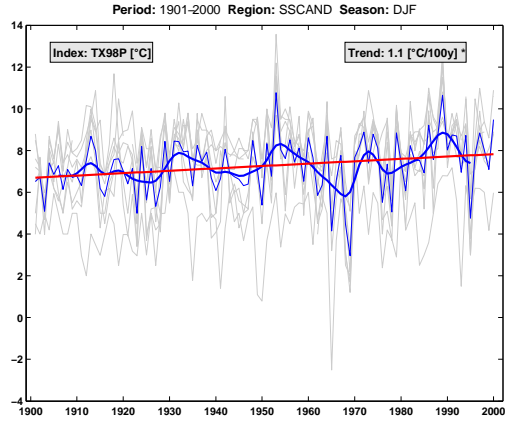
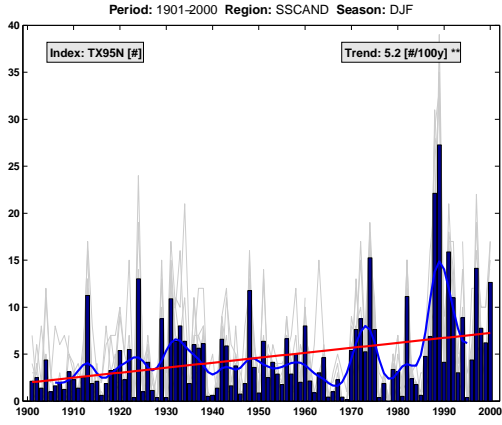
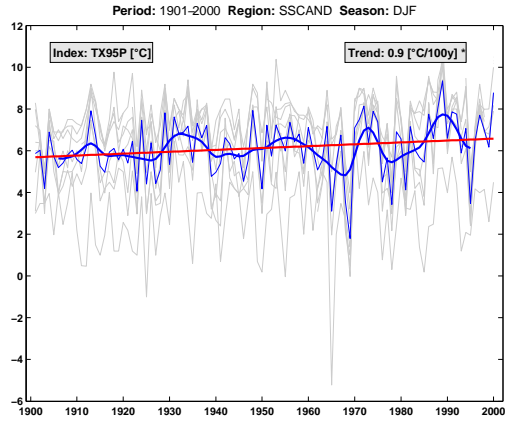
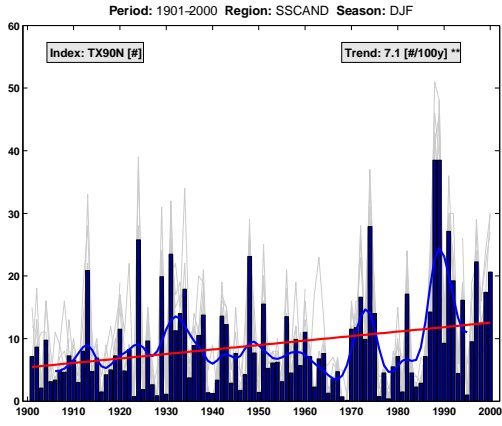
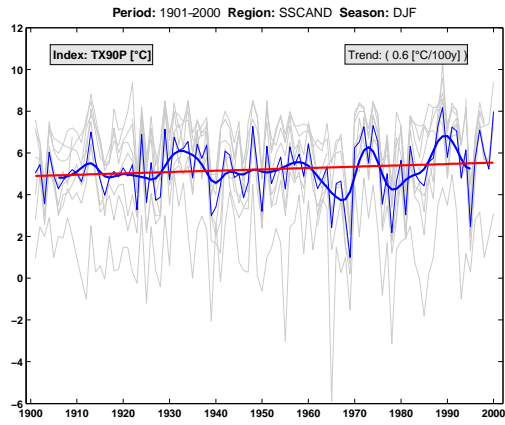
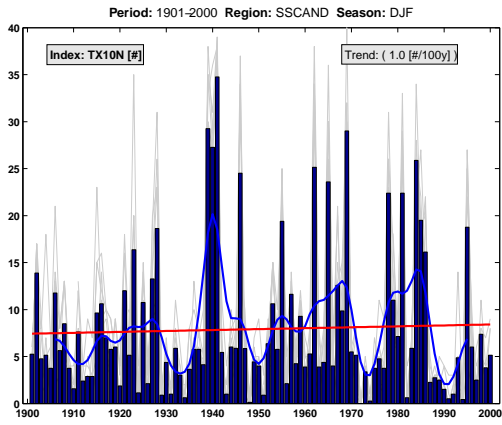


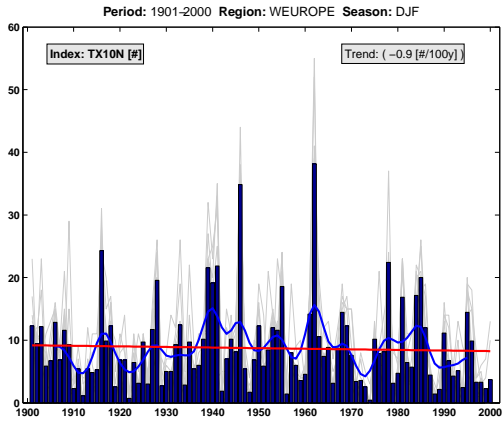
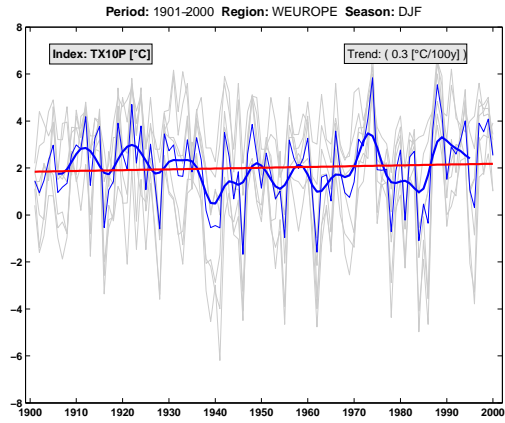
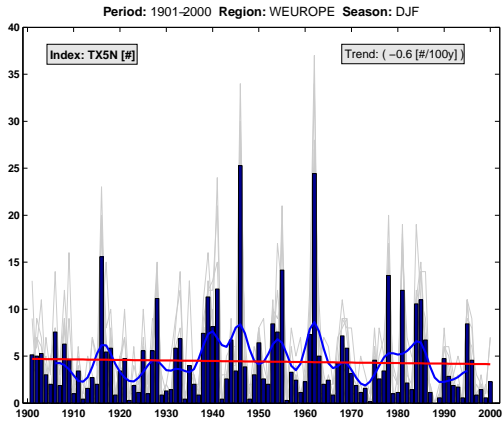
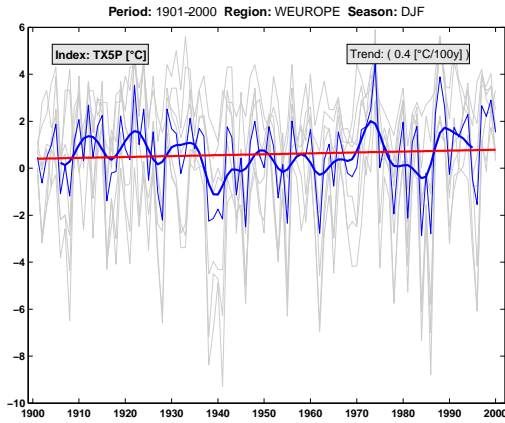
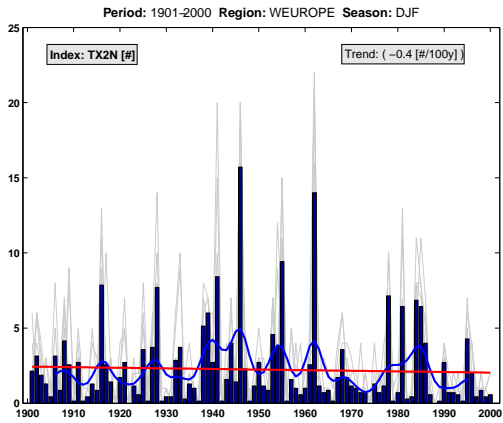
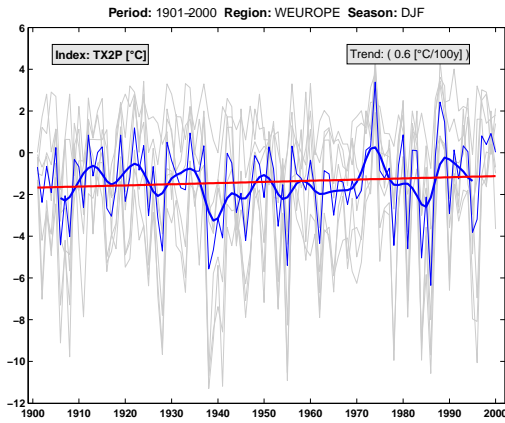
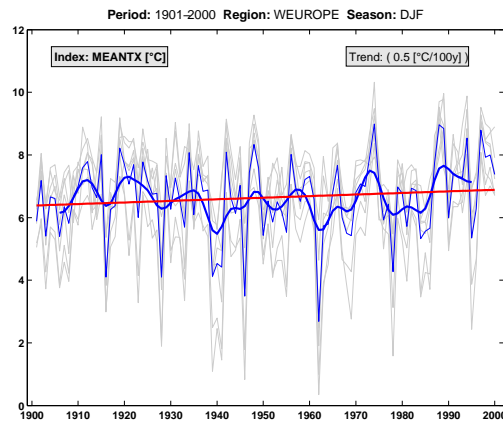
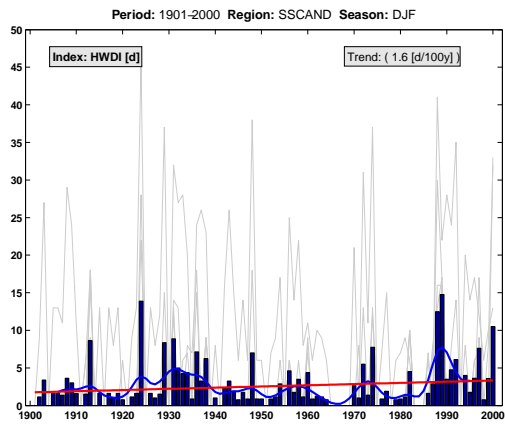


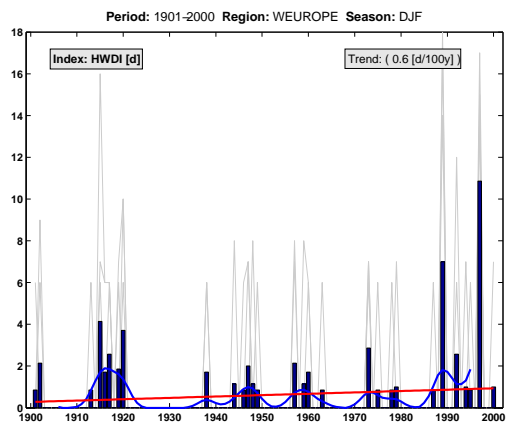
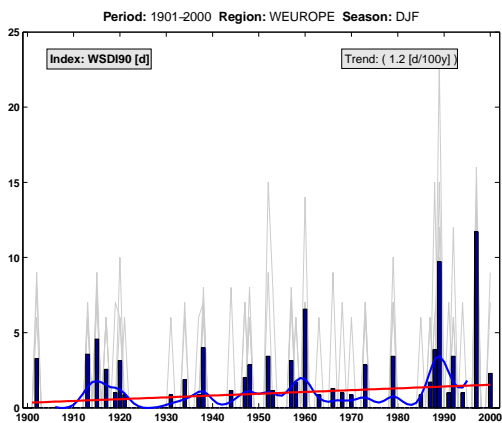
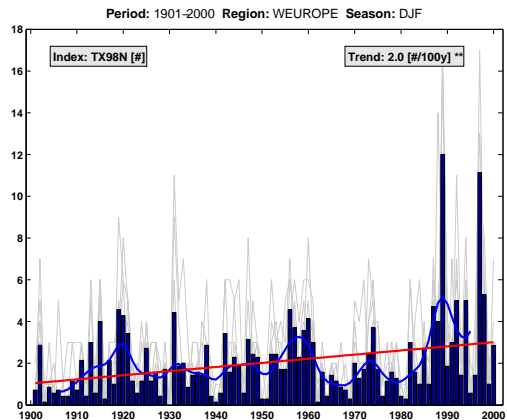
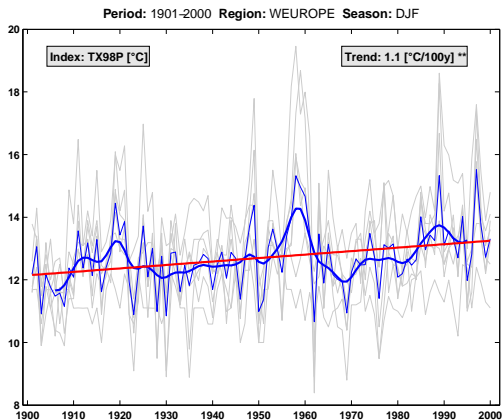
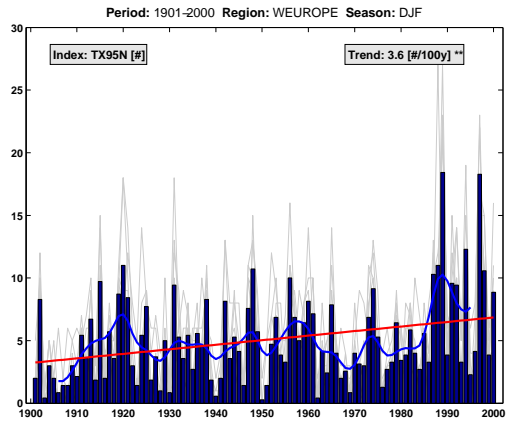
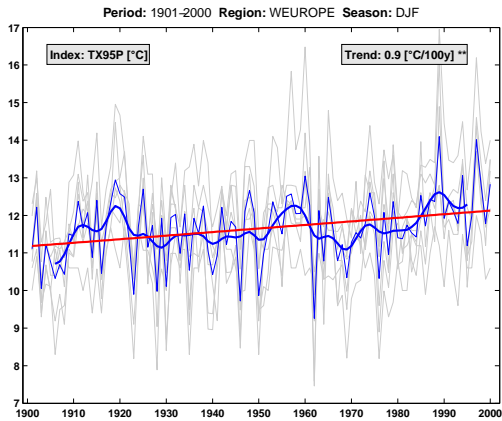
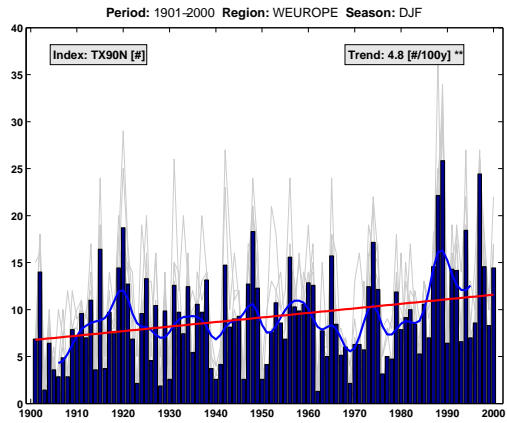
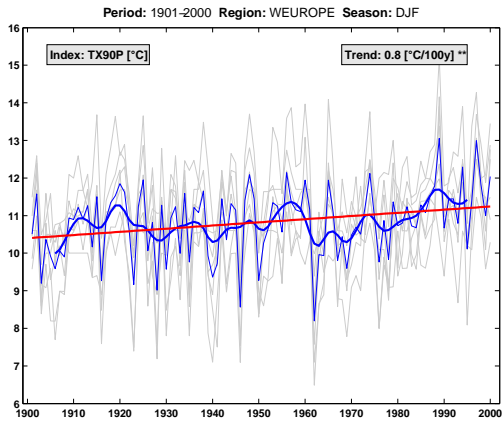


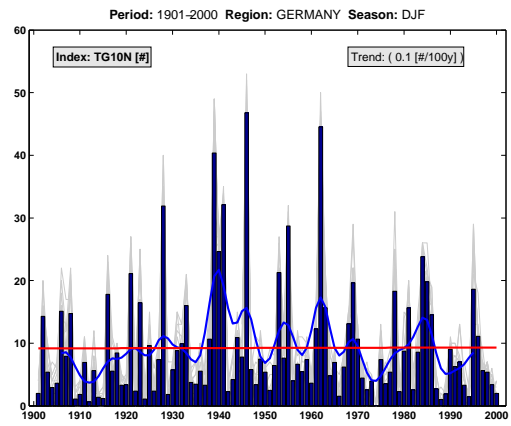
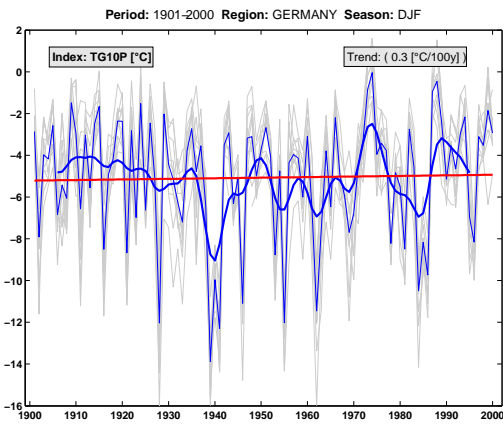
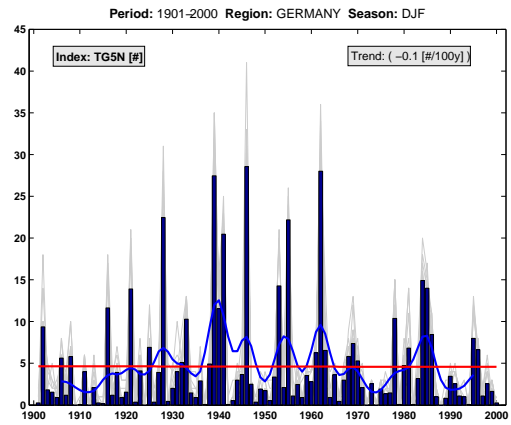
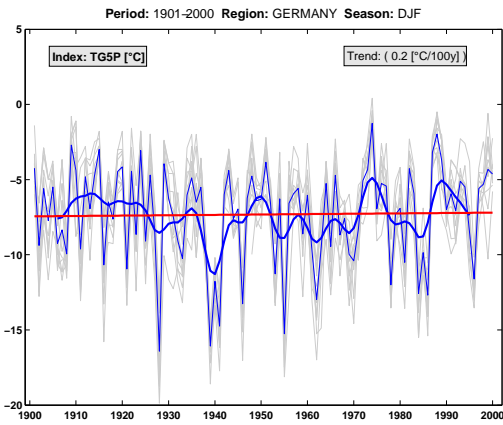
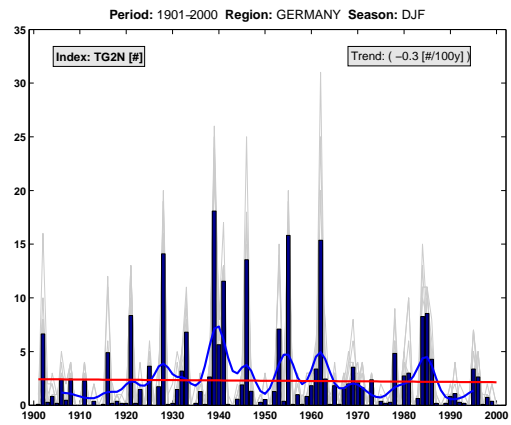
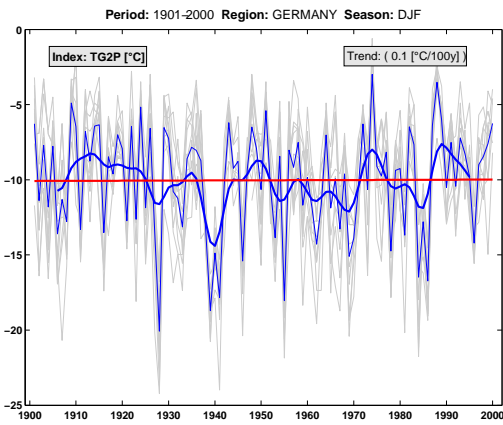
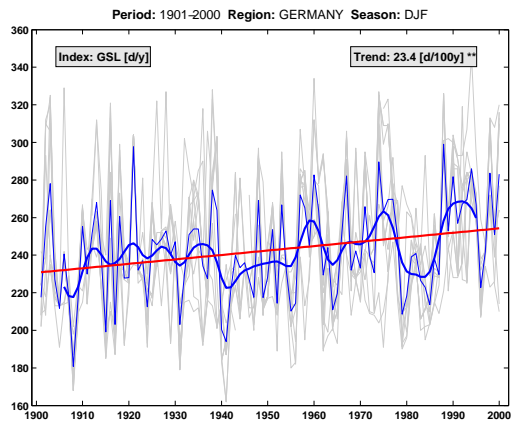
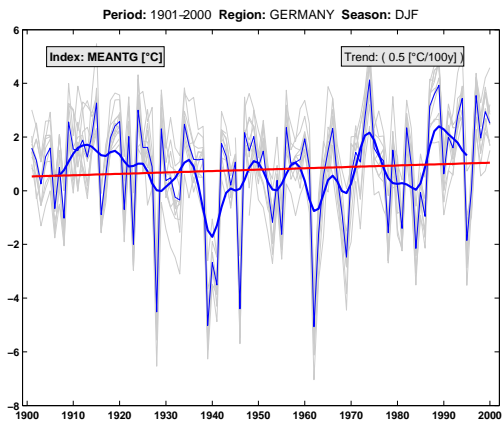


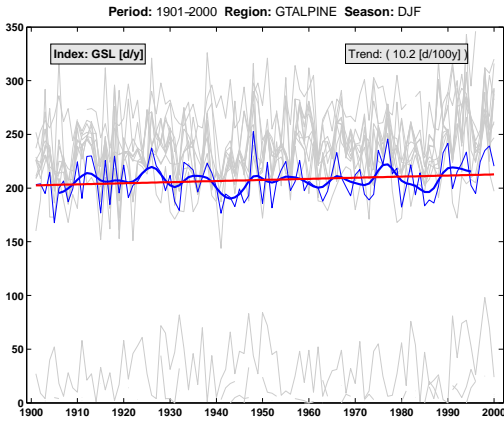
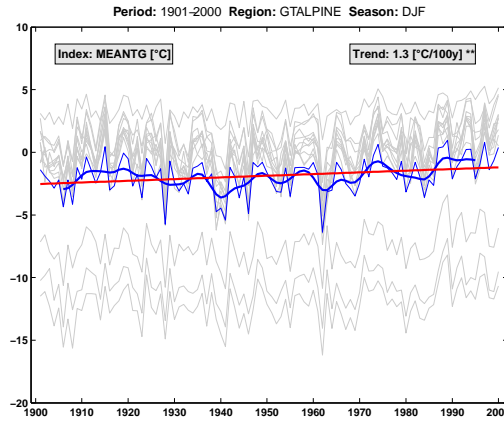
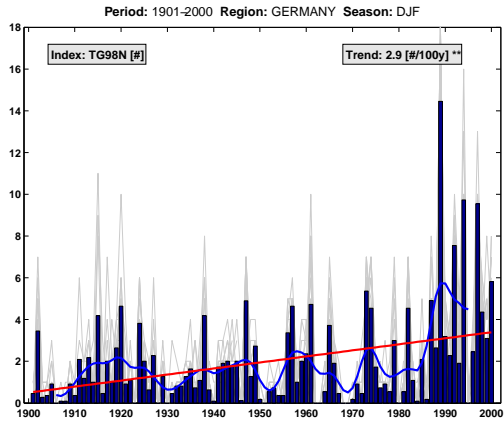
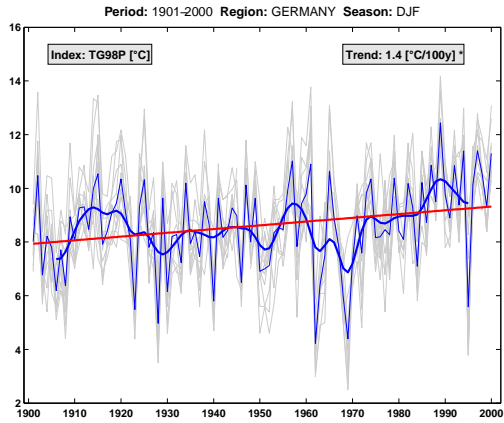
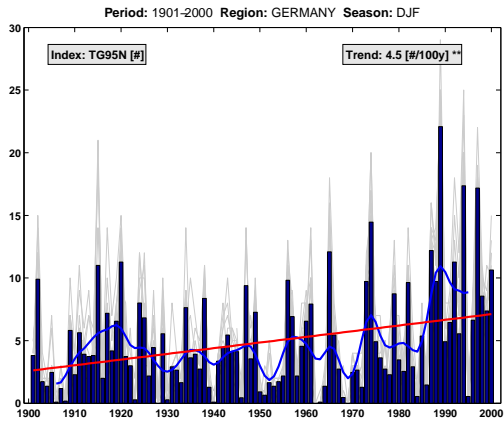
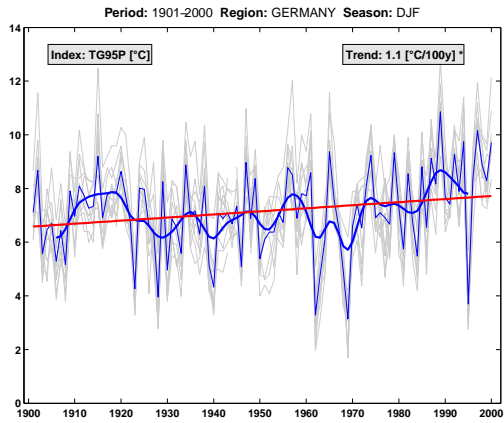
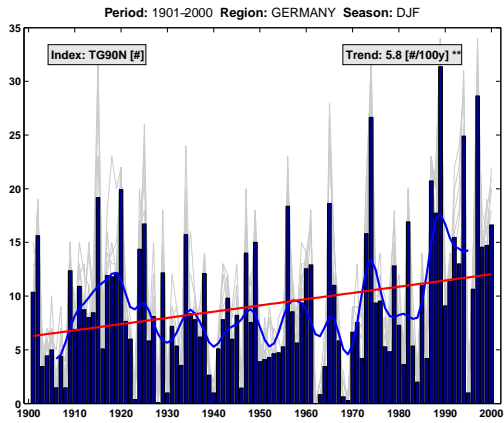
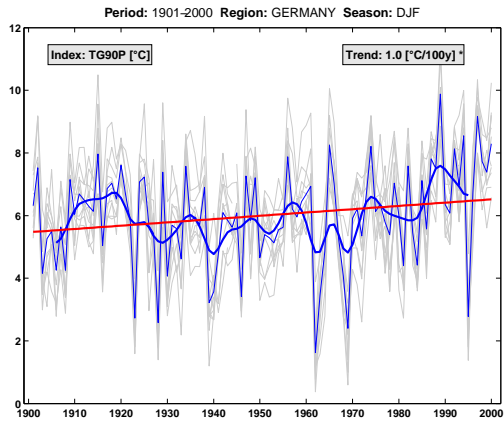


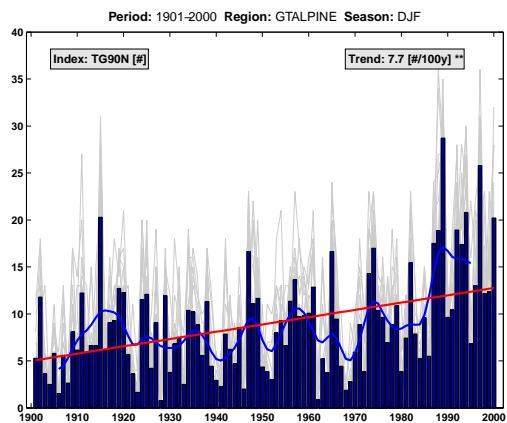
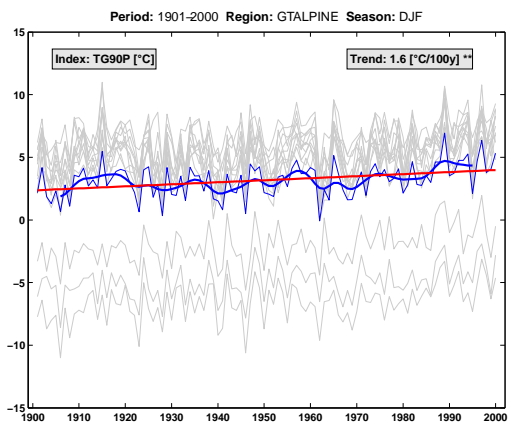
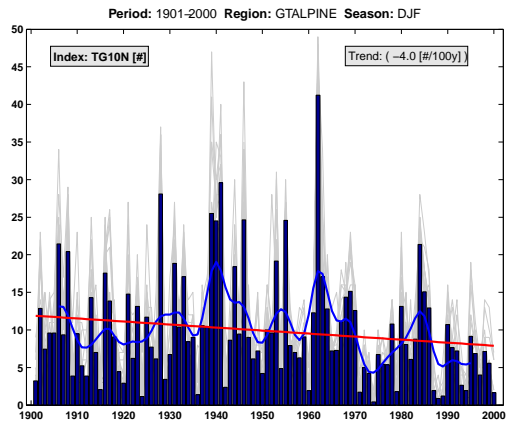
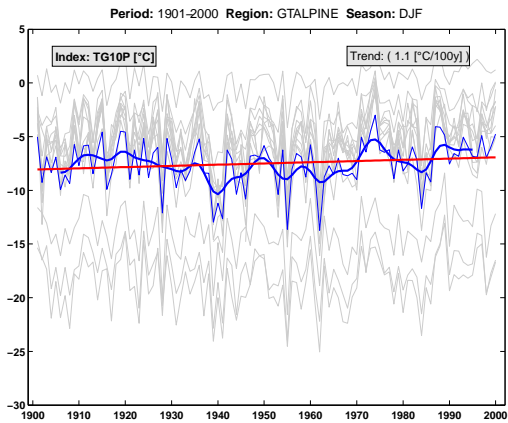
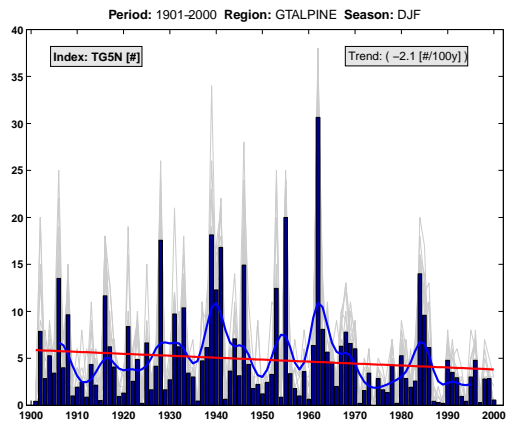
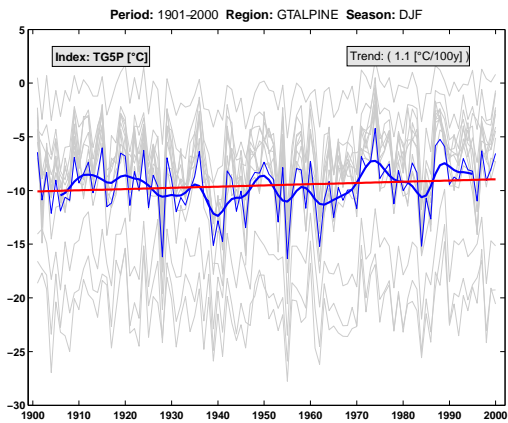
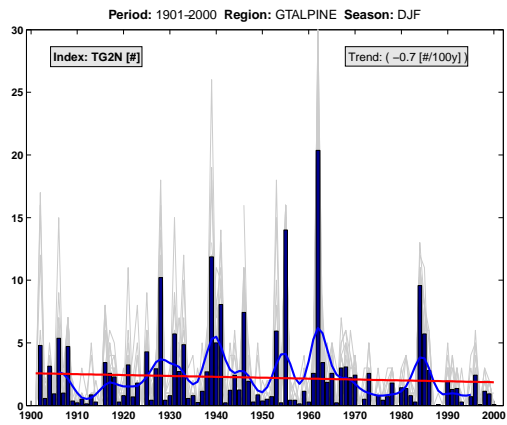
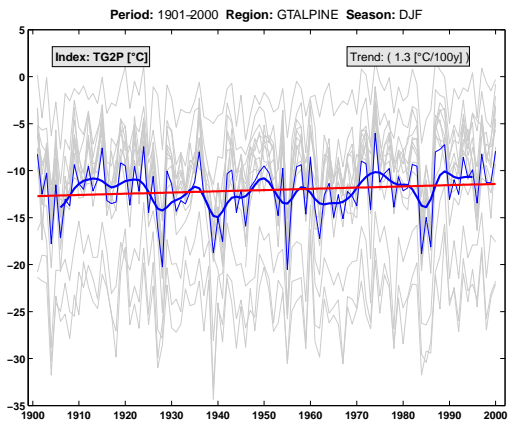


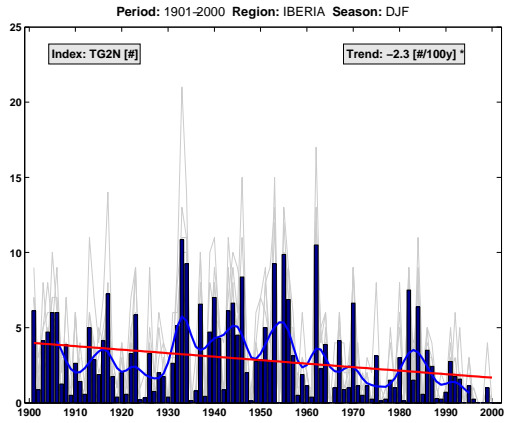
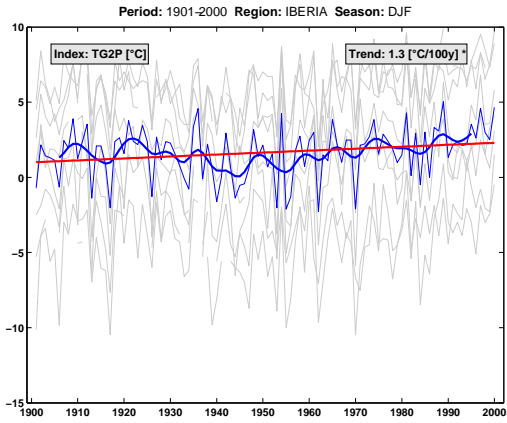
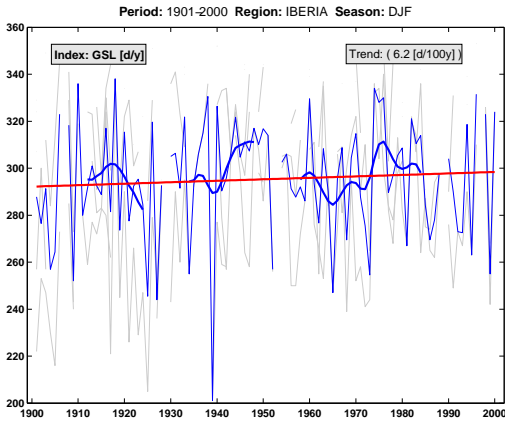
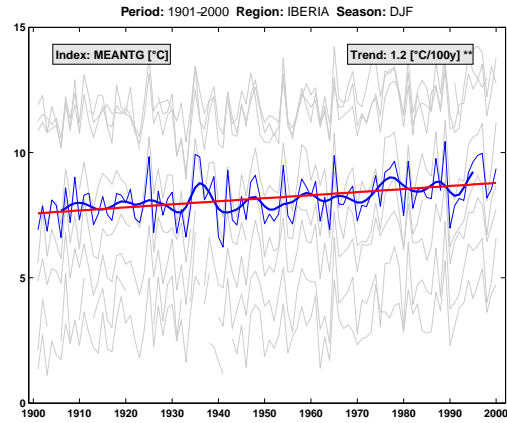
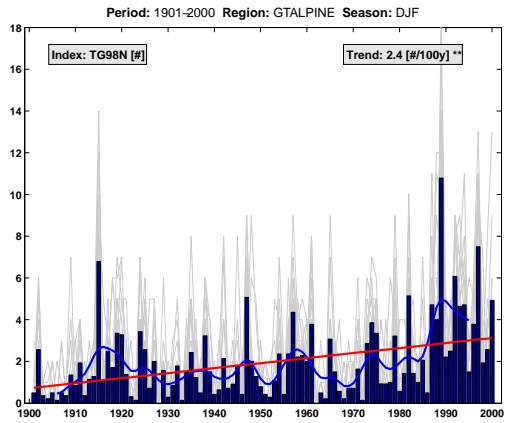
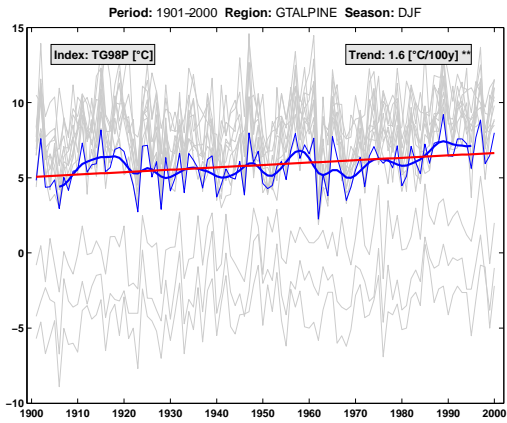
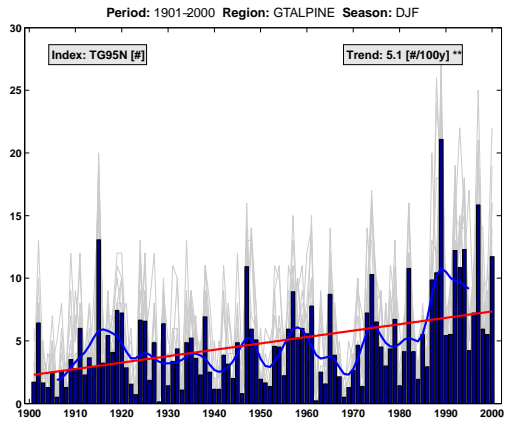
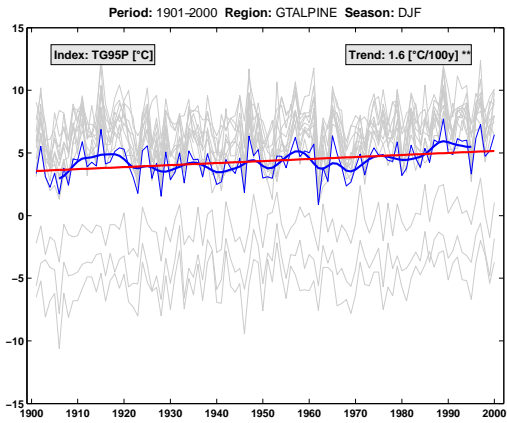


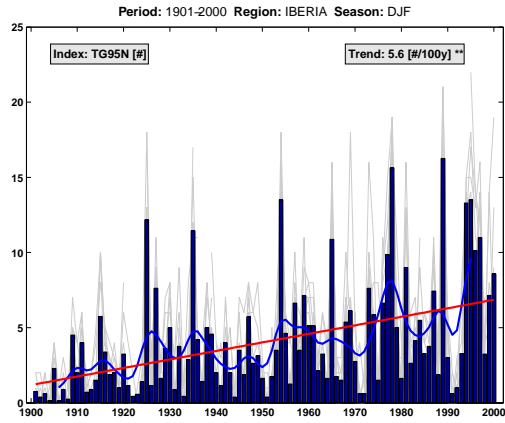
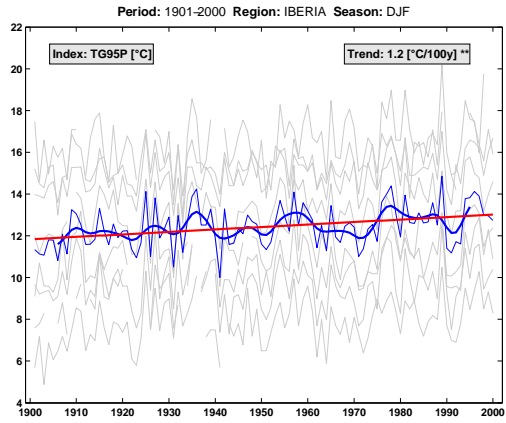
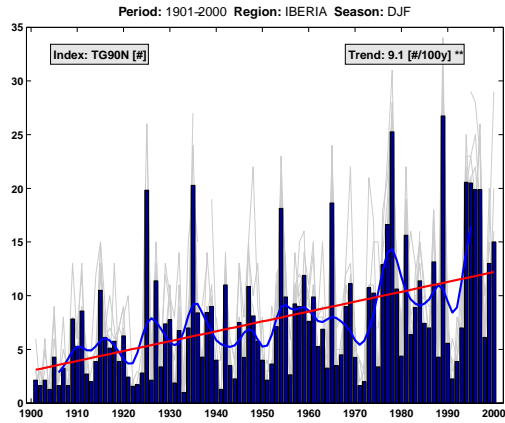
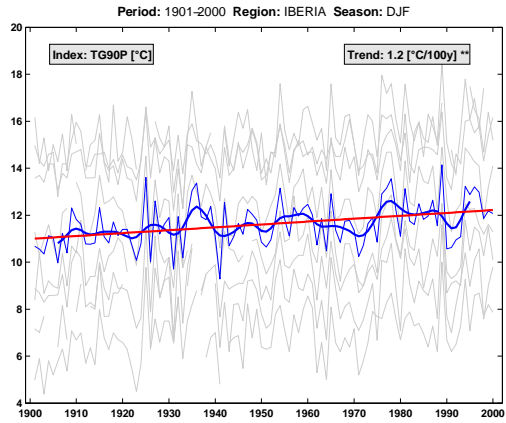
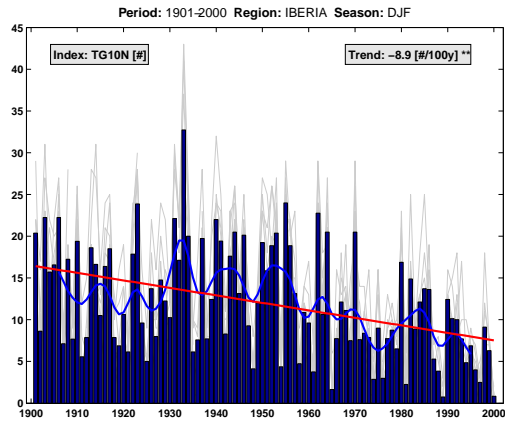
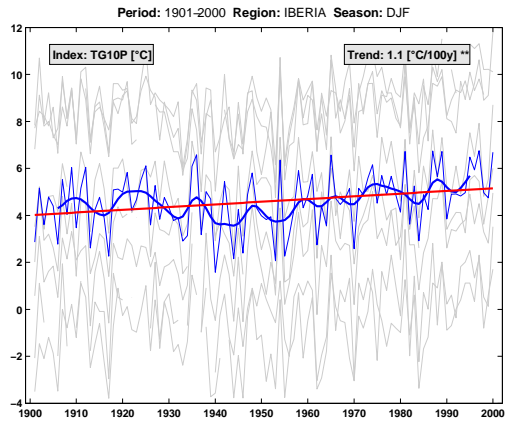
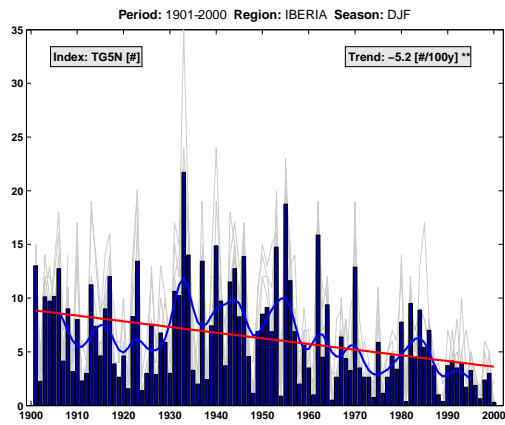
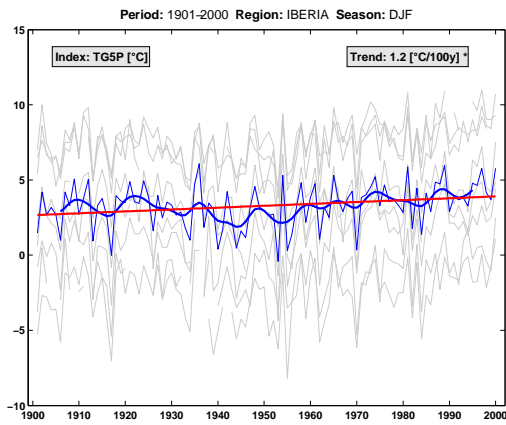


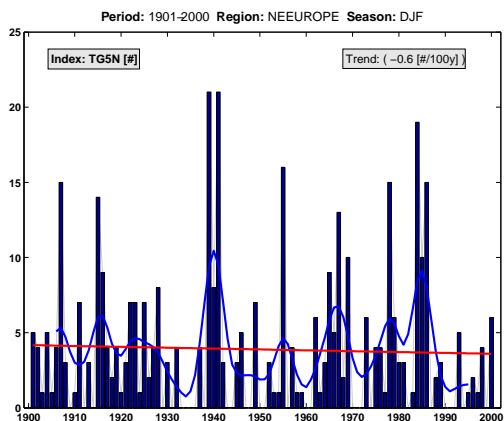
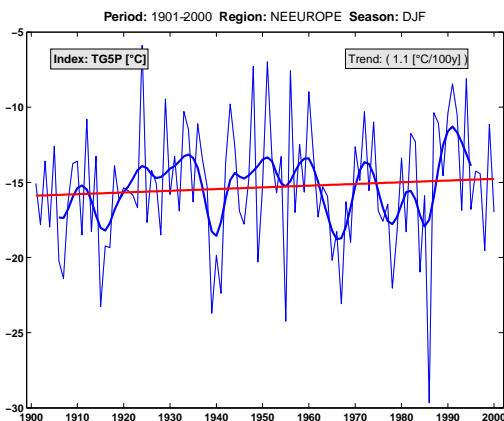
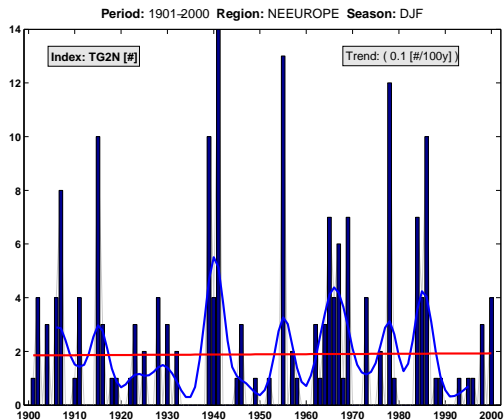
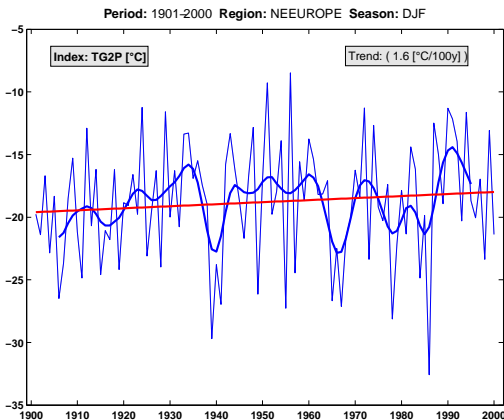
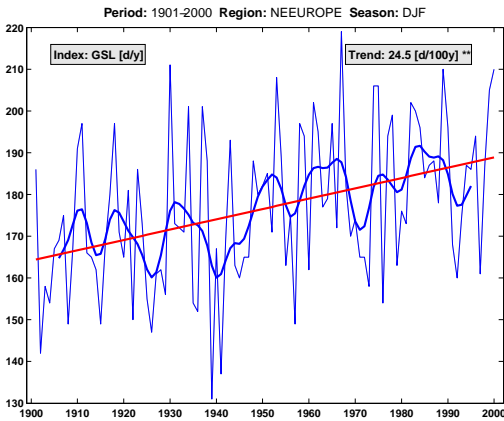
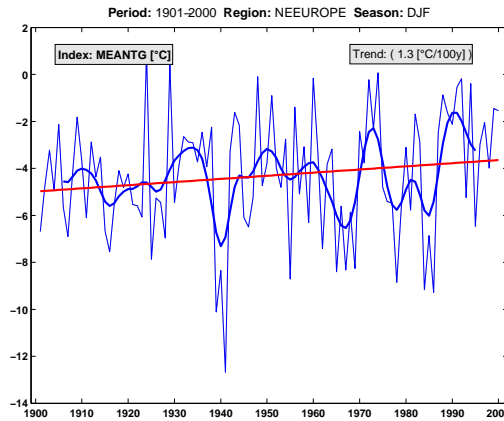
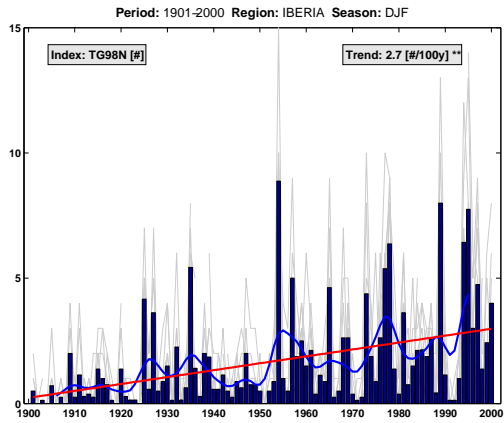
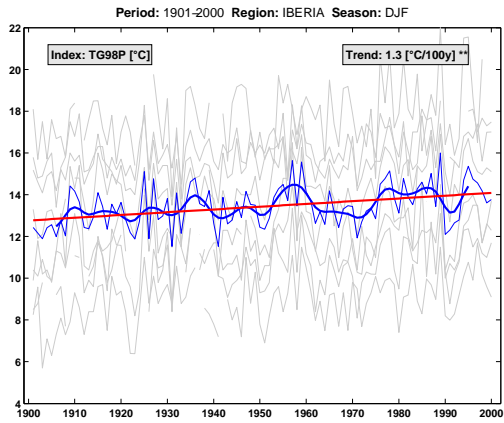


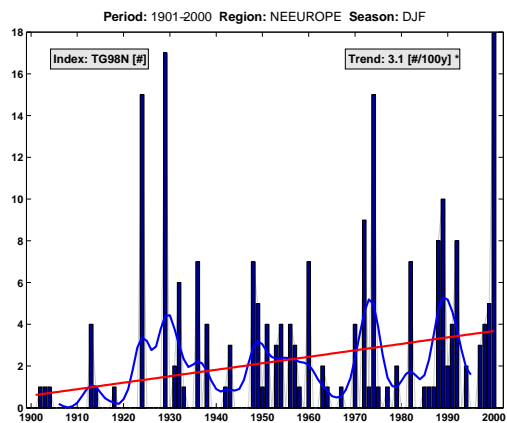
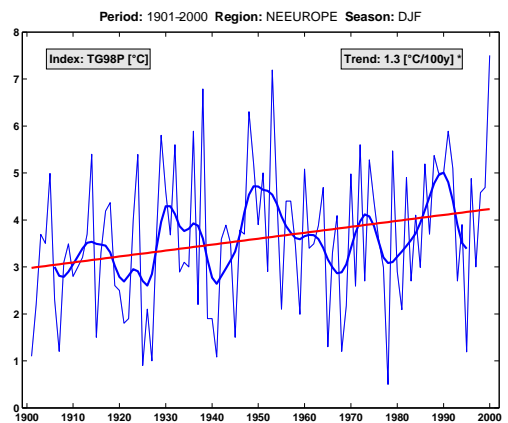
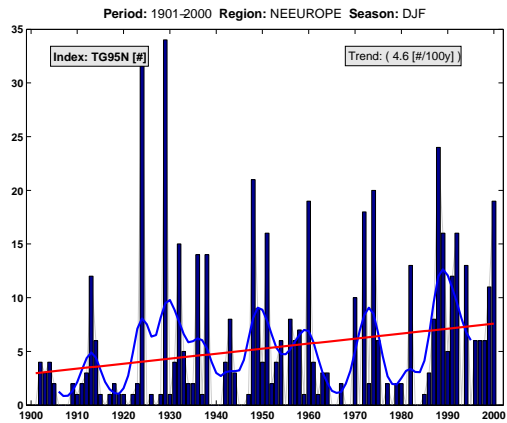
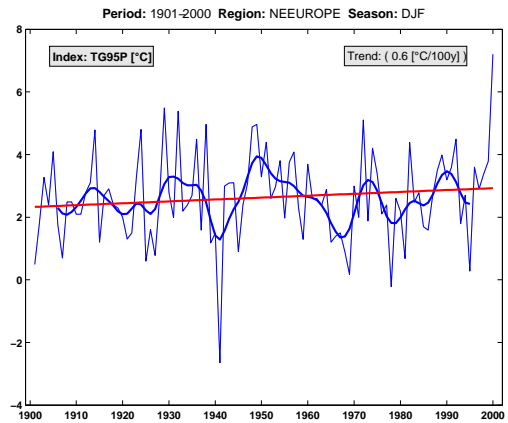
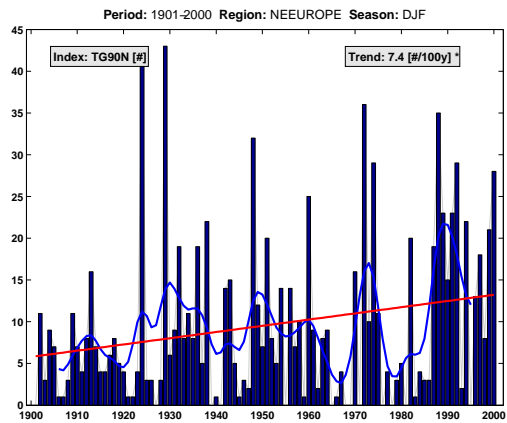
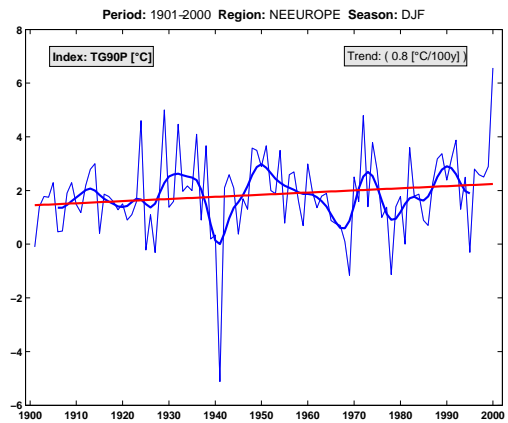
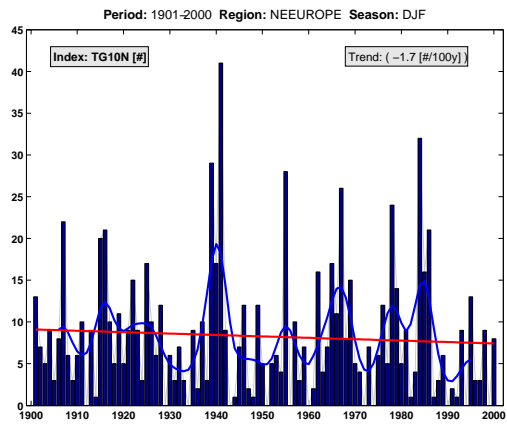
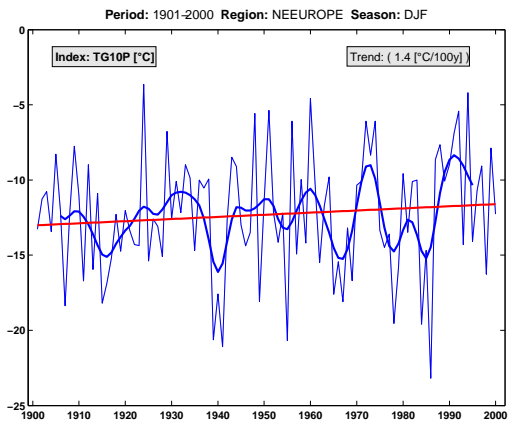


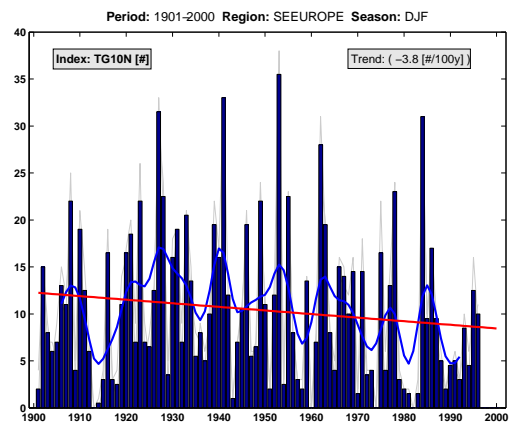
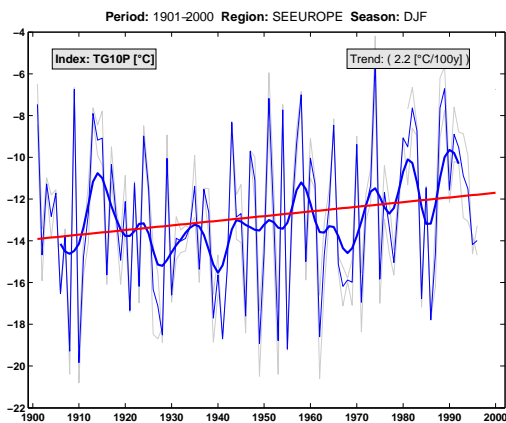
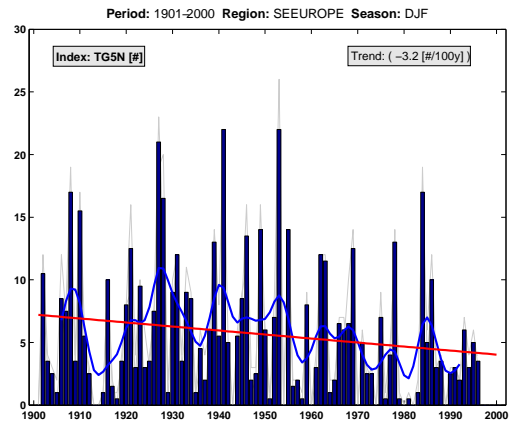
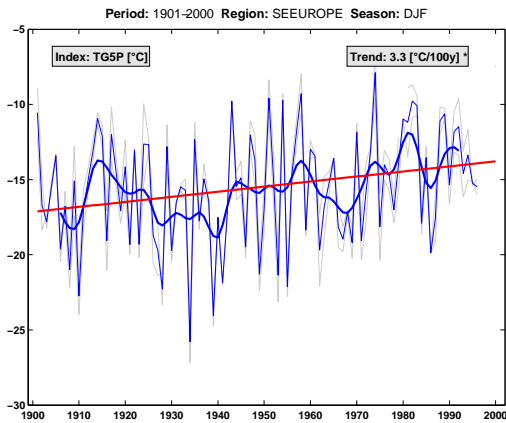
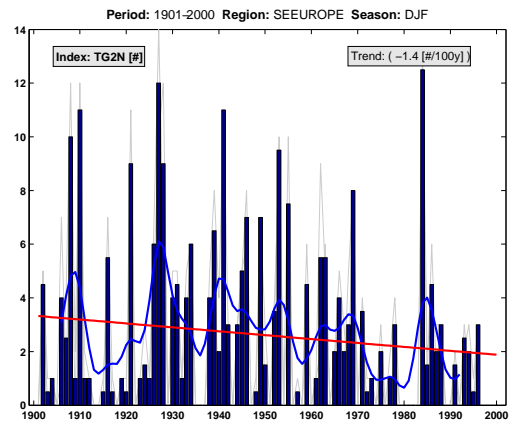
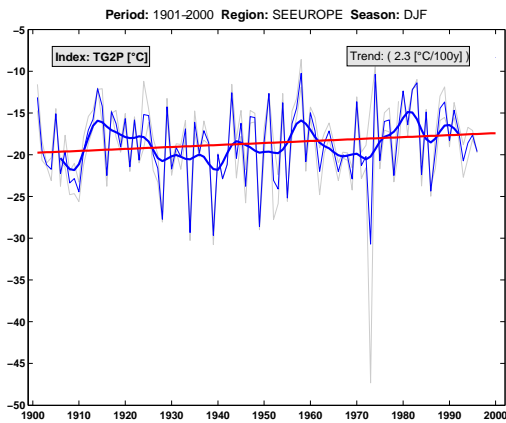
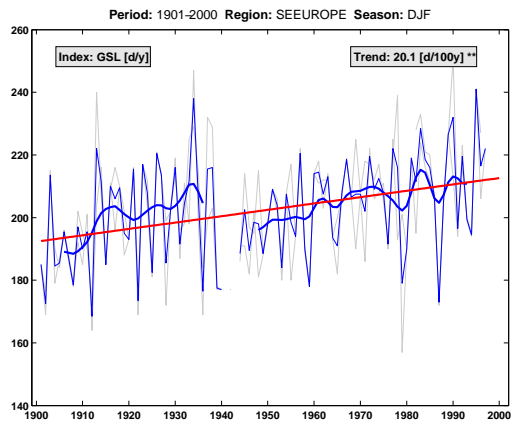
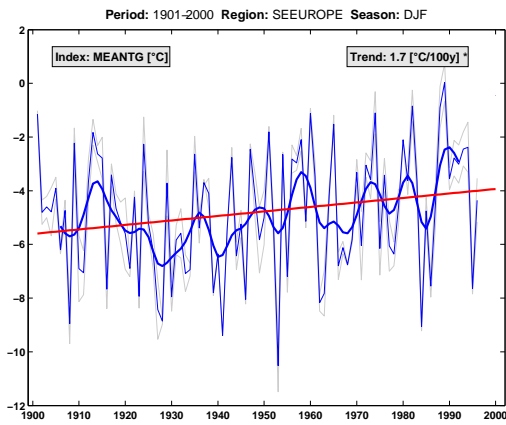


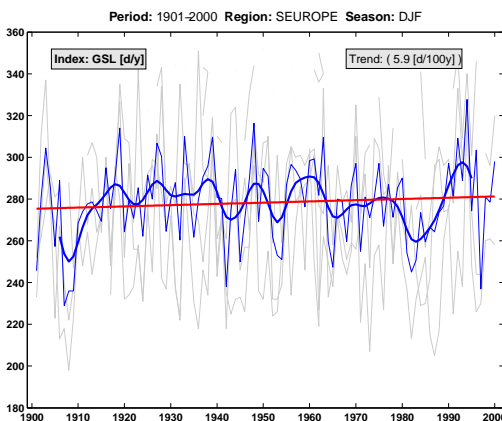
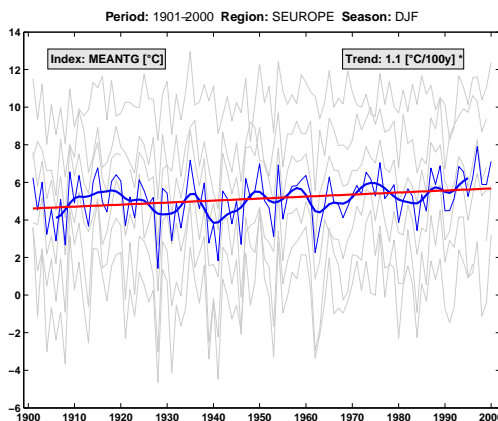
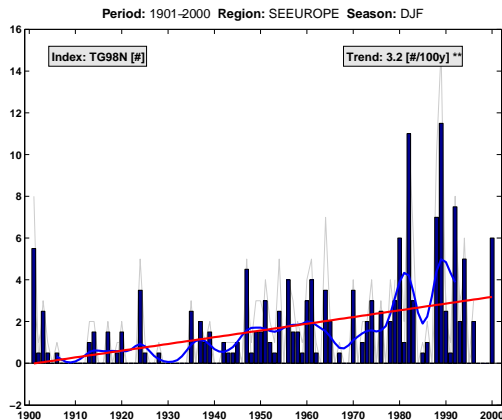
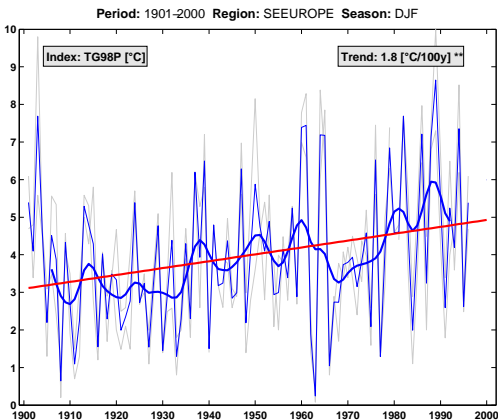
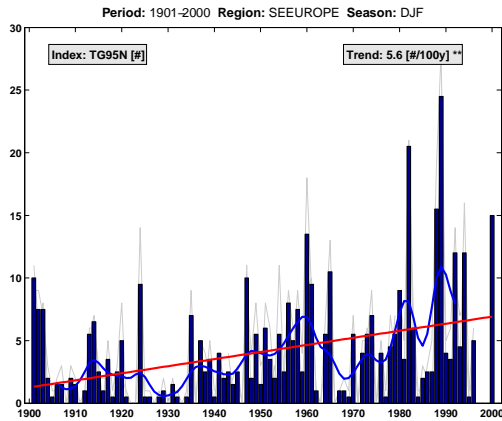
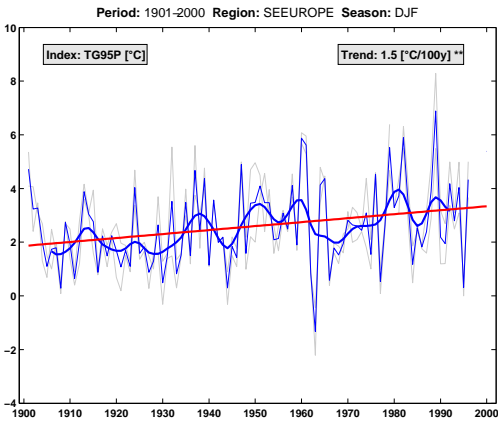
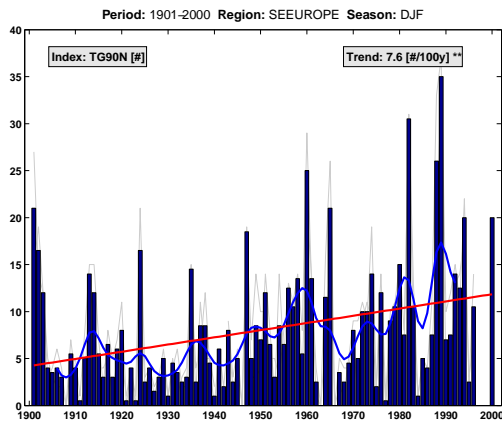
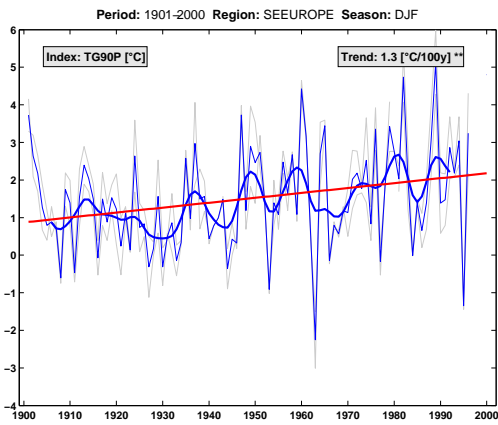


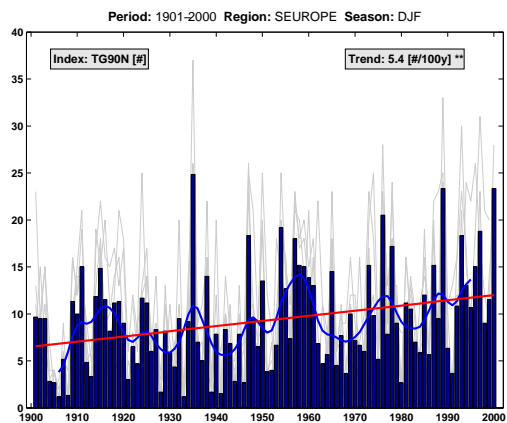
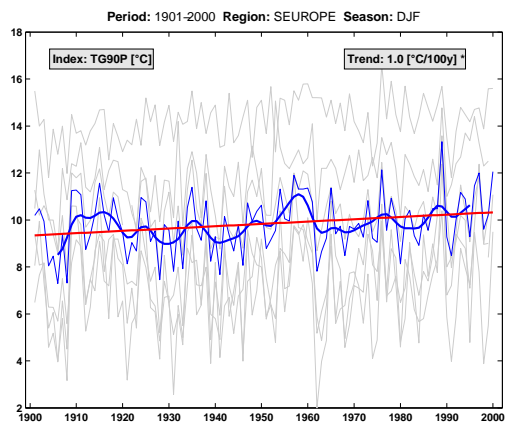
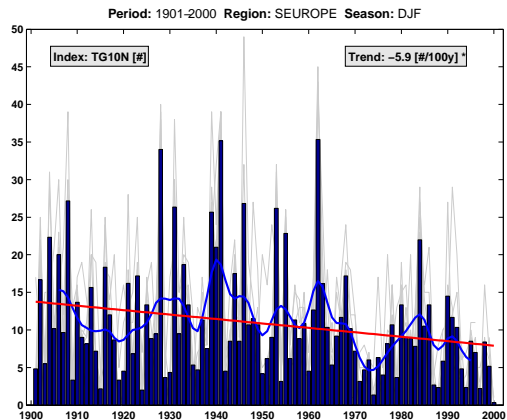
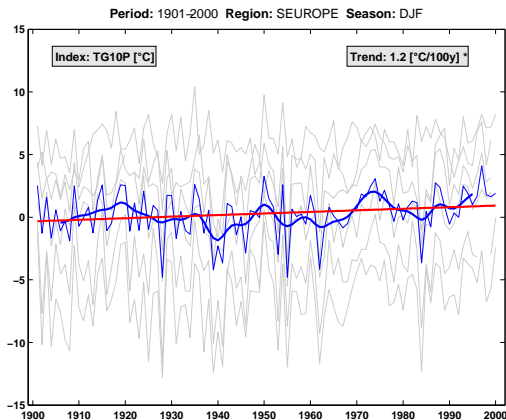
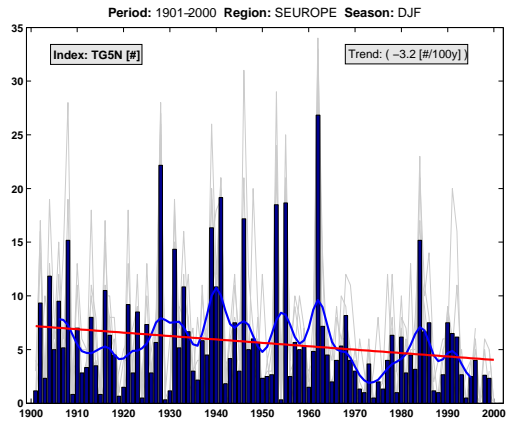
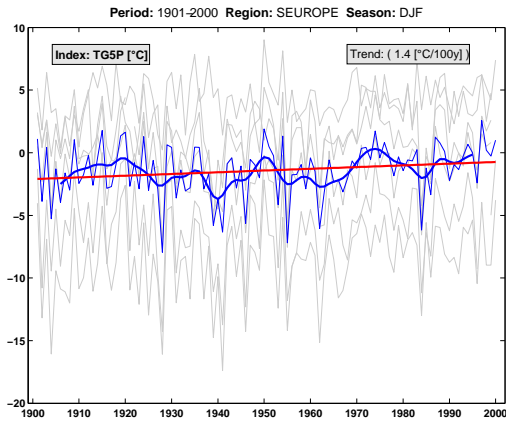
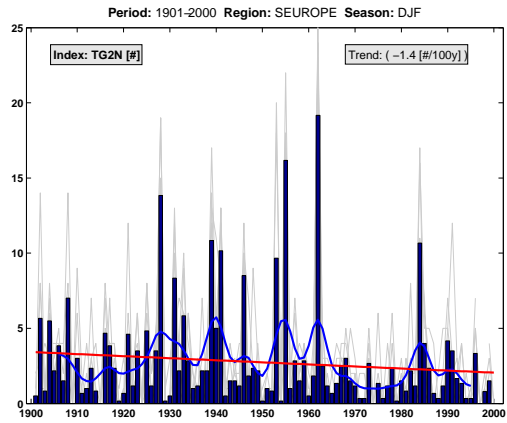
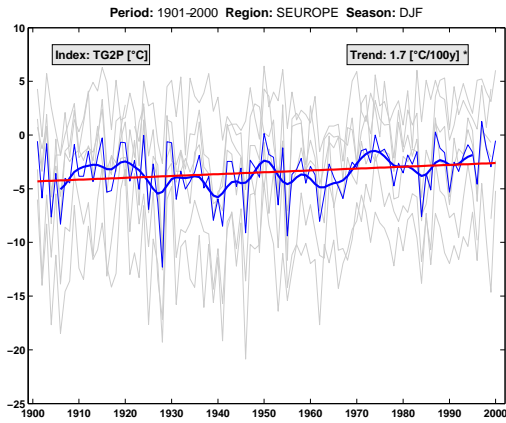


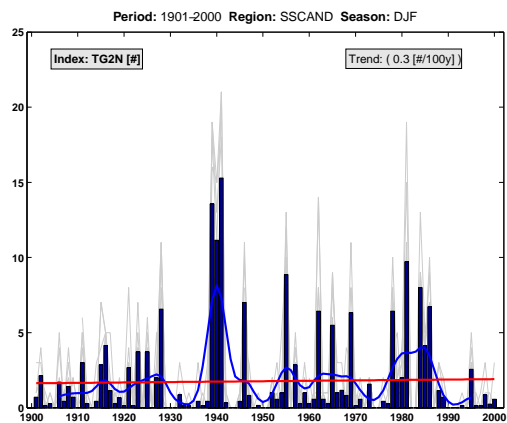
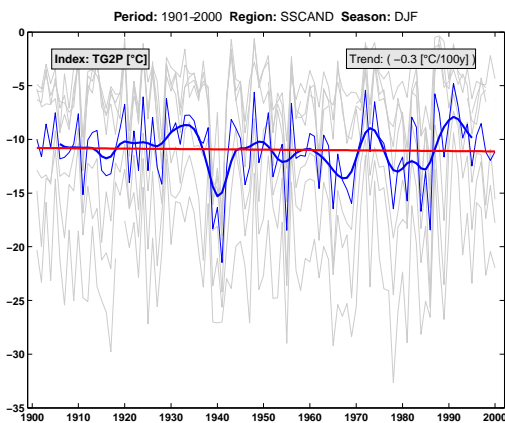
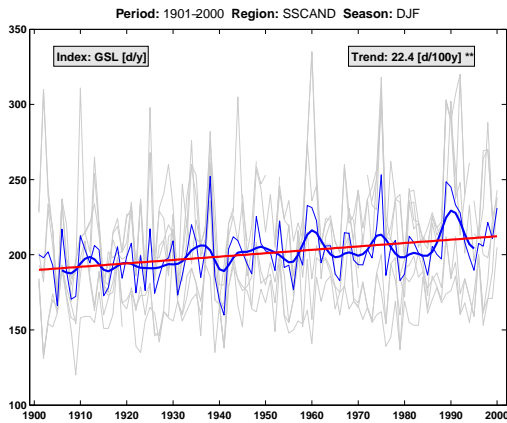
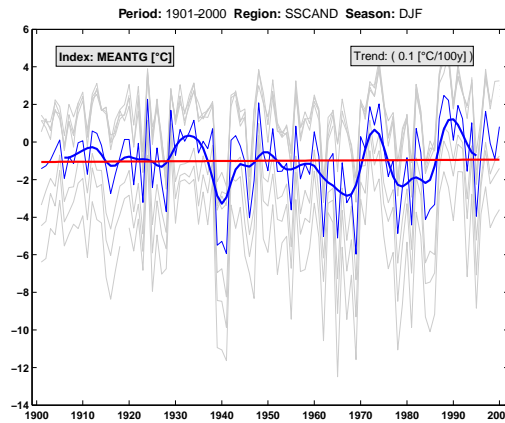
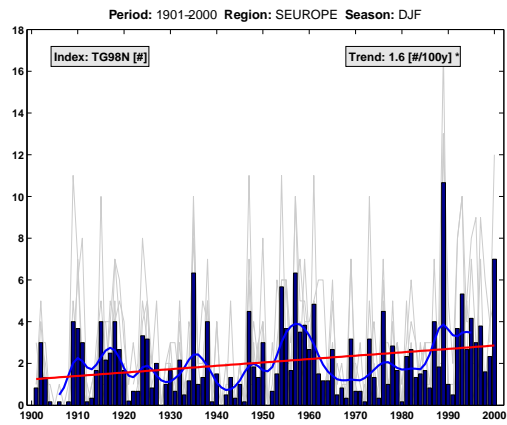
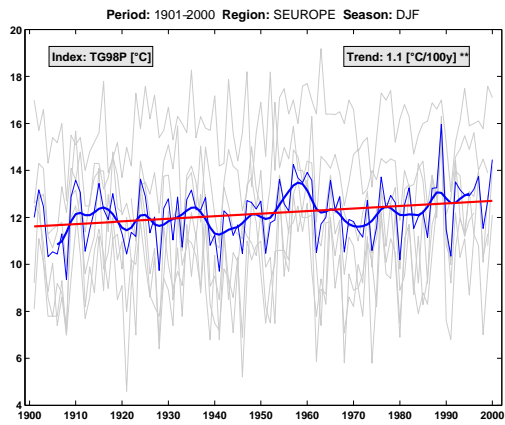
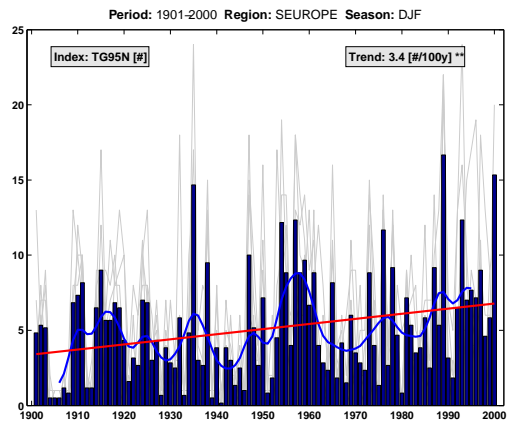
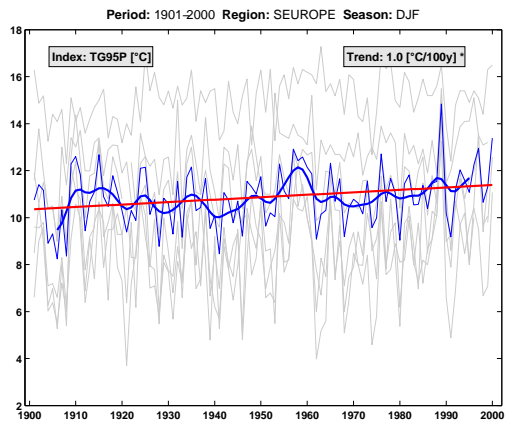


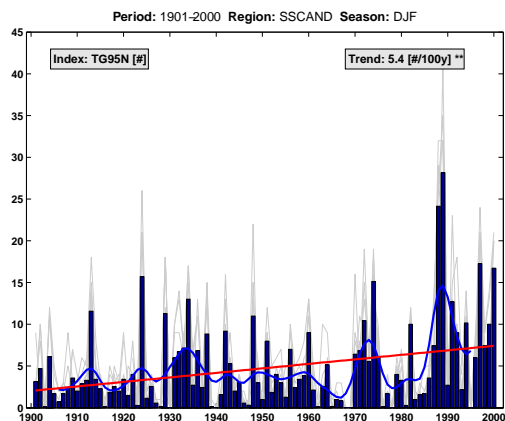
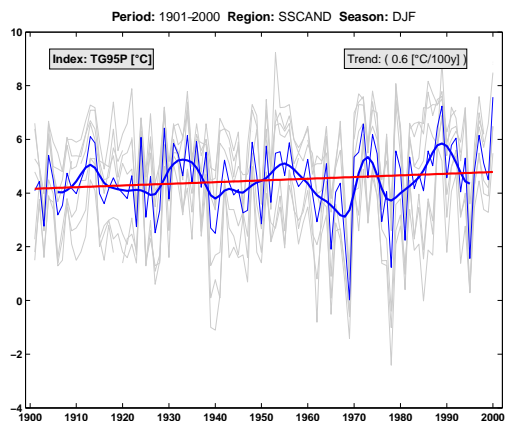
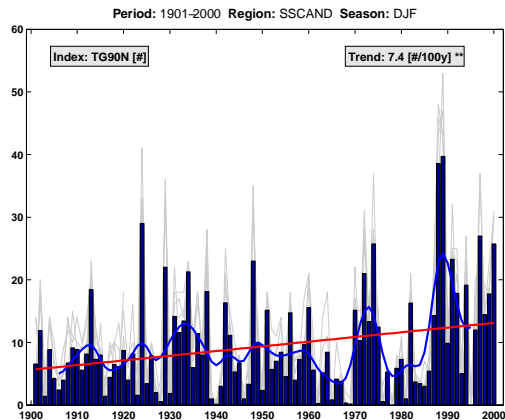
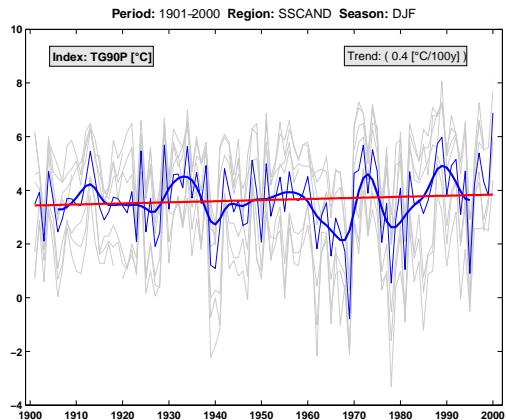
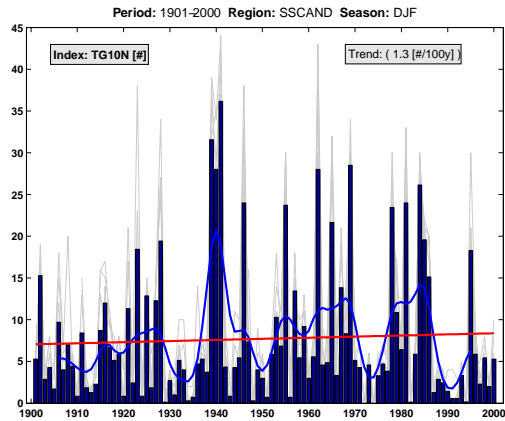
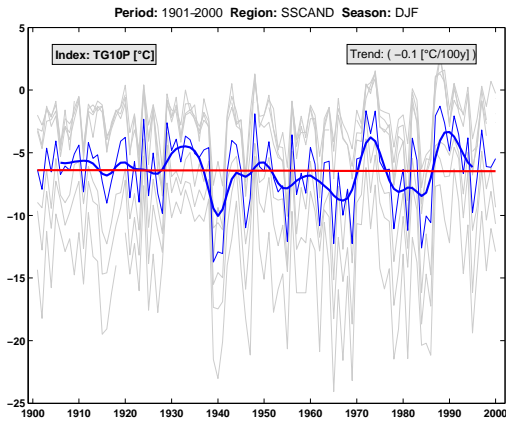
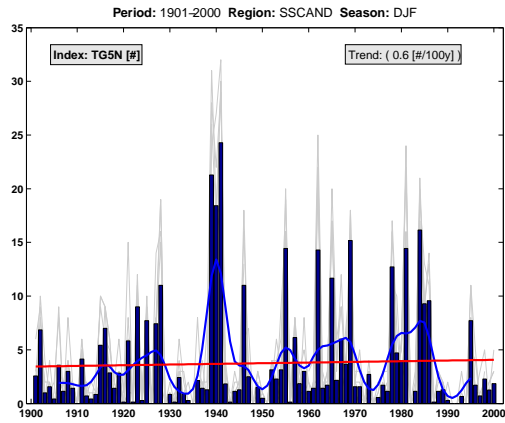
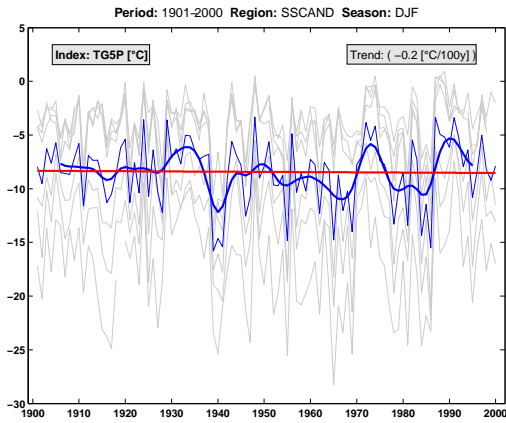


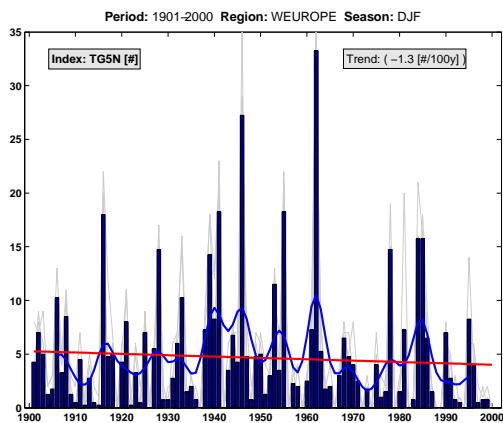
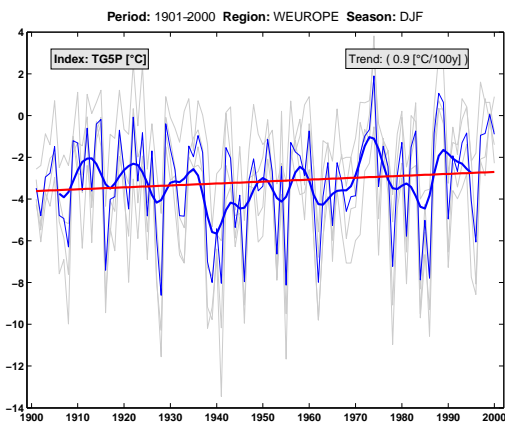
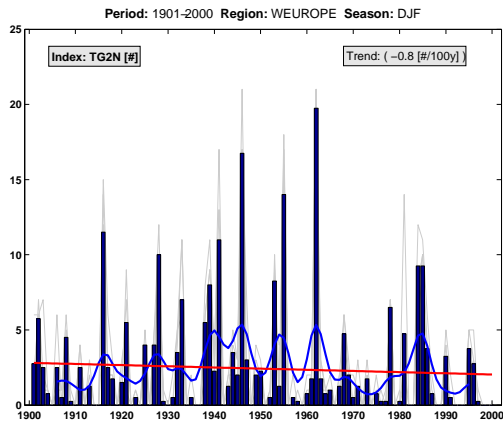
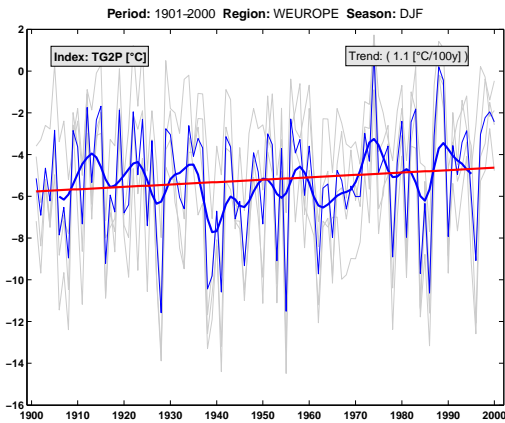
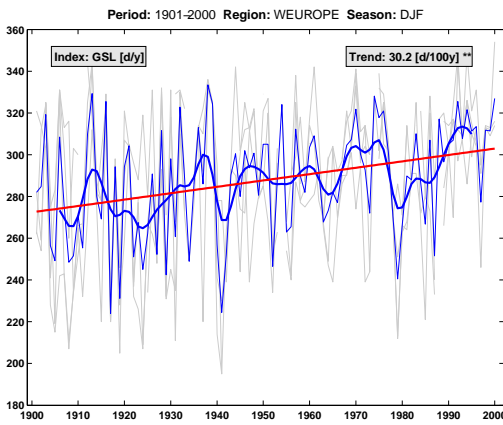
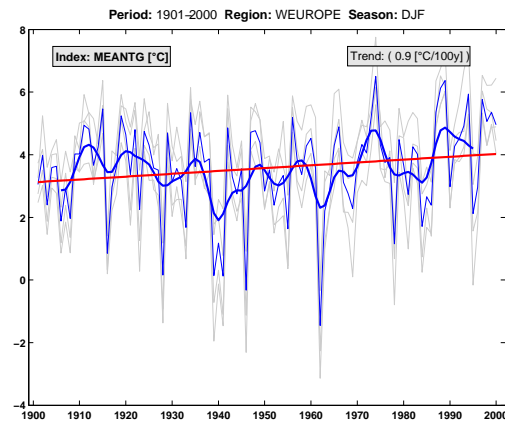
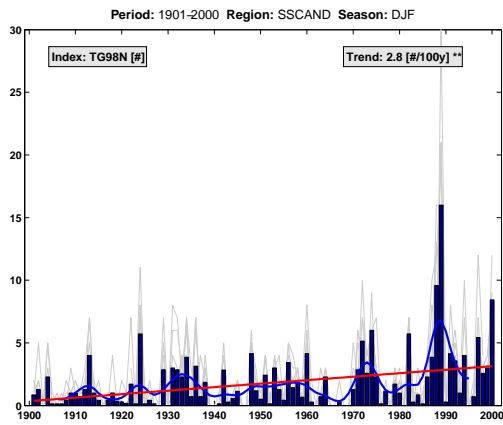
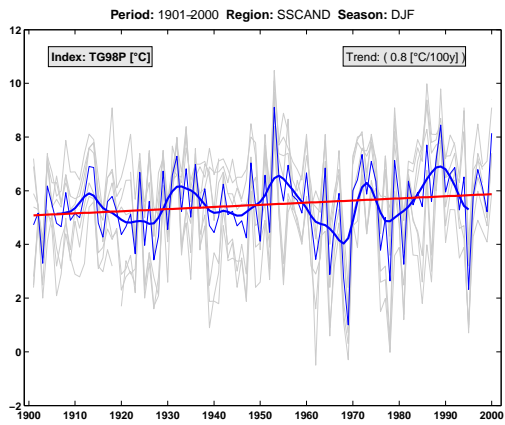


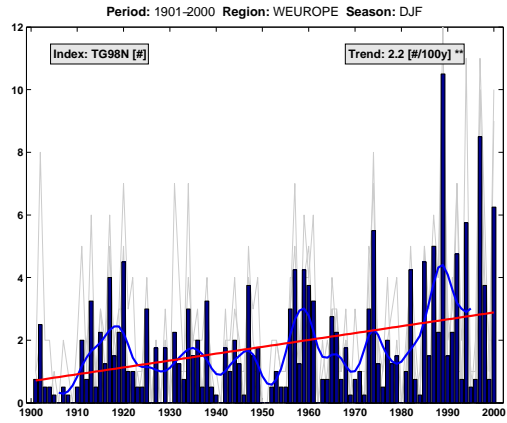
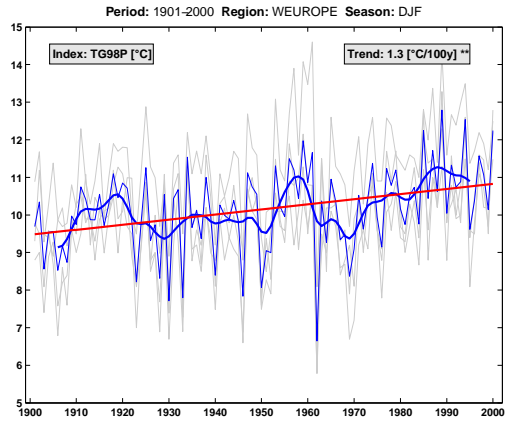
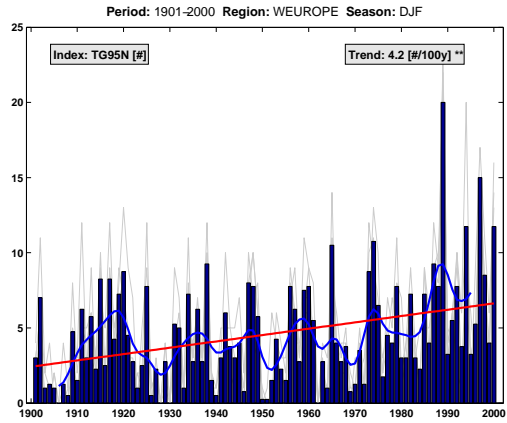
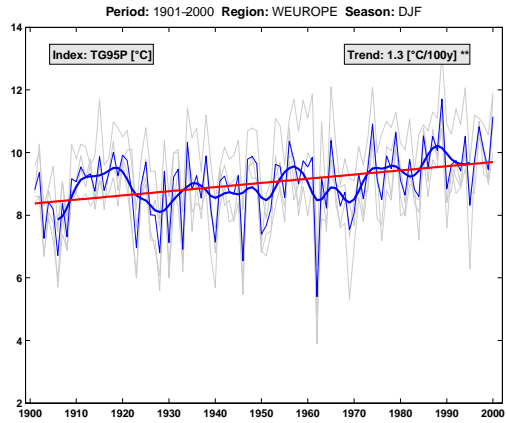
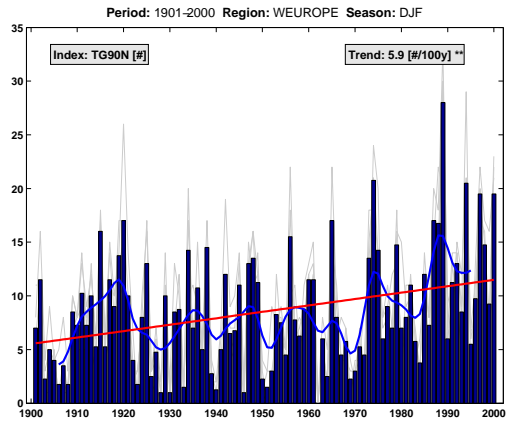
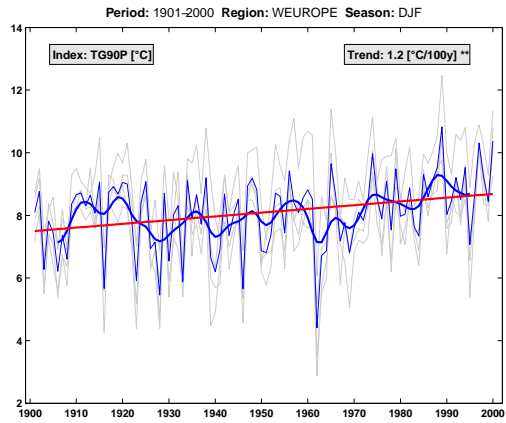
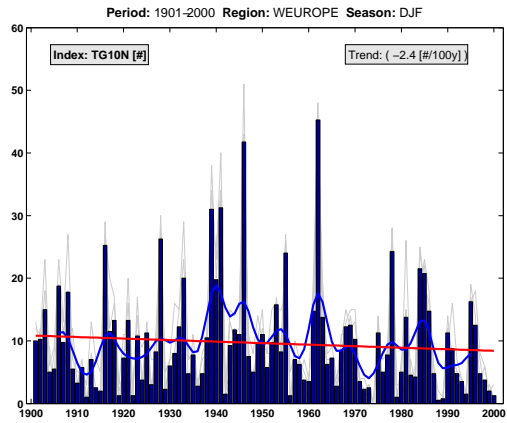
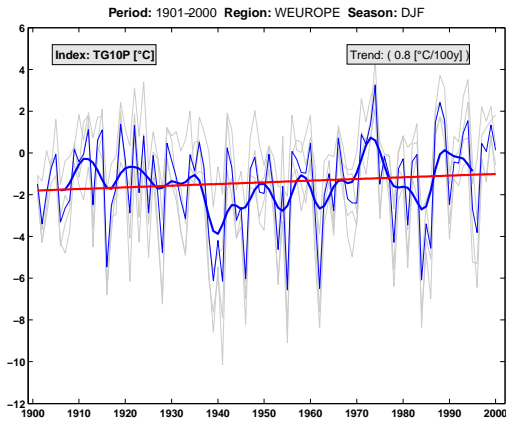


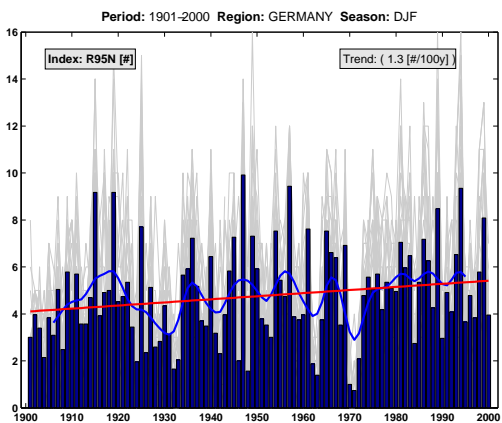
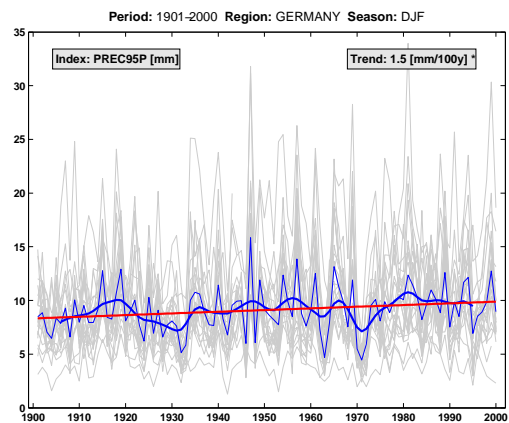
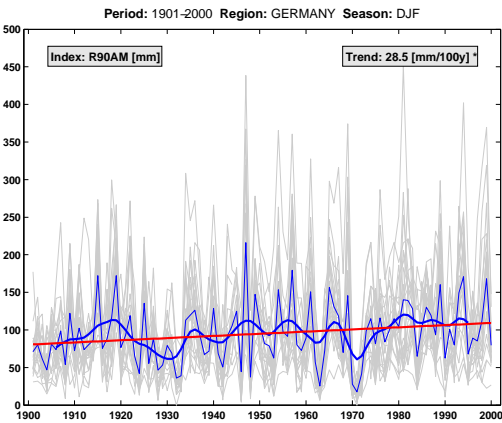
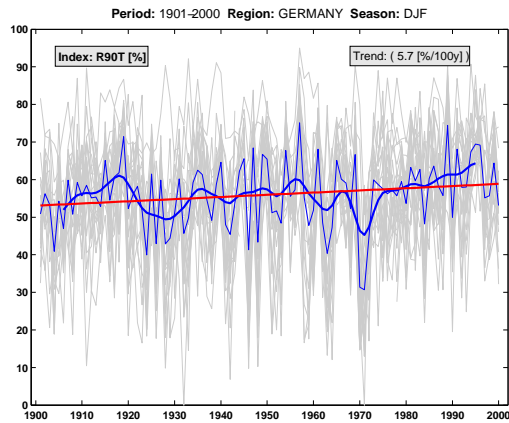
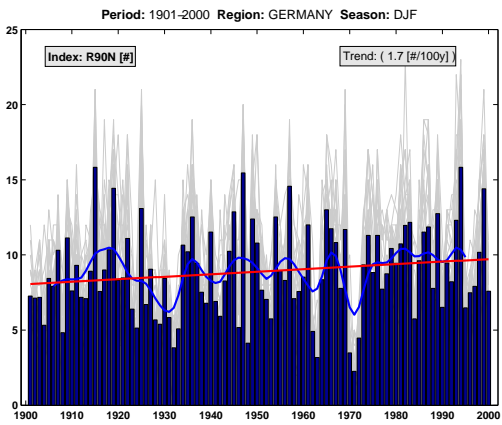
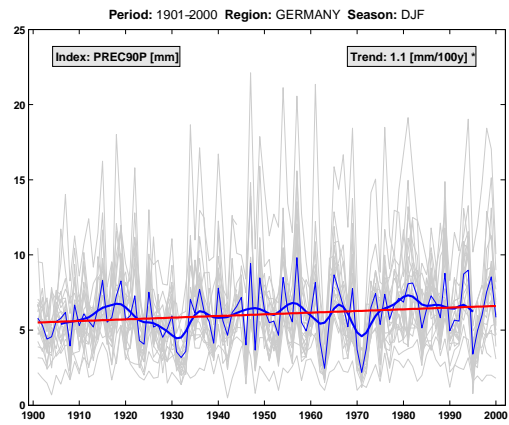
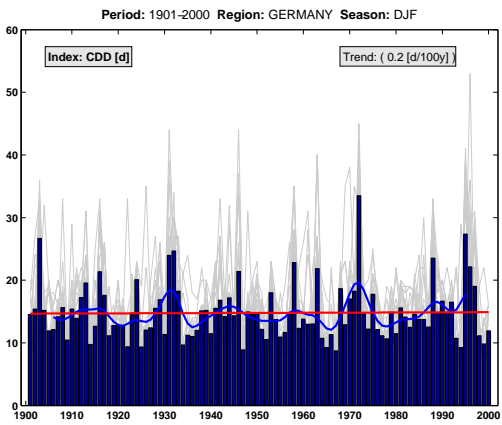
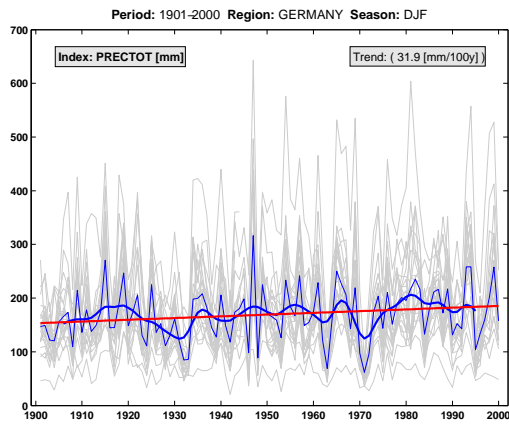


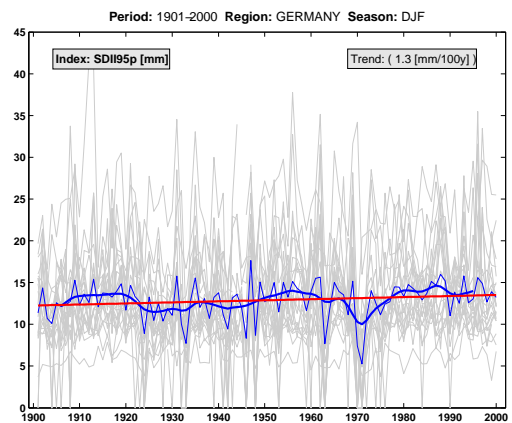
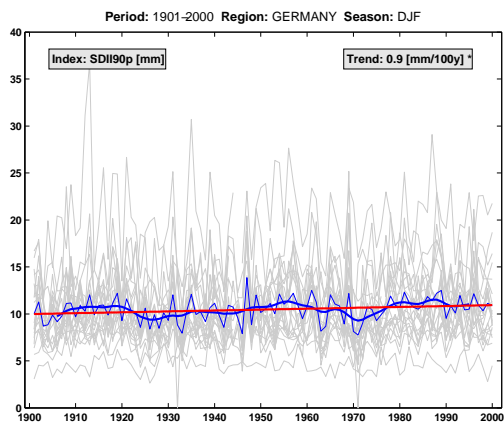
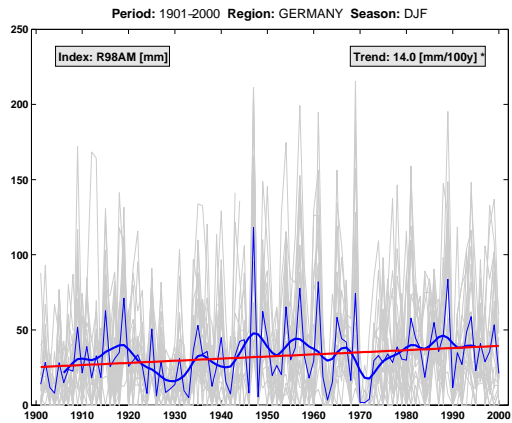
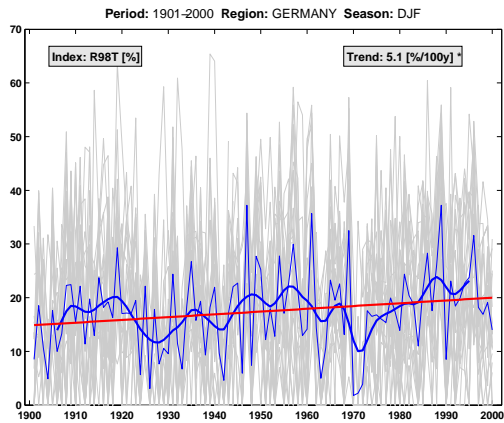
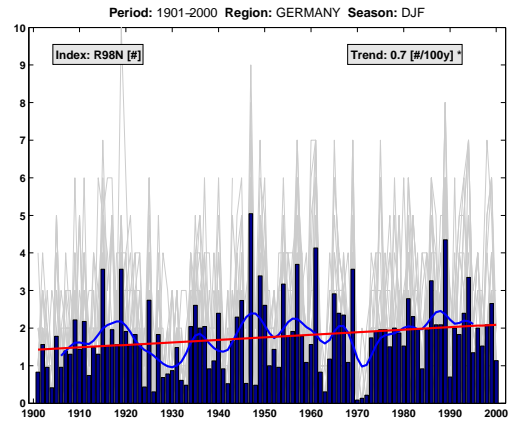
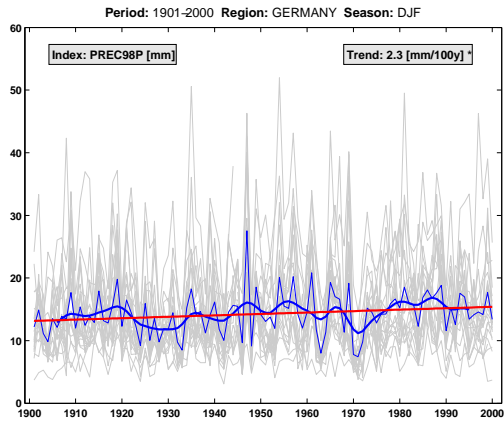
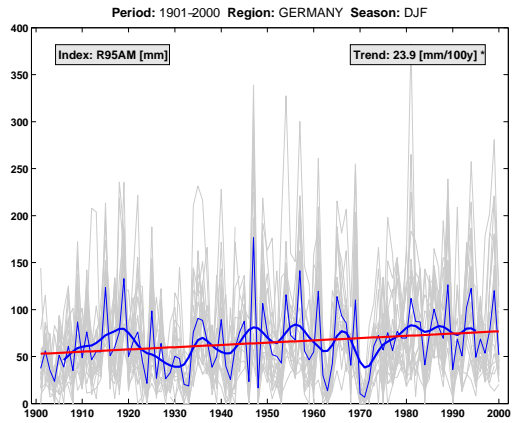
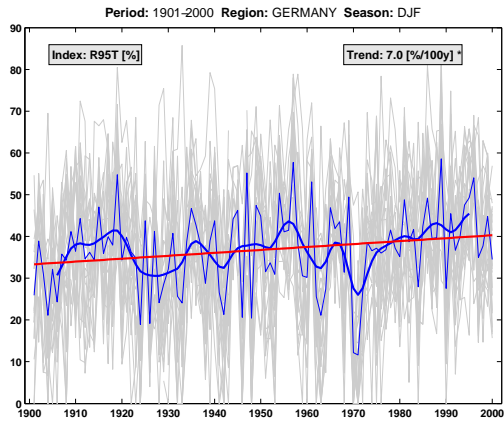


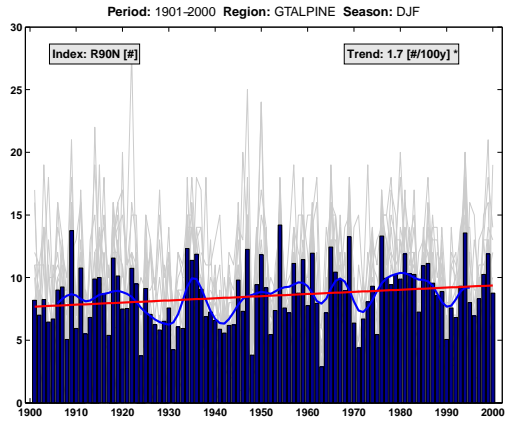
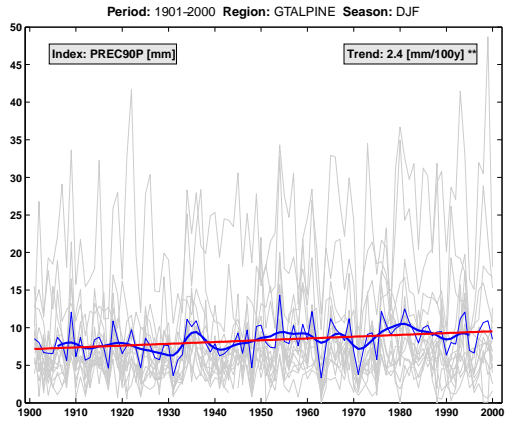
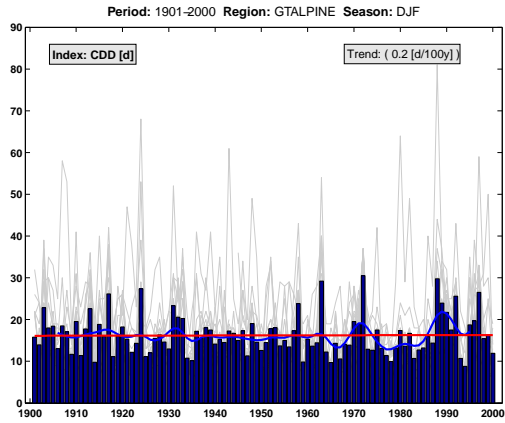
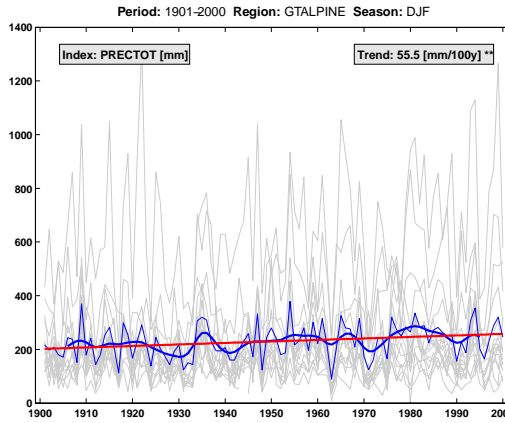
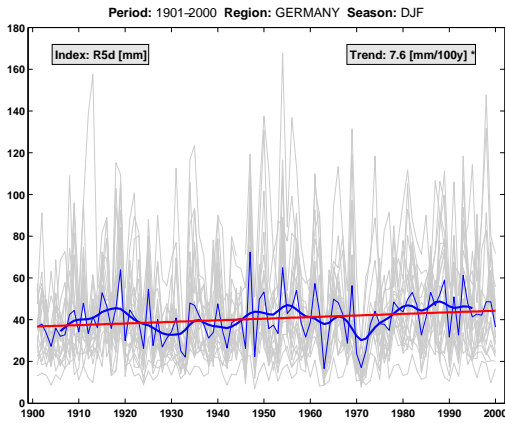
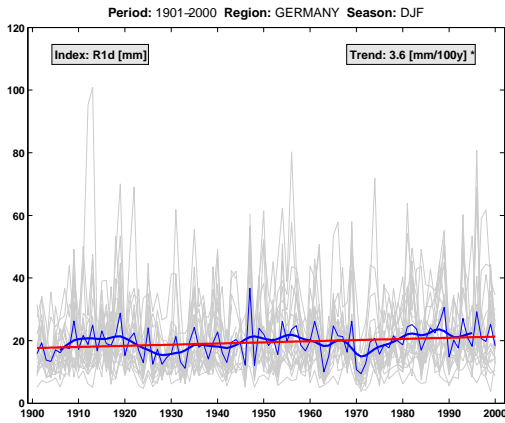
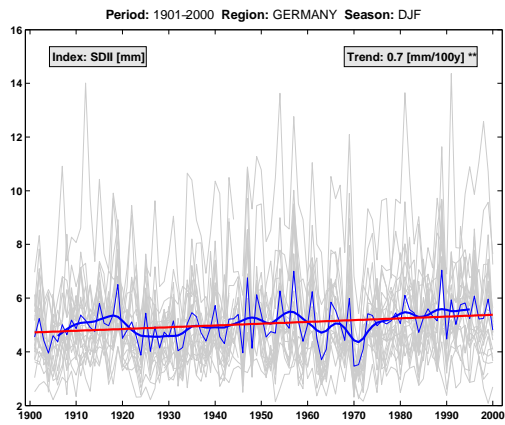
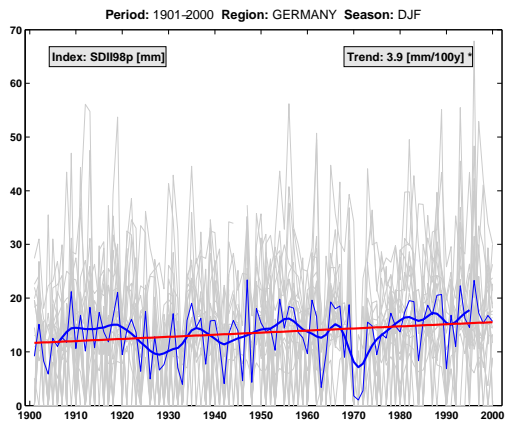


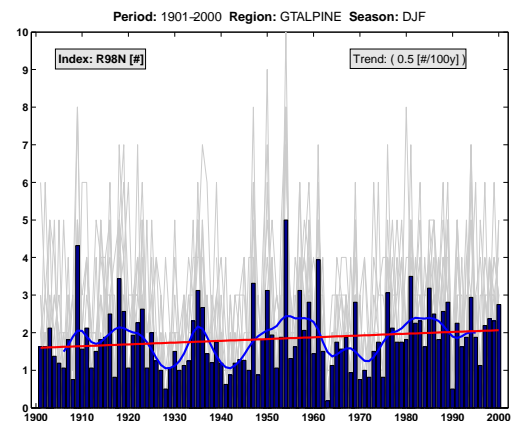
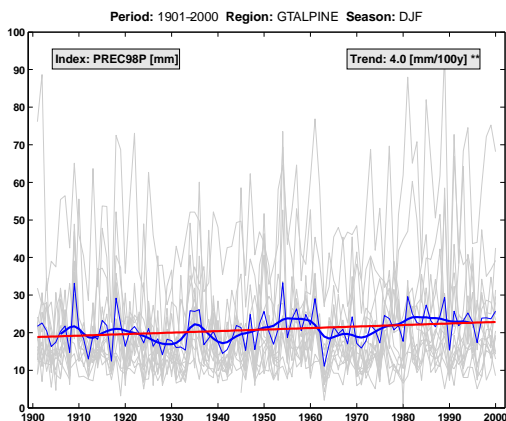
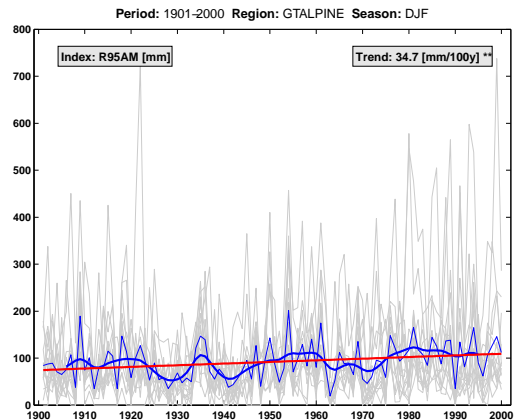
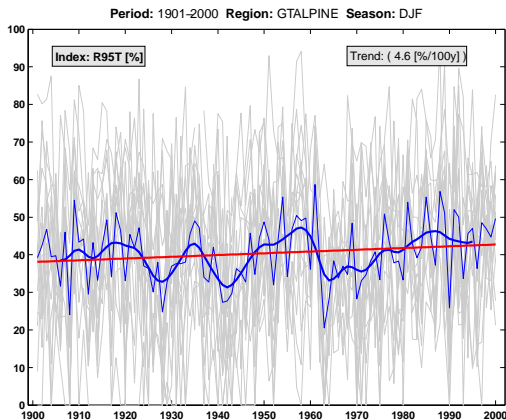
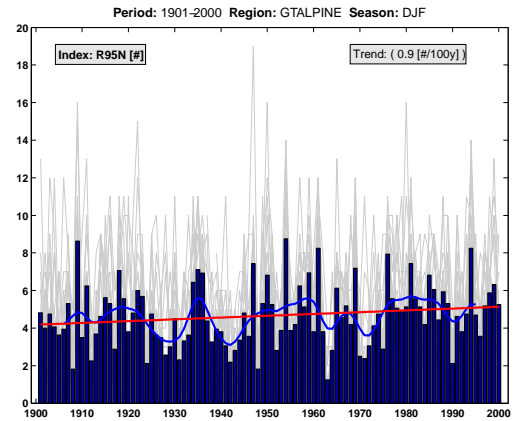
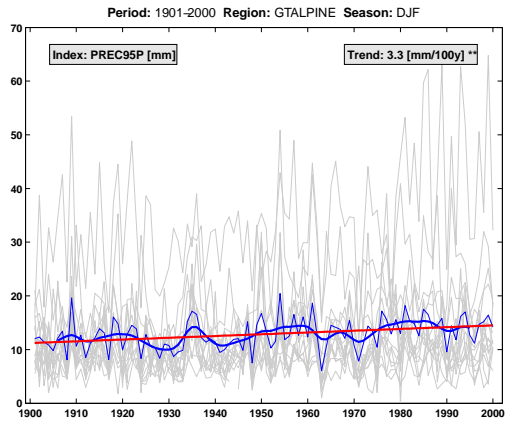
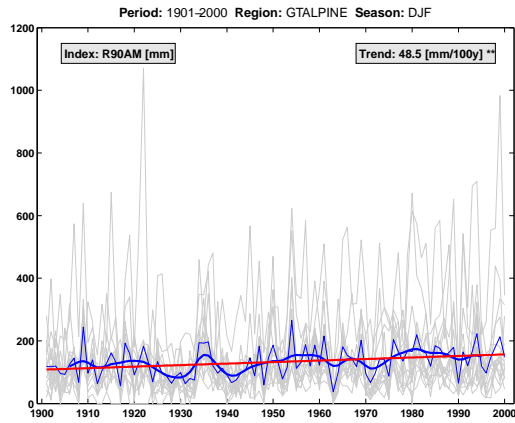
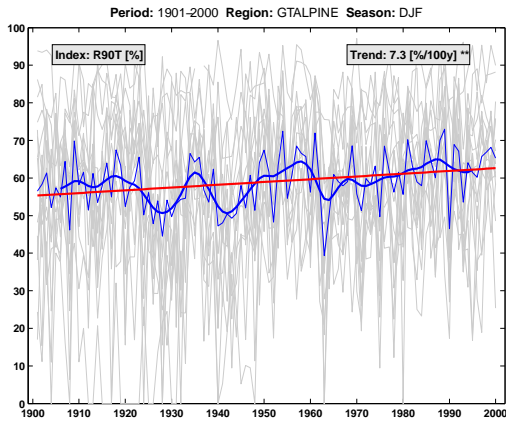


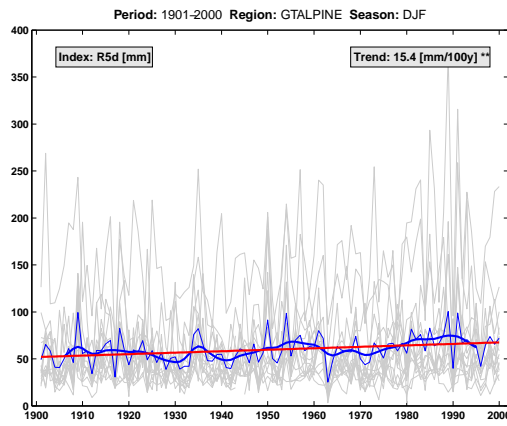
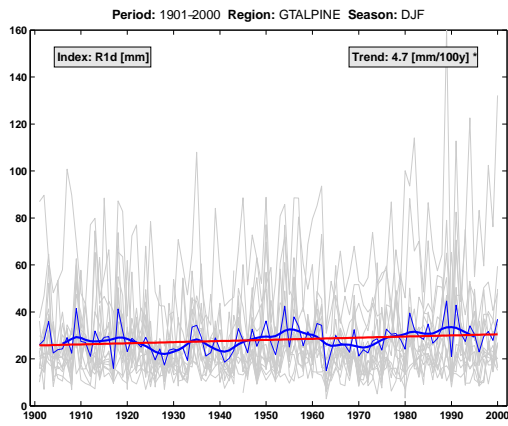
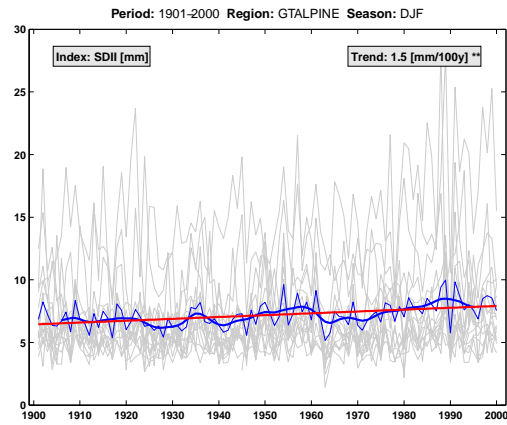
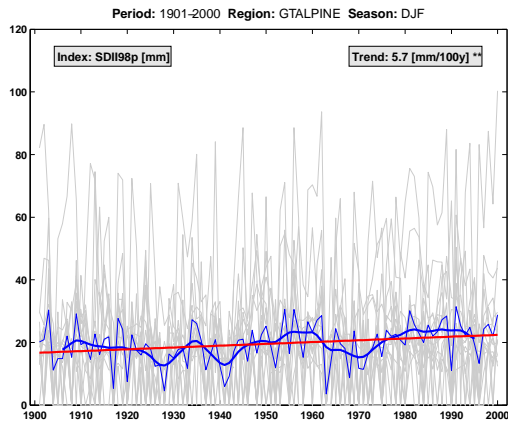
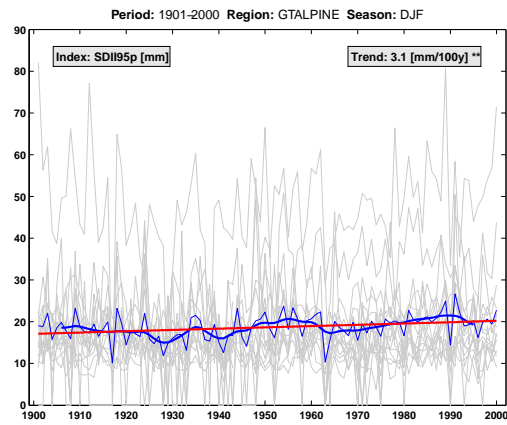
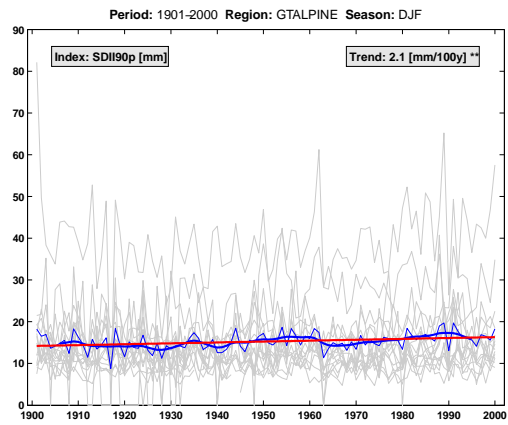
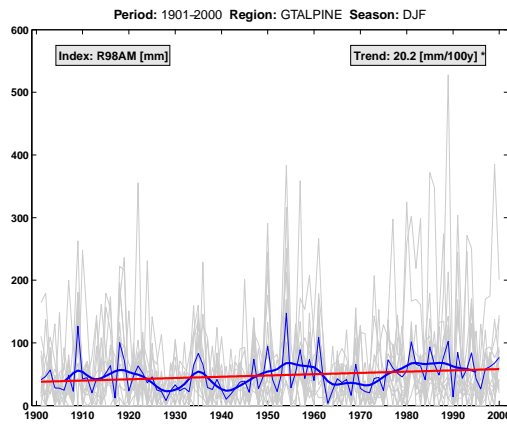
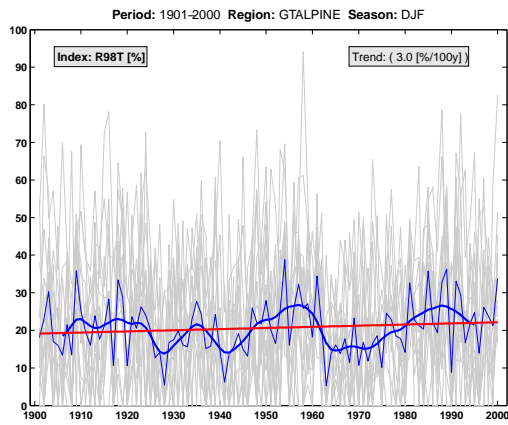


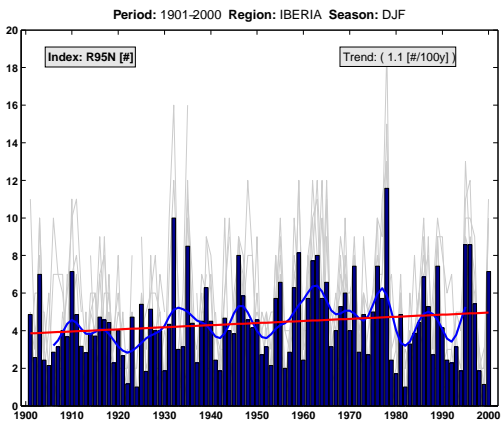
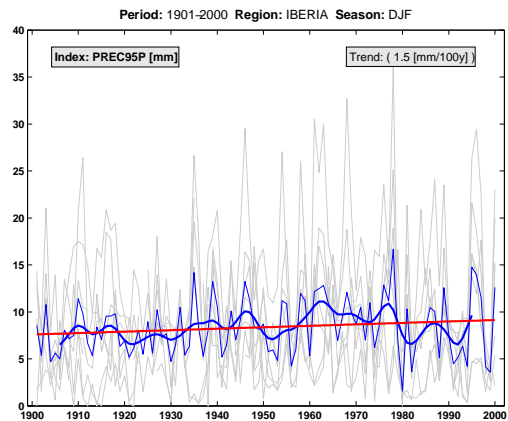
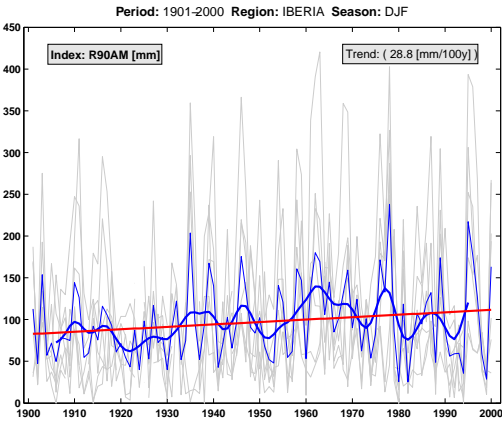
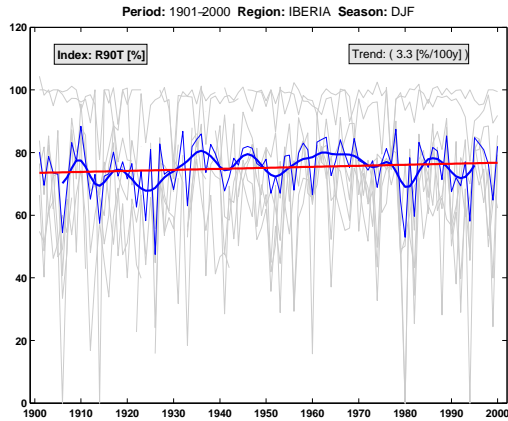
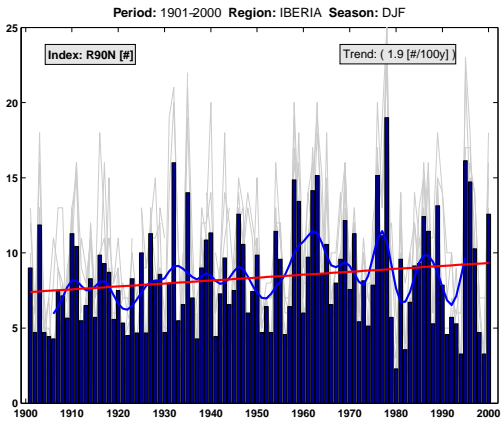
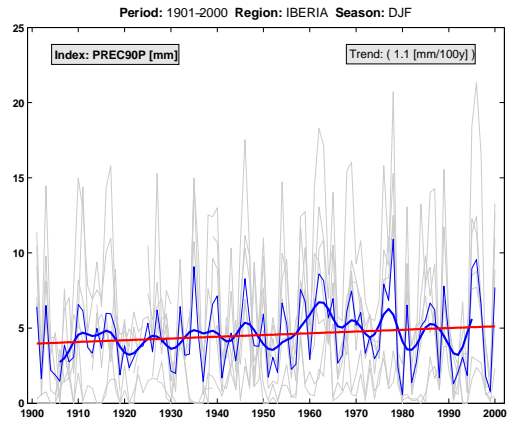
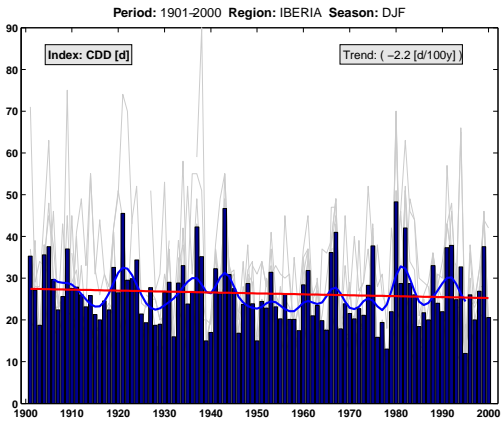
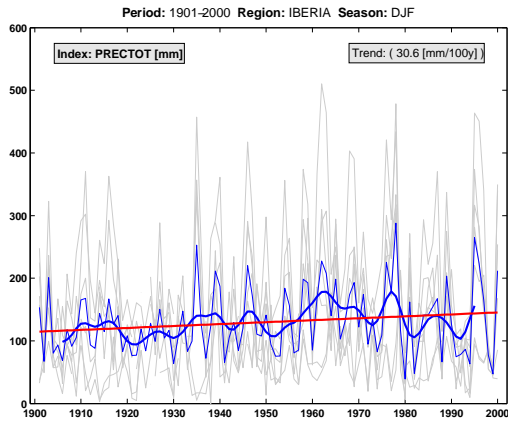


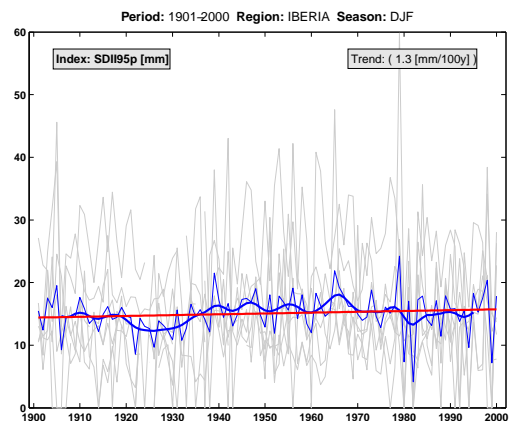
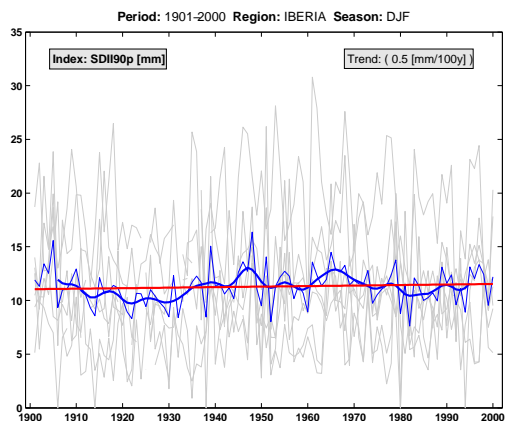
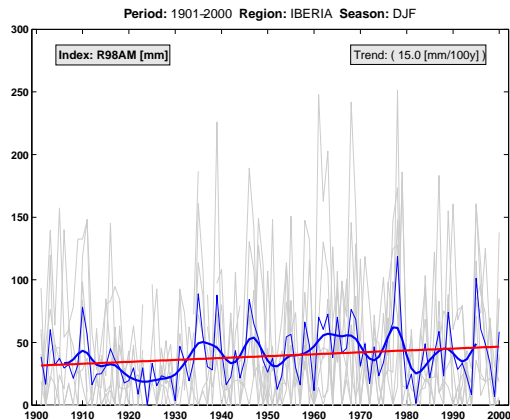
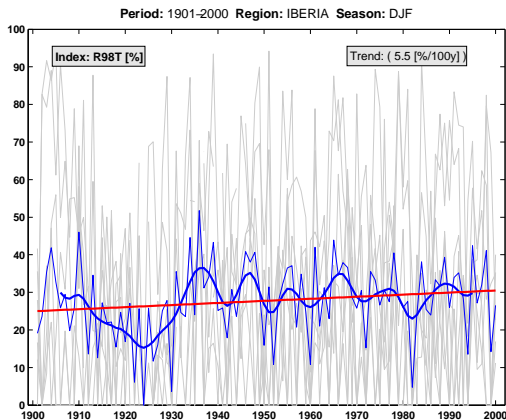
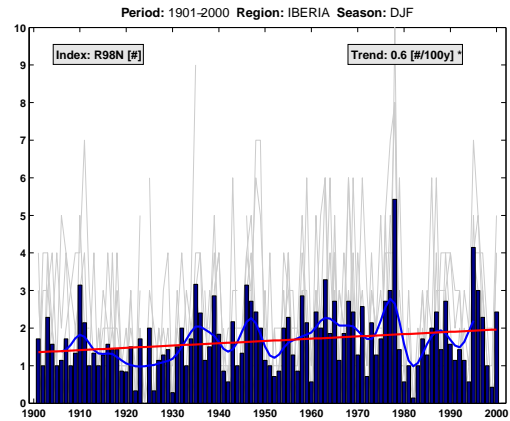
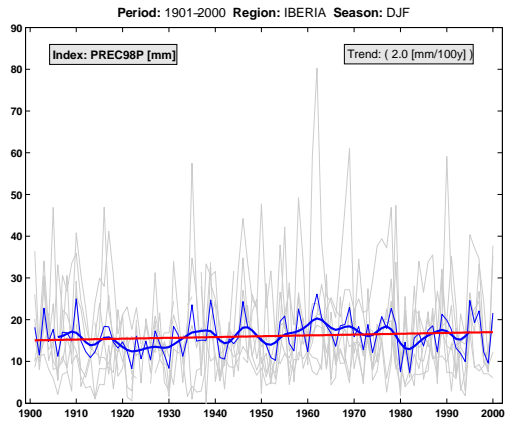
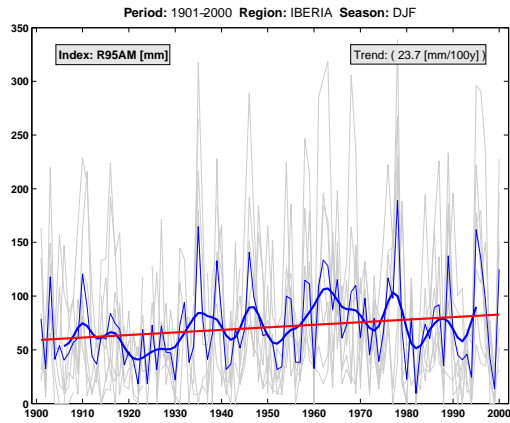
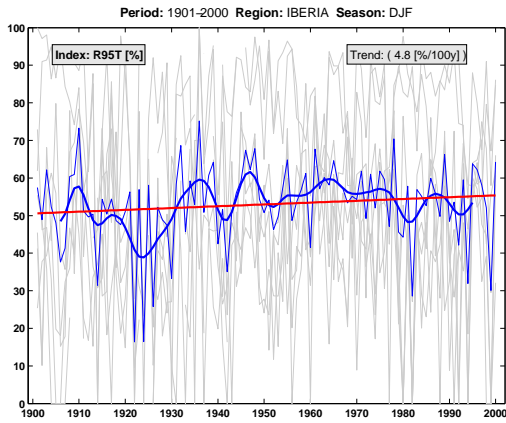


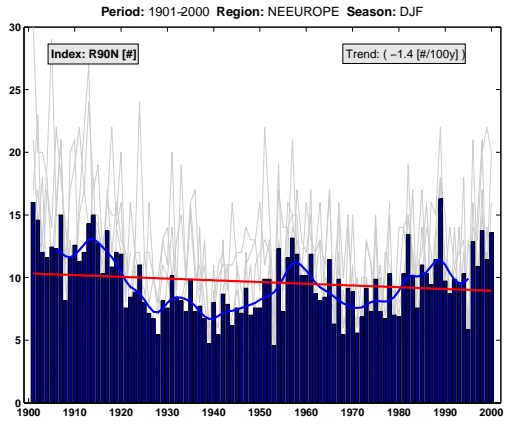
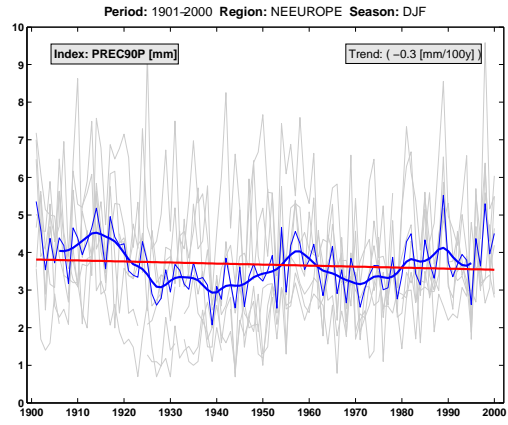
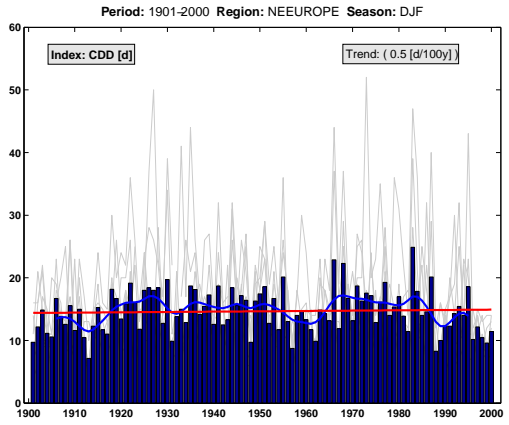
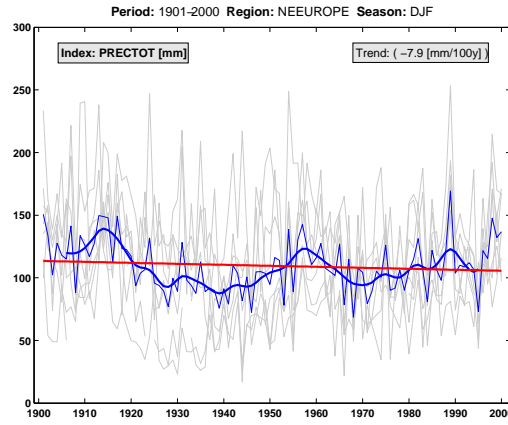
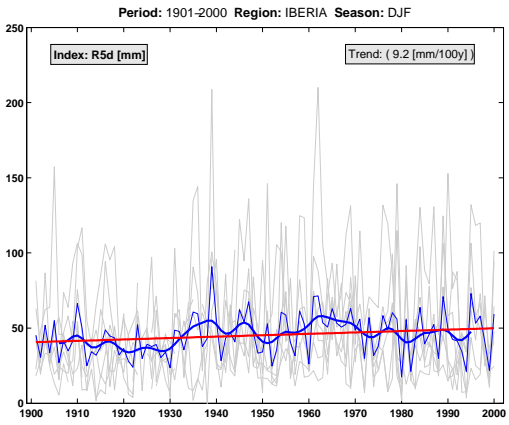
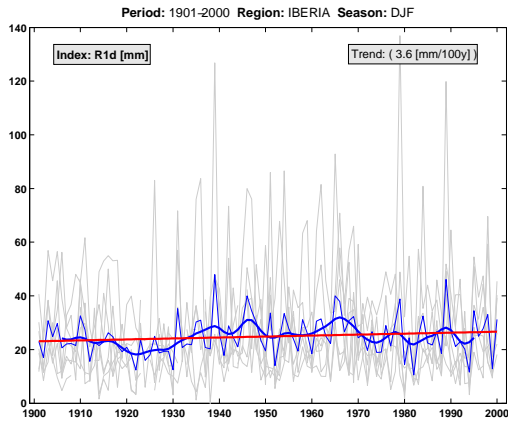
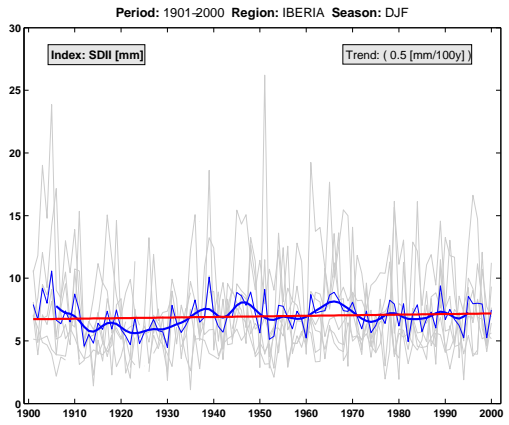
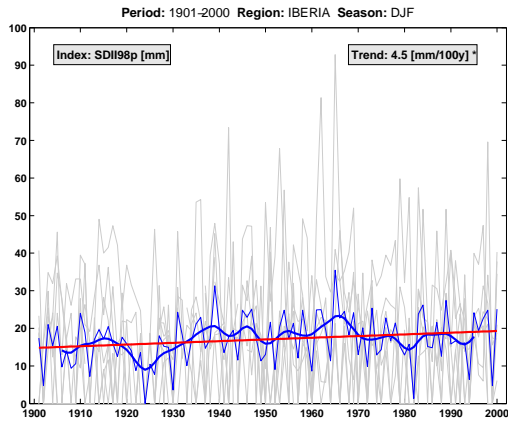


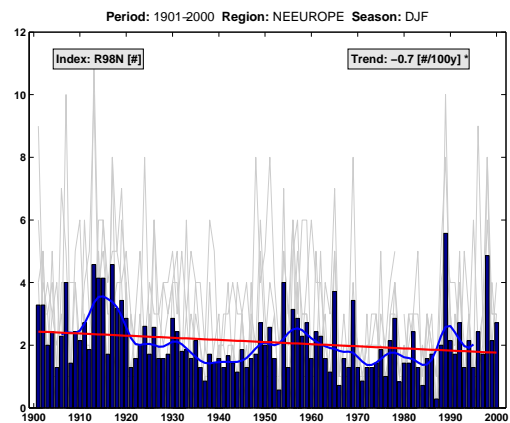
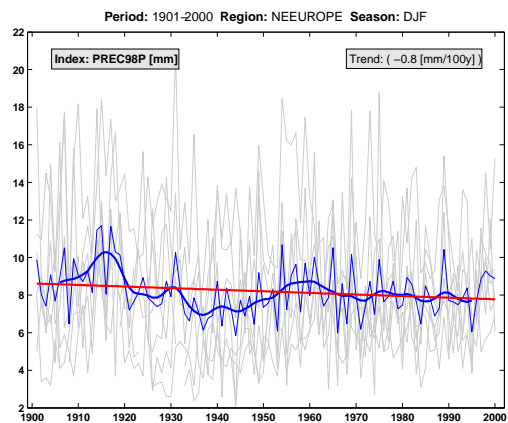
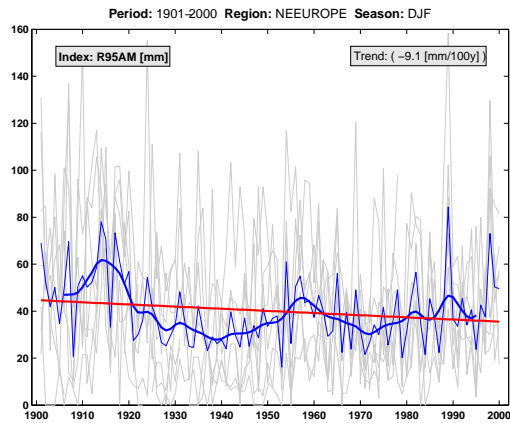
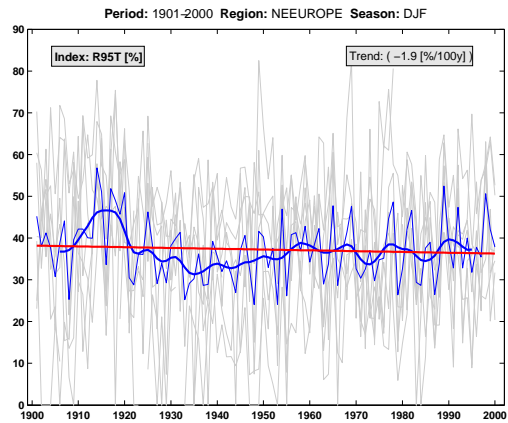
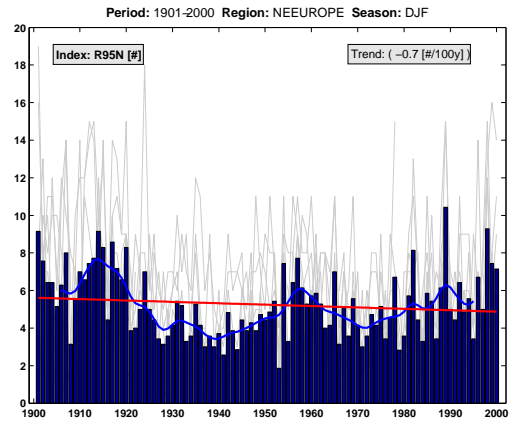
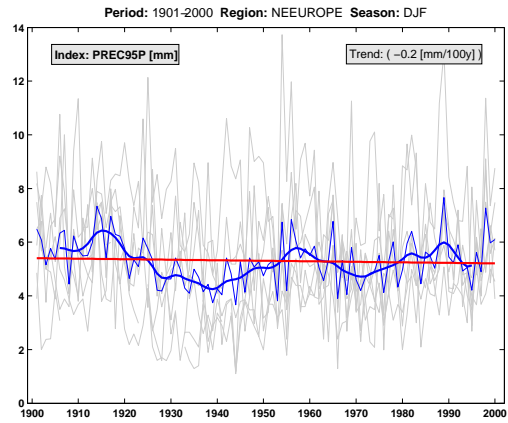
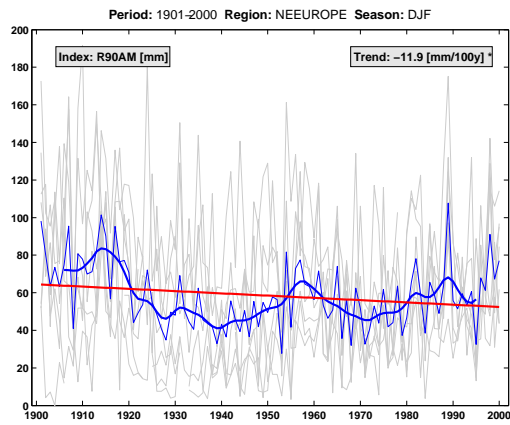
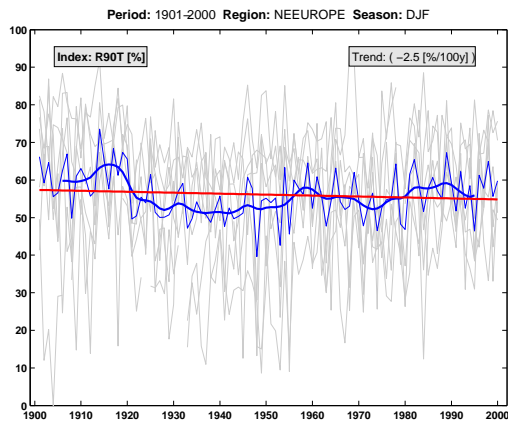


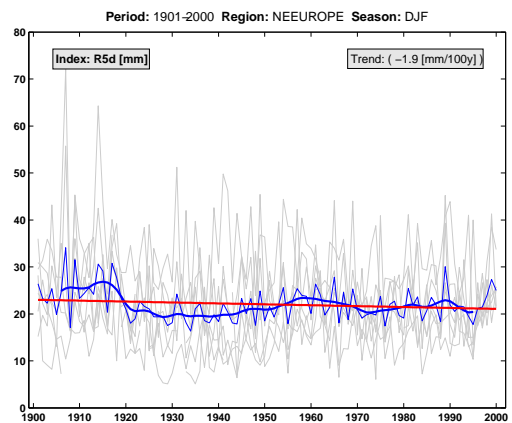
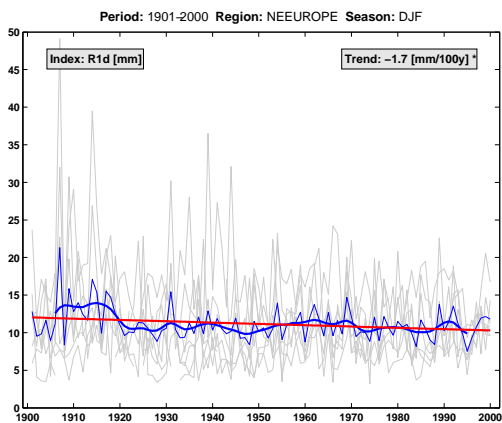
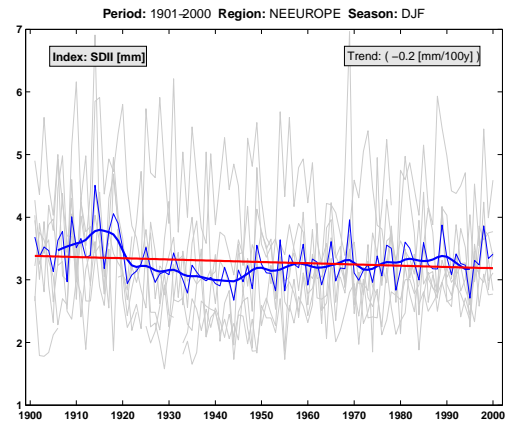
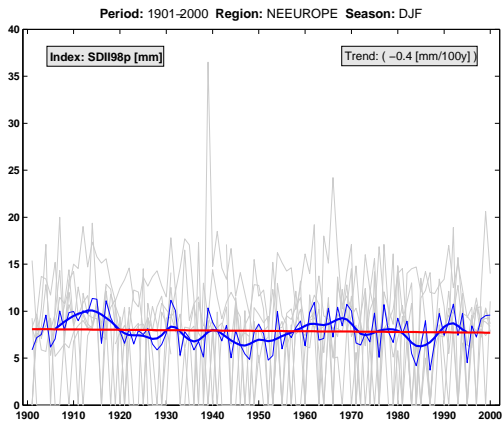
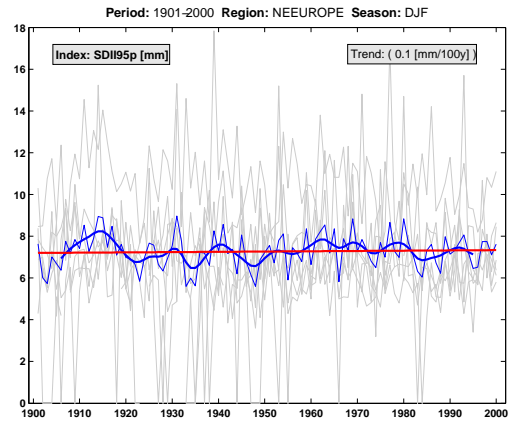
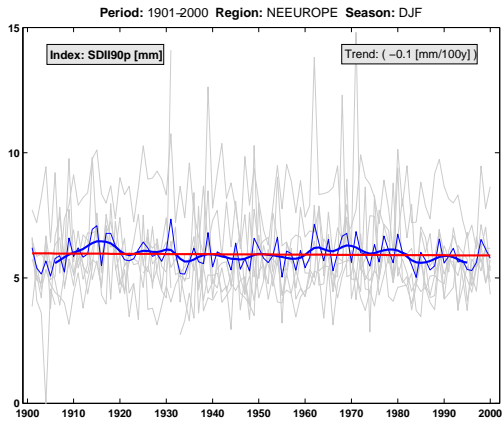
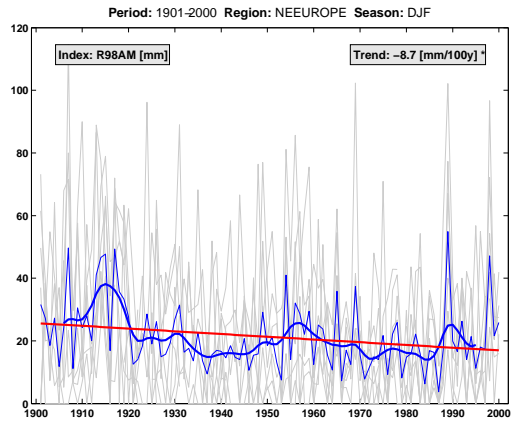
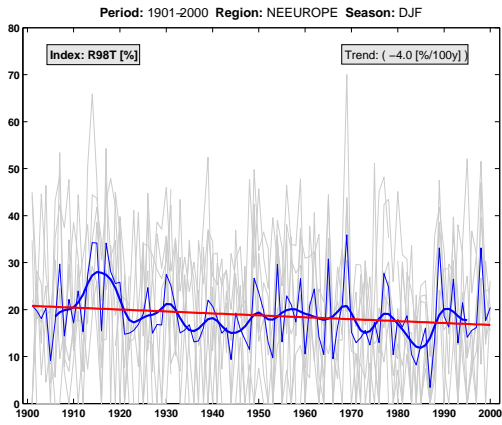


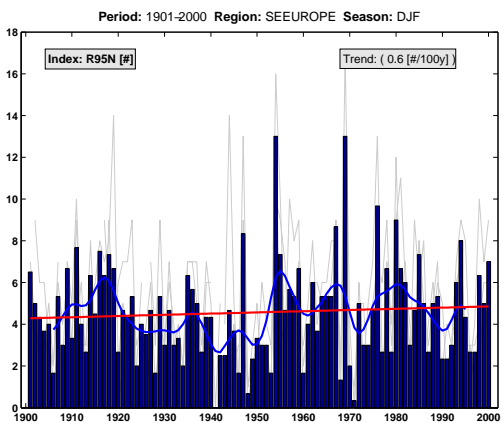
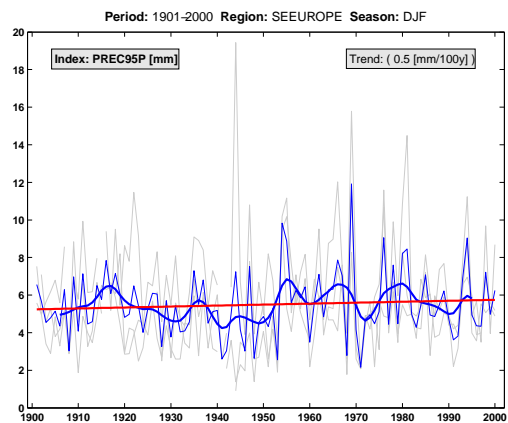
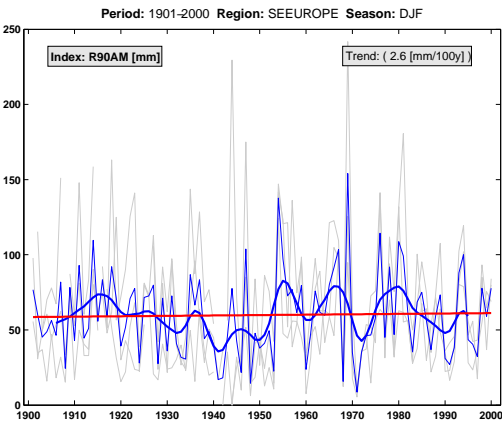
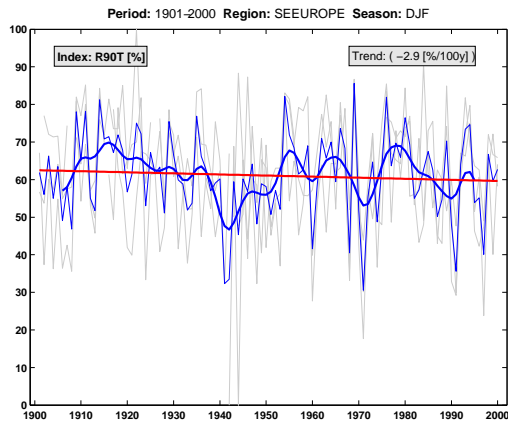
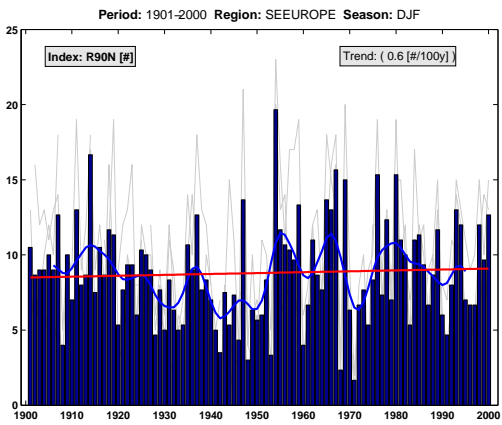
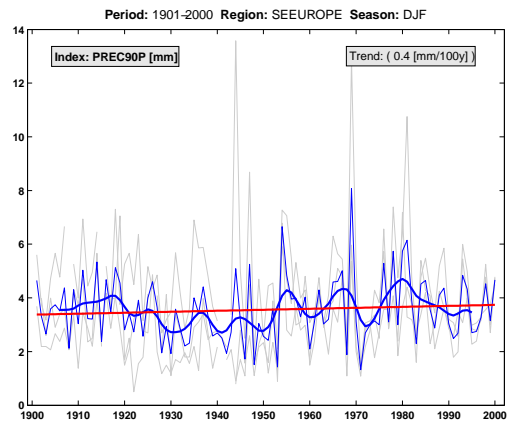
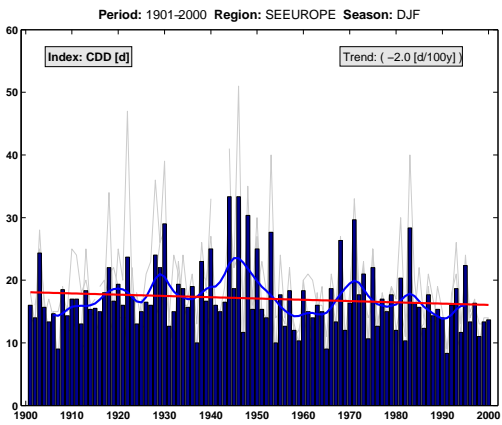
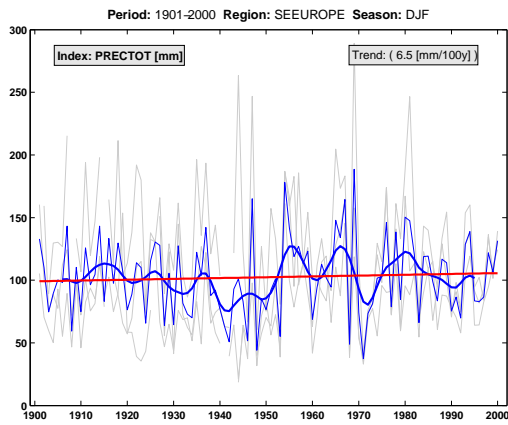


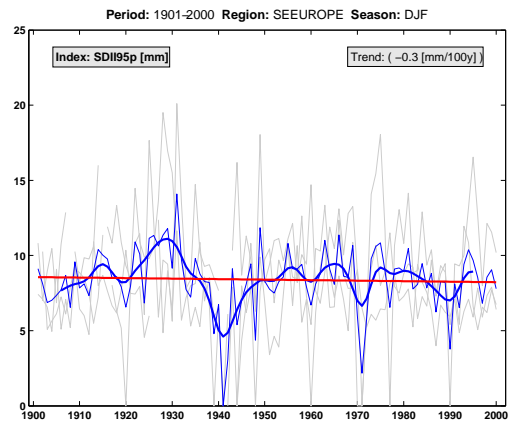
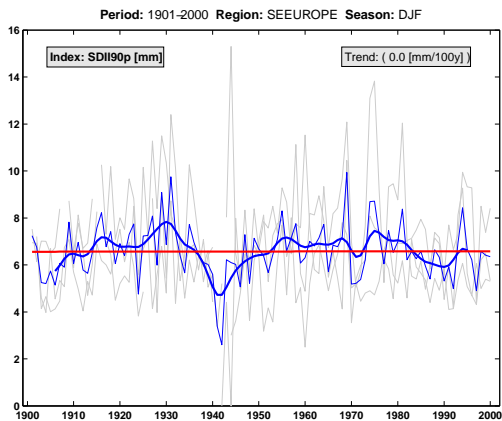
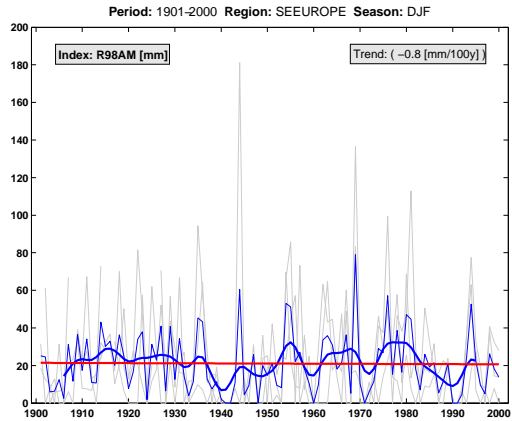
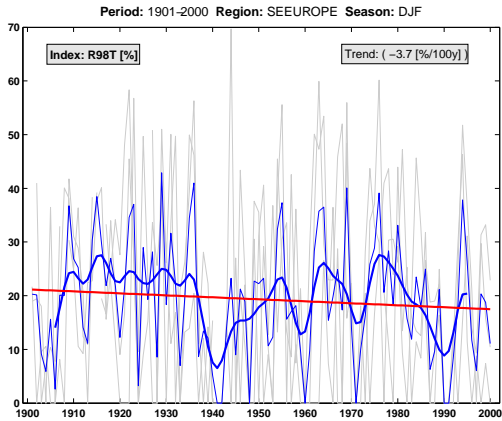
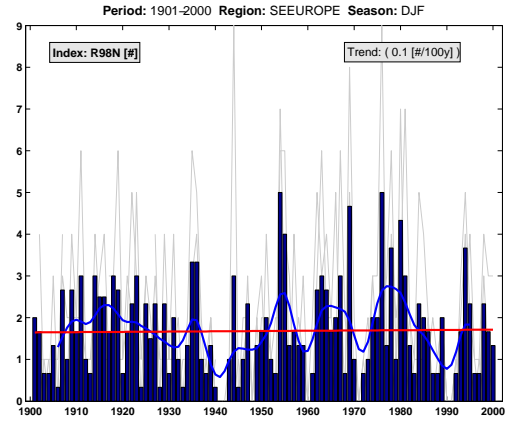
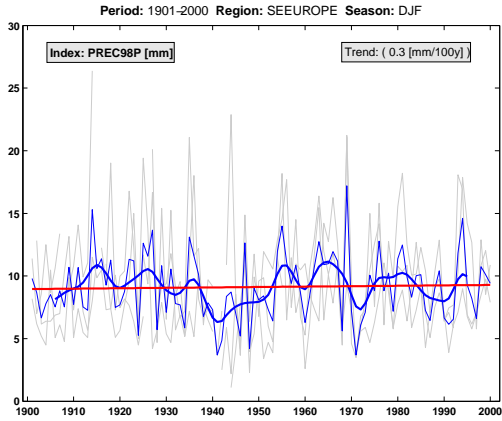
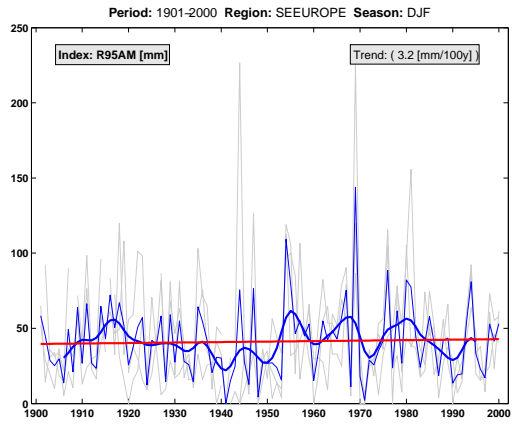
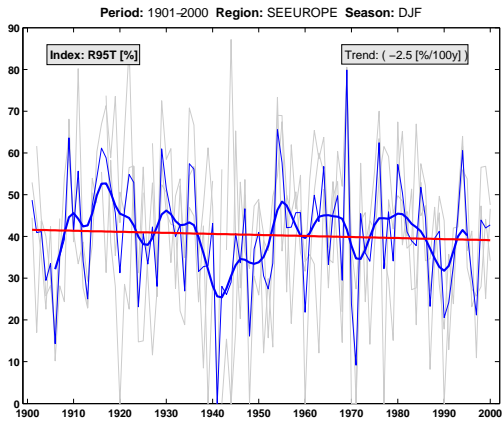


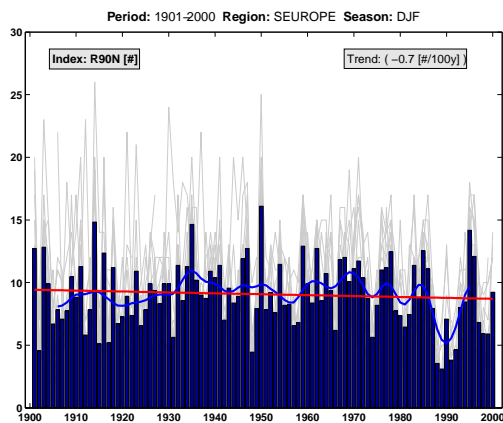
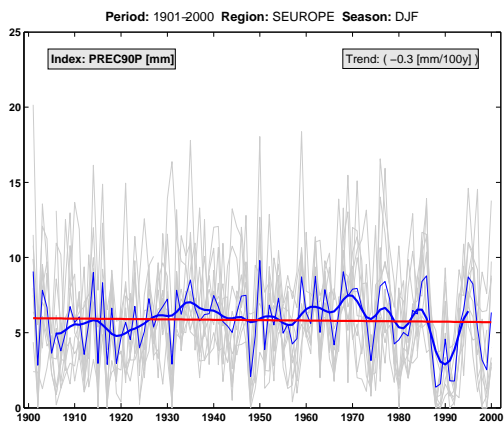
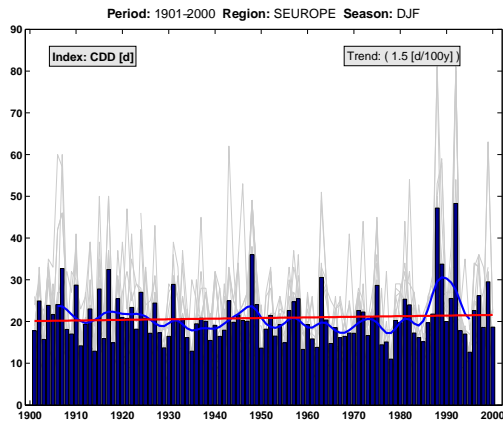
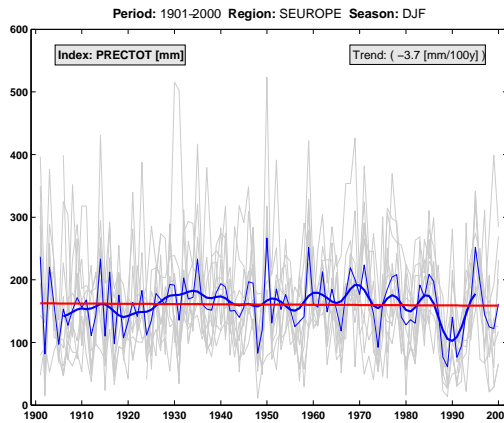
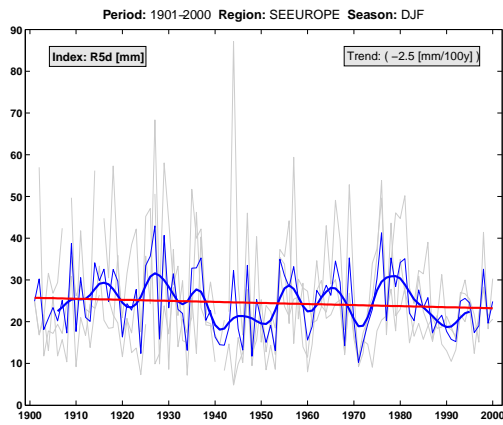
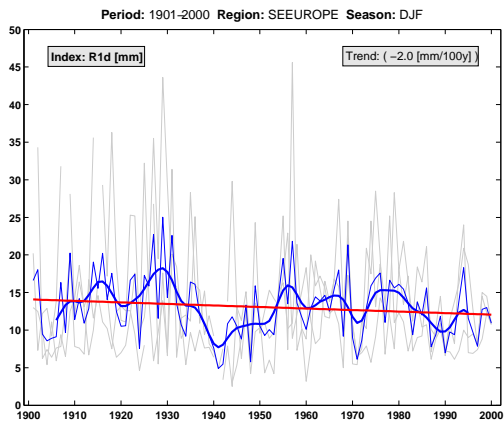
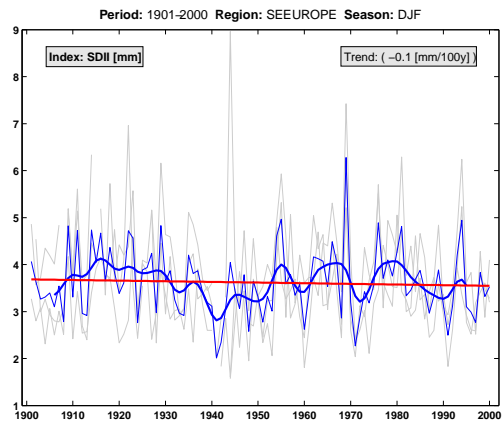
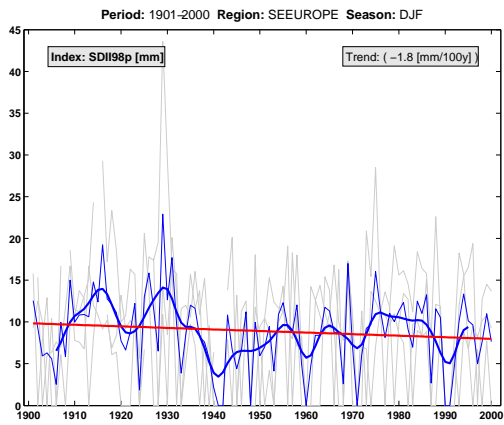


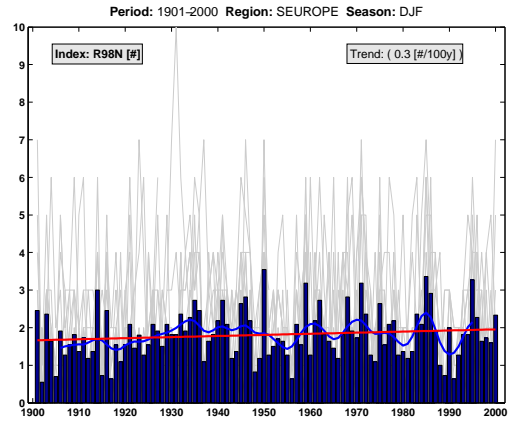
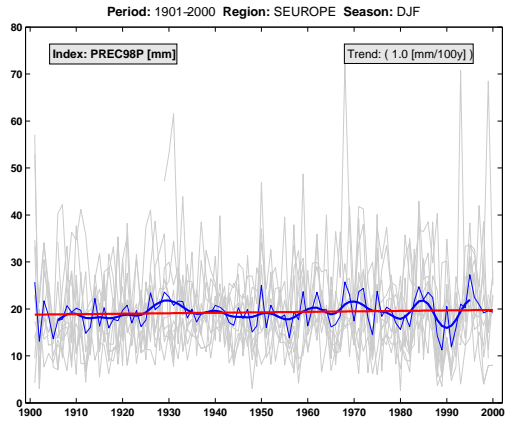
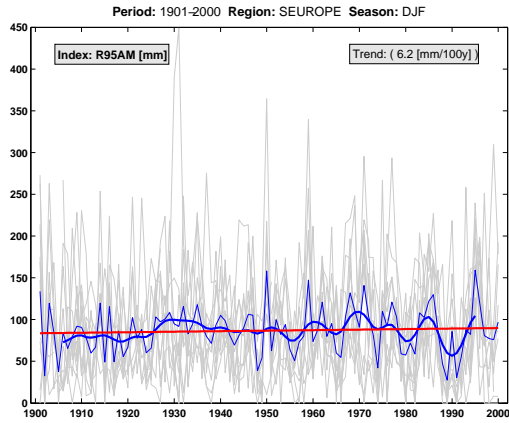
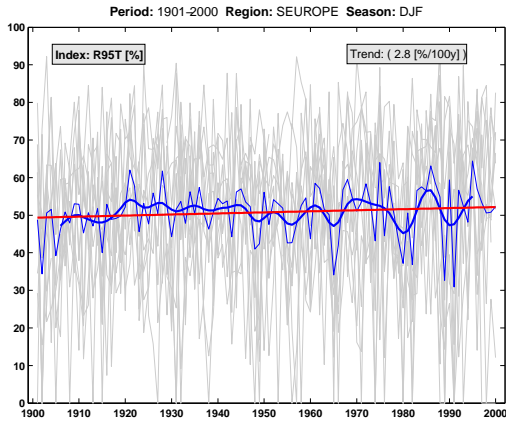
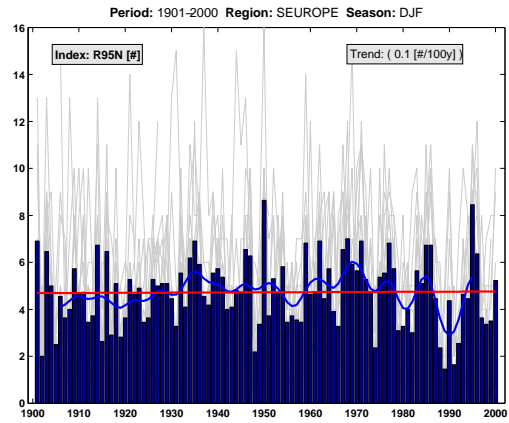
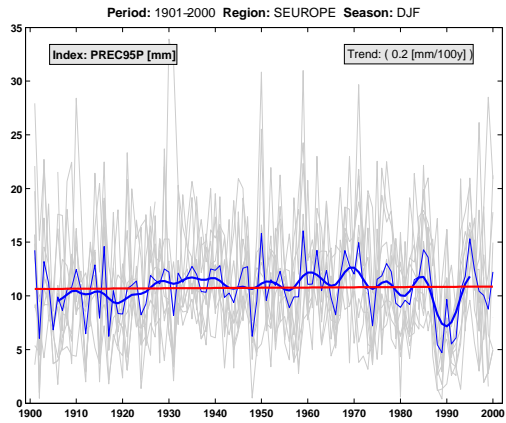
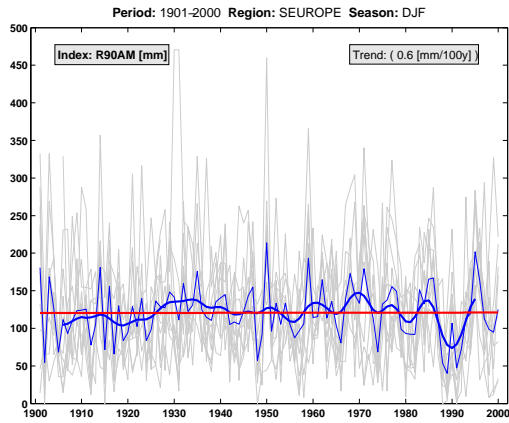
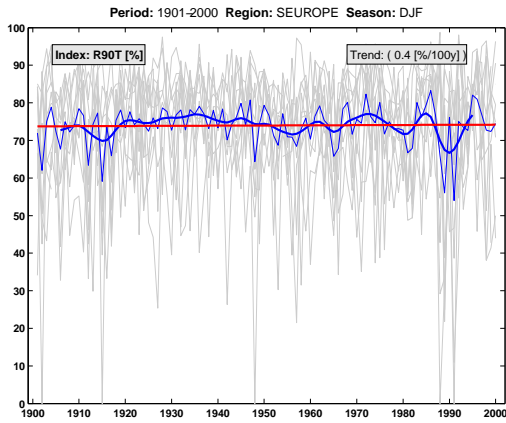


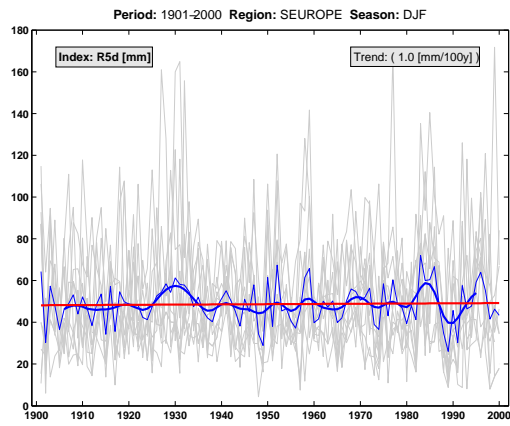
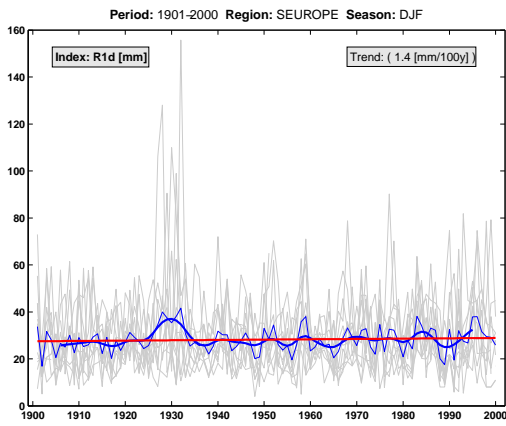
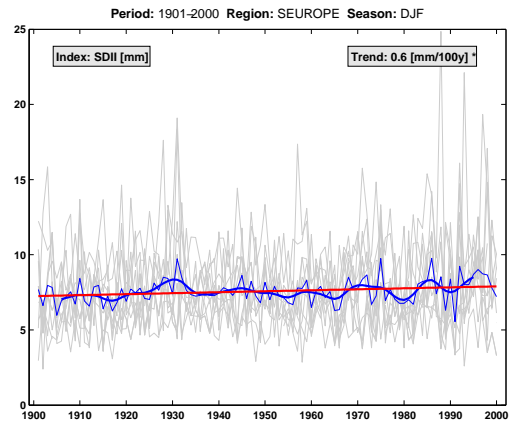
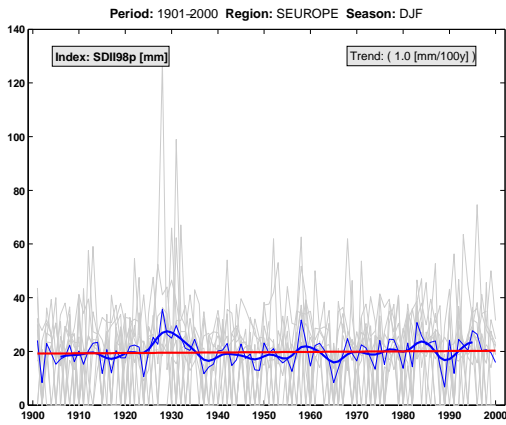
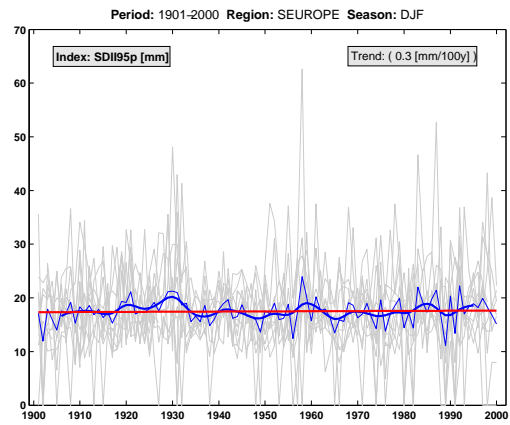
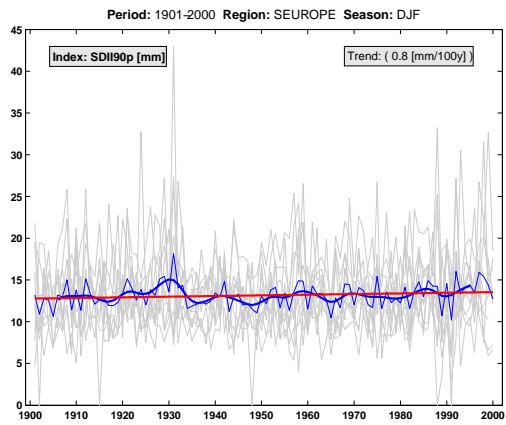
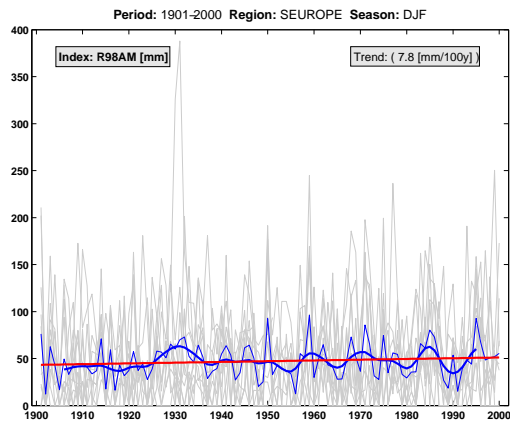
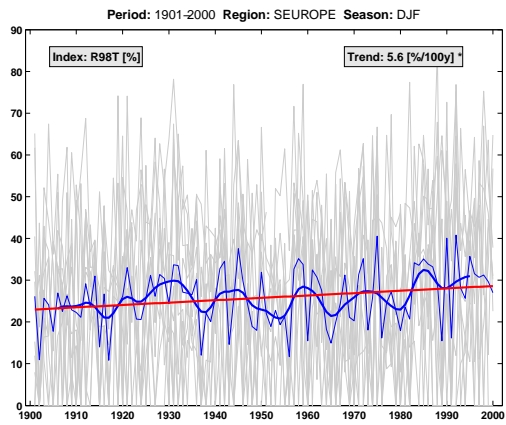


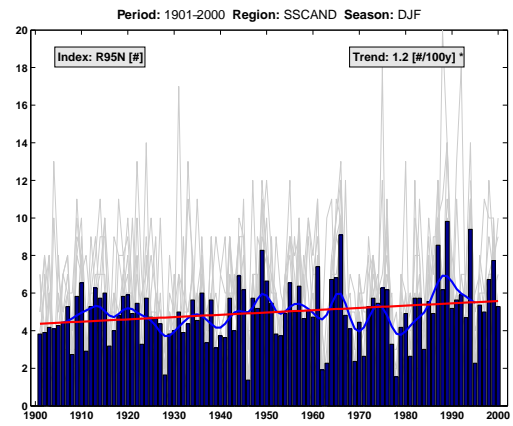
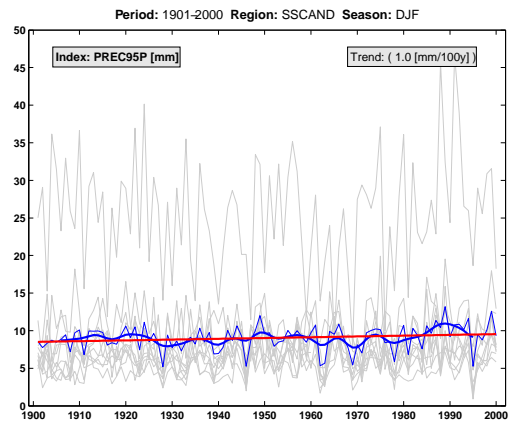
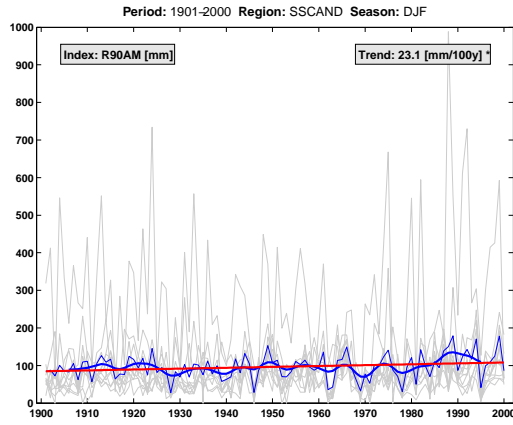
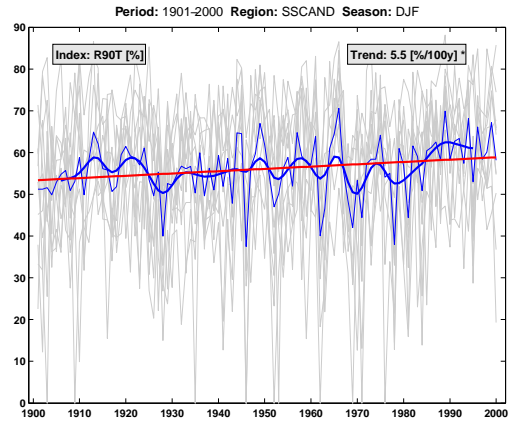
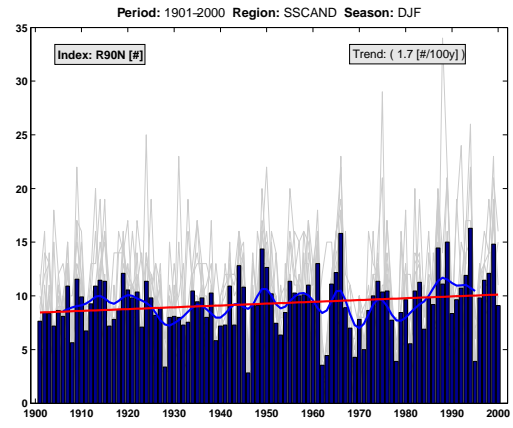
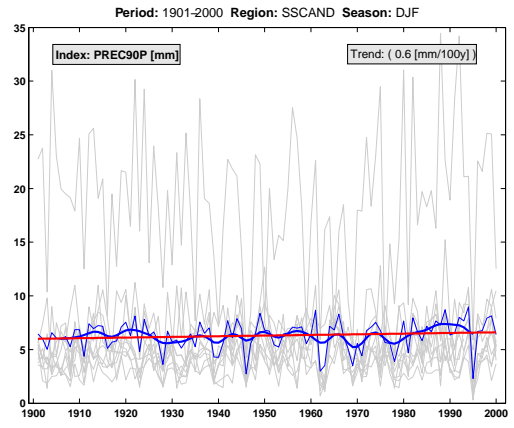
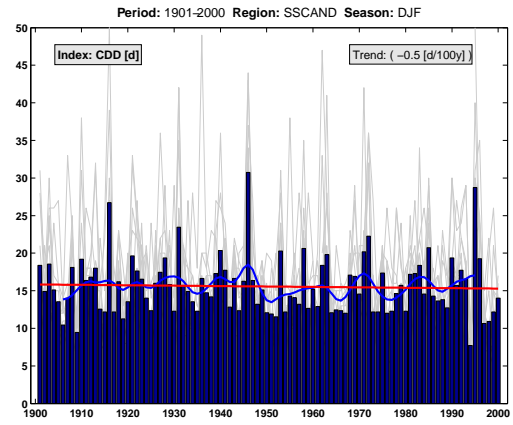
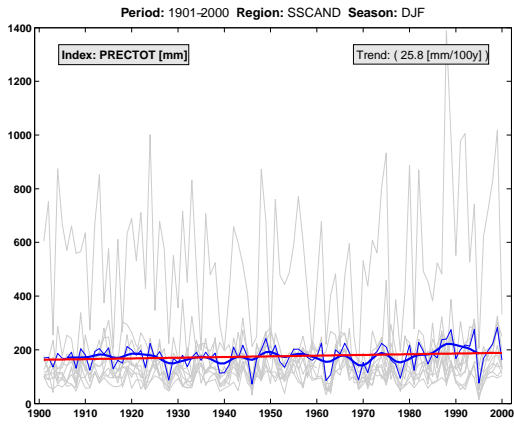


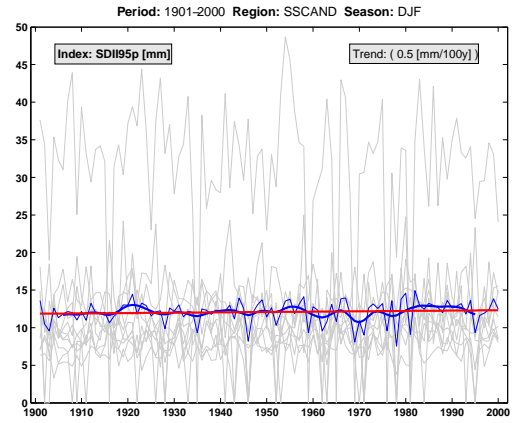
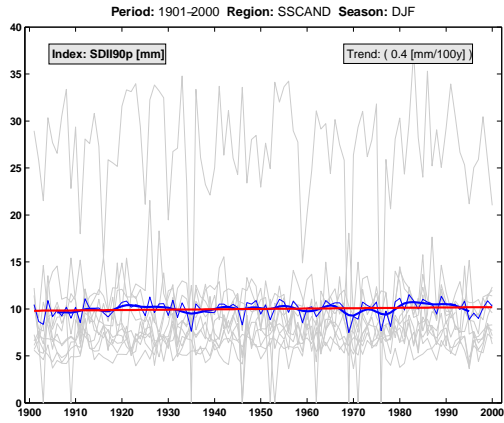
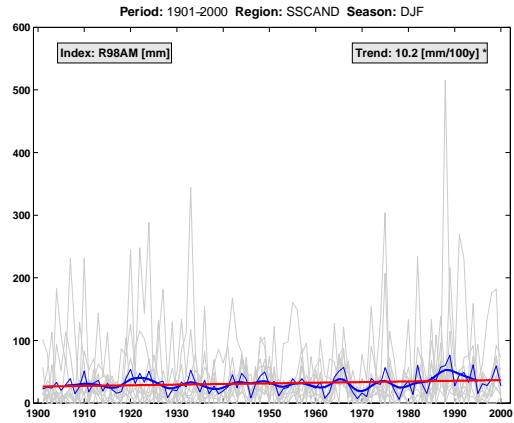
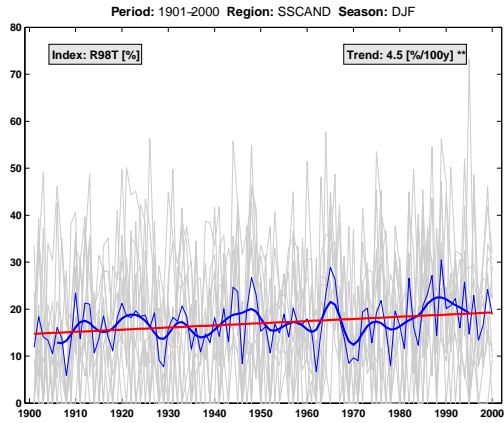
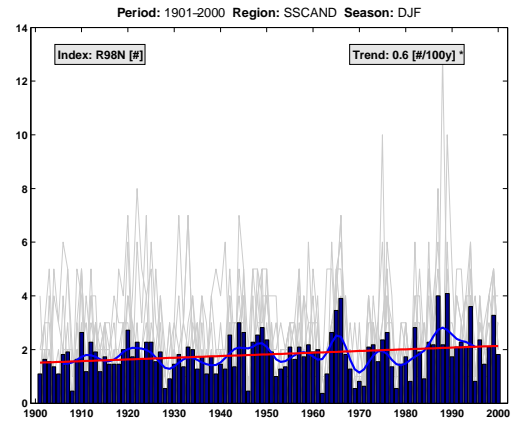
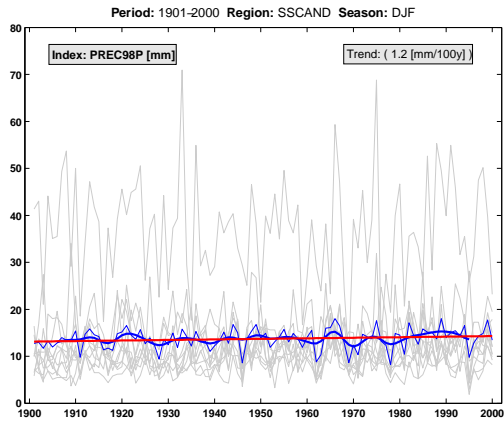
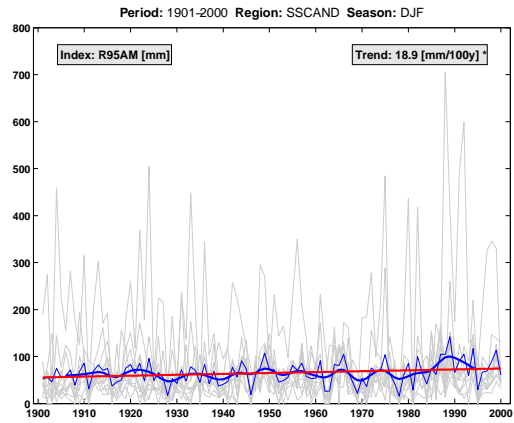
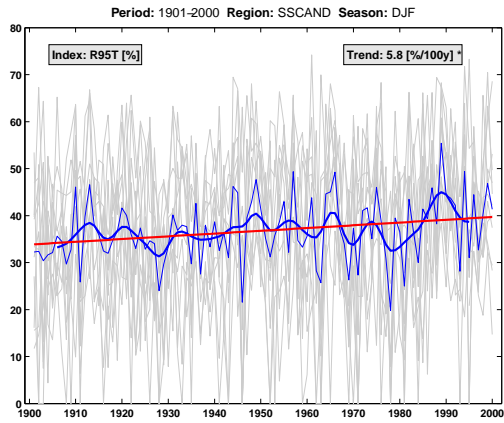


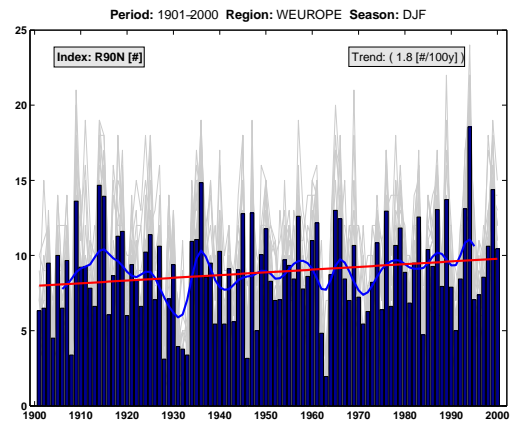
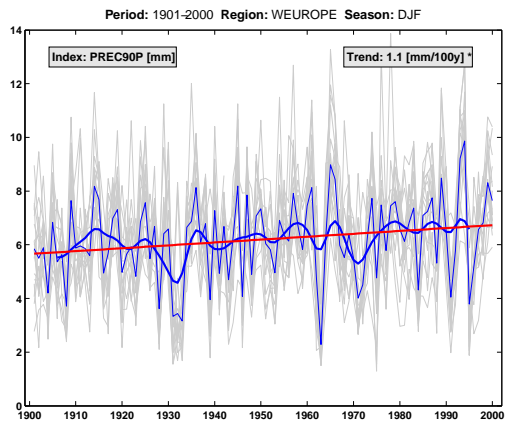
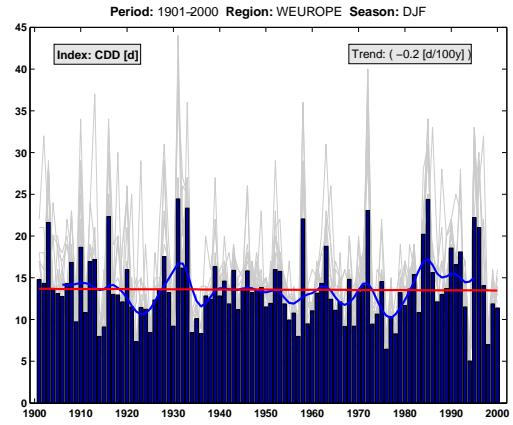
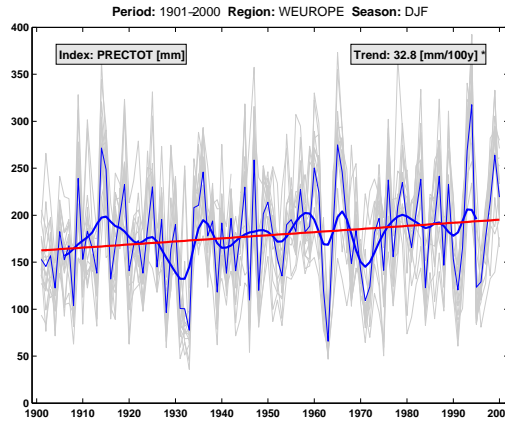
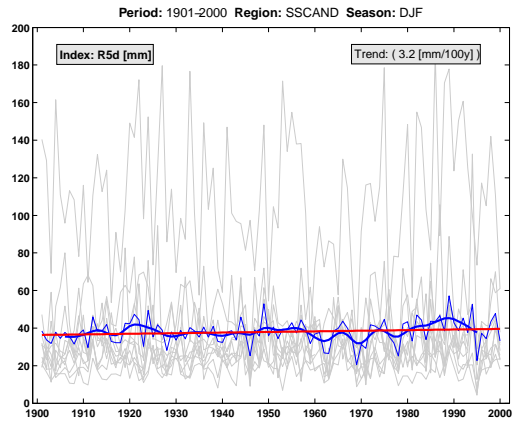
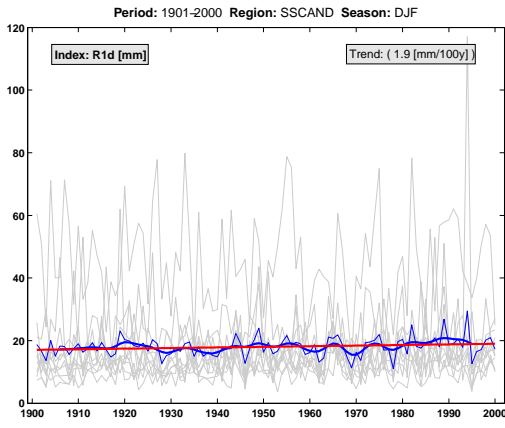
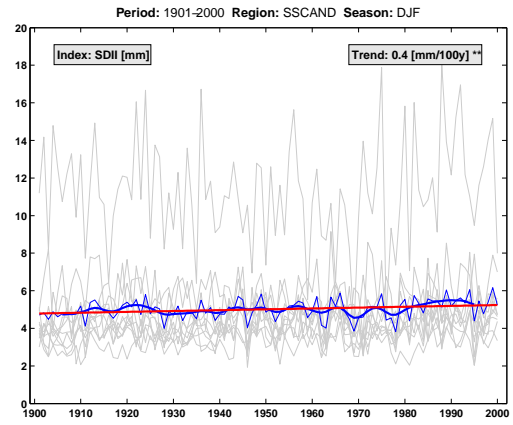
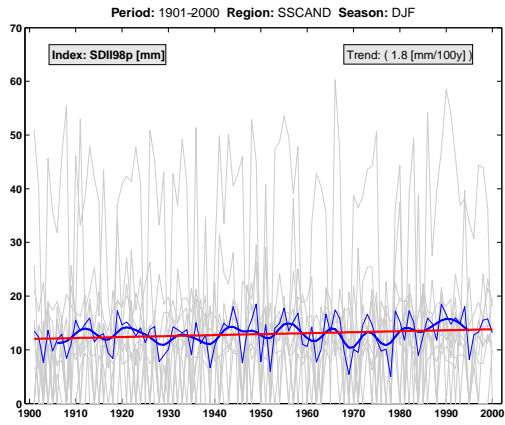


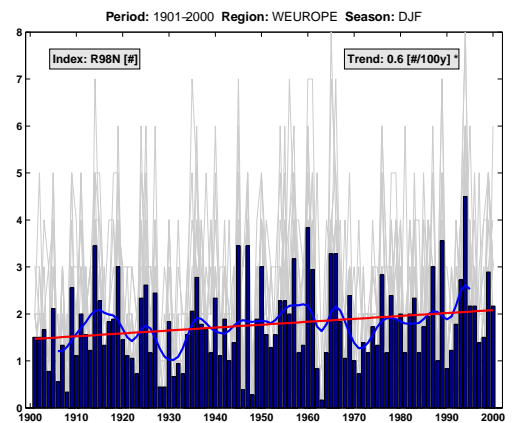
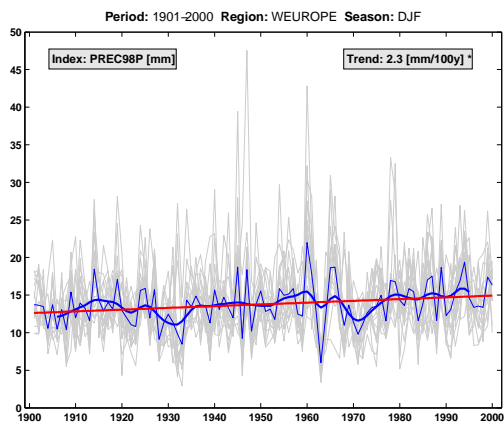
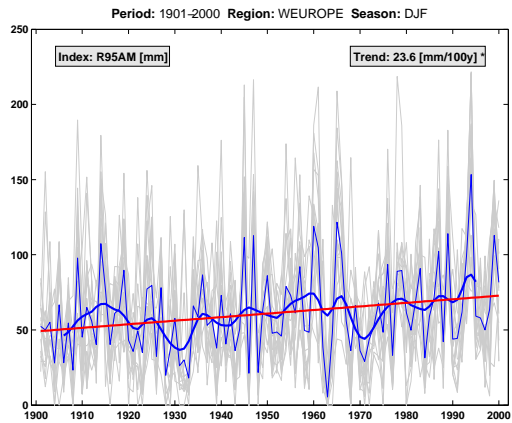
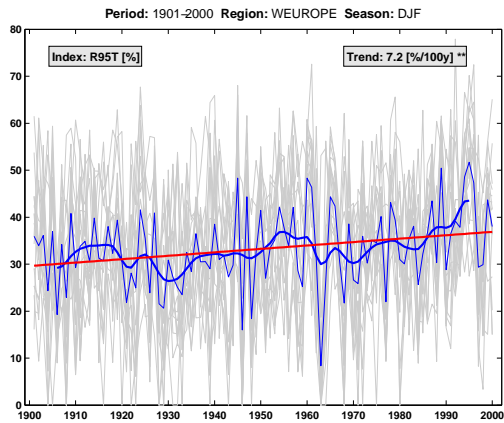
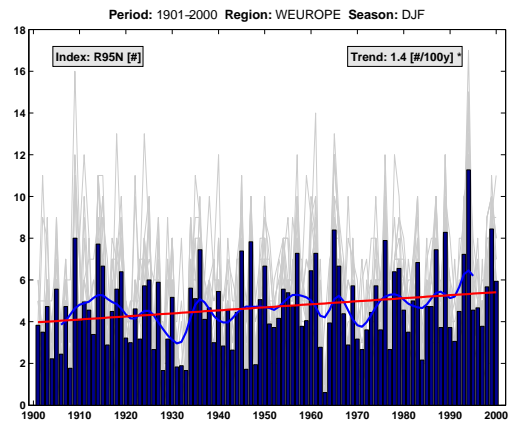
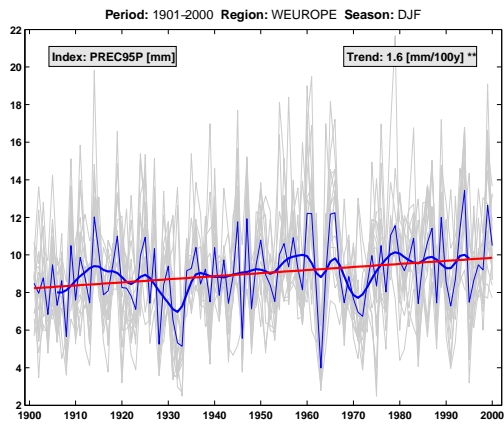
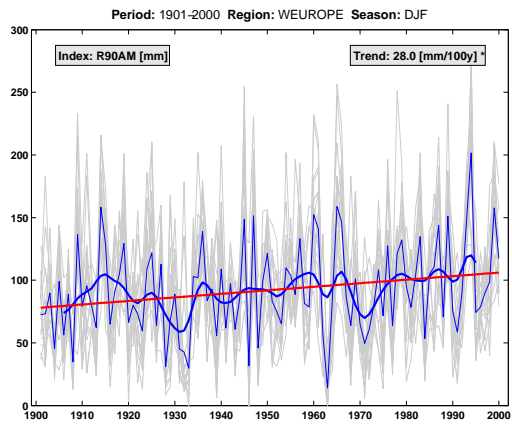
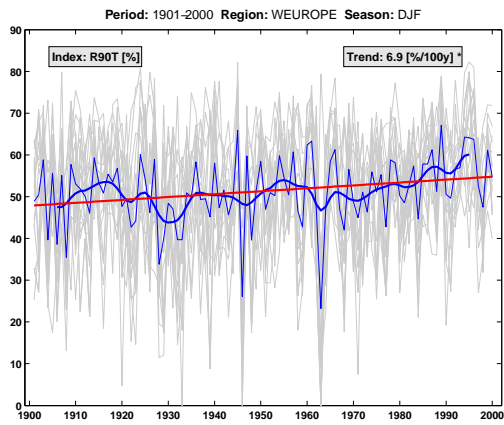


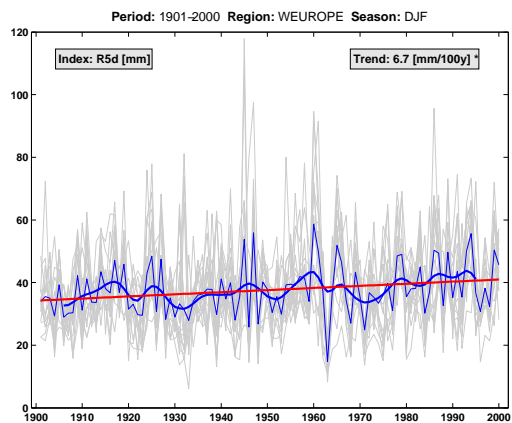
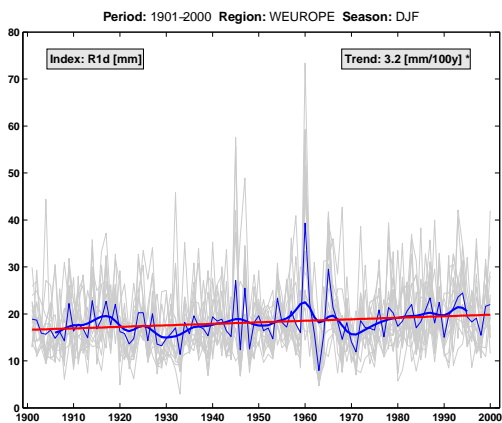
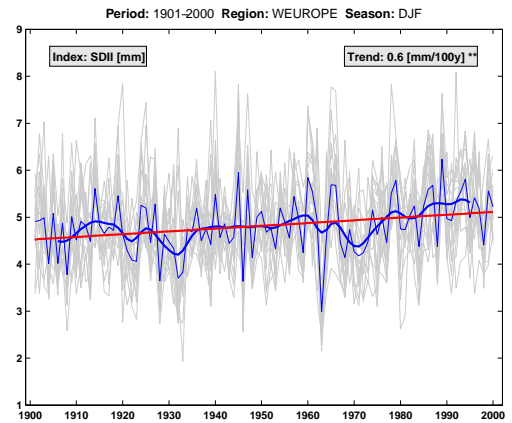
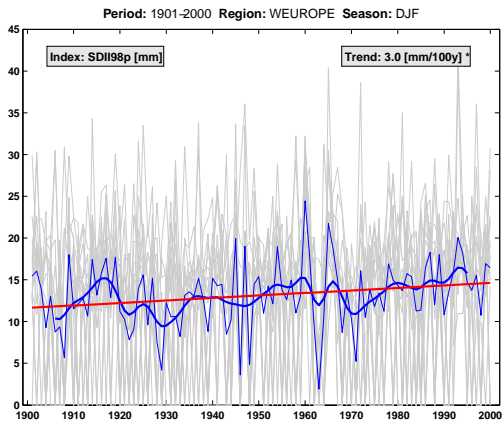
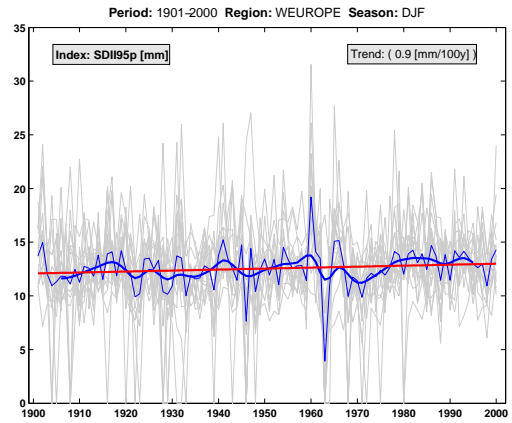
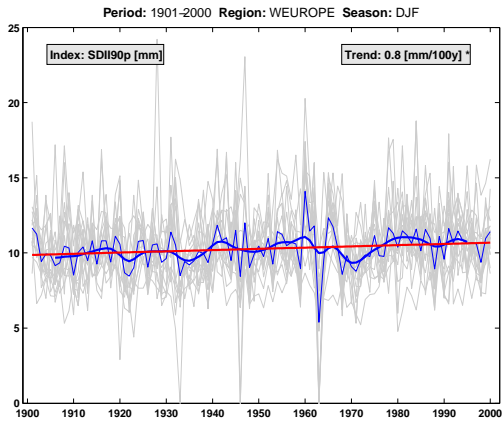
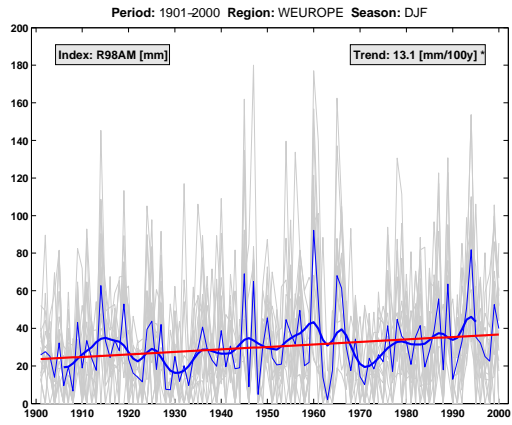
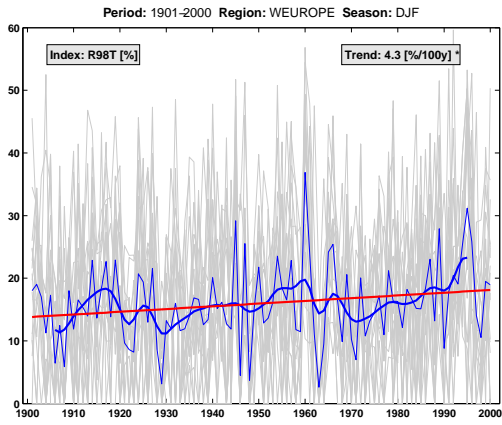












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