Republic Hydrometeorological Service of Serbia
Kneza Viseslava 66
11000 Belgrade
Republic of Serbia

MONTHLY BULLETIN FOR SERBIA

MARCH 2026

Belgrade, the 4th of April 2026

Division for Climate Monitoring and Climate Forecast
Department of National Center for Climate Change, Climate Model Development and Disaster Risk Assessment
web: http://www.hidmet.gov.rs
mail: office@hidmet.gov.rs

Contents

AIR TEMPERATURE 1
Mean monthly air temperature 1
Maximum air temperature 5
Minimum air temperature 6
PRECIPITATION 9
CLOUD COVER, BRIGHT AND CLOUDY DAYS 14
SUNSHINE DURATION (INSOLATION) 16
OVERVIEW OF THE SYNOPTIC SITUATION* 17
Mean air temperature 18
Maximum air temperature 22
Minimum air temperature 26
Precipitation 30

- ***Warm and extremely dry most of the month, at the end of the month heavy precipitation***
- ***9th warmest March for Banatski Karlovac, 10th for Novi Sad and Kikinda***
- ***Record high minimum March air temperature in Sremska Mitrovica and Zlatibor***
- ***5th wettest March for Loznica and Novi Sad, 9th for Banatski Karlovac***
- ***Absolute maximum of March daily precipitation exceeded in Novi Sad and Banatski Karlovac***

AIR TEMPERATURE

Mean monthly air temperature

March 2026 ranks as **the 18th warmest** with the departure of the mean air temperature of **+1,5 °C** compared to the normal 1990-2020 (*Figure 1).*

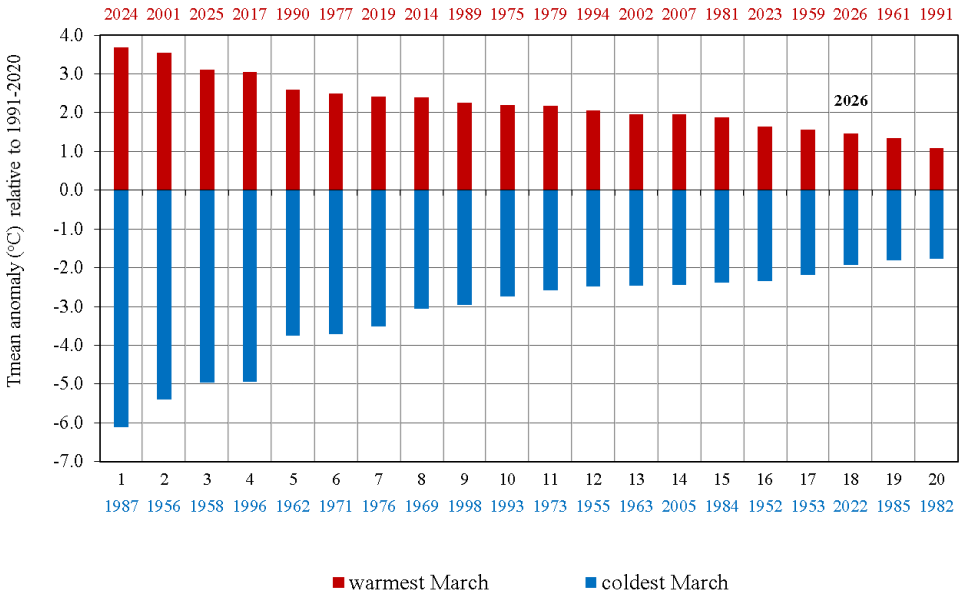


Figure 1. Rank of the warmest and coldest March in Serbia for the period from 1951 to 2026

Mean March air temperature ranged from 6,5 °C in Pozega to 10,6 °C in Belgrade, and on the mountains from -0,5 °C at Kopaonik to 4,6 °C at Zlatibor (*Figure 2*).

Departure of the mean monthly air temperature from the normal[1] for the 1991-2020 base period ranged from +0,3 °C in Negotin to +2,3 °C in Novi Sad, Zrenjanin and Belgrade (*Figure 3*).

Mean air temperature, based on the percentile method[2], was in the categories of warm and normal (*Figure 4).*

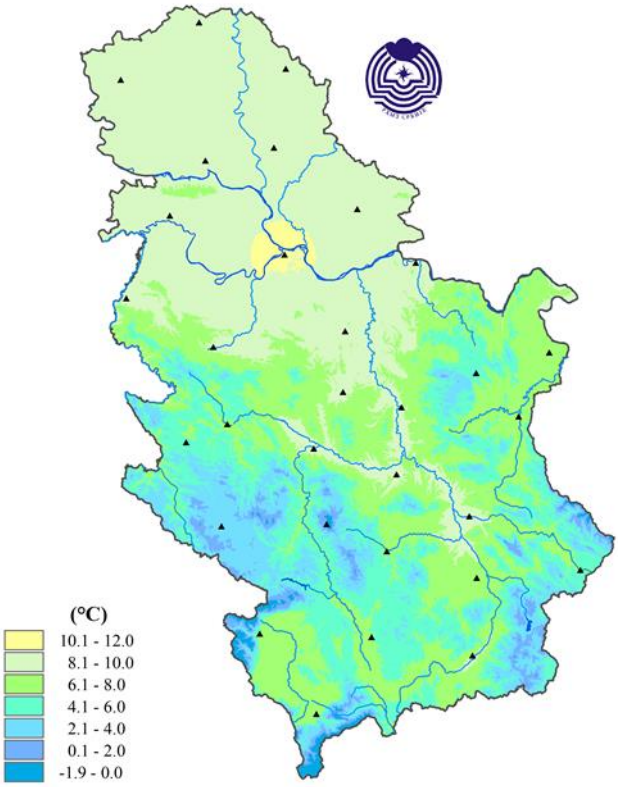


Figure 2. Spatial distribution of mean monthly air temperature (ºC)

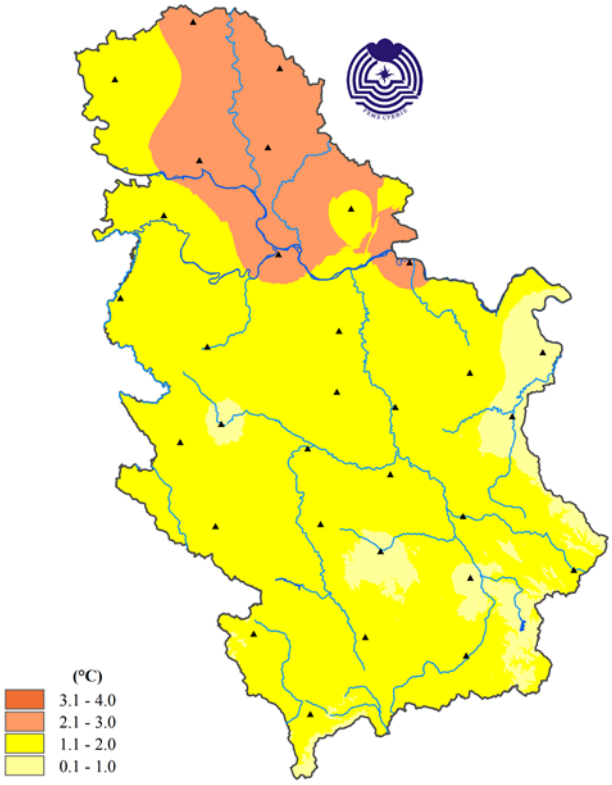


Figure 3. Spatial distribution of mean monthly air temperature anomaly (ºC)

[1] Term ***normal*** refers to ***climatological standard normal***, that is, the average value of a particular climate element, calculated for the period from January 1, 1991 to December 31, 2020

[2] **n**th percentile of a variable refers to the value of the observed variable below which there is n percent of data previously arranged in an ascending order

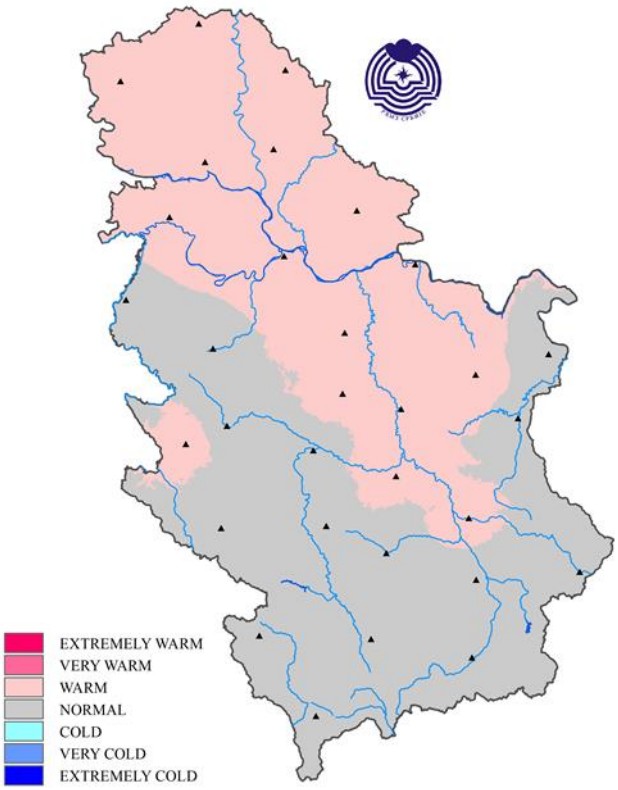


Figure 4. Spatial distribution of the mean monthly air temperature using percentile method

March 2026 was **the 9th warmest** for Banatski Karlovac, and **the 10th warmest** for Novi Sad and Kikinda since the record-keeping at these stations began (Figures 5, 6 and 7).

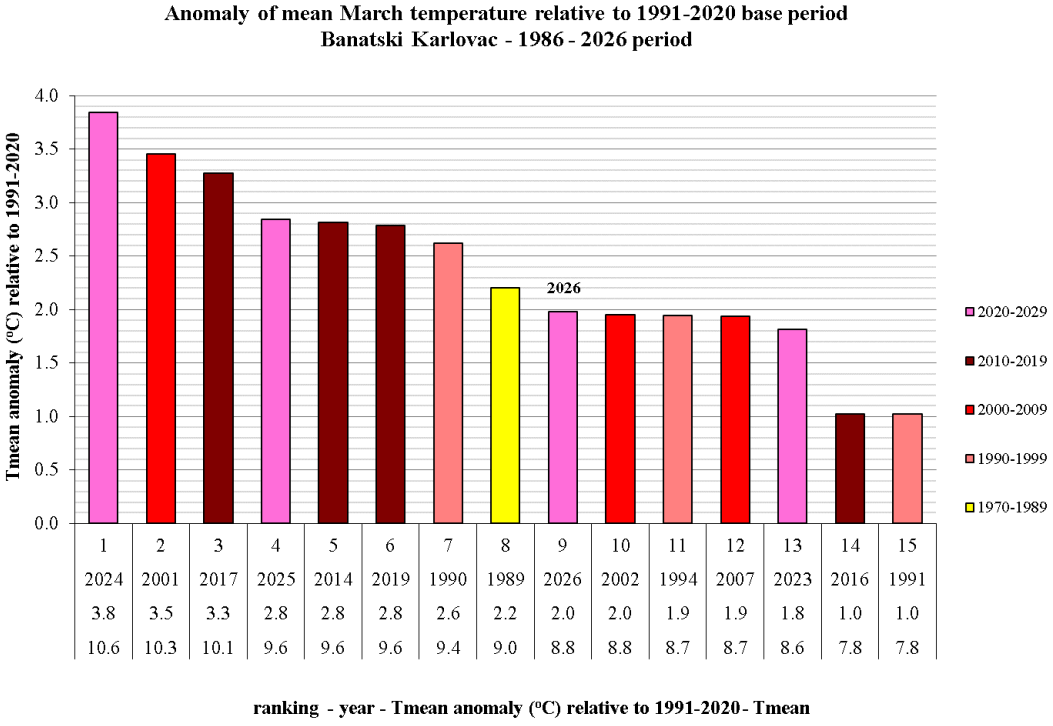


Figure 5. Rank of the warmest March in Banatski Karlovac

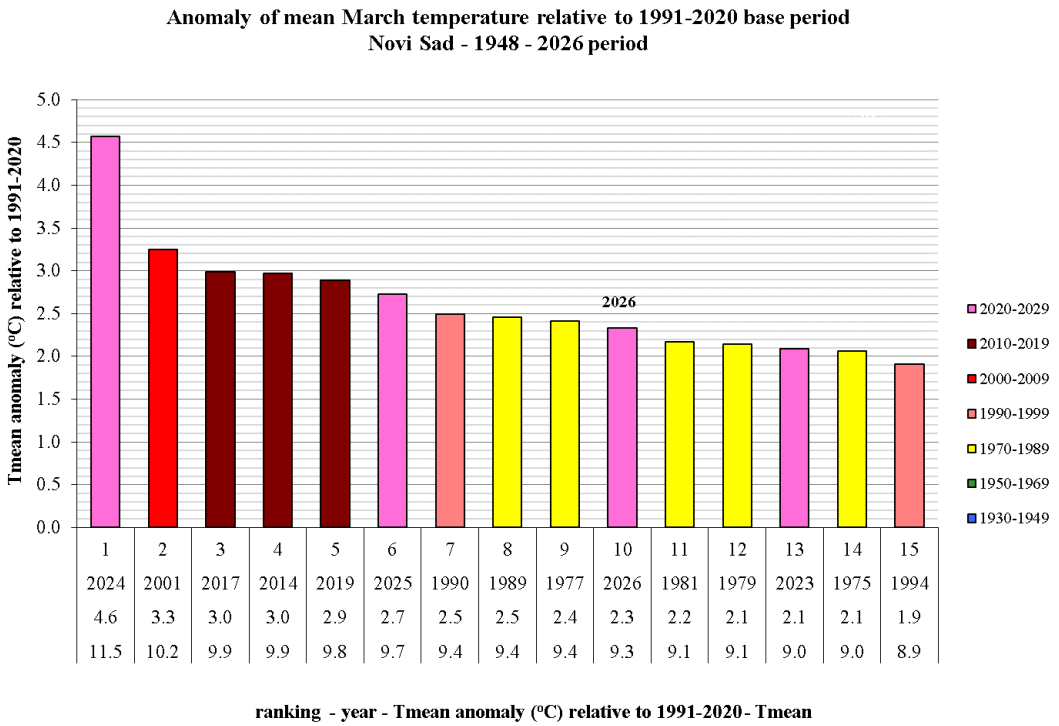


Figure 6. Rank of the warmest March in Novi Sad

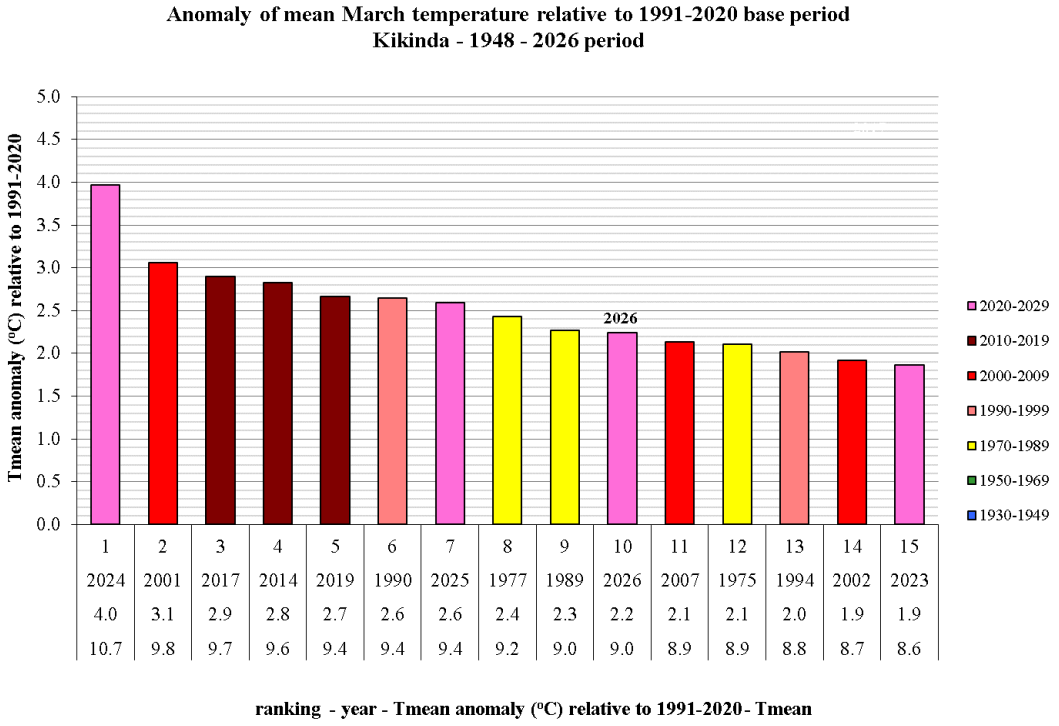


Figure 7. Rank of the warmest March in Kikinda

Mean daily air temperature in Belgrade, based on the percentile method, was in the category of normal during most of the month, warm category from the middle of the first until the middle of the second decade, and cold category at the end of the month (*Figure 8*). Daily course of the mean daily air temperature and the accompanying percentiles for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the Appendix.

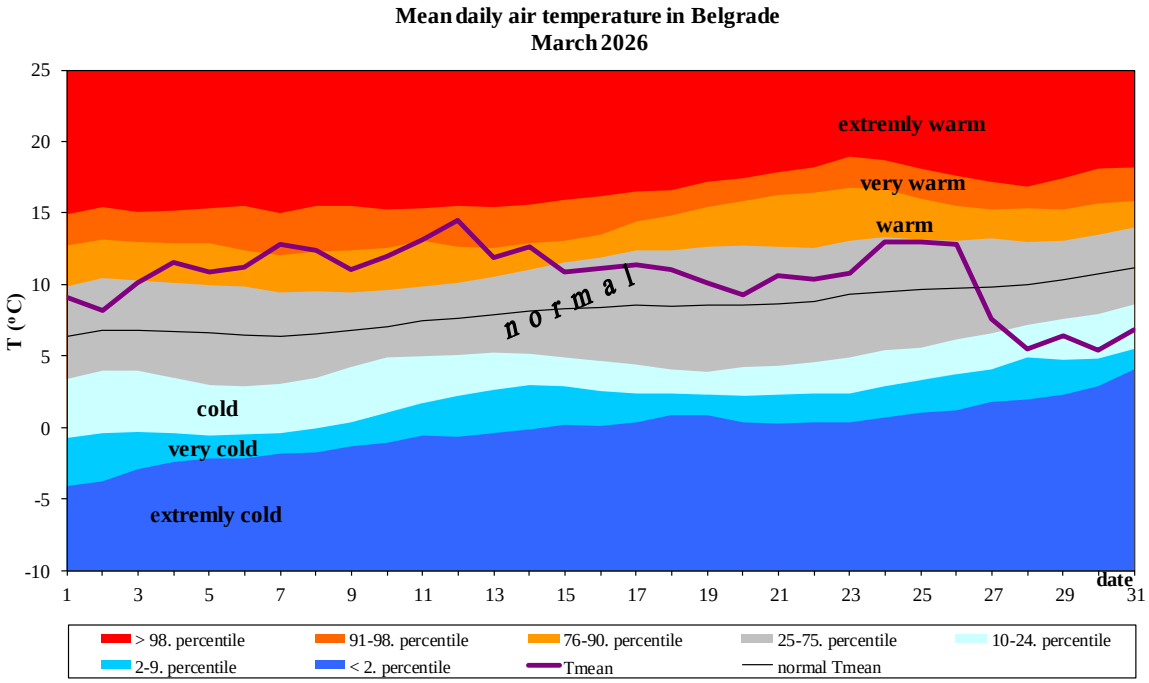


Figure 8. Daily course of the mean daily air temperature and accompanying percentiles for Belgrade

Maximum air temperature

Mean maximum air temperature in March ranged from 13,9 °C in Negotin and Zajecar to 15,7 °C in Novi Sad, while Belgrade recorded 15,5 °C. On the mountains, mean maximum March air temperature ranged from 3,3 °C at Kopaonik to 10,0 °C in Sjenica.

Based on the percentile method, mean maximum monthly air temperature was in the categories of normal and warm in most of Serbia, and very warm on Palic and Kikinda.

The maximum daily air temperature of 21,0 °C was measured in Kraljevo and Cuprija on March 12, and Loznica on March 14. On March 12, Belgrade recorded 20,2 °C.

Kopaonik recorded 8 ice days[3], and Zlatibor recorded 1. The recorded number of ice days on the mountains was 3 to 7 days below the March average

Heat wave [4] was recorded on Palic, Novi Sad and Sremska Mitrovica in the period from March 10 to 14.

[3] Ice day refers to a day with maximum daily air temperature lower than 0 °C
[4] Heat wave is, according to the percentile method, is a period during which maximum daily air temperature is in the very warm and extremely warm categories for 5 consecutive days or longer

Figure 9 shows daily course of the maximum daily air temperature and the accompanying percentiles for Belgrade in March 2026 and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the Appendix.

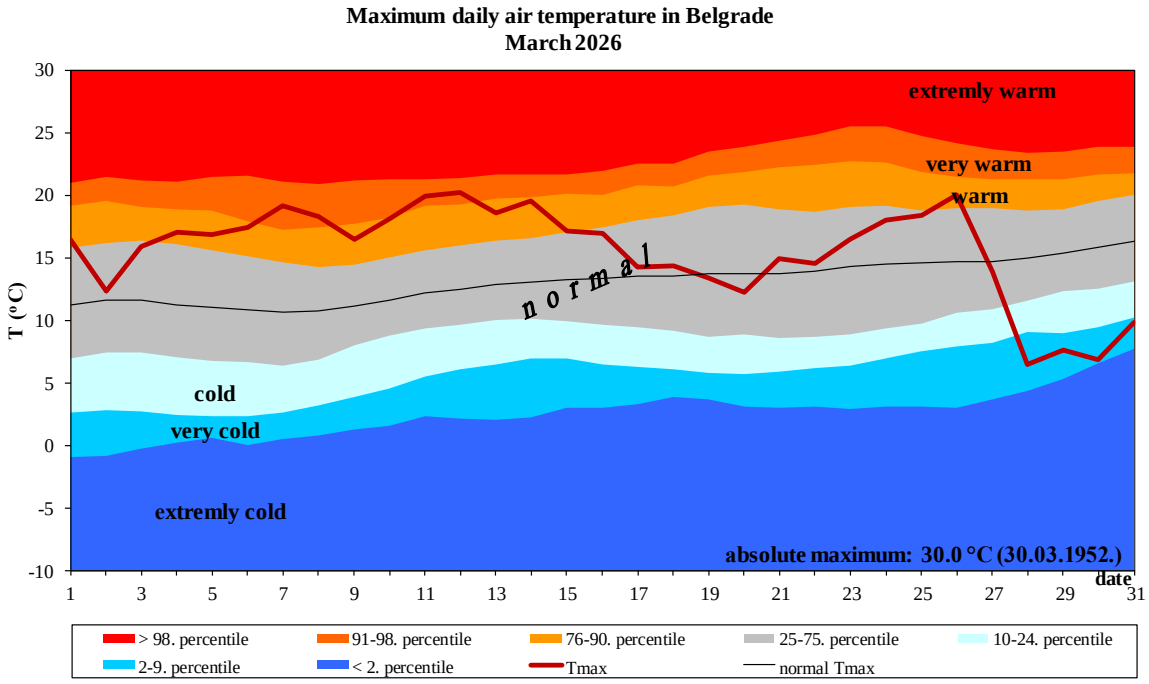


Figure 9. Daily course of the maximum daily air temperature and accompanying percentiles for Belgrade

Minimum air temperature

Mean minimum air temperature in March ranged from 0,1 °C in Pozega to 6,4 °C in Belgrade. On the mountains, mean minimum air temperature ranged from -3,0 °C at Kopaonik to 1,5 °C at Zlatibor.

Based on the percentile method, mean minimum monthly air temperature was in the categories of normal and warm in most of Serbia, very warm in Sremska Mitrovica, Belgrade, Veliko Gradiste and Zlatibor.

The lowest minimum daily air temperature of -6,8 °C was measured at Kopaonik on March 21. As for the lowland, Zajecar recorded -5,8 °C on March 2. On March 1, Belgrade recorded the lowest air temperature of 1,7 °C. **The highest minimum air temperature since record-keeping began** was measured in Sremska Mitrovica and Zlatibor, equaling with the ones at Crni Vrh and Kopaonik (*Table 1*).

Table 1. Exceeded and equaled maximum of absolute minimum air temperature

STATION	2026		exceeded maximum Aps Tmin	date of the maximum Aps Tmin
	Tmin March	date Tmin		
S.MITROVICA	**-0.6**	6	-1.3	2. III 2001.
ZLATIBOR	-1.8	29	-2.2	3. III 1989.
KOPAONIK	**-6.8**	21	izj.	2. III 2017.
CRNI VRH	-3.0	1	izj.	3/27. III 1989/2017.

Frost days[5] were not recorded in Belgrade, elsewhere they were in a range from 1 in Loznica to 17 in Dimitrovgrad. On the mountains, number of frost days ranged from 10 at Zlatibor to 31 at Kopaonik. The recorded number of frost days was 2 to 8 days below the March average in most of the country.

Figure 10 shows assessment of the minimum and maximum air temperature in Serbia for March based on the tercile distribution relative to the 1991-2020 base period. It can be noted that mean minimum air temperature was at the upper tercile threshold and the mean maximum air temperature was above the upper tercile threshold.

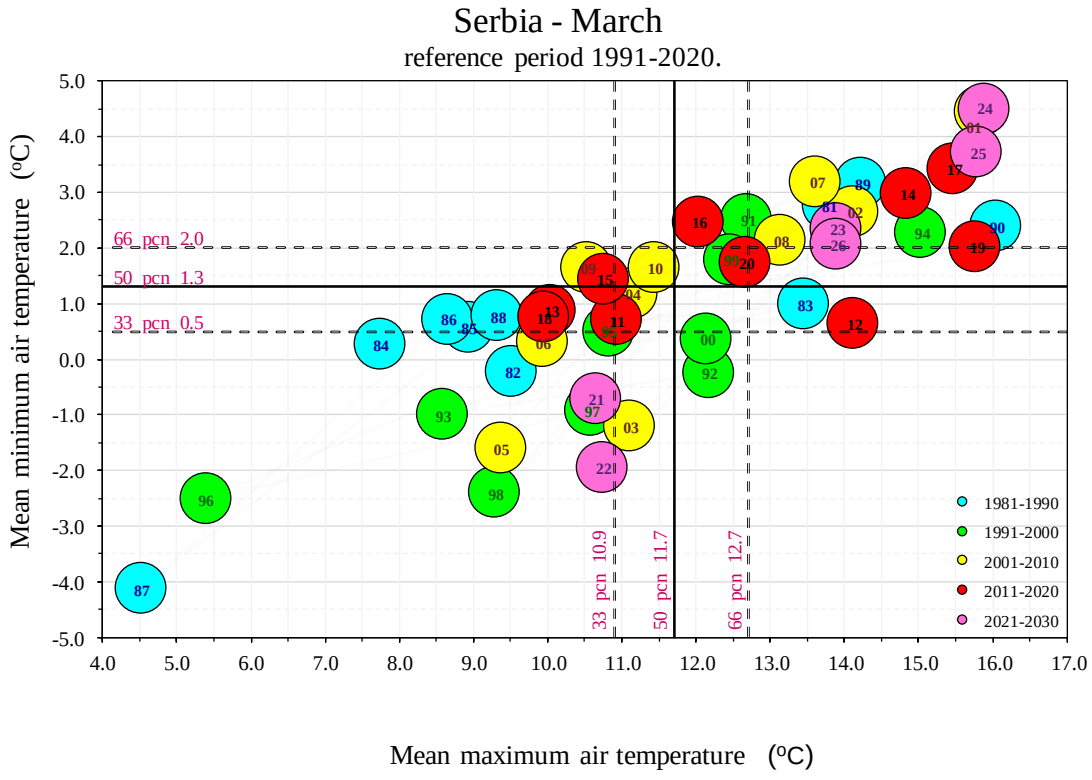


Figure 10. Assessment of minimum and maximum air temperature for Serbia with the accompanying terciles in relation to the 1991-2020 base period

[5] Frost day is defined as the day with minimum air temperature lower than 0 °C

Figure 11 shows daily course of the minimum daily air temperature and the accompanying percentiles for Belgrade in March 2026, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the Appendix.

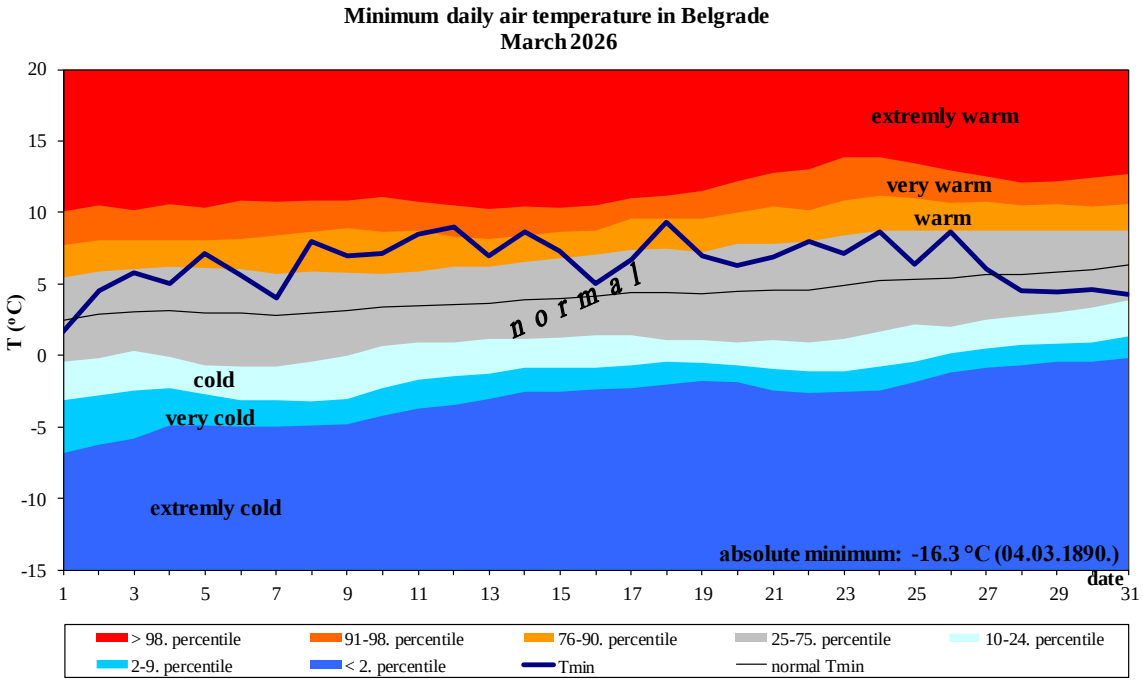


Figure 11. Daily course of the minimum daily air temperature and accompanying percentiles for Belgrade

PRECIPITATION

Until March 28, precipitation totals fell under the extremely dry category in most of Serbia, while precipitation registered between March 28 and 31 equaled with monthly precipitation sums across most of the country. In the period from March 1 to 28, Veliko Gradiste didn't observe any precipitation, while Kursumlija recorded highest amount of 24 mm.

Total monthly precipitation ranged from 18,1 mm in Vranje to 129,7 mm in Loznica, while Belgrade observed 74,2 mm (*Figure 12*). Compared to the normal for the 1991-2020 base period, precipitation sums ranged from 42% in Vranje to 200% in Loznica, and 199% in Novi Sad (*Figure 13*).

Based on the percentile method, precipitation sums were in the normal category in most of Serbia, dry category in Sjenica, Cuprija and Nis, rainy category in Pozega, and very rainy in Novi Sad, Banatski Karlovac and Loznica (*Figure 14).*

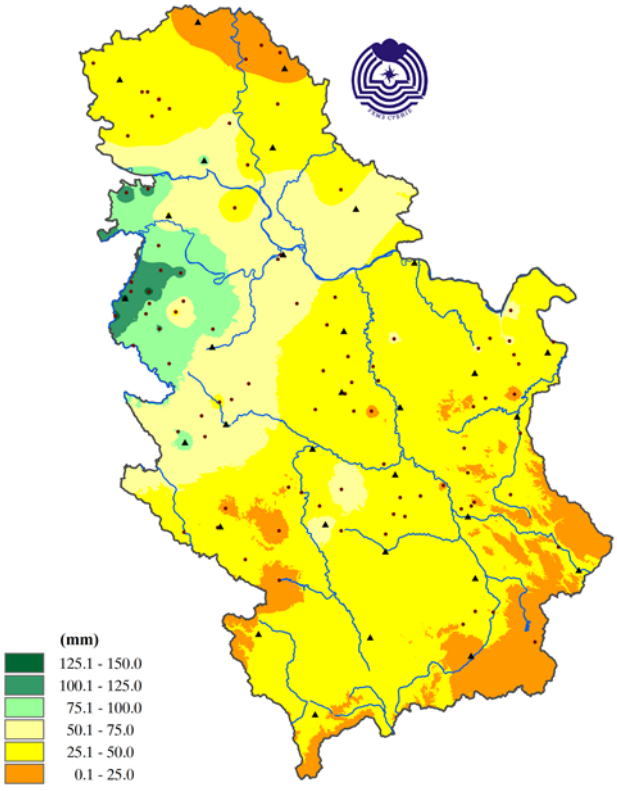


Figure 12. Spatial distribution of the monthly precipitation sums (mm) according to data from 28 major meteorological, 22 climatological and 71 rain gauge stations

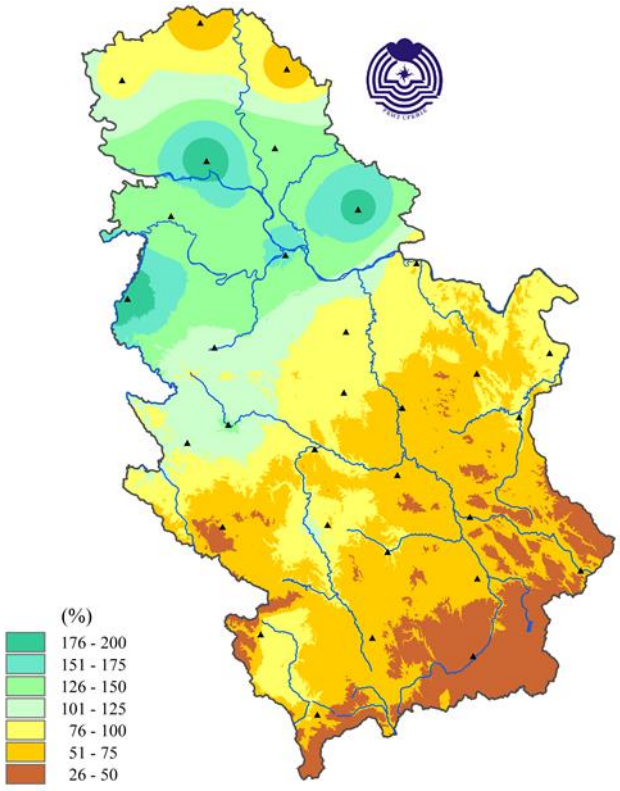


Figure 13. Spatial distribution of the monthly precipitation sums in the percentages of normal for the 1991–2020 base period

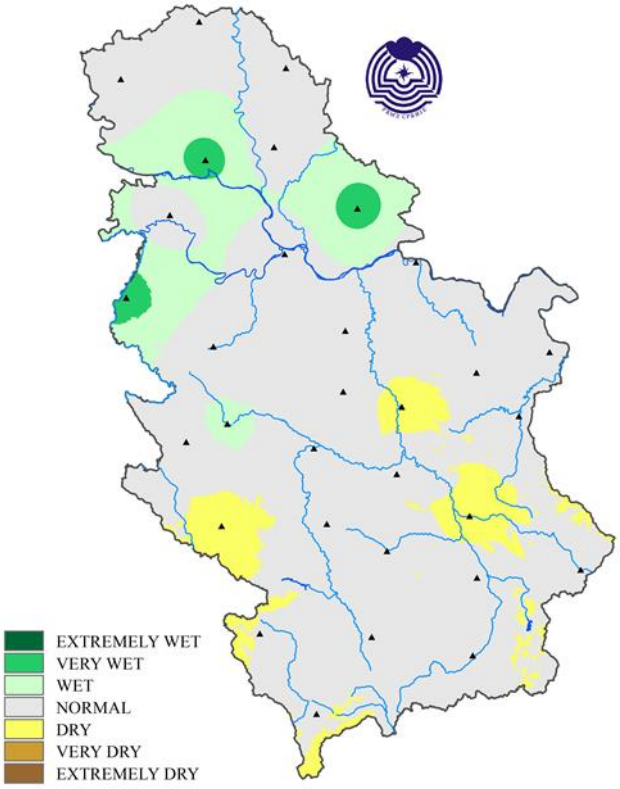


Figure 14. Monthly precipitation sums according to the percentile method

In the period from March 28 to 31, precipitation sums reached, and at most places exceeded March totals. The precipitation sums were as follows: Loznica - 109,7 mm, Novi Sad -74,8 mm, Belgrade - 73,1 mm, Banatski Karlovac - 66,9 mm, Valjevo - 60,9 mm. Due to this particular episode, March 2026 ranks as **the 5th wettest** for Loznica and Novi Sad (*Figure 15 and 16*), the 9th wettest for Banatski Karlovac (*Figure 17*).

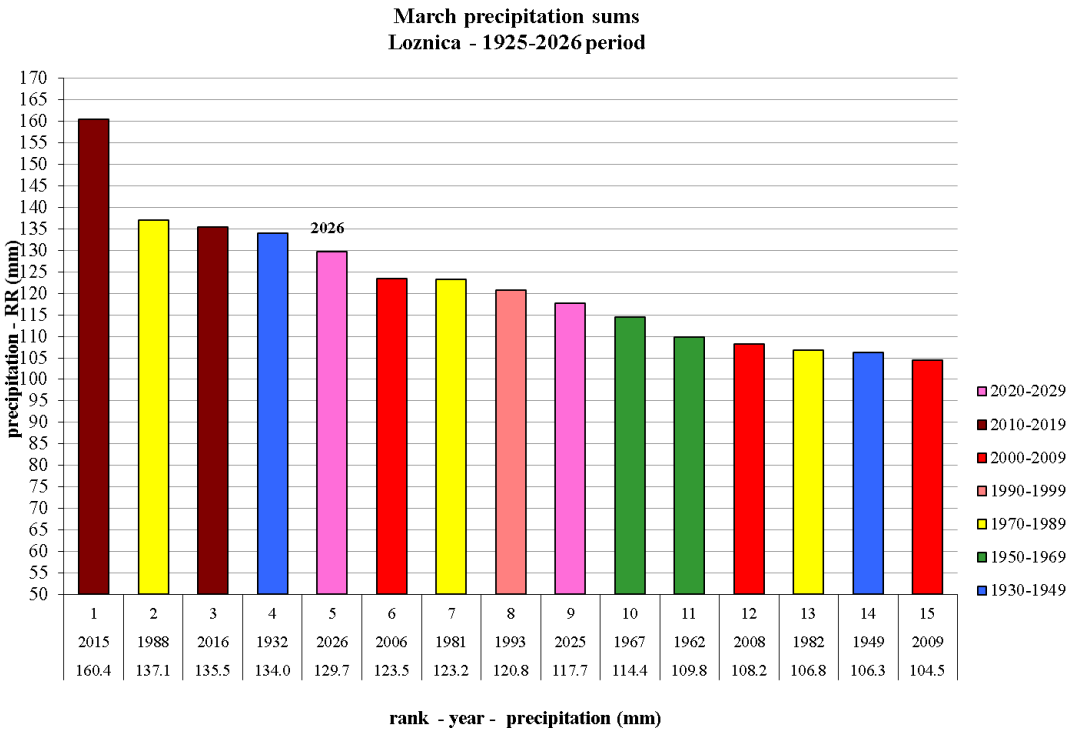


Figure 15. Rank of the highest precipitation in Loznica

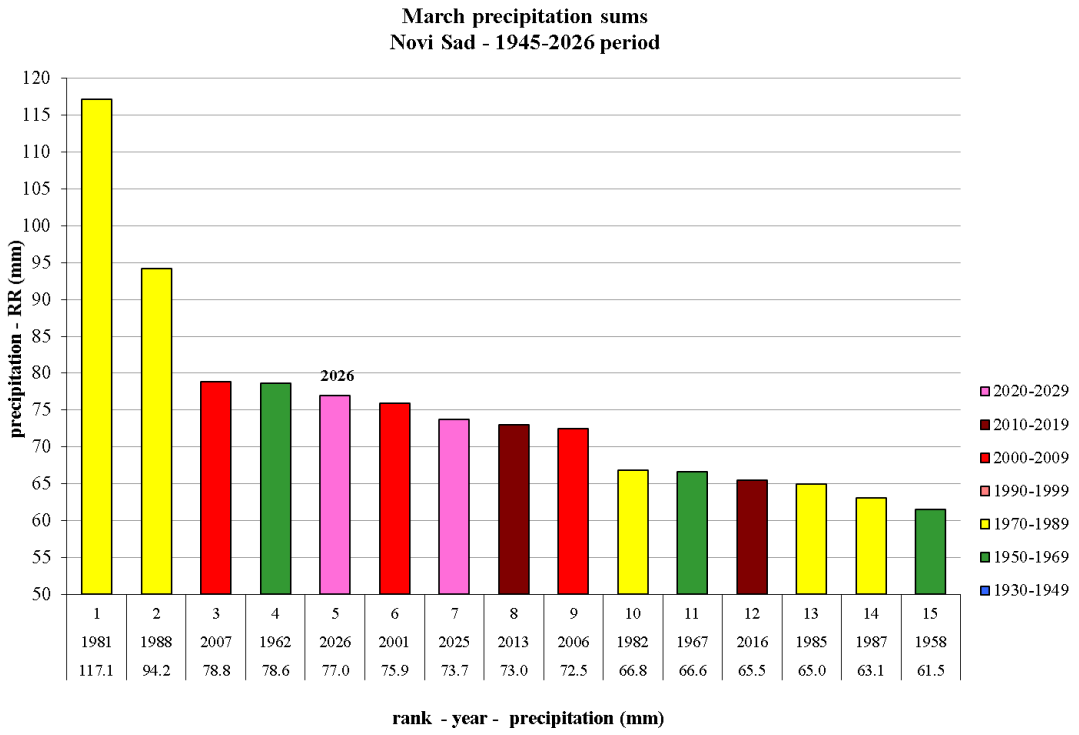


Figure 16. Rank of the highest precipitation in Novi Sad

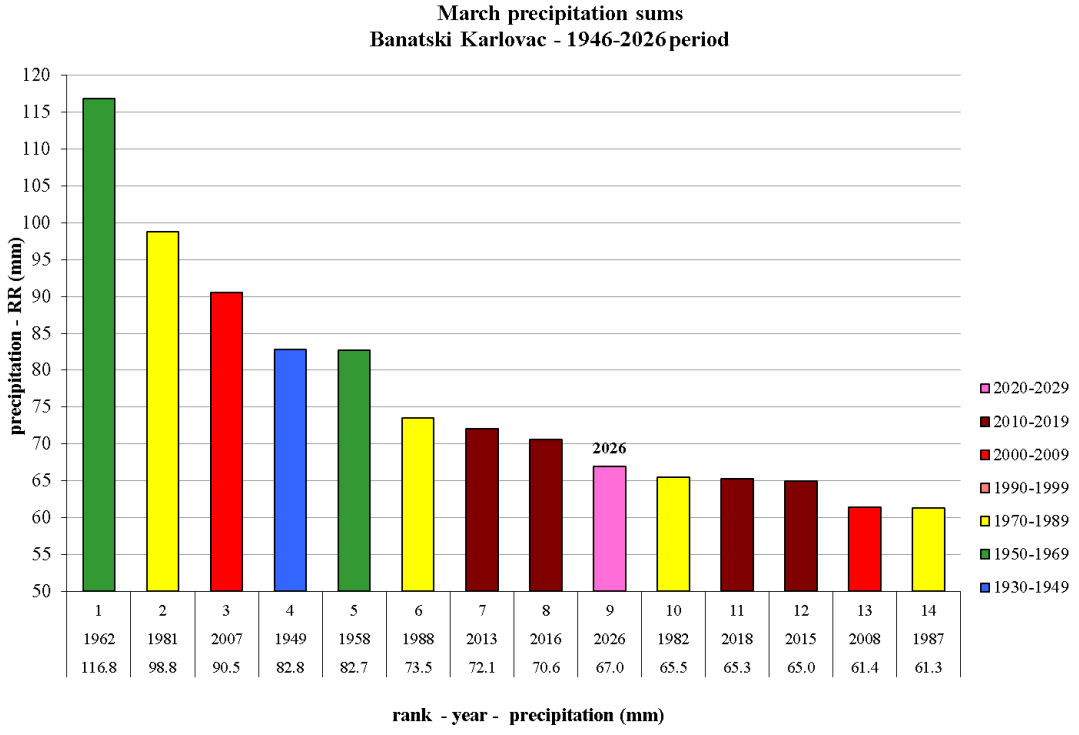


Figure 17. Rank of the highest precipitation in Banatski Karlovac

The highest daily precipitation sum of 53,4 mm was measured in Loznica on March 28. On March 29, Belgrade observed the highest daily precipitation sum of 38,2 mm. Based on the data obtained from the climatological and precipitation stations, the highest daily precipitation sum of 61,5 mm was measured on March 29 at PS Brezdje (MMS Valjevo).

Absolute maximum of daily March precipitation sum of 38,8 mm was exceeded in Novi Sad on March 28 thereby breaking the previous record of 32,6 mm from March 19, 1981. **Absolute maximum of daily March precipitation sum** of 37,6 mm was exceeded in Banatski Karlovac on March 29, thereby breaking the previous record of 29,1 mm set on March 4, 2007.

Number of days with precipitation was 3 to 7 days below the March average at most places, ranging from 4 in Veliko Gradiste, Negotin and Zajecar to 10 in Sombor and Pozega, and in the upland from 6 at Crni Vrh to 17 at Kopaonik (*Figures 18 and 19).*

One day with precipitation of 50 mm and more was registered in Loznica (53,4 mm), which occurred only once in the record-keeping history, on 1 March 1937 with the sum of 59,0 mm.

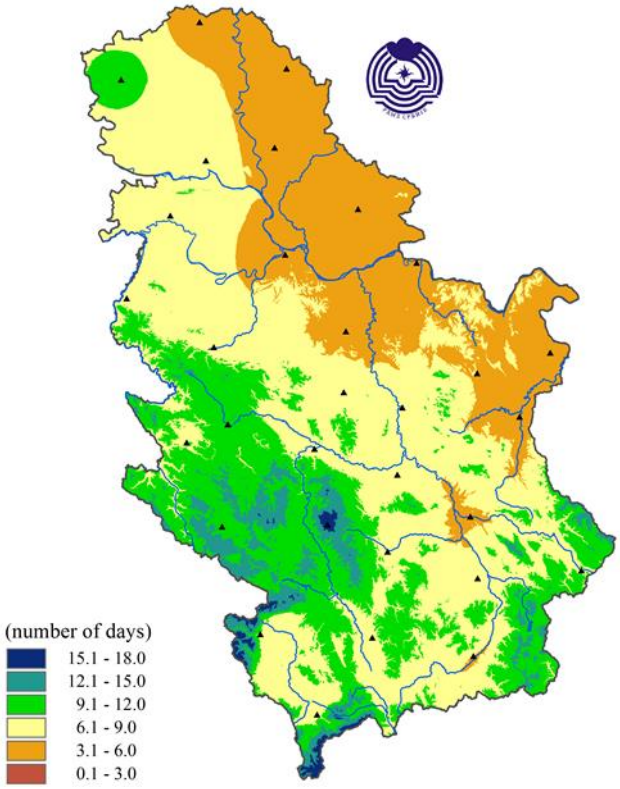


Figure 18. Spatial distribution of number of days with precipitation

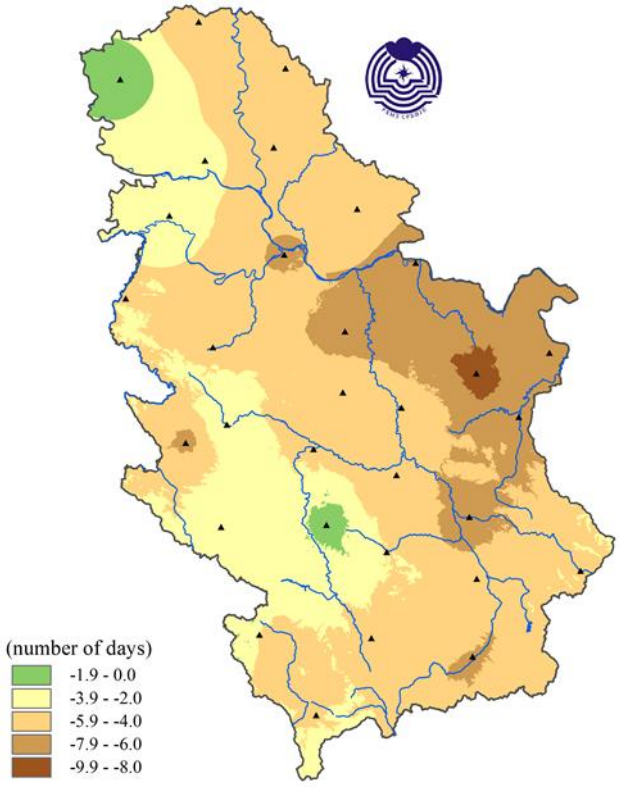


Figure 19. Spatial distribution of deviation of number of days with precipitation

Snow cover was recorded at Kopaonik throughout entire March, and during 12 days at Crni Vrh, 9 days at Zlatibor, 4 days in Sjenica and 1 day in Pozega.

The highest snow depth of 47 cm was measured at Kopaonik on March 29. Crni Vrh and Zlatibor recorded the highest snow depth of 39 cm on March 1 and 29, respectively. On March 18, Sjenica recorded the highest snow cover of 4 cm, while Pozega recorded 2 cm on March 29. Based on the data from precipitation and climatological stations, the highest snow depth of 56 cm was measured at PS Razbojiste (MMS Loznica) on March 30.

Figure 20 shows assessment of air temperature and precipitation sums for Serbia for March based on the tercile distribution relative to the 1991 – 2020 base period. It can be noted that March 2026 was marked by air temperature above upper tercile threshold and precipitation sums within the average.

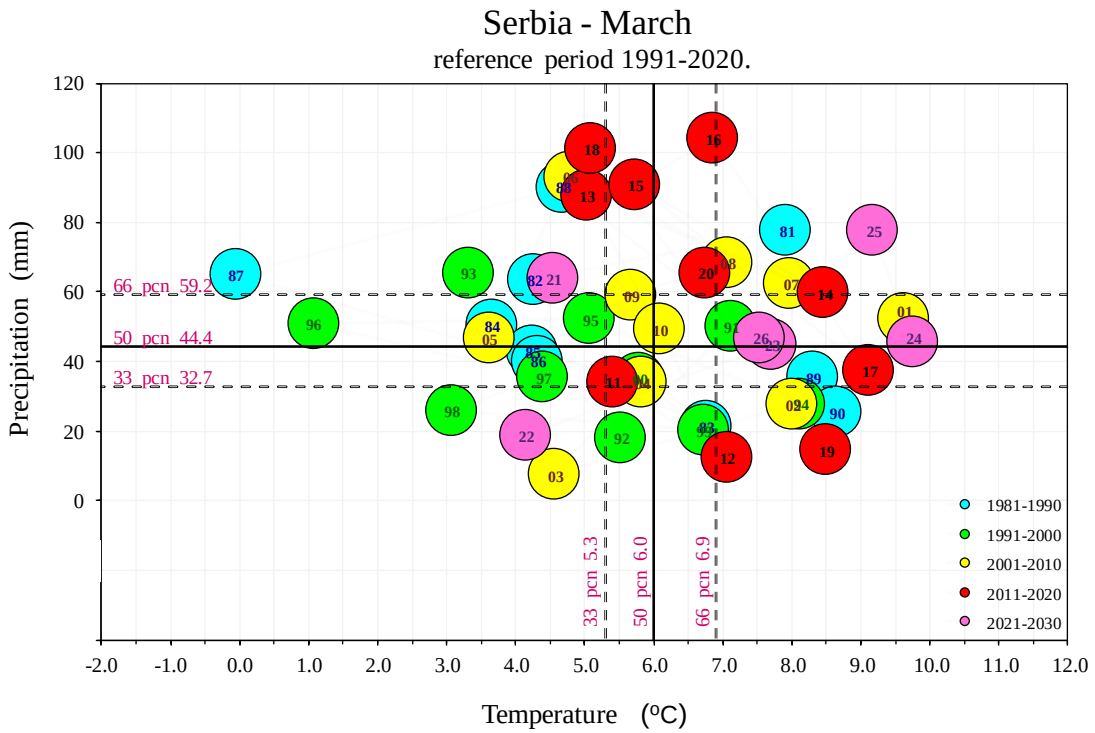


Figure 20. Assessment of air temperature and precipitation for Serbia with the accompanying terciles in relation to the 1991-2020 base period

Figure 21 show daily and cumulative precipitations sums with averaged normal 1991-2020 for March in Belgrade, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje precipitation sums are given in Appendix.

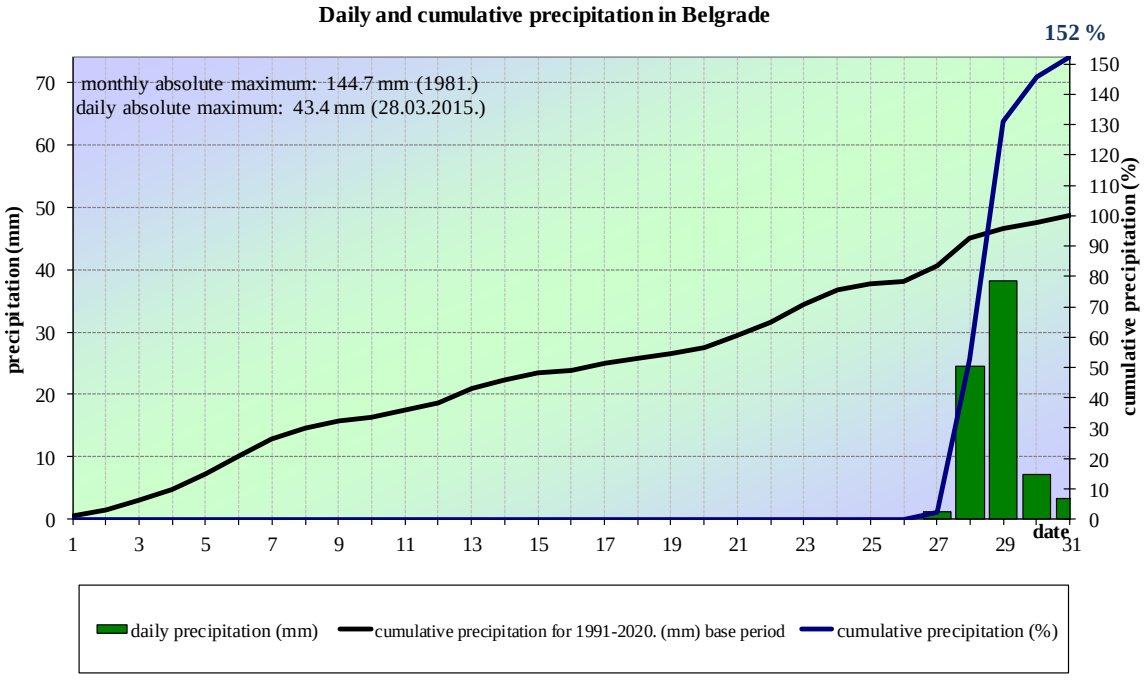


Figure 21. Daily and cumulative precipitation in Belgrade

CLOUD COVER, BRIGHT AND CLOUDY DAYS

Mean March cloud cover in Serbia was slightly below the average, ranging from 4/10 to 6/10. Figures 22, 23 and 24 show average daily cloud cover in March for Belgrade, Zlatibor and Veliko Gradiste.

Number of bright days[6] ranged from 3 in Sjenica to 12 in Banatski Karlovac and Belgrade. The observed number of bright days was around and slightly above the March average, in a range from 1 to 7.

Number of cloudy days[7] ranged from 6 in Kragujevac and Veliko Gradiste to 14 at Zlatibor. Belgrade saw 8 cloudy days. Number of cloudy days was up to 3 days below the March average.

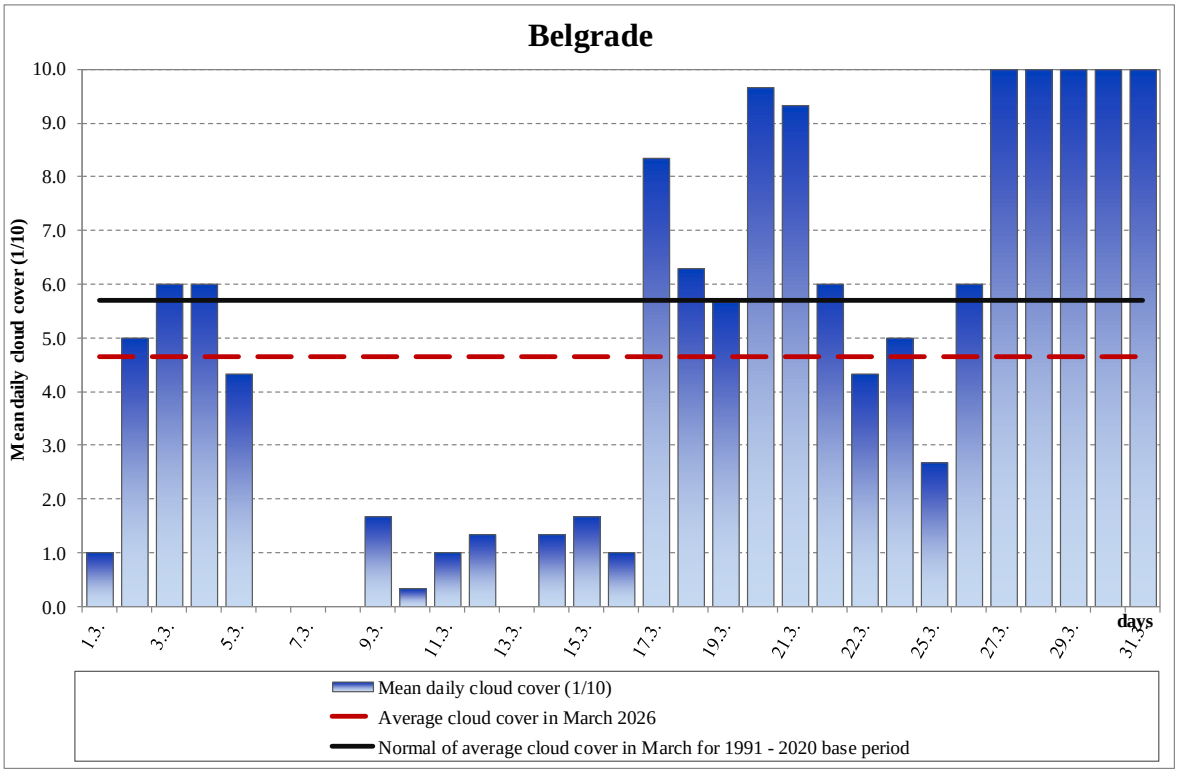


Figure 22. Mean daily cloud cover in Belgrade

[6] Bright day refers to a day with cloud cover less than 2/10
[7] Cloudy day refers to a day with cloud cover over 8/10

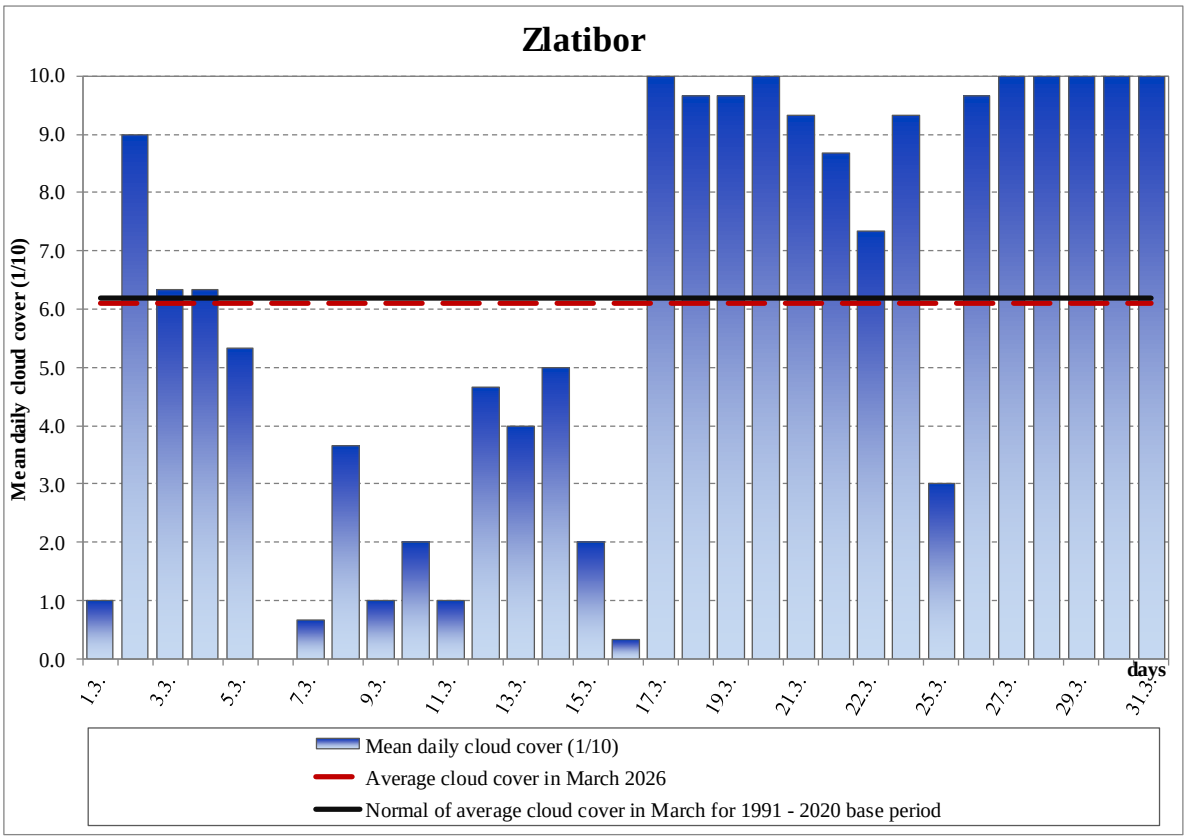


Figure 23. Mean daily cloud cover on Zlatibor

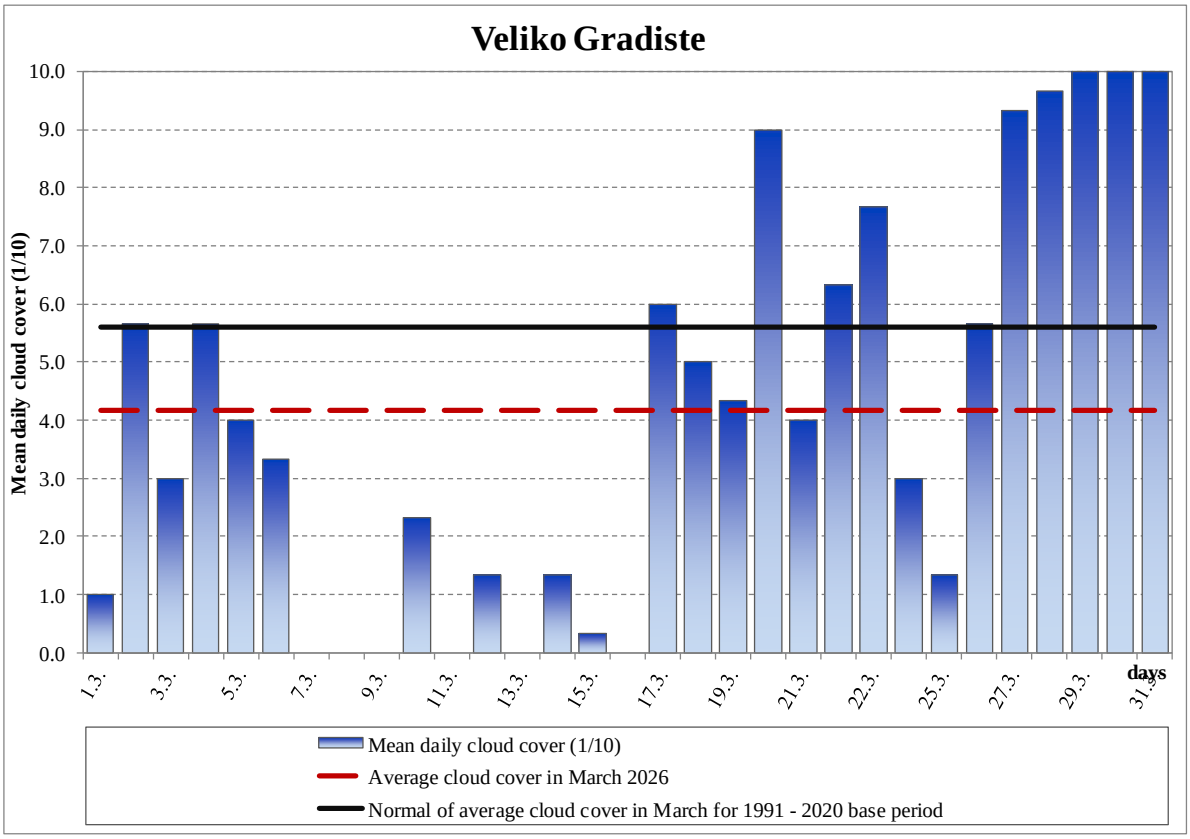


Figure 24. Mean daily cloud cover in Veliko Gradiste

SUNSHINE DURATION (INSOLATION)

Sunshine duration in March ranged from 117,5 hours in Sjenica to 206,7 hours in Veliko Gradiste (*Figure 25*).

March insolation ranged from 80% in Sjenica to 130% in Veliko Gradiste compared to the normal for the 1991-2020 base period (*Figure 26*).

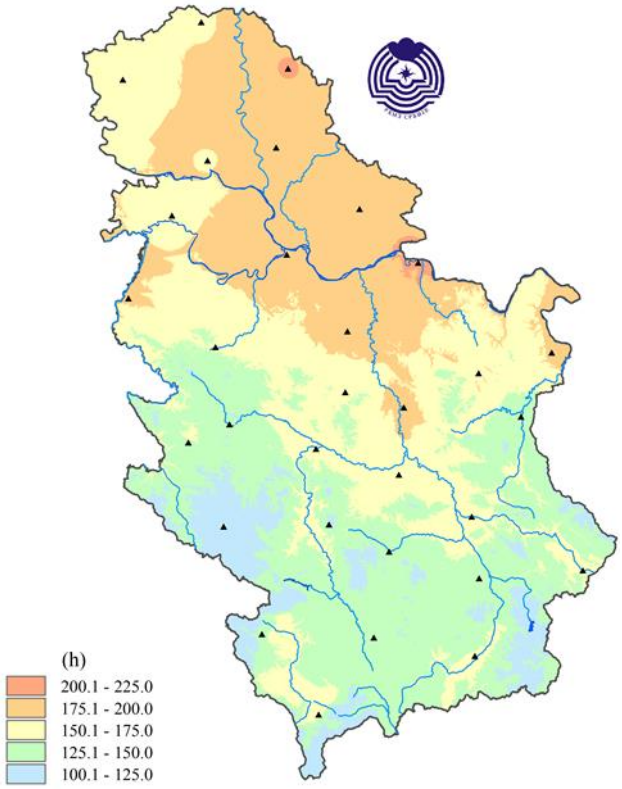


Figure 25. Insolation, expressed in hours

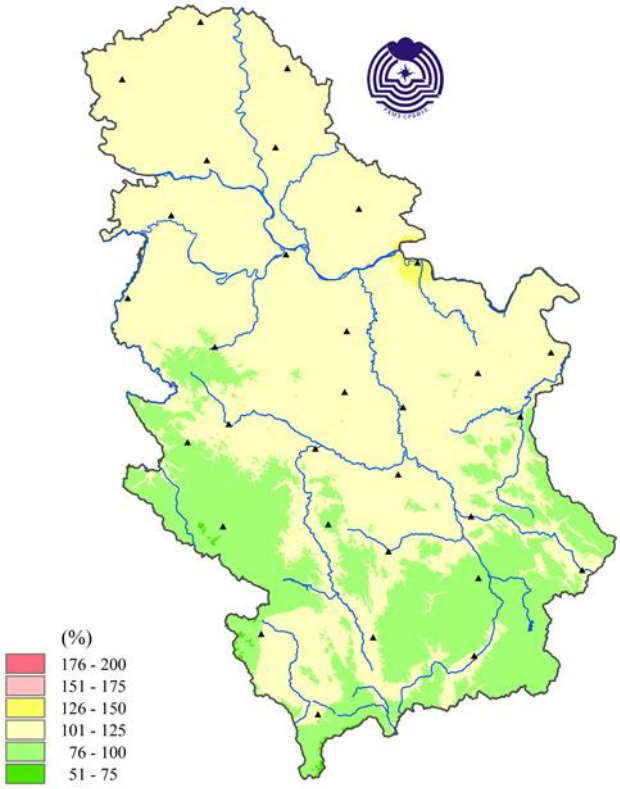


Figure 26. Insolation expressed in the percentages of normal

Note: Climate analysis of meteorological elements was done based on the preliminary data obtained from 28 main meteorological stations

OVERVIEW OF THE SYNOPTIC SITUATION*

For most of the month, influence of the anticyclone periphery over central and eastern Europe, and relatively warm air masses, initially within a geopotential ridge mainly from the central Mediterranean, and later within a spatial weak-gradient low pressure field, dry and settled, in Kosava area occasionally windy. Toward the end of the month, low pressure systems from the western and central Mediterranean, waves of moist air and cold air mass from the north, cooling, locally heavy and prolonged precipitation.

Period at the beginning of the month was marked by a gradual advection of a warm air mass within a ridge from the Mediterranean, along with a surface anticyclone which produced warmer conditions and changeable to mostly sunny weather at most places, occasionally with light snow mostly on the mountains. In the middle of the first decade, a shallow disturbance in the pressure field from the north and the passage of colder air toward the Aegean Sea caused a slight drop in temperature in the eastern parts of the country, while in the west and southwest, as well as in mountainous areas, there was occasional rain.

Period until the middle of the month was characterized by the lingering influence of the ridge and warm air mass, along with a high-pressure field that periodically strengthened over Eastern Europe. Consequently, the weather was mostly dry and stable, as well as windy in Kosava affected area.

Also, in the middle of the month, a low pressure system developed over the northwest, in the area of the British Isles, and moved southeastward toward the central parts of the continent, simultaneously low pressure developed and intensified over the western and central Mediterranean. This was followed by a change in weather. Specifically, the weakened low pressure system from the northwest caused a slight drop in temperature in the northern and western parts of the country, along with changeable cloudiness and occasional short-term rain. The Mediterranean low pressure system moved across the southern Balkans toward the east and southeast, producing intermittent rain mainly to the southern regions of Serbia, and snow on the higher mountains in the south.

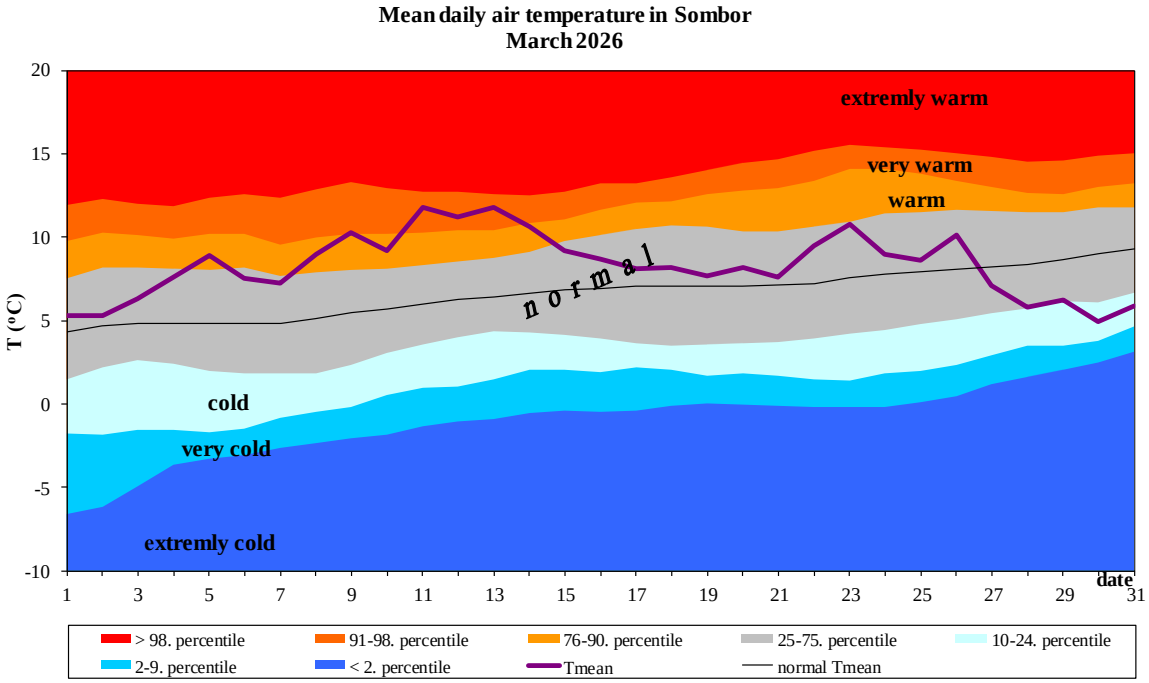
Then, until the middle of the third decade, the weather was partly sunny and chilly, and mostly dry especially in the morning hours. Around the middle of the decade, moderate to strong winds occurred in areas affected by the Kosava wind as well as in mountainous regions. At the surface, a weak anticyclone persisted over Central Europe and the Balkans, occasionally strengthening over the east due to the passage of a series of cold fronts across the northern and eastern parts of the continent. At the high-latitude, remained the influence of an extensive weak-gradient low pressure field**.**

Period at the end of the month, that is, in the second half of the third decade was marked by the development of low pressure system over the western and northern parts of the continent, along with the regeneration and formation of new low pressure system in the Mediterranean region, leading to the disruption of the anticyclone and a strengthening of southwesterly and westerly circulation with significant impacts from passing frontal systems and waves of cold and moist air from the northern Adriatic across the western Balkans and our region toward the east. This resulted in a more noticeable drop in temperature, as well as locally heavy and prolonged precipitation, especially in the western parts of the country. In mountainous areas, there was an increase in snow cover, while in the southwest there was a brief occurrence of snow in some lower-lying areas as well.

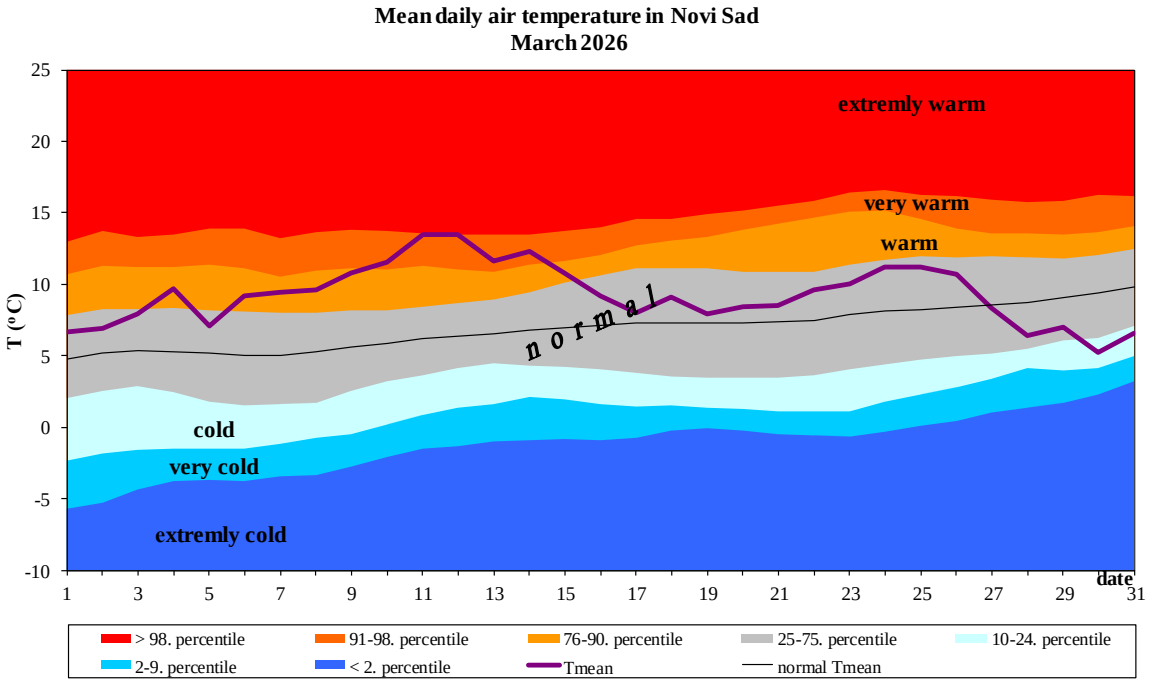
* National Center for Hydrometeorlogical Early Warning System

APPENDIX

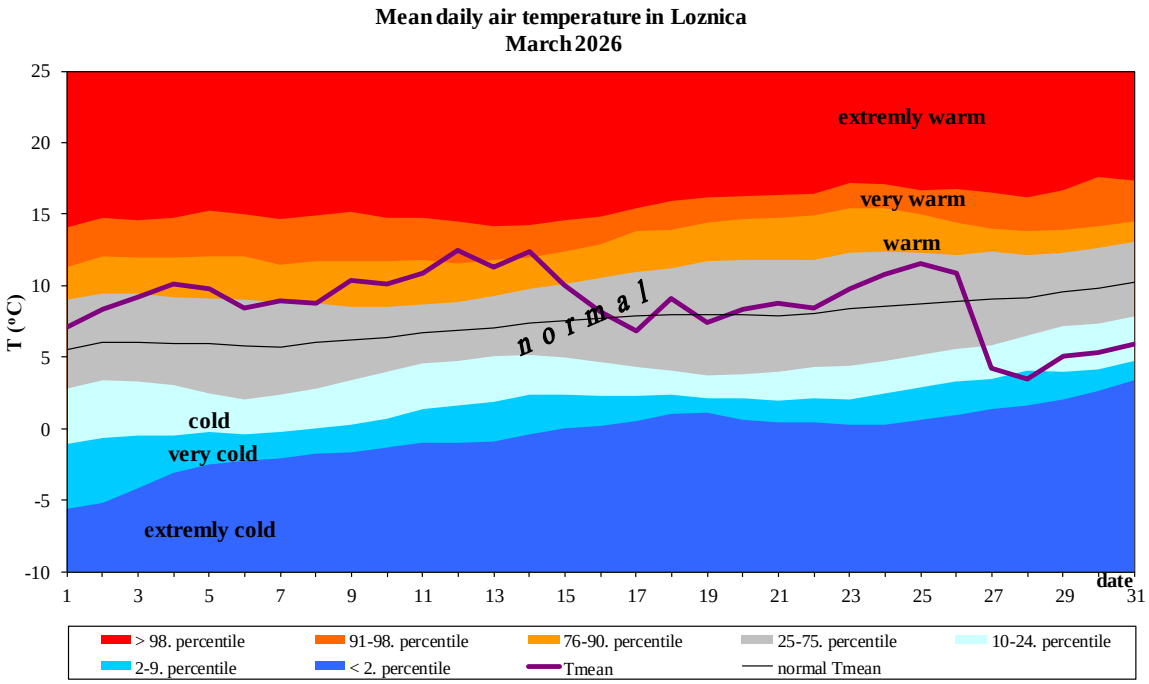
Mean air temperature



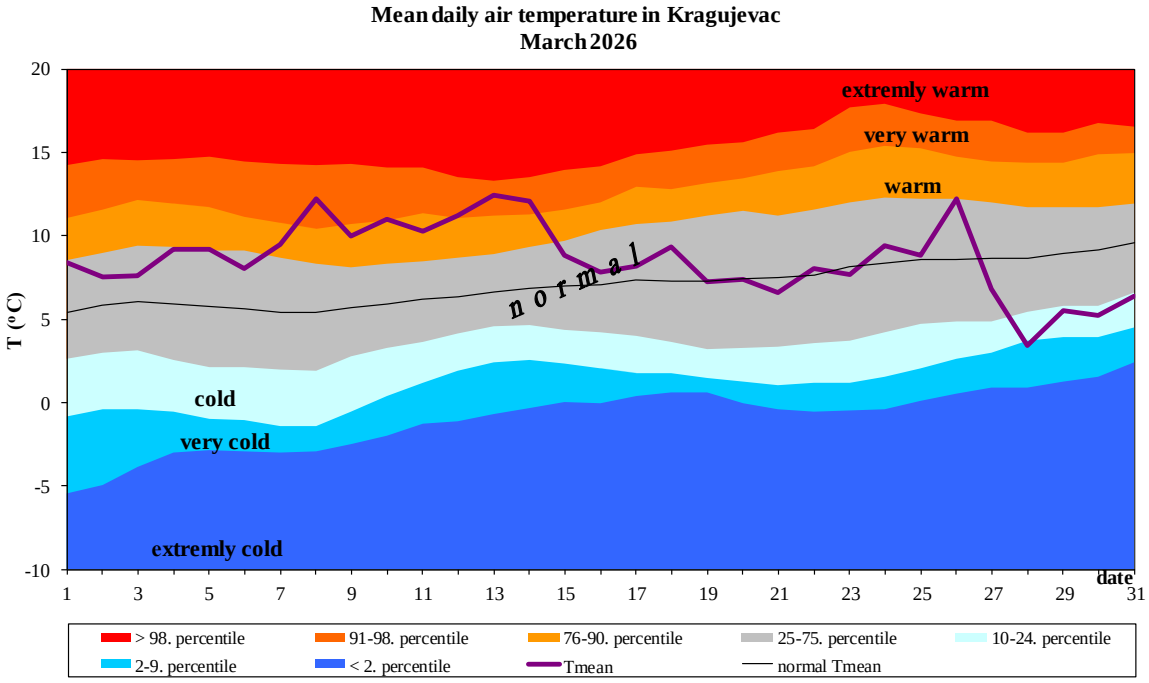
Appendix 1. Daily course of the mean daily air temperature and accompanying percentile for Sombor



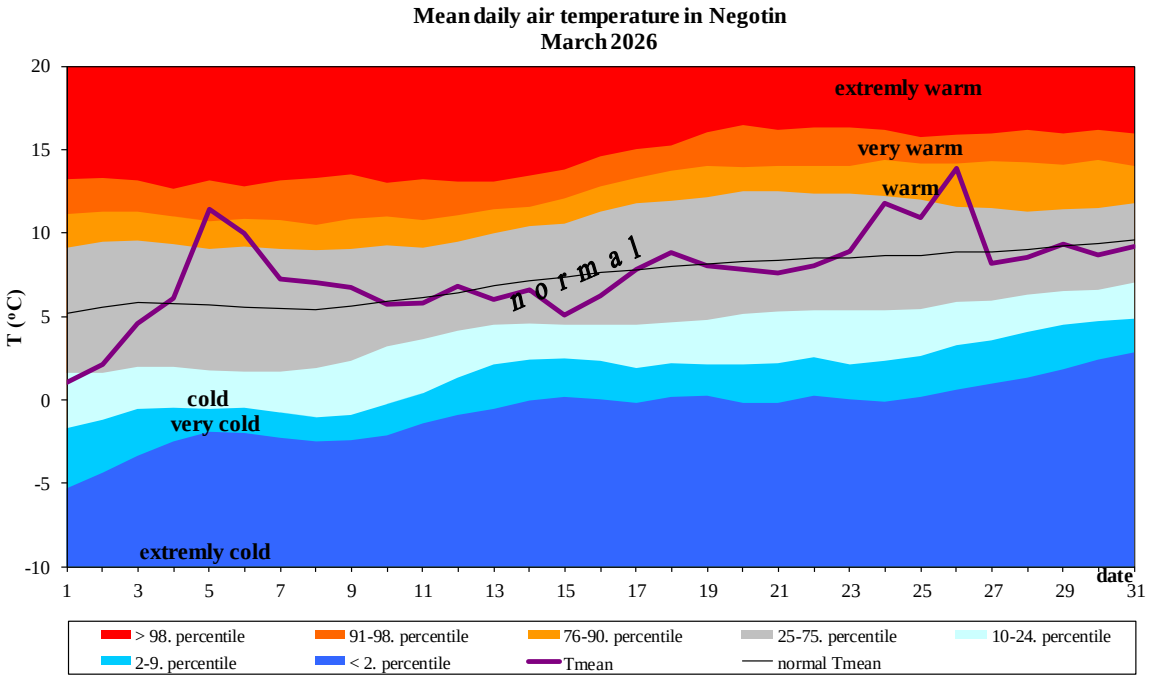
Appendix2. Daily course of the mean daily air temperature and accompanying percentile for Novi Sad



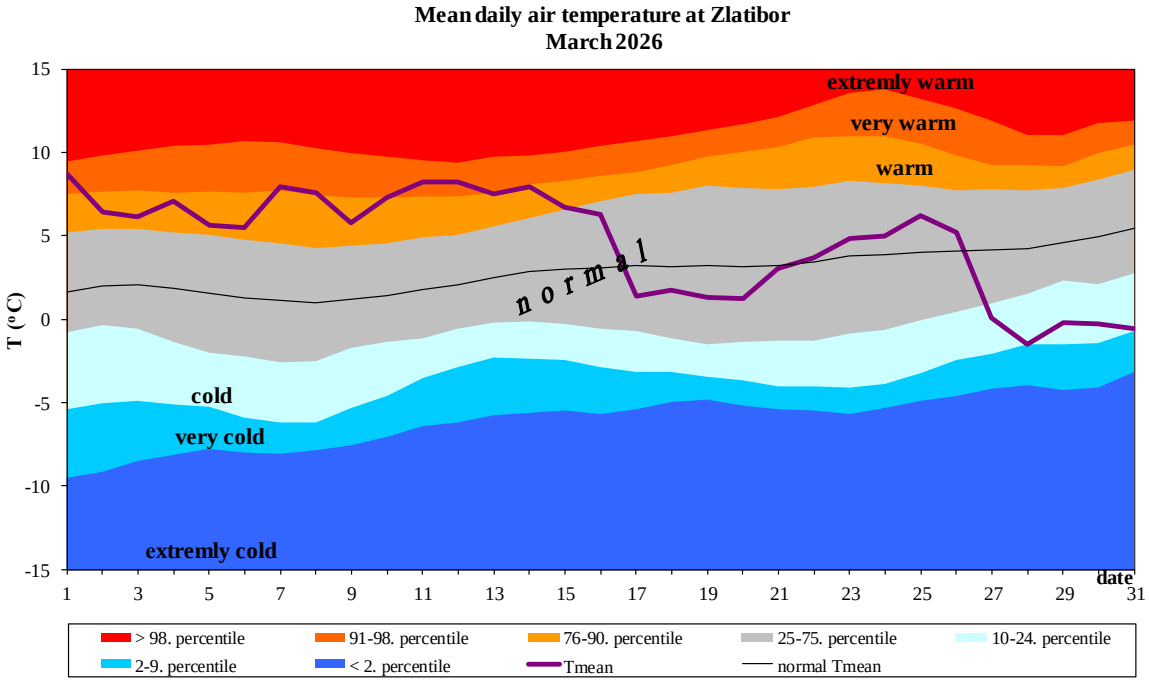
Appendix 3. Daily course of the mean daily air temperature and accompanying percentile for Loznica



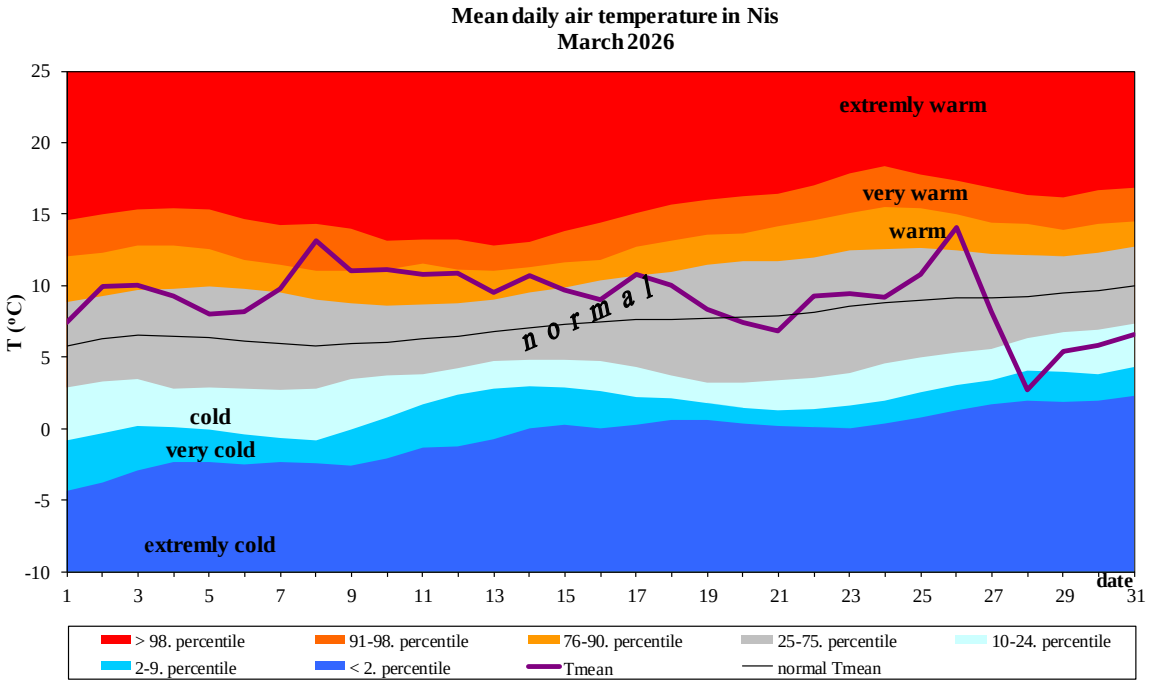
Appendix 4. Daily course of the mean daily air temperature and accompanying percentile for Kragujevac



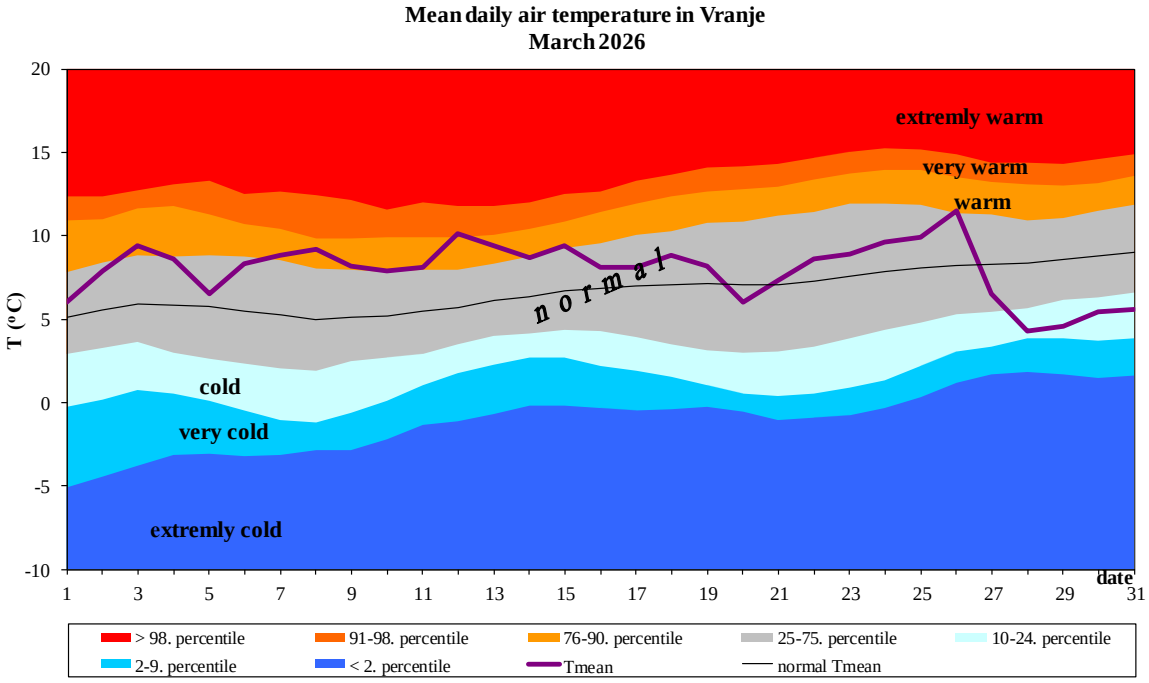
Appendix 5. Daily course of the mean daily air temperature and accompanying percentile for Negotin



Appendix 6. Daily course of the mean daily air temperature and accompanying percentile on Zlatiboru

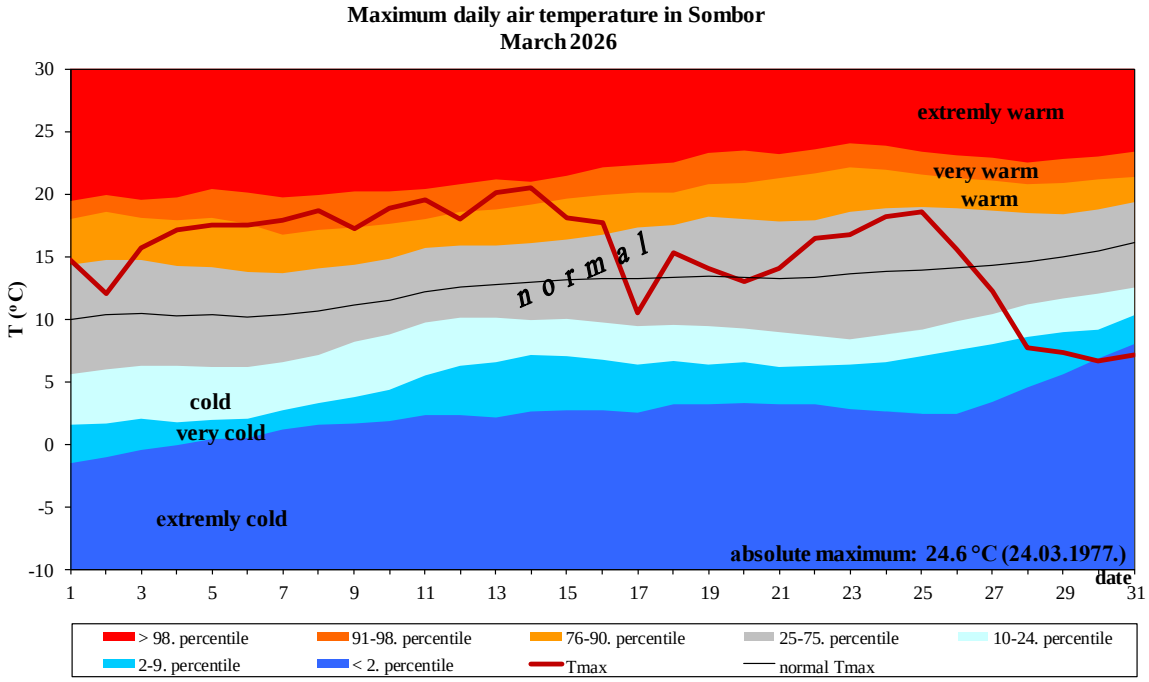


Appendix 7. Daily course of the mean daily air temperature and accompanying percentile for Nis

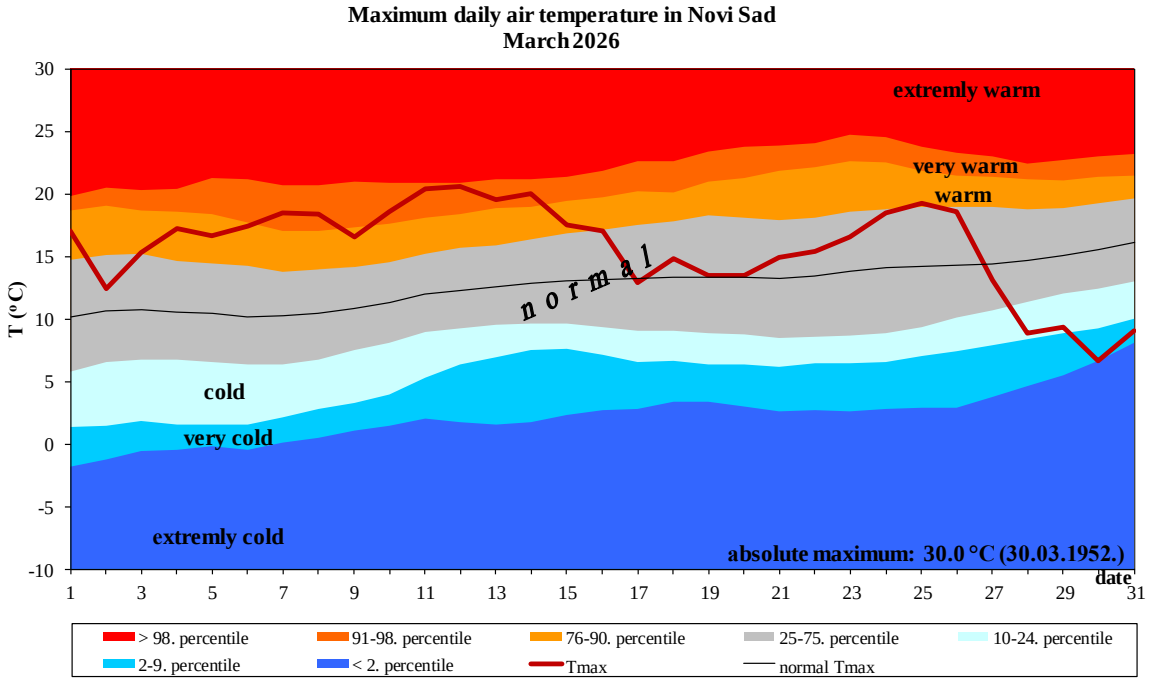


Appendix 8. Daily course of the mean daily air temperature and accompanying percentile for Vranje

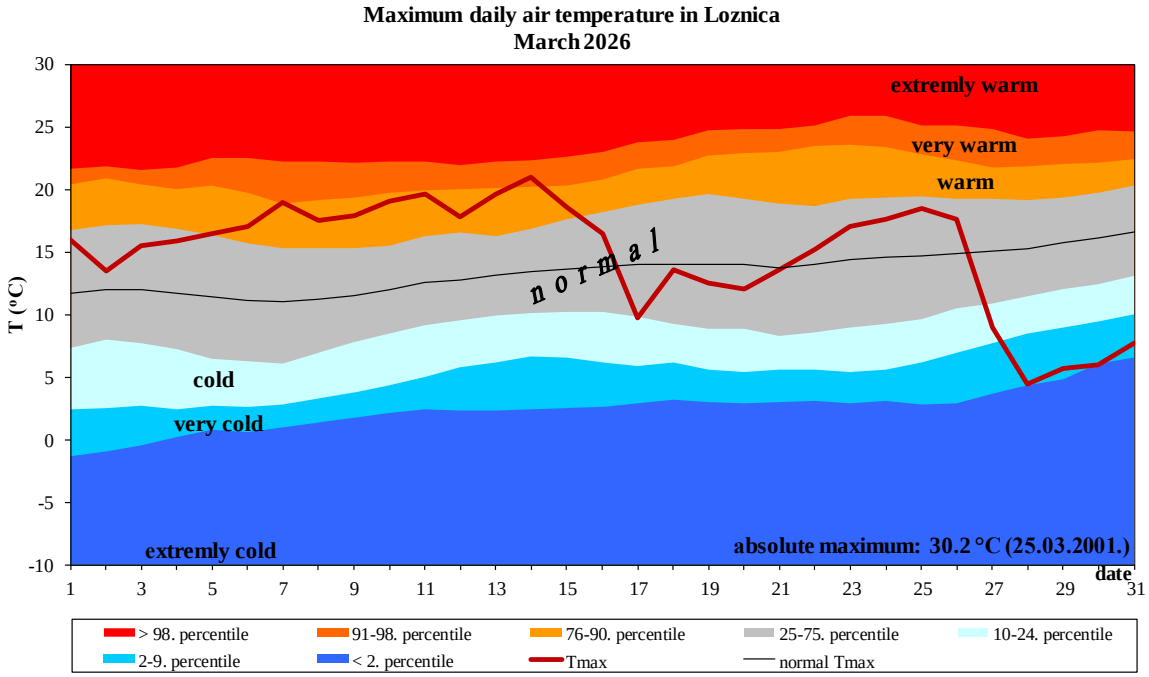
Maximum air temperature



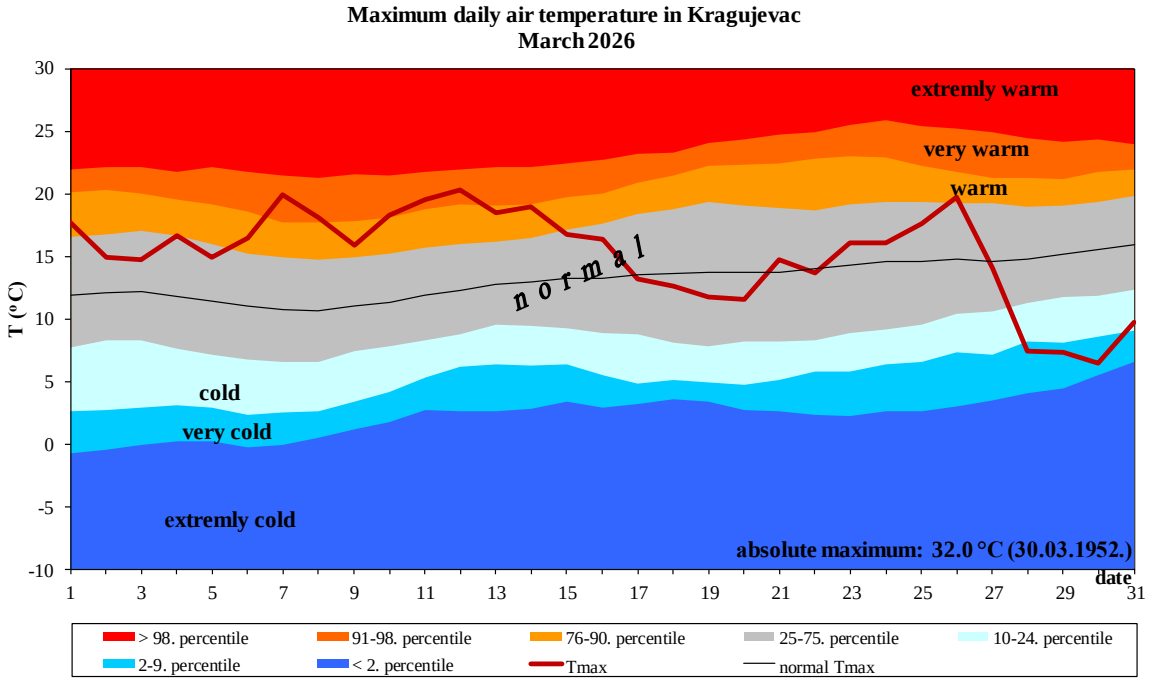
Appendix 9. Daily course of the maximum daily air temeperature and the accompanying percentile for Sombor



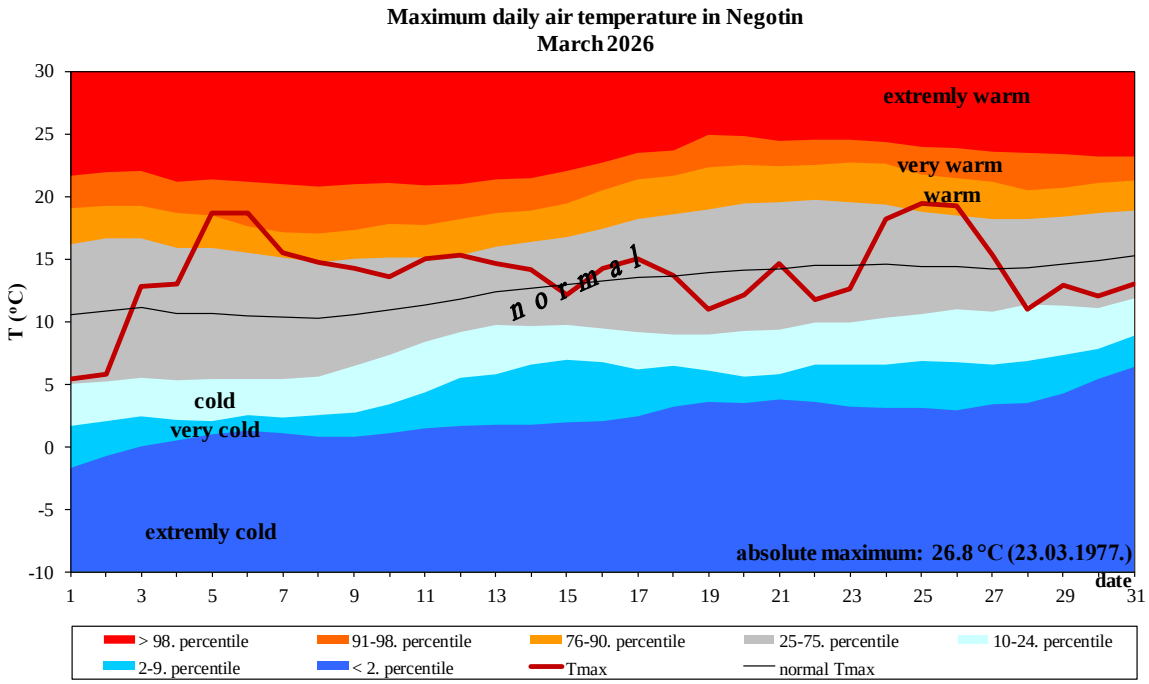
Appendix 10. Daily course of the maximum daily air temeperature and the accompanying percentile for Novi Sad



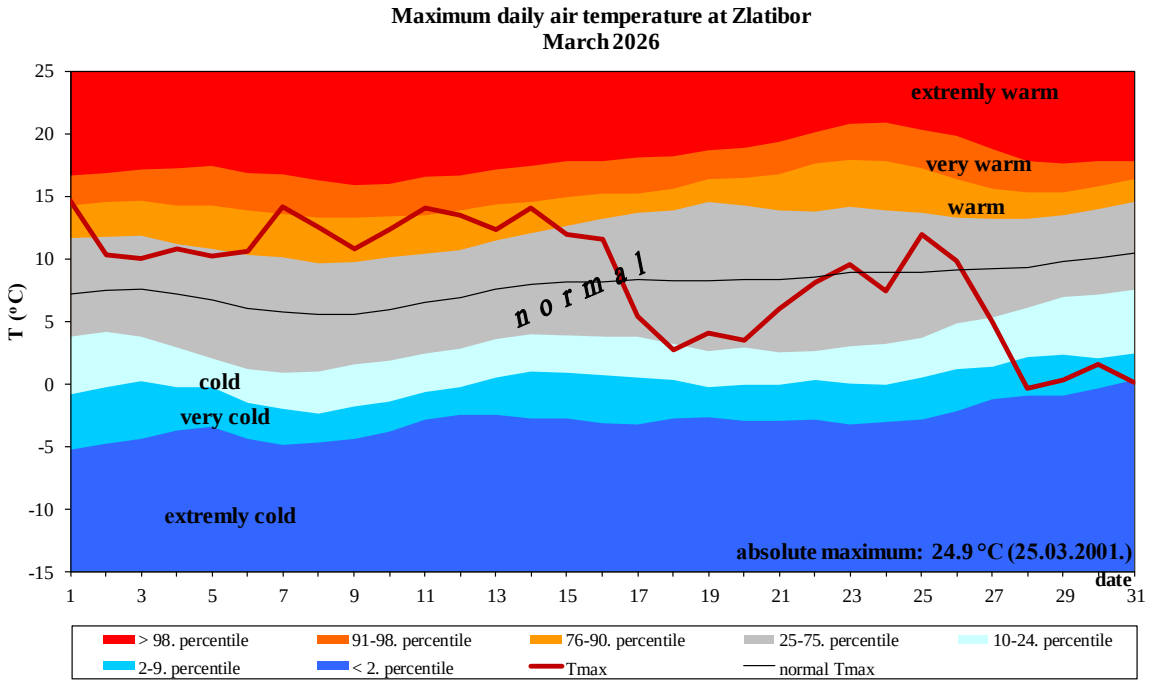
Appendix 11. Daily course of the maximum daily air temeperature and the accompanying percentile for Loznica



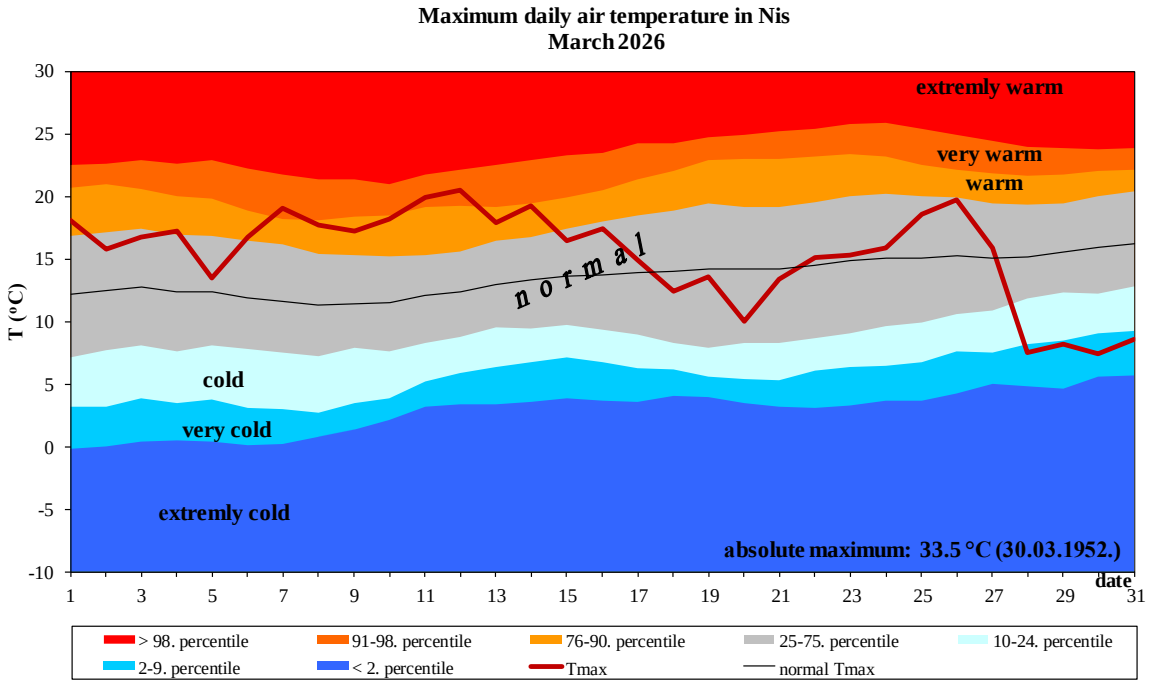
Appendix 12. Daily course of the maximum daily air temeperature and the accompanying percentile for Kragujevac



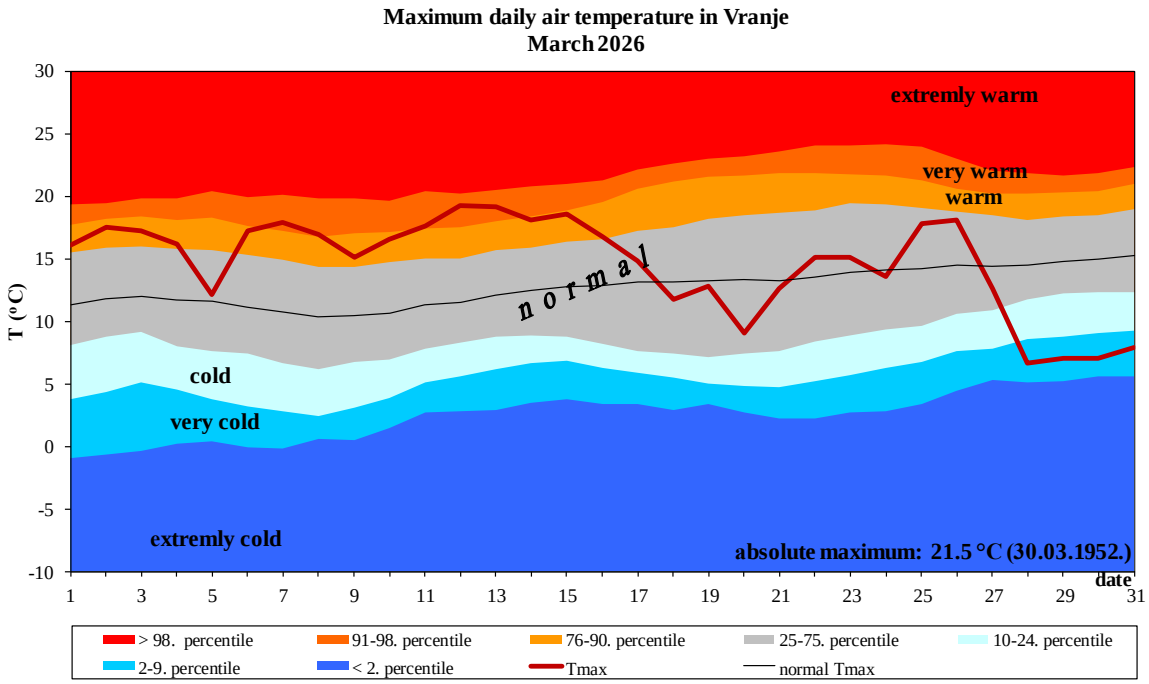
Appendix 13. Daily course of the maximum daily air temeperature and the accompanying percentile for Negotin



Appendix 14. Daily course of the maximum daily air temeperature and the accompanying percentile on Zlatibor

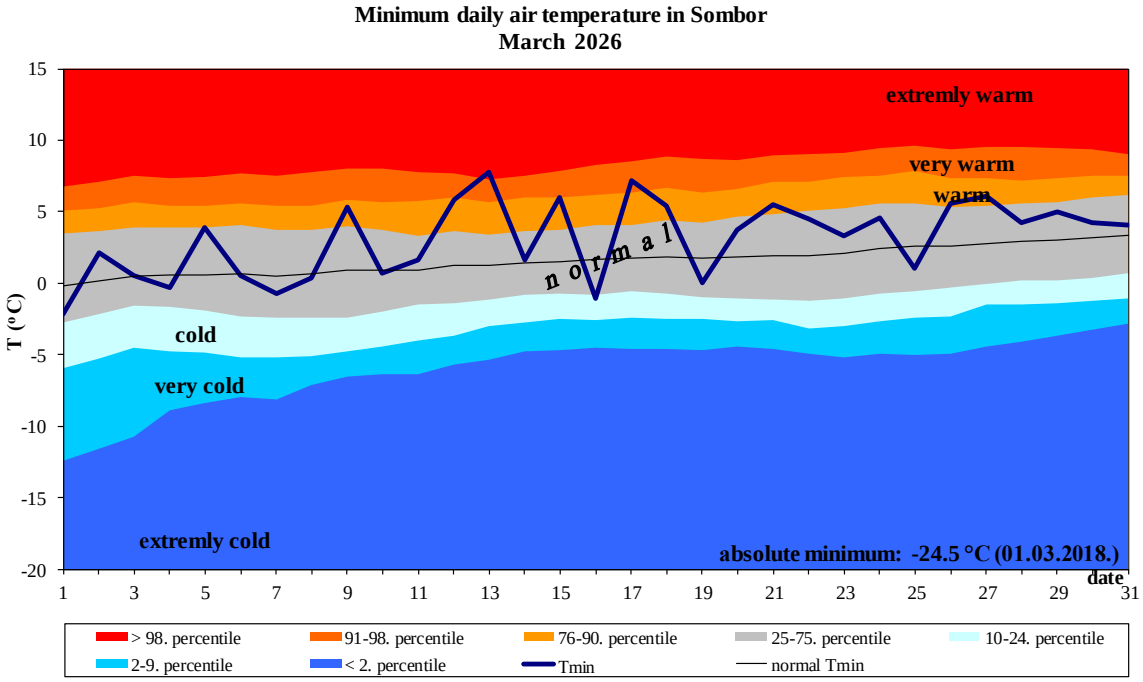


Appendix 15. Daily course of the maximum daily air temeperature and the accompanying percentile for Nis

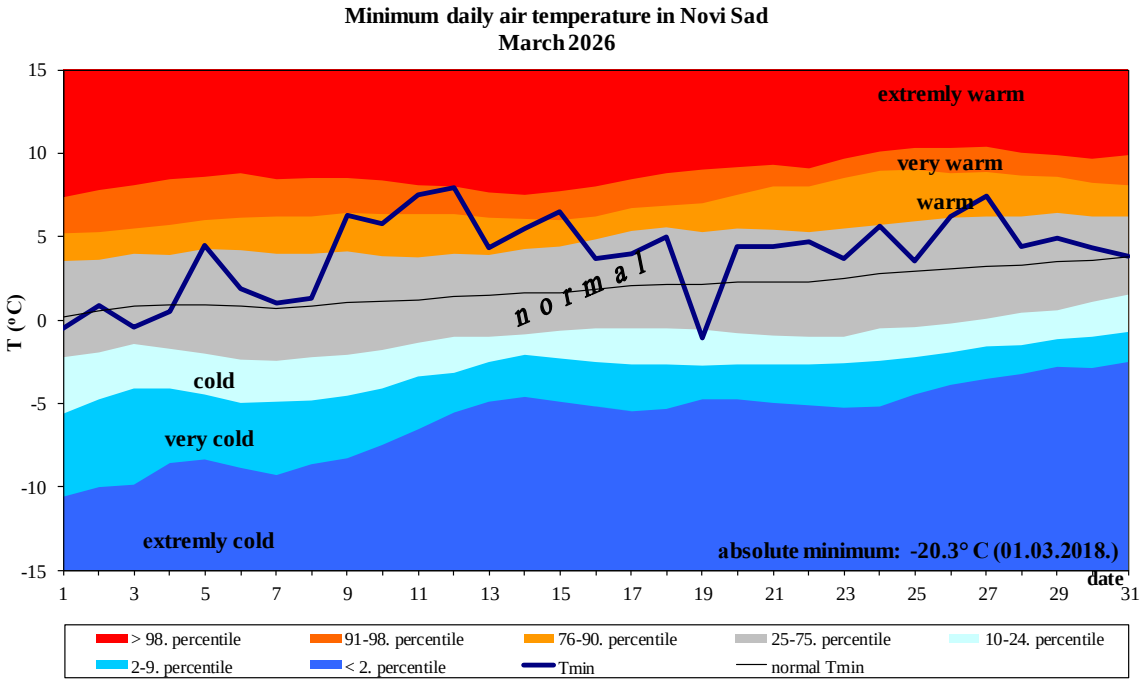


Appendix 16. Daily course of the maximum daily air temeperature and the accompanying percentile for Vranje

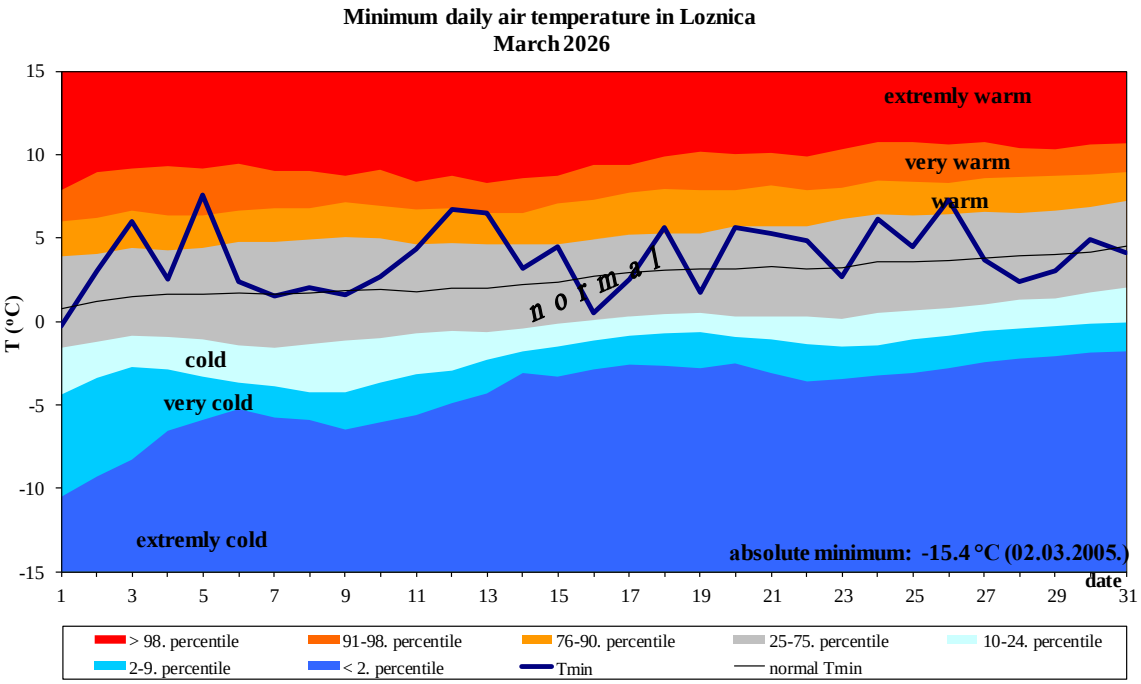
Minimum air temperature



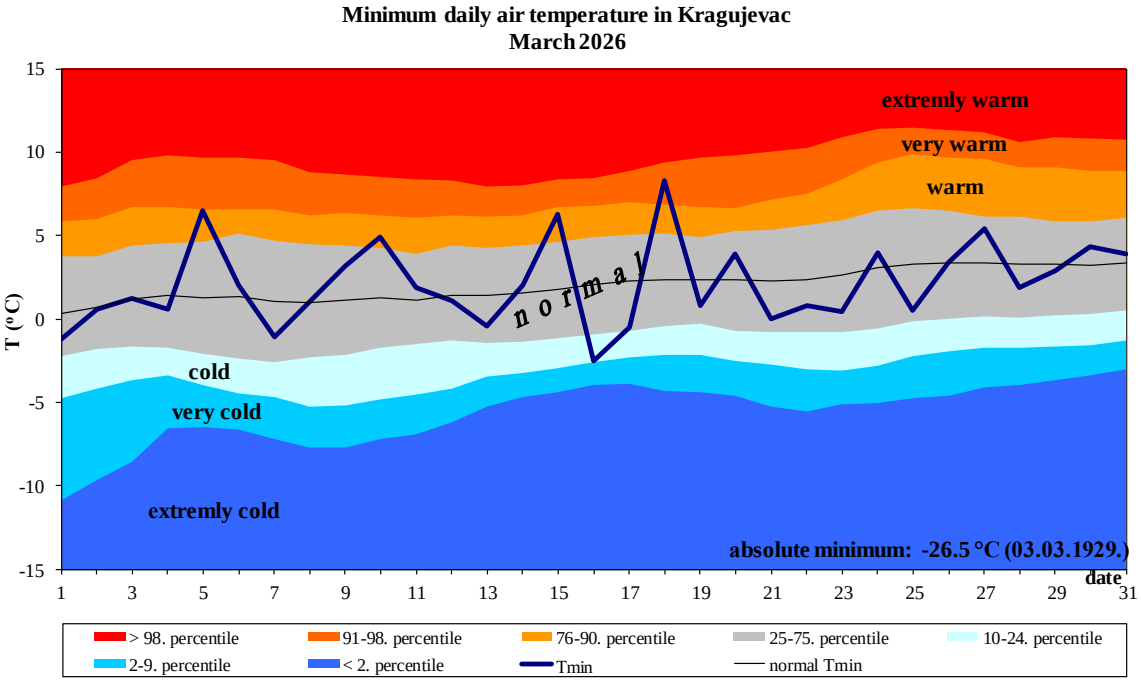
Appendix 17. Daily course of the minimum daily air temperature and the accompanying percentile for Sombor



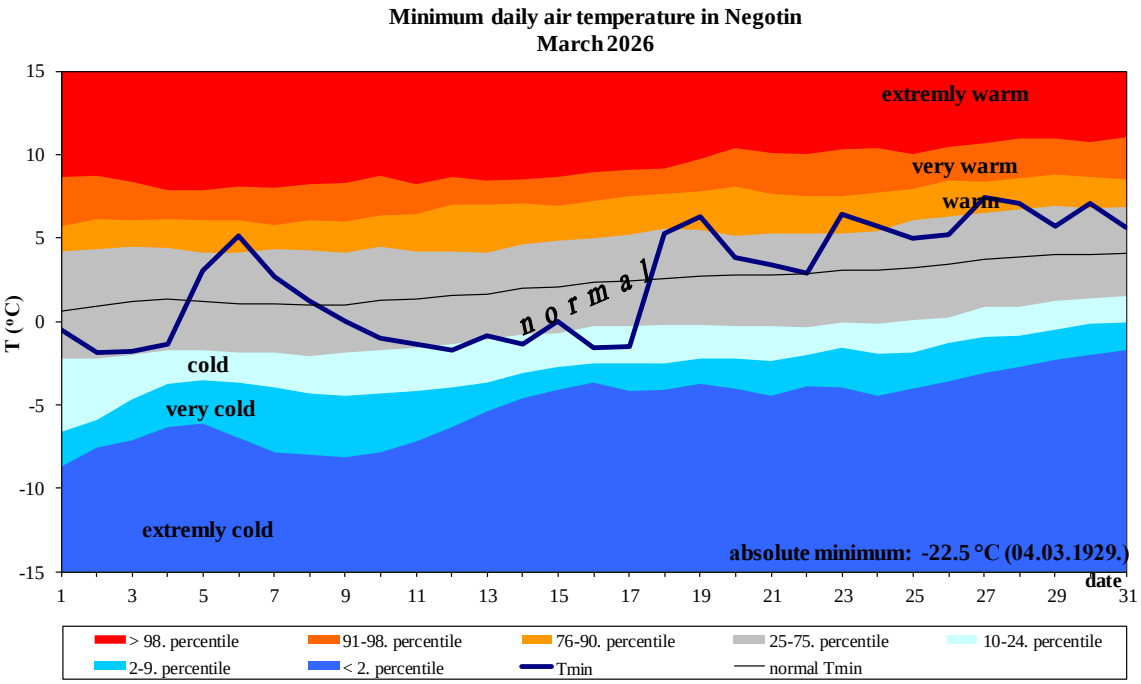
Appendix 18. Daily course of the minimum daily air temperature and the accompanying percentile for Novi Sad



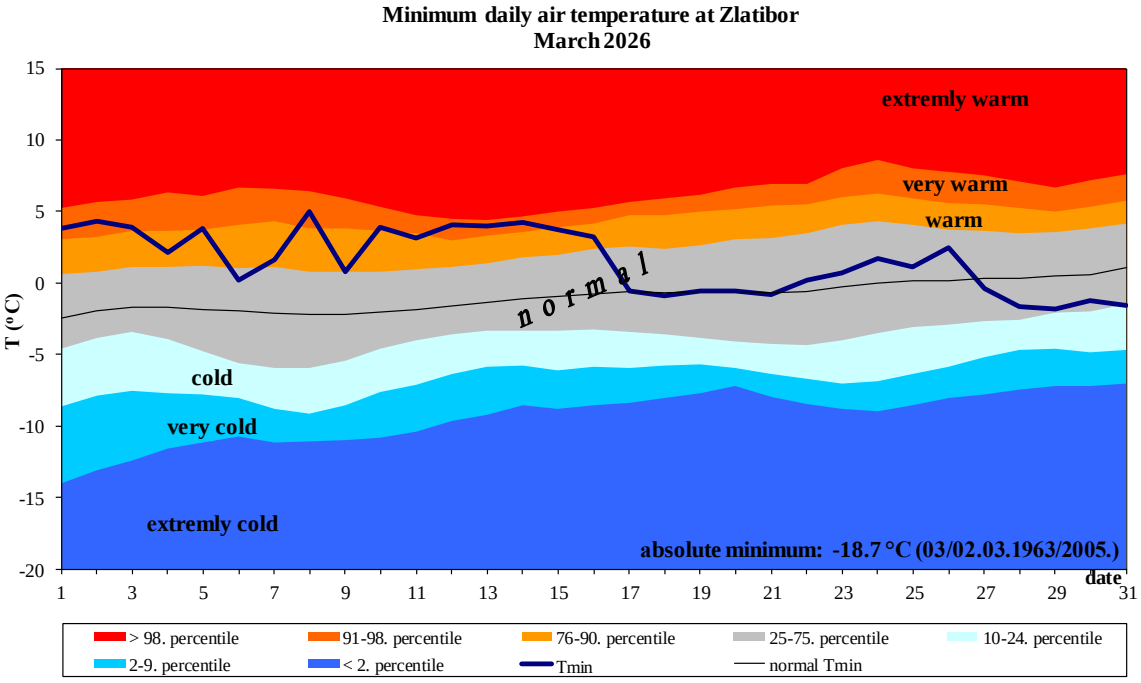
Appendix 19. Daily course of the minimum daily air temperature and the accompanying percentile for Loznica



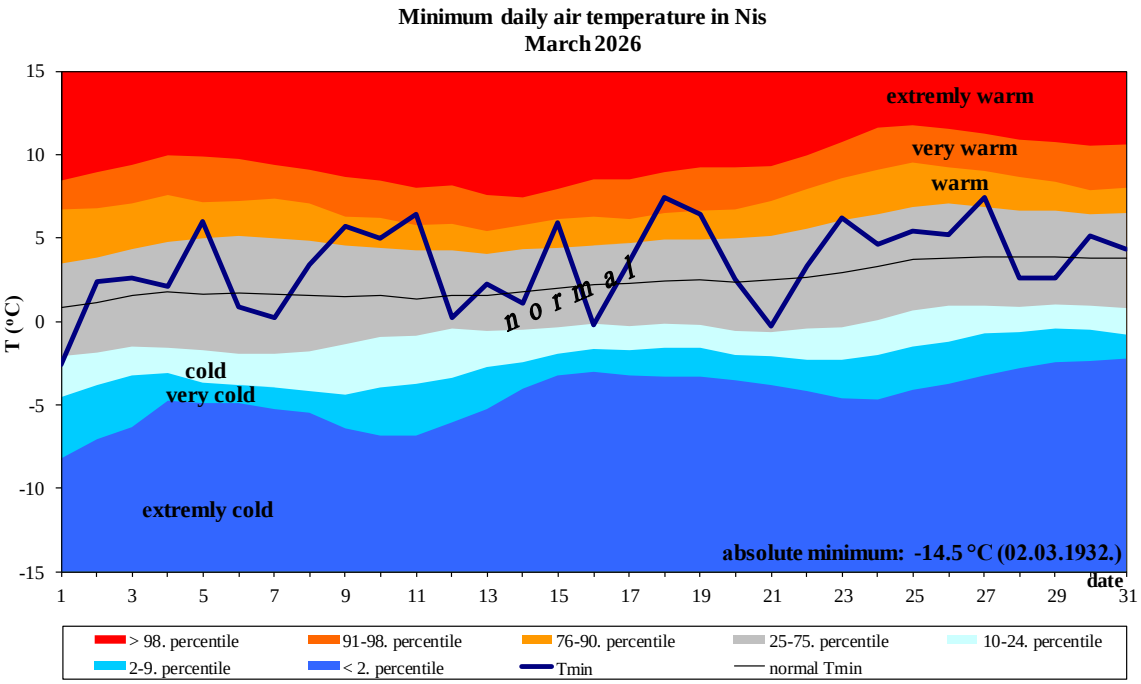
Appendix 20. Daily course of the minimum daily air temperature and the accompanying percentile for Kragujevac



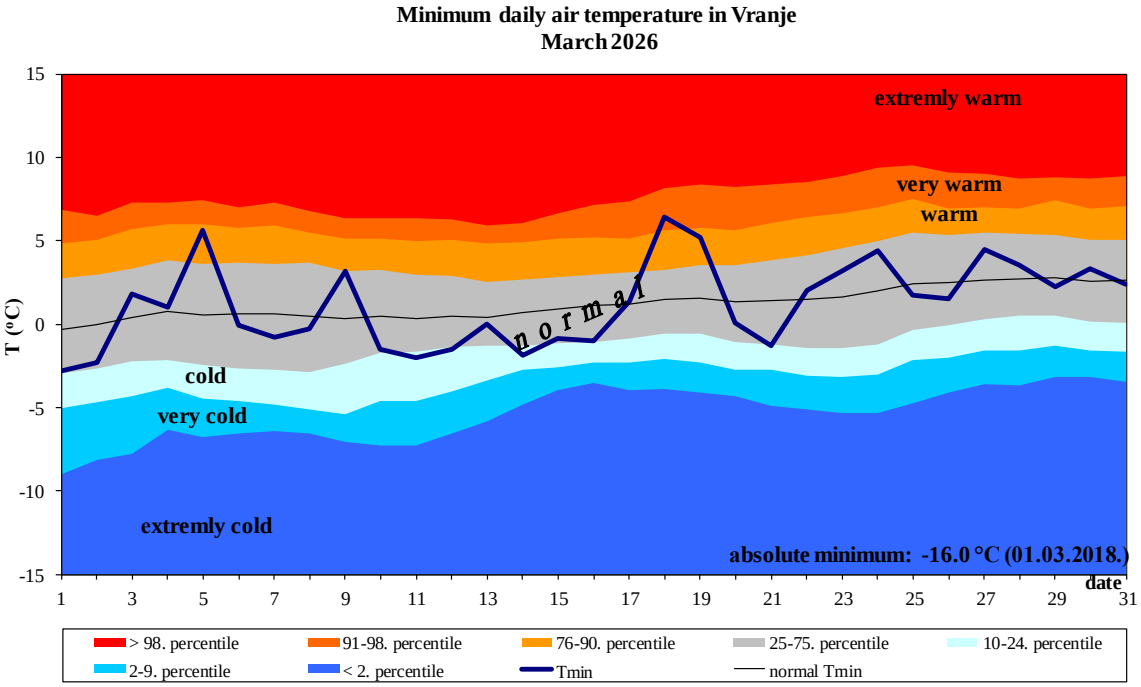
Appendix 21. Daily course of the minimum daily air temperature and the accompanying percentile for Negotin



Appendix 22. Daily course of the minimum daily air temperature and the accompanying percentile on Zlatibor

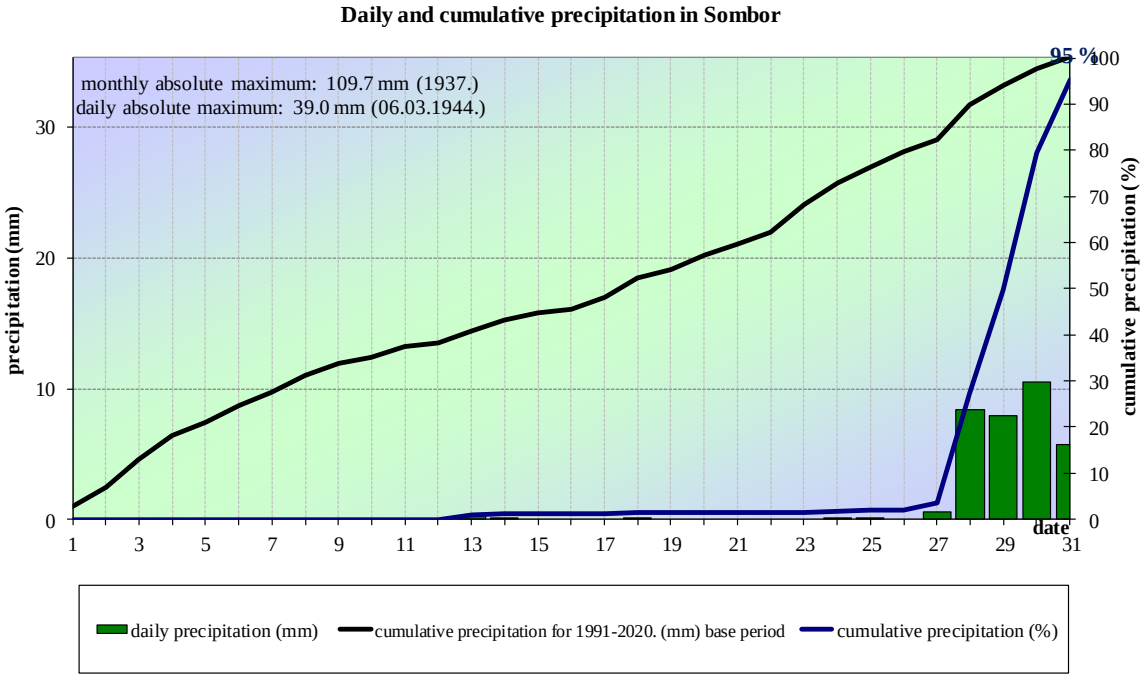


Appendix 23. Daily course of the minimum daily air temperature and the accompanying percentile for Nis

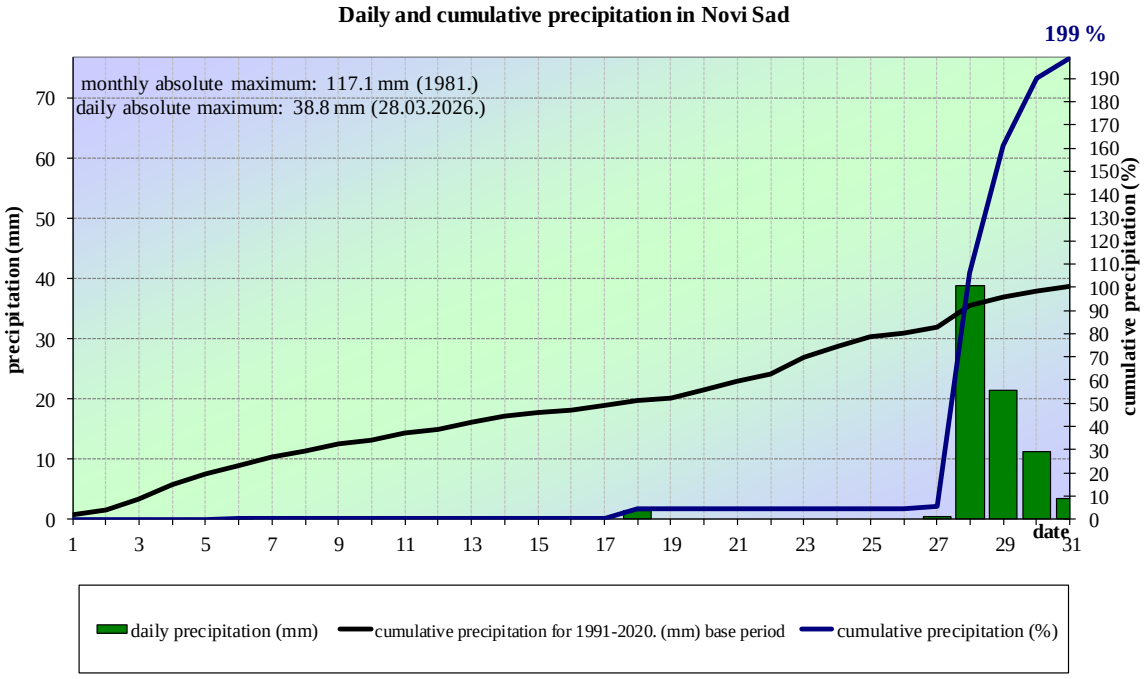


Appendix 24. Daily course of the minimum daily air temperature and the accompanying percentile for Vranje

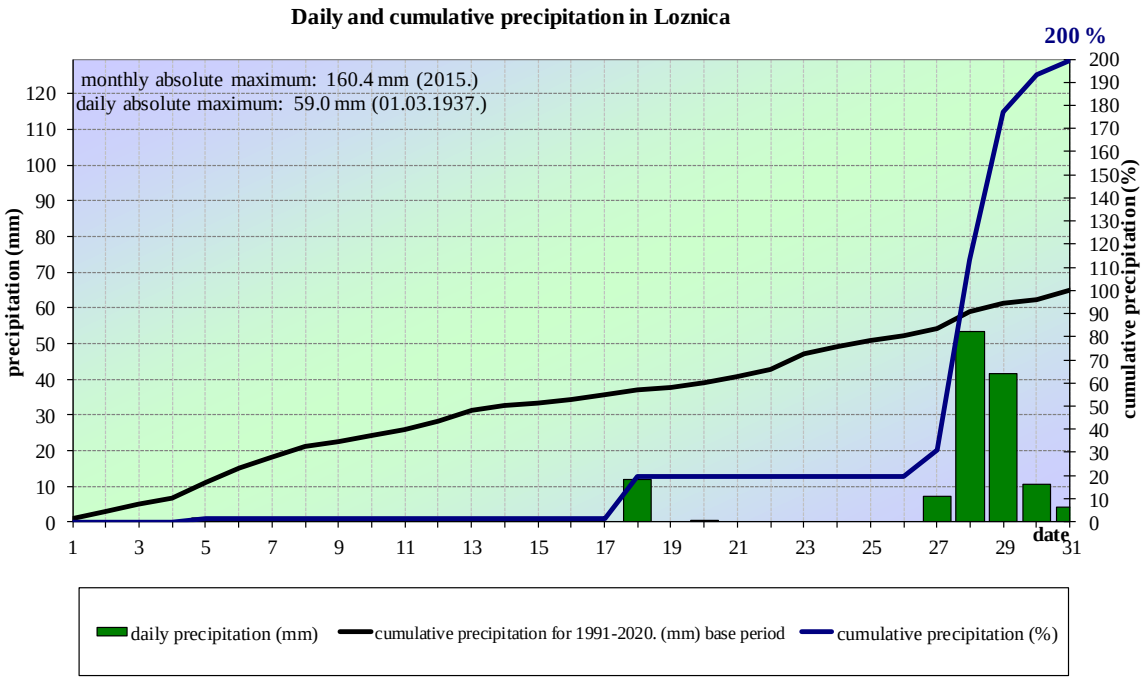
Precipitation



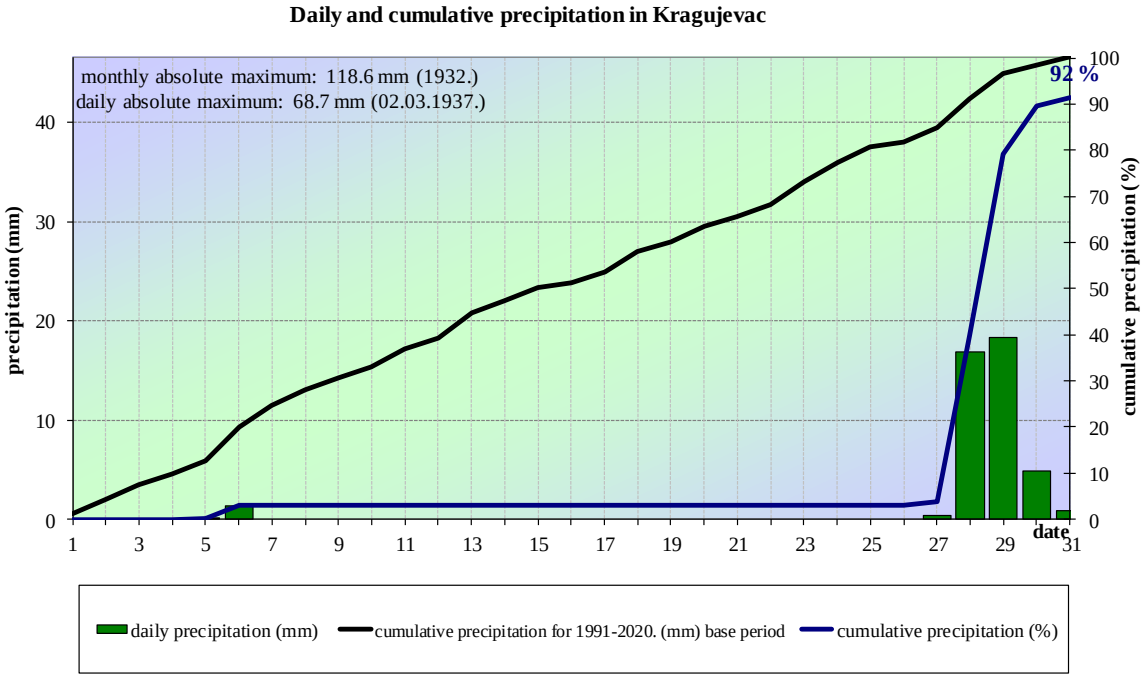
Appendix 25. Daily and cumulative precipitation sums for Sombor



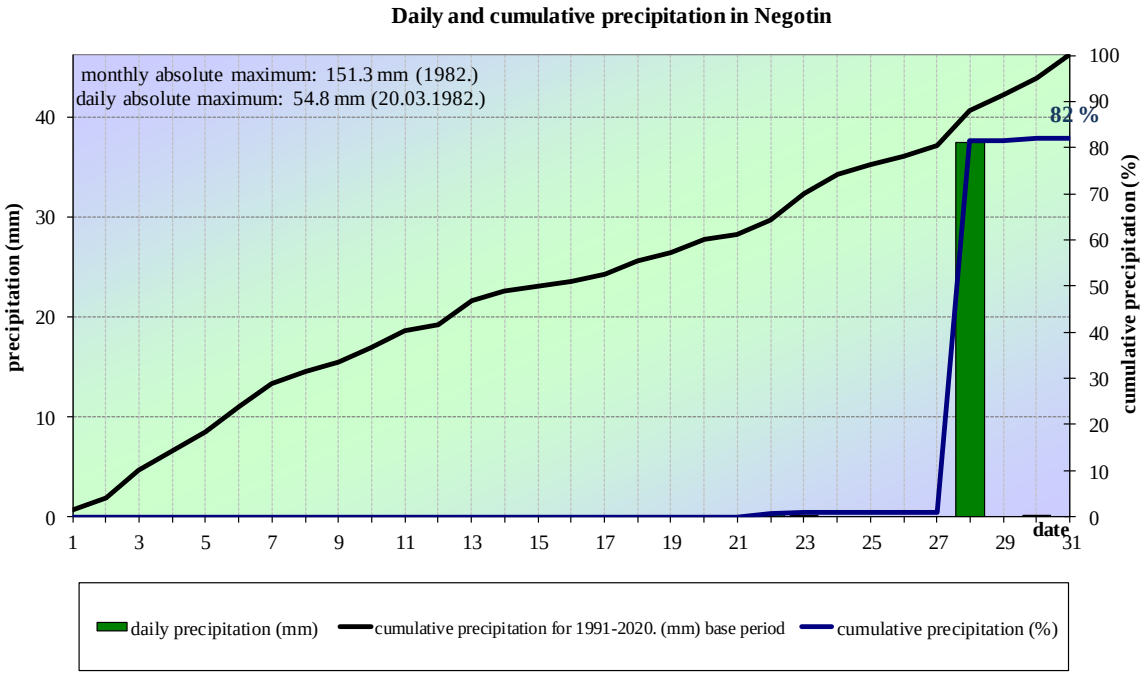
Appendix 26. Daily and cumulative precipitation sums for Novi Sad



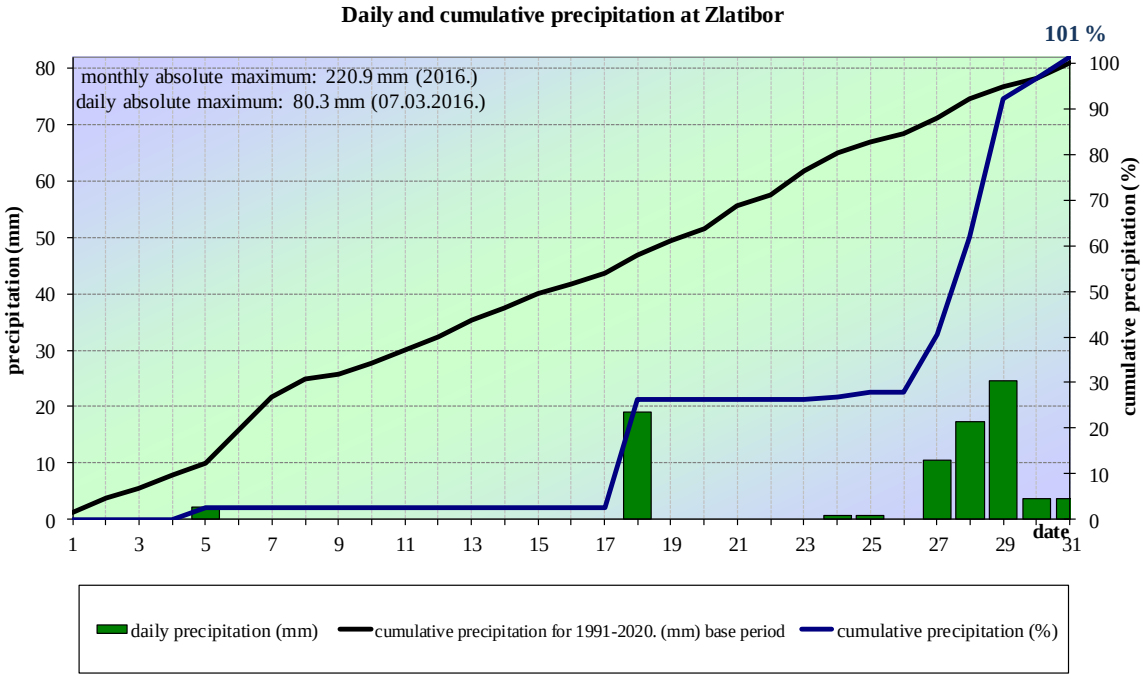
Appendix 27. Daily and cumulative precipitation sums for Loznica



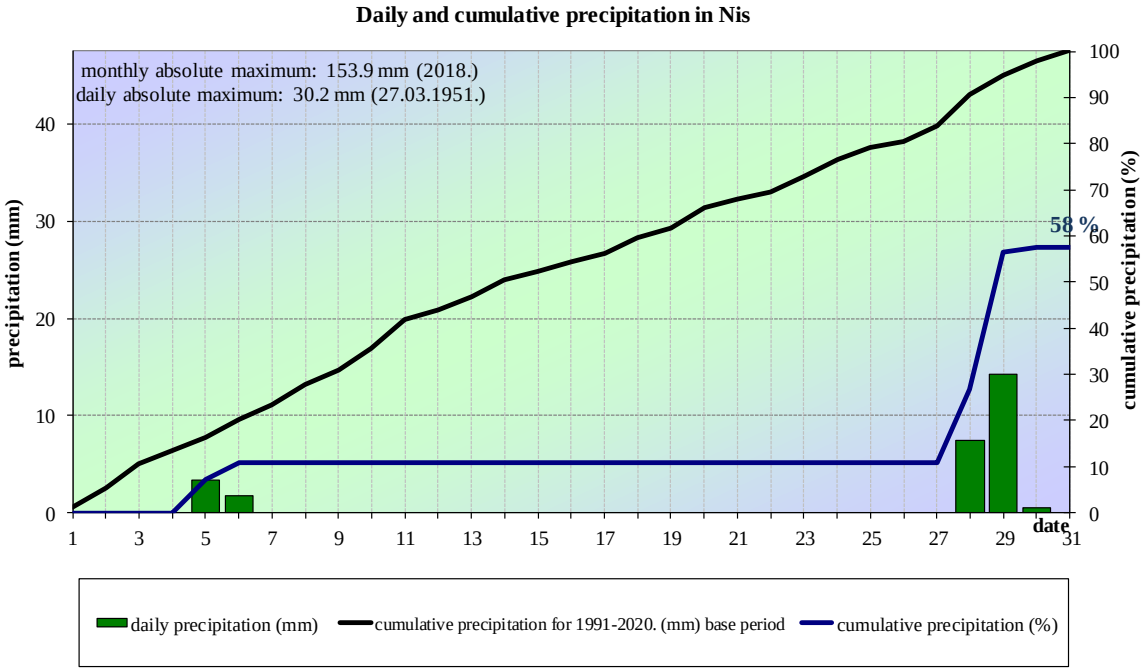
Appendix 28. Daily and cumulative precipitation sums for Kragujevac



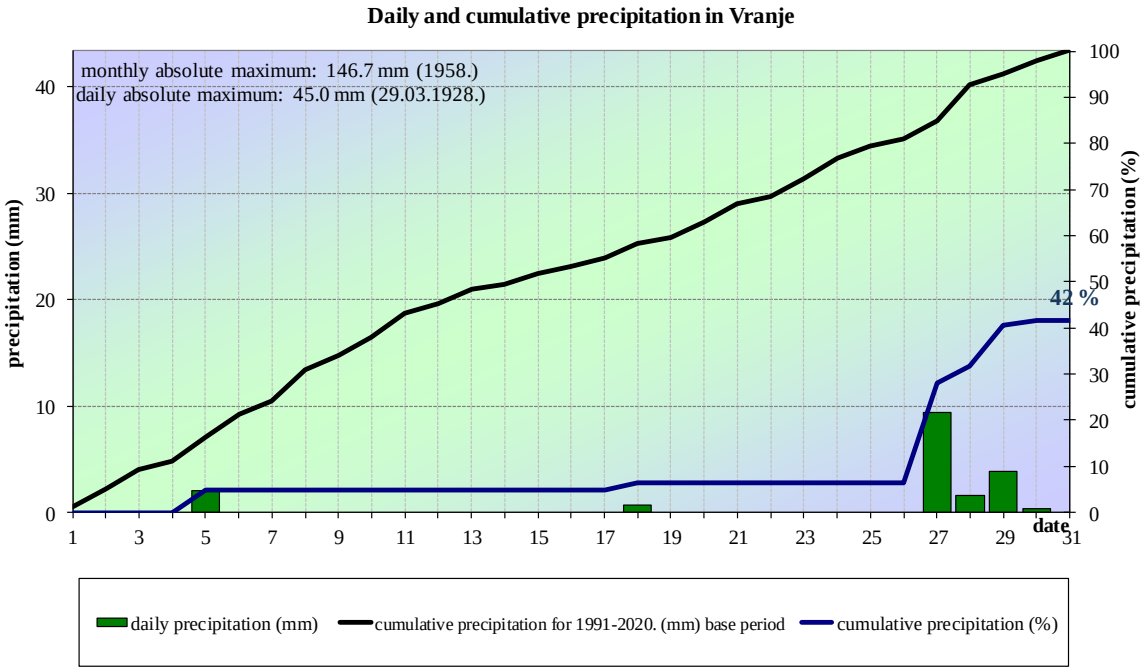
Appendix 29. Daily and cumulative precipitation sums for Negotin



Appendix 30. Daily and cumulative precipitation sums on Zlatibor



Appendix 31. Daily and cumulative precipitation sums for Nis



Appendix 32. Daily and cumulative precipitation sums for Vranje