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MONTHLY BULLETIN FOR SERBIA

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Department of National Center for Climate Change, Climate Model Development and Disaster
Risk Assessment

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- ❖ *3rd warmest September for Serbia*
- ❖ *The warmest September for Palic, Novi Sad, Zrenjanin, Kikinda, Loznica and Sremska Mitrovica*
- ❖ *Record-breaking number of summer days at 9 MMS*
- ❖ *Record-breaking number of tropical days in Sombor and Novi Sad*
- ❖ *There were 3 heat waves*
- ❖ *5th wettest September for Negotin, 7th wettest for Kikinda*
- ❖ *7th driest September for Vranje and Crni Vrh*
- ❖ *The highest September daily precipitation sum was exceeded in Zrenjanin*

AIR TEMPERATURE

Mean monthly air temperature

September 2023 ranks as the 3rd warmest for Serbia only after 1994 and 2011 in the period from 1951 to 2023 (Figure 1). September ranks as **the warmest on record** for Palic, Novi Sad, Zrenjanin, Kikinda, Loznica and Sremska Mitrovica, **at most stations this September is among the 10 warmest** (Table 1).

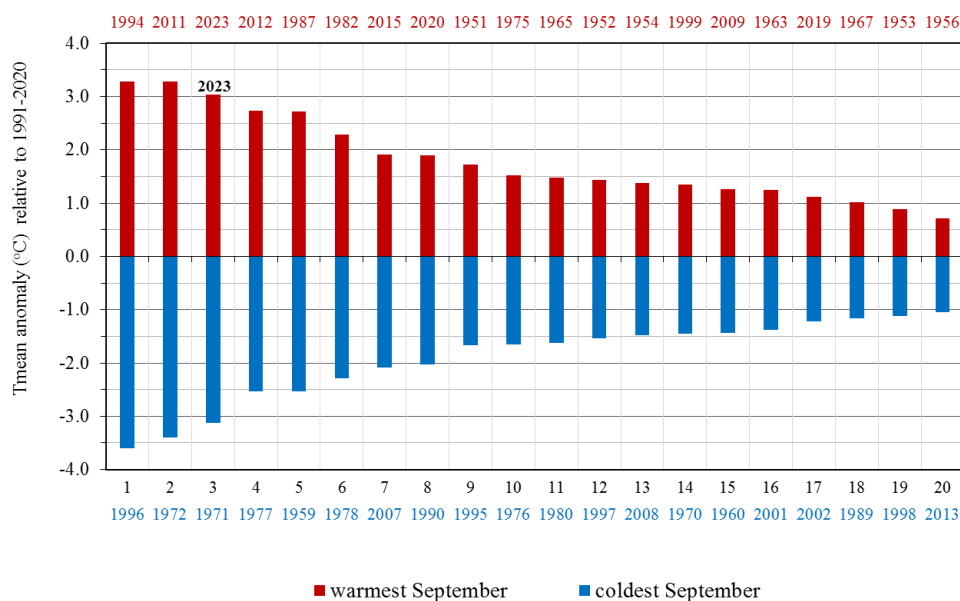


Figure 1. Rank of the warmest and coldest September in Serbia

Table 1. Ranking of September 2023 with mean air temperature, average and departure from the normal 1991-2020

| STATION | historical period | Tmean (°C) - September 2023 | 1991-2020 base period for September | temperature anomaly (°C) | ranking for September 2023 |
|--------------|-------------------|-----------------------------------|---|-----------------------------|-------------------------------|
| NOVI SAD | 1948-2022 | 21.4 | 17.2 | 4.2 | 1 |
| PALIC | 1945-2022 | 20.8 | 17.1 | 3.7 | 1 |
| S.MITROVICA | 1925-2022 | 20.6 | 16.9 | 3.7 | 1 |
| ZRENJANIN | 1943-2022 | 21.1 | 17.5 | 3.6 | 1 |
| LOZNICA | 1952-2022 | 20.7 | 17.2 | 3.6 | 1 |
| KIKINDA | 1948-2022 | 20.7 | 17.3 | 3.4 | 1 |
| SOMBOR | 1941-2022 | 20.5 | 16.8 | 3.7 | 2 |
| B.KARLOVAC | 1986-2022 | 20.3 | 17.3 | 3.1 | 2 |
| CUPRIJA | 1948-2022 | 20.1 | 17.0 | 3.1 | 2 |
| CRNI VRH | 1966-2022 | 16.3 | 12.6 | 3.7 | 3 |
| BEOGRAD | 1887-2022 | 22.2 | 18.5 | 3.6 | 3 |
| VALJEVO | 1926-2022 | 20.5 | 17.2 | 3.3 | 3 |
| POZEGA | 1952-2022 | 17.9 | 15.4 | 2.6 | 3 |
| VRANJE | 1926-2022 | 20.9 | 17.2 | 3.6 | 4 |
| LESKOVAC | 1948-2022 | 19.9 | 16.8 | 3.1 | 4 |
| DIMITROVGRAD | 1945-2022 | 18.8 | 15.7 | 3.0 | 5 |
| ZLATIBOR | 1950-2022 | 16.6 | 13.4 | 3.2 | 5 |
| KOPAONIK | 1950-2022 | 11.9 | 9.0 | 2.9 | 5 |
| KRAGUJEVAC | 1925-2022 | 20.0 | 17.3 | 2.7 | 5 |
| S.PALANKA | 1939-2022 | 19.9 | 17.3 | 2.7 | 5 |
| NIS | 1925-2022 | 20.9 | 18.0 | 2.9 | 6 |
| KRALJEVO | 1926-2022 | 20.0 | 17.3 | 2.7 | 6 |
| KURSUMLIJA | 1952-2022 | 18.4 | 15.8 | 2.6 | 6 |
| SJENICA | 1946-2022 | 14.6 | 12.3 | 2.3 | 6 |
| V.GRADISTE | 1926-2022 | 19.6 | 17.2 | 2.4 | 7 |
| NEGOTIN | 1927-2022 | 20.7 | 18.1 | 2.6 | 8 |
| KRUSEVAC | 1927-2022 | 19.6 | 17.2 | 2.3 | 9 |
| ZAJECAR | 1929-2022 | 18.4 | 16.7 | 1.7 | 13 |

In [Appendix](#) are provided graphs which show 15 warmest years since the record-keeping at these stations began: Novi Sad, Palic, Sremska Mitrovica, Zrenjanin, Loznica, Kikinda, Sombor and Belgrade.

Mean September air temperature ranged from 17,9°C in Pozega to 22,2°C in Belgrade, and on the mountains from 11,9°C at Kopaonik to 16,6°C at Zlatibor (*Figure 2*).

Departure of the mean monthly air temperature from the normal¹ for the 1991–2020 base period ranged from +1,7°C in Zajecar to +4,2°C in Novi Sad (*Figure 3*).

Mean air temperature, based on the percentile method², was in the categories of very warm and extremely warm, whereas it was warm in Veliko Gradiste and Zajecar (*Figure 4*).

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

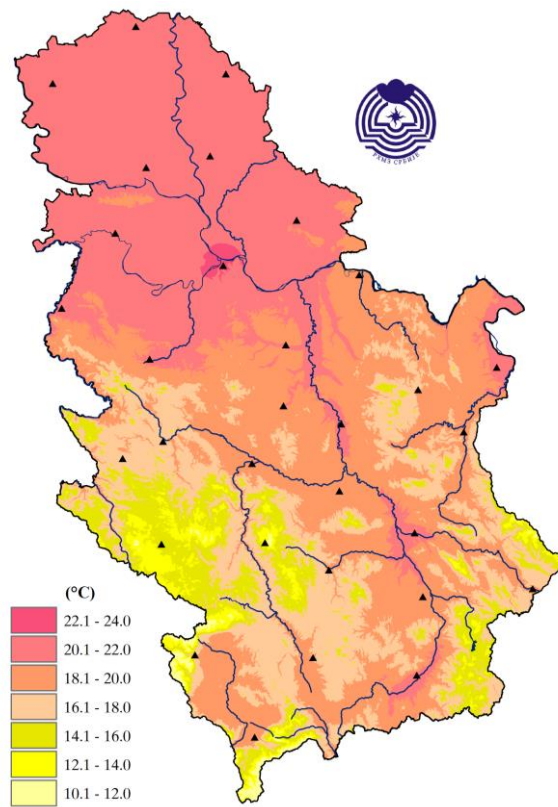


Figure 2. Spatial distribution of mean monthly air temperature (°C)

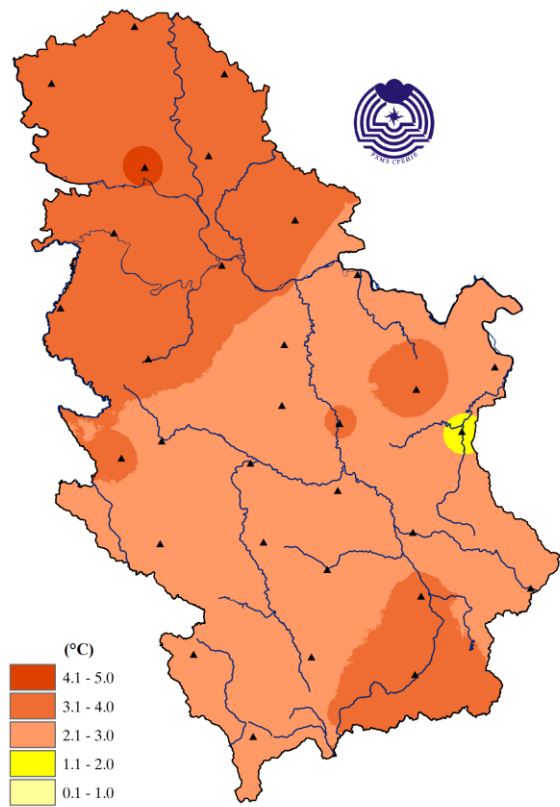


Figure 3. Spatial distribution of mean monthly air temperature anomaly (°C)

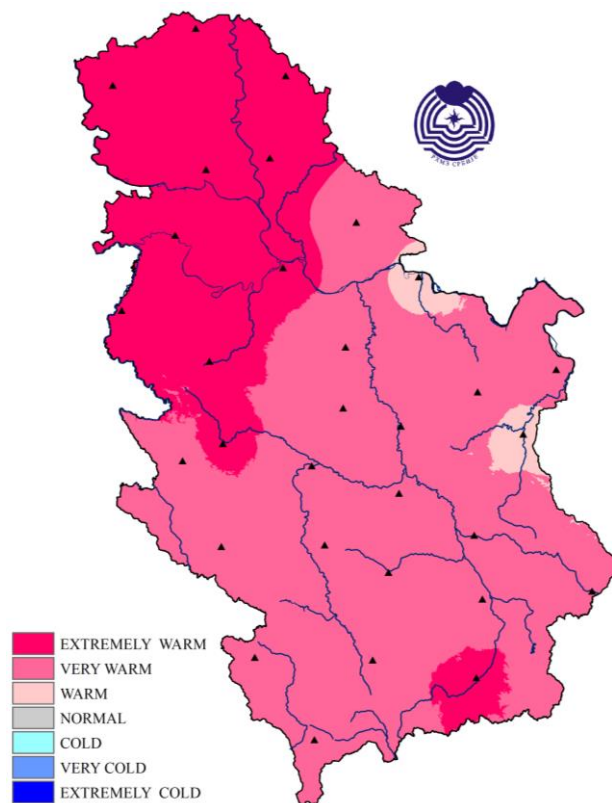


Figure 4. Spatial distribution of the mean monthly air temperature using percentile method

Mean daily air temperature in Belgrade, based on the percentile method, was in the following categories: warm and very warm during most of September, extremely warm at the beginning of the third decade, normal category at the beginning of the month and middle of third decade (Figure 5). 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](#).

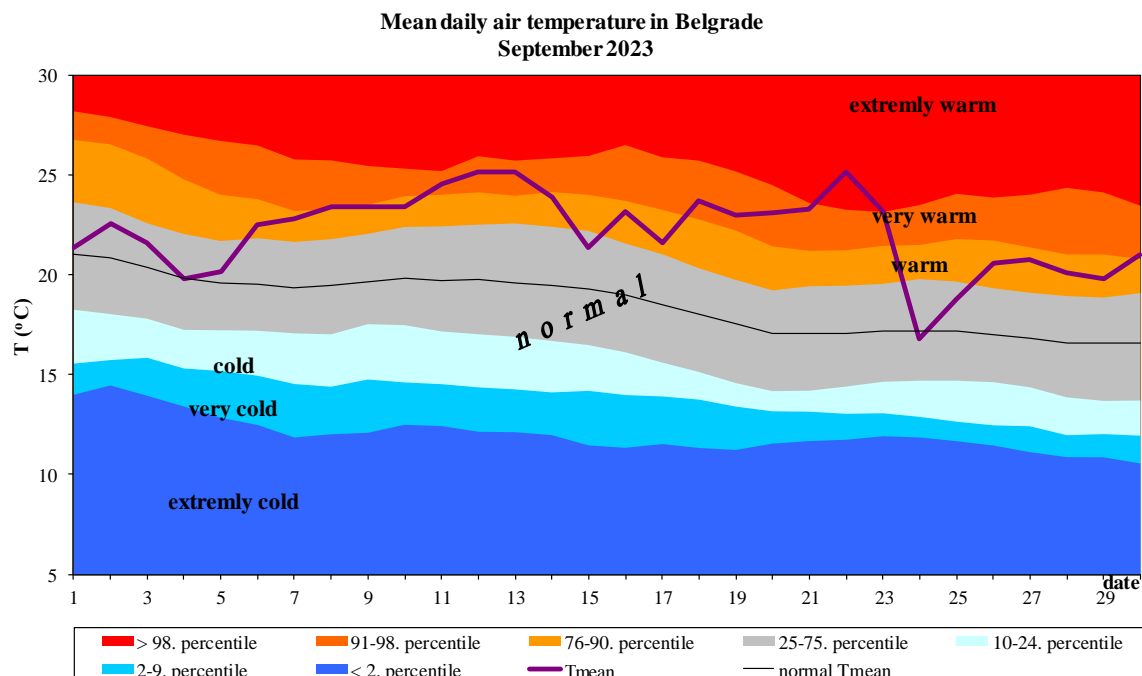


Figure 5. Daily course of the mean daily air temperature and accompanying percentiles for Belgrade

Maximum air temperature

Mean maximum air temperature in September ranged from 26,8°C in Pozega to 29,6°C in Leskovac, whereas Belgrade observed air temperature of 28,8°C. On the mountains, mean maximum air temperature ranged from 16,6°C at Kopaonik to 22,8°C in Sjenica.

Based on the percentile method, mean maximum monthly air temperature was in the categories of warm and extremely warm.

Never before have five main meteorological stations recorded higher mean maximum September air temperature (Table 2).

Table 2. Record-breaking mean maximum air temperature

| MMS station | Tsrxmax September 2023 | New record Tsrxmax | Year of previous record Tsrxmax |
|-------------|------------------------------|-----------------------|--|
| NOVI SAD | 29.3 | 28.4 | 2011 |
| SOMBOR | 29.2 | 28.3 | 2011 |
| ZRENJANIN | 29.1 | 28.8 | 1947 |
| KIKINDA | 28.8 | 27.9 | 2011 |
| PALIC | 28.0 | 27.4 | 2011 |

The highest daily maximum air temperature of 36,4°C was measured in Cuprija on September 23, whereas Belgrade observed 34,0°C on September 12.

In most of Serbia, there were 27 to 29 summer days³, which is **the highest number of summer days at 9 main meteorological stations since record-keeping began** with 6 stations equaling the previous record (*Table 3*). In most of the country, the recorded number of summer days ranged from 10 to 16 days above the September average (*Figure 6*).

Table 3. Record-breaking number of summer days

| MMS stations | Number of summer days September 2023 | The previous record of summer days | Year of the previous record |
|--------------|--------------------------------------|------------------------------------|-----------------------------|
| ZRENJANIN | 29 | 27 | 1947/2011 |
| NIS | 29 | 28 | 1982/1994 |
| PALIC | 28 | 25 | 1987 |
| NOVI SAD | 28 | 27 | 1982 |
| KIKINDA | 28 | 25 | 1982/1987/1994 |
| VALJEVO | 28 | 26 | 1946 |
| CUPRIJA | 28 | 27 | 1982/1994 |
| SOMBOR | 27 | 26 | 1982 |
| BEOGRAD | 27 | 26 | 2011 |

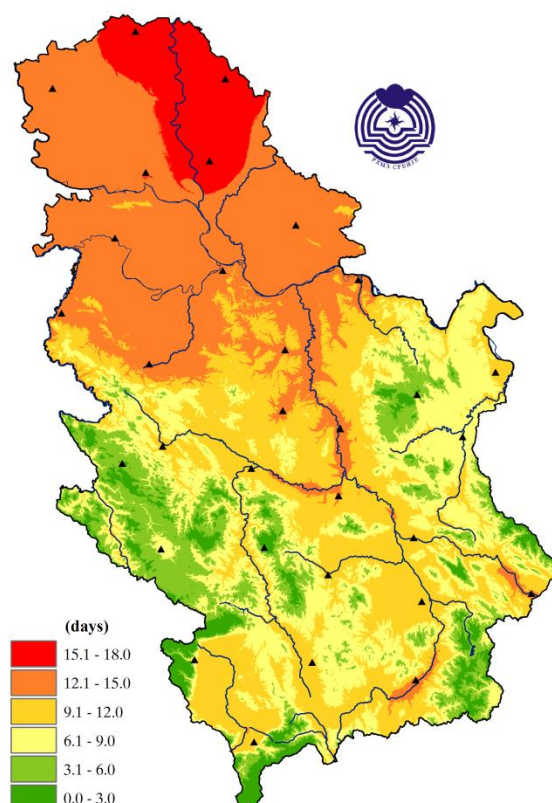


Figure 6. Deviation of the number of summer days from the normal

³ Summer day refers to a day with maximum daily air temperature 25°C and above

Number of tropical days⁴ ranged from 4 in Veliko Gradište, Požega and Kursumlija to 15 in Sremska Mitrovica and Leskovac. On the mountains, there were not any tropical days. The recorded number of tropical days was 3 to 10 days above the September average. **Record-breaking number of tropical days** was observed in Sombor and Novi Sad. Novi Sad recorded 14 tropical days thereby breaking the previous record of 12 days set in 2011. Sombor recorded 13 days thereby breaking the previous record of 11 days set in 1987 and 2011.

Three heat waves⁵ were recorded. The first one lasted from September 7 to 13 mostly in the north. The second heat wave lasted from September 17 to 23 in parts of northern and western Serbia, and the third heat wave was recorded between 26 and 30 September in the north of the country (*Table 4*).

Table 4. Heat waves in Serbia

| HEAT WAVES IN SERBIA - SEPTEMBER 2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| (relative to the 1991-2020 base period) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEPTEMBER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| stanica/dan | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | |
| PALIC | | | | | | | VW | VW | VW | VW | EW | EW | EW | | | | | | | | | | | | | | VW | VW | VW | EW | VW | | |
| SOMBOR | | | | | | | VW | VW | VW | VW | EW | EW | EW | EW | | | | | | | | | | | | | VW | VW | VW | EW | EW | | |
| KIKINDA | | | | | | | VW | VW | VW | VW | VW | EW | EW | | | | | | VW | VW | VW | EW | EW | | | | VW | VW | VW | VW | VW | | |
| ZRENJANIN | | | | | | | VW | VW | VW | VW | VW | EW | EW | | | | | | VW | VW | EW | EW | EW | | | | VW | VW | VW | VW | VW | | |
| NOVI SAD | | | | | | | VW | VW | VW | EW | VW | EW | EW | | | | | | VW | VW | VW | EW | EW | | | | VW | VW | VW | VW | VW | | |
| SR.MITROVICA | | | | | | | VW | VW | VW | VW | EW | VW | | | | | | VW | VW | VW | VW | EW | EW | | | | | | | | | | |
| BEOGRAD | | | | | | | | | | VW | VW | EW | EW | | | | | | | | | | | | | | | | | | | | |
| LOZNICA | | | | | | | | | | | | | | | | | | | VW | VW | VW | VW | EW | EW | VW | | | | | | | | |
| VALJEVO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V.GRADISTE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SM.PALANKA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KRAGUJEVAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KRALJEVO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POZEGA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZLATIBOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CUPRIJA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KRUSEVAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEGOTIN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZAJECAR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CRNI VRH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KOPAONIK | | | | | | | | | | | | | | | | | | | | | VW | VW | VW | EW | EW | | | | | | | | |
| SJENICA | | | | | | | | | | | | | | | | | | | | | VW | VW | VW | VW | EW | EW | | | | | | | |
| NIS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VRANJE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIMITROVGRAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LESKOVAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KURSUMLIJA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.KARLOVAC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | VW | VW |

EW

VW

EXTREMELY WARM

VERY WARM

| | |
|----|----------------|
| EW | EXTREMELY WARM |
| VW | VERY WARM |

Figure 7 shows daily course of the maximum daily air temperature and the accompanying percentiles for Belgrade in September 2023 and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the [Appendix](#).

⁴ Tropical day refers to a day with maximum daily air temperature 30°C and above

⁵ Heat wave is, according to the percentile method, is a period during which maximum daily air temperature is in the warm and very warm categories for 5 consecutive days or longer

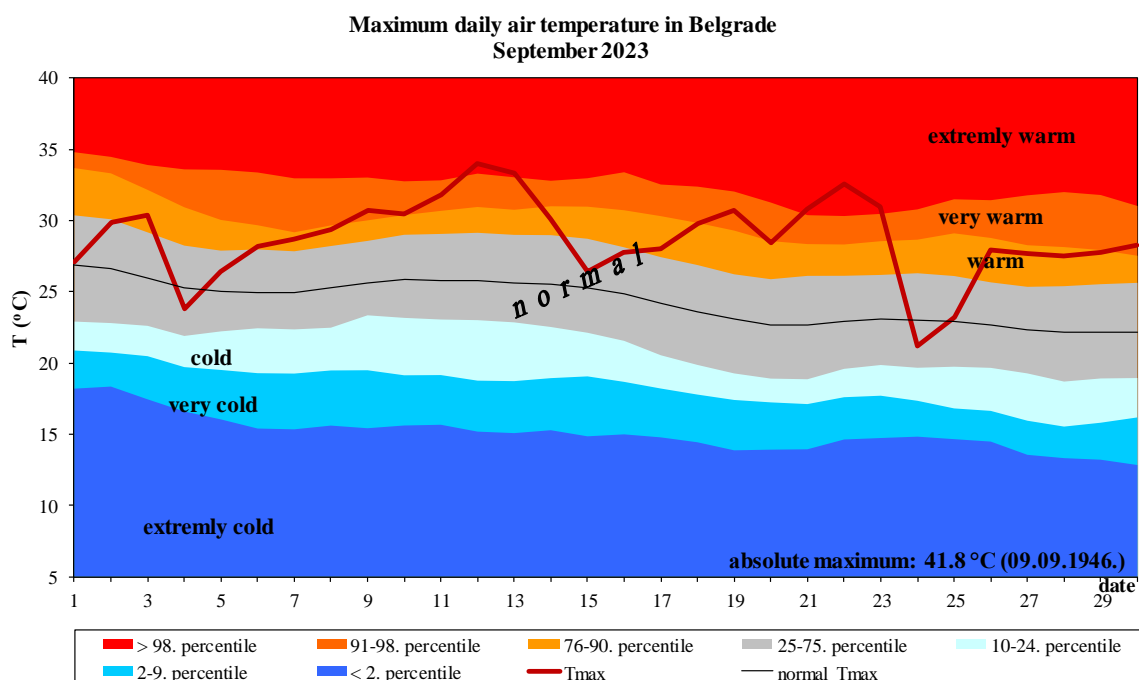


Figure 7. Daily course of the maximum daily air temperature and accompanying percentiles for Belgrade

Minimum air temperature

Mean minimum air temperature in September ranged from 11,3°C in Zajecar to 17,3°C in Belgrade. On the mountains, mean minimum air temperature ranged from 8,3°C in Sjenica to 12,7°C at Crni Vrh.

Based on the percentile method, mean minimum air temperature was in the following categories: very warm and extremely warm in most of the country, and warm category in Kragujevac, Pozega, Leskovac and Zajecar.

The highest mean minimum air temperature since record-keeping began was observed at the six main meteorological stations (Table 5).

Table 5. Record-breaking mean minimum air temperature

| MMS | Tsrmin September 2023 | Previous record Tsrmin | Year of the previous record Tsrmin |
|-------------|-----------------------------|------------------------------|---|
| BEOGRAD | 17.28 | 17.10 | 2011 |
| LOZNICA | 14.87 | 14.46 | 1994 |
| NOVI SAD | 14.61 | 14.58 | 1994 |
| VALJEVO | 14.44 | 14.20 | 2011 |
| S.MITROVICA | 13.83 | 13.78 | 1982 |
| KURSUMLIJA | 12.51 | 12.21 | 2015 |

The lowest minimum daily air temperature of 2,0°C was measured in Sjenica on September 30. In the lowland, the lowest daily air temperature of 5,5°C was measured in Zajecar on September 29. On September 30, Belgrade observed the lowest September air temperature of 13,1°C.

Three tropical nights⁶ were recorded in Belgrade, 1 in Loznica, Cuprija and Vranje.

Figure 8 shows assessment of the minimum and maximum air temperature in Serbia for September based on the tercile distribution relative to the 1991-2020 base period. It can be noted that the mean minimum and mean maximum air temperature were significantly above the upper tercile boundary.

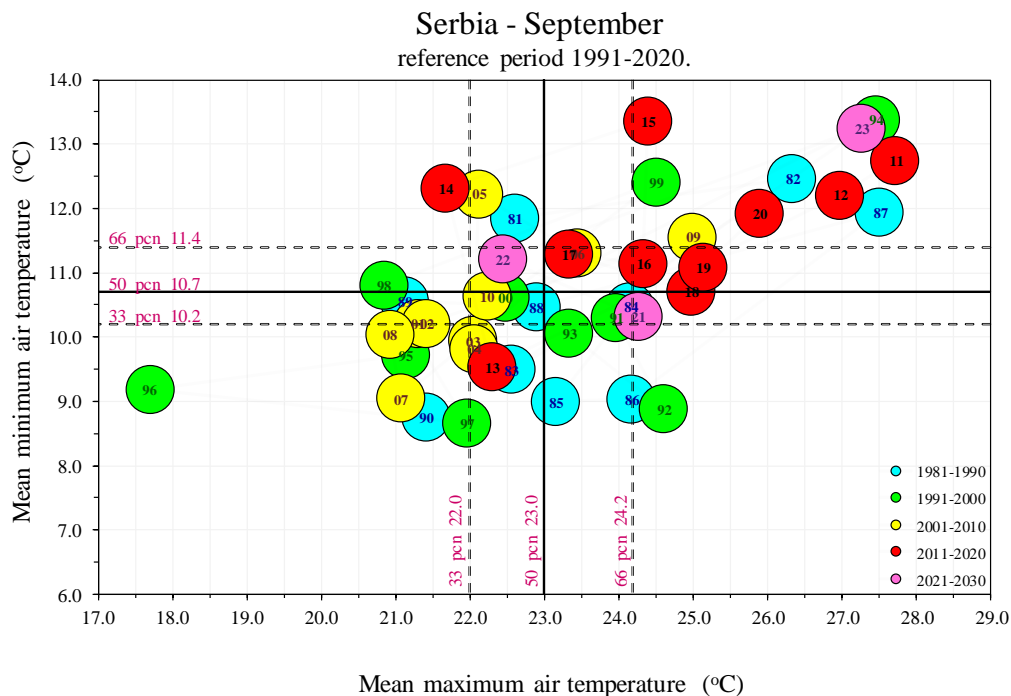


Figure 8. Assessment of minimum and maximum air temperature for Serbia with the accompanying terciles in relation to the 1991-2020 base period

Figure 9 shows daily course of the minimum daily air temperature and the accompanying percentiles for Belgrade in September 2023, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the [Appendix](#).

⁶ Tropical night is defined as the day with minimum daily air temperature 20°C and above

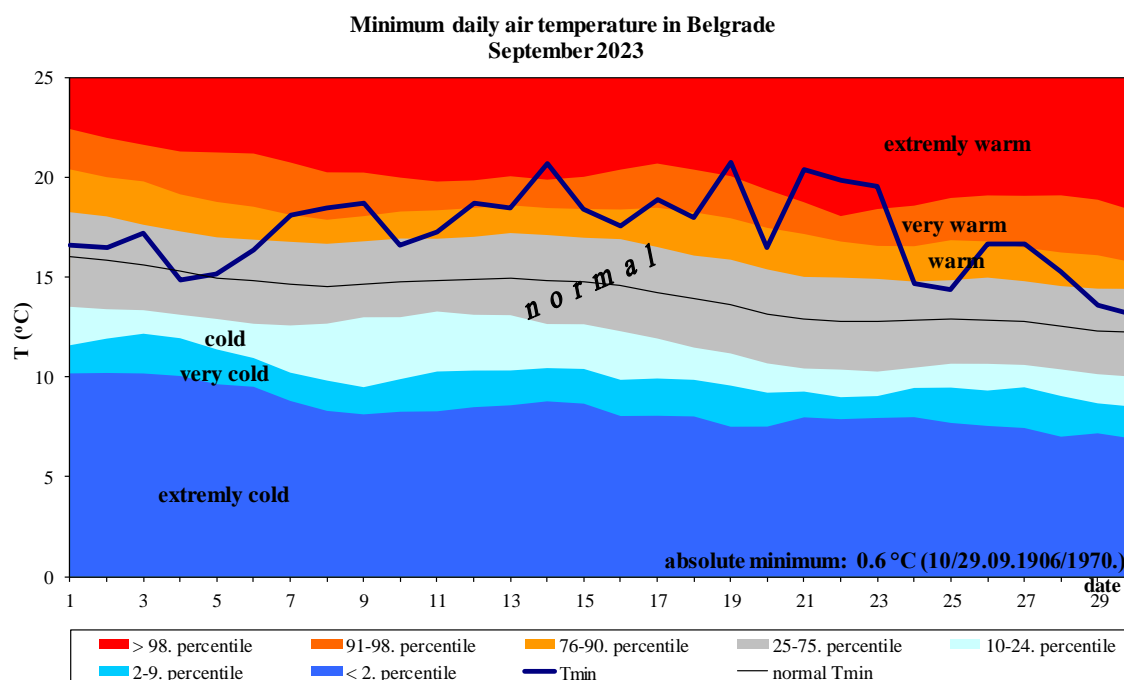


Figure 9. Daily course of the minimum daily air temperature and accompanying percentiles for Belgrade

PRECIPITATION

Precipitation sums recorded in September ranged from 8,3 mm in Vranje to 107,7 mm in Negotin, whereas Belgrade observed 71,2 mm of precipitation (*Figure 10*).

Precipitation totals relative to the normal for the 1991-2020 base period ranged from 17% in Vranje to 197% in Negotin (*Figure 11*).

Based on the percentile method, precipitation sums were in the following categories: normal in most of the country, very rainy in Kikinda and Negotin, rainy in Zrenjanin, dry in Kragujevac, Smederevska Palanka and Dimitrovgrad, very dry in Vranje and Crni Vrh (*Figure 12*).

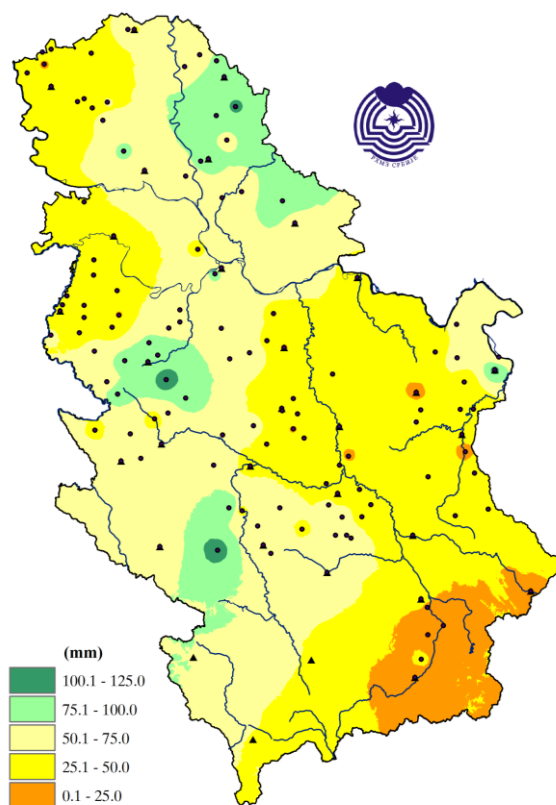


Figure 10. Spatial distribution of the monthly precipitation sums (mm) according to data from 28 major meteorological, 17 climatological and 87 rain gauge stations

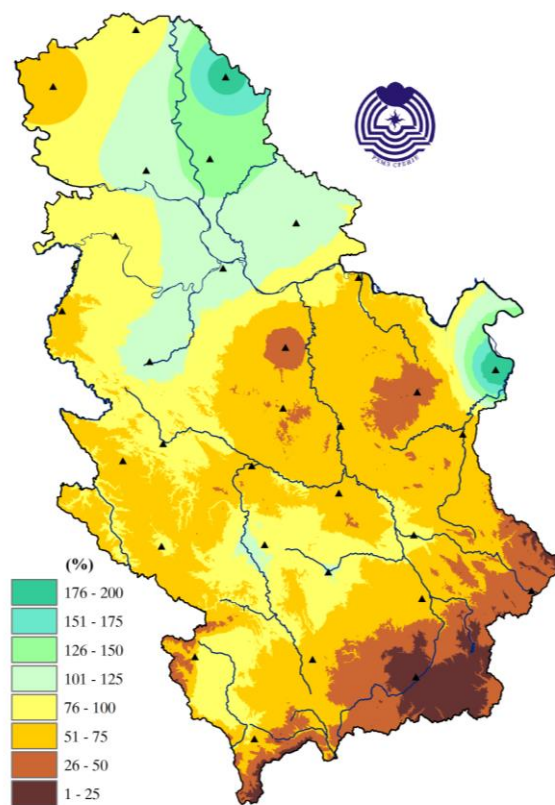


Figure 11. Spatial distribution of the monthly precipitation sums in the percentages of normal for the 1991–2020 base period

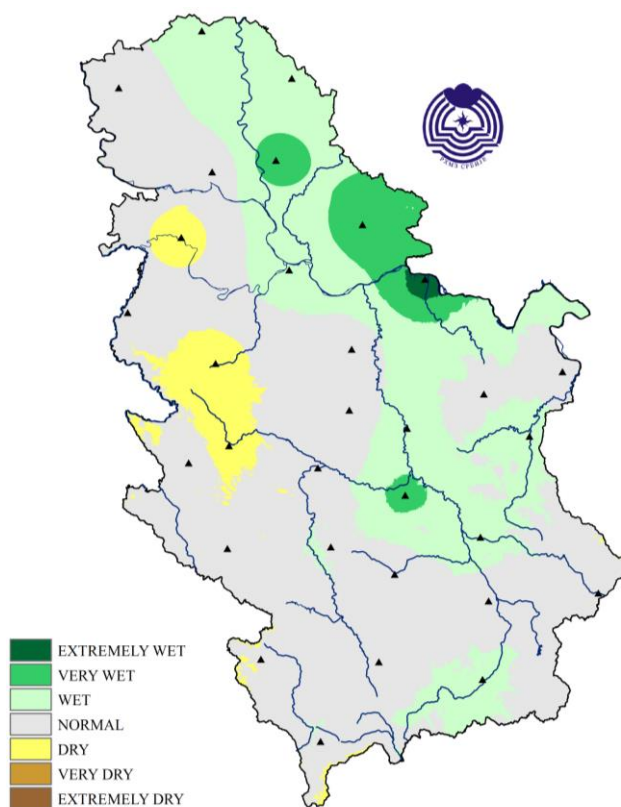


Figure 12. Monthly precipitation sums according to the percentile method

September 2023 ranks as **the 5th wettest** for Negotin (*Figure 13*), **the 7th wettest** for Kikinda, and **the 7th driest** for Vranje (*Figure 14*) and Crni Vrh since the record-keeping at these stations began.

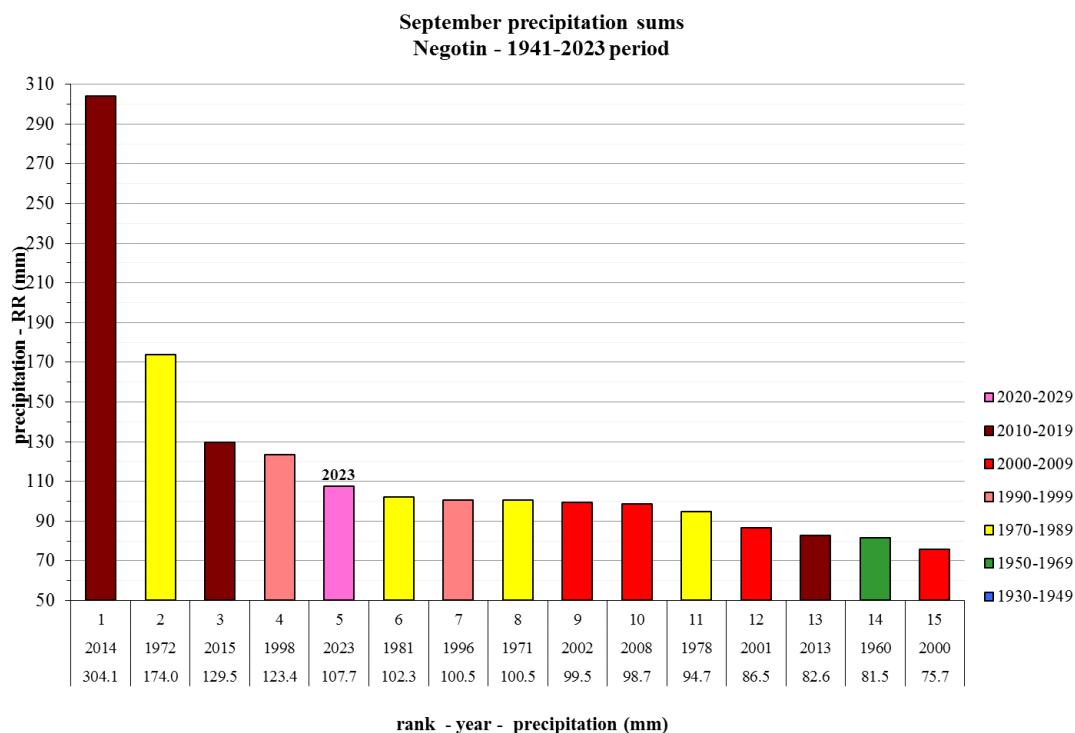


Figure 13. The highest precipitation in Negotin

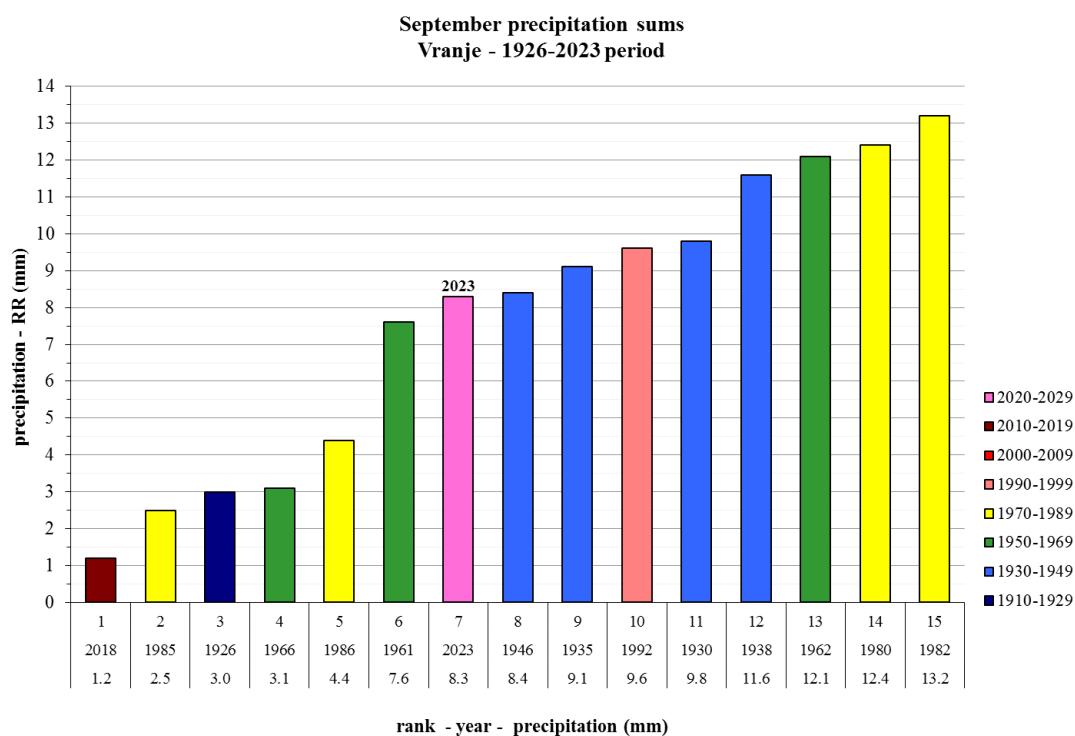


Figure 14. The lowest precipitation in Vranje

The highest daily precipitation sum of 67,0 mm was measured in Zrenjanin on September 25 thereby breaking the previous record of 60,0 mm set in September 6, 2001. On September 25, Belgrade observed the highest daily precipitation sum of 54,2 mm.

Number of days with precipitation ranged from 4 days in Zrenjanin and Banatski Karlovac to 13 days in Sjenica and Kopaonik (*Figure 15*). The observed number of days with precipitation was around the average in most of the country, whereas in the north, 2 to 6 days below the September average were recorded (*Figure 16*).

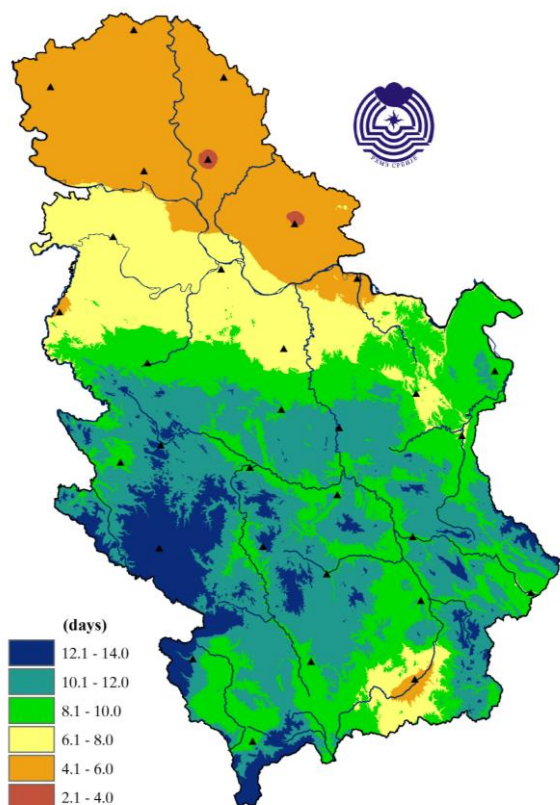


Figure 15. Spatial distribution of number of days with precipitation

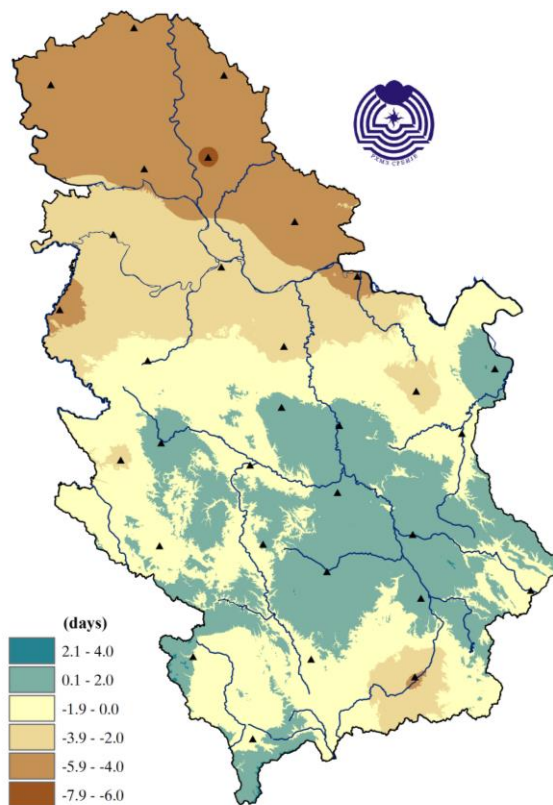


Figure 16. Spatial distribution of deviation of number of days with precipitation

Figure 17 shows assessment of air temperature and precipitation sums for Serbia for September based on the tercile distribution relative to the 1991 – 2020 base period. It can be noted that September 2023 was marked by air temperature significantly above the upper tercile boundary (the third highest) and precipitation sums within the average.

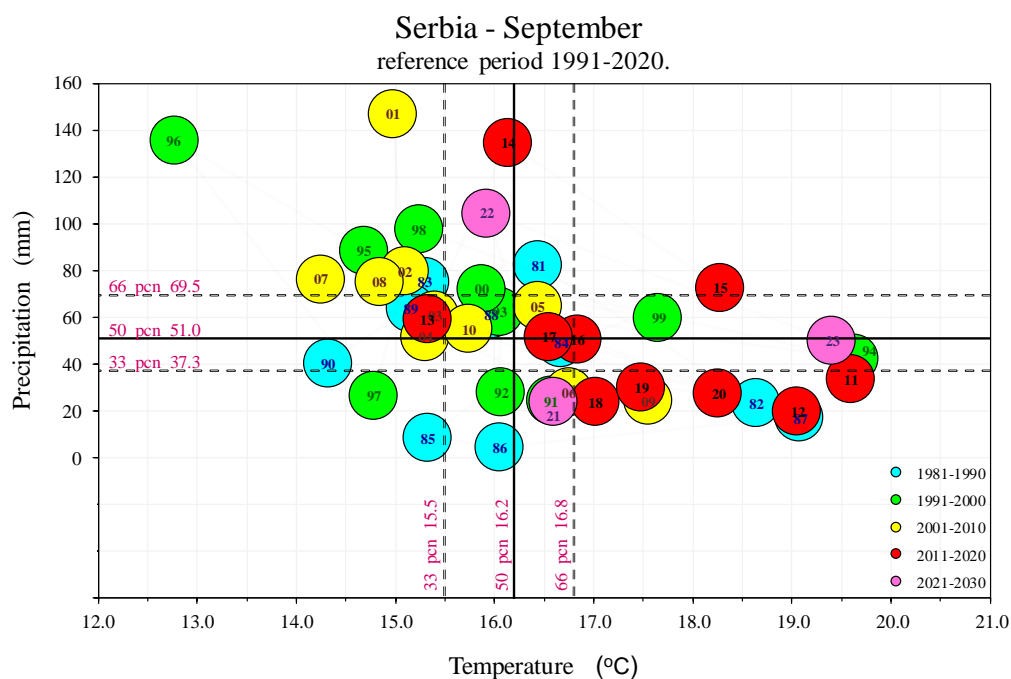


Figure 17. Assessment of air temperature and precipitation for Serbia with the accompanying terciles in relation to the 1991-2020 base period

Figure 18 show daily and cumulative precipitations sums with averaged normal 1991-2020 for September in Belgrade, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje precipitation sums are given in [Appendix](#).

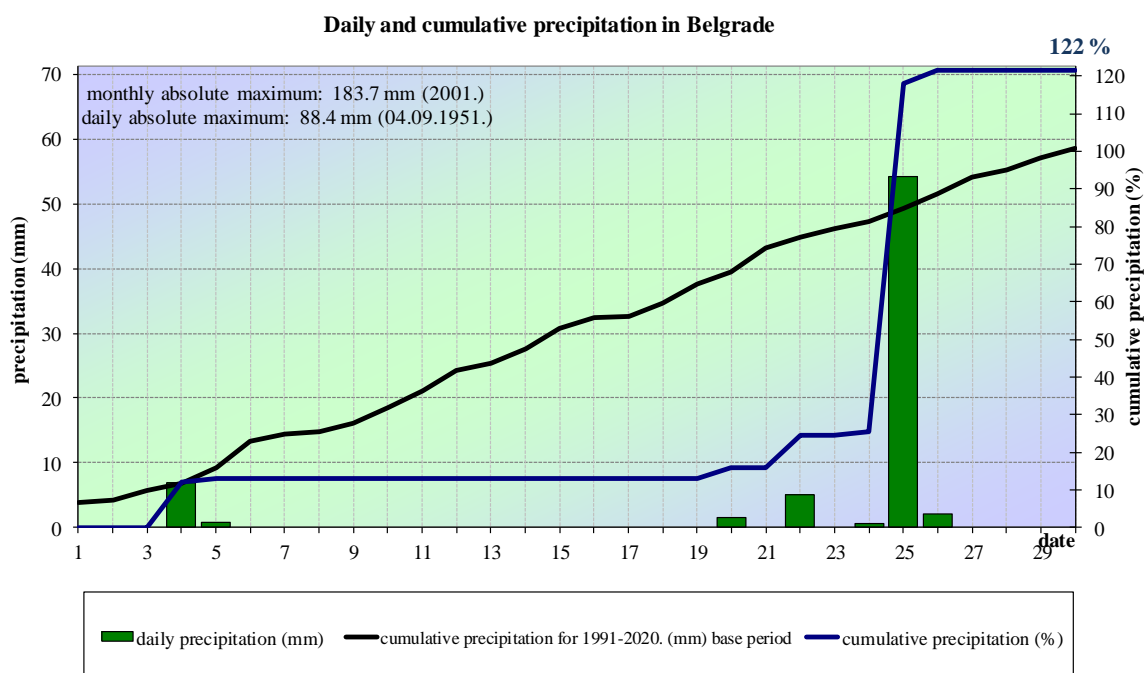


Figure 18. Daily and cumulative precipitation in Belgrade

CLOUD COVER, BRIGHT AND CLOUDY DAYS

Mean September cloud cover in Serbia was around and slightly below the average, ranging from 3/10 to 6/10. Figures 19, 20 and 21 show average September daily cloud cover for Belgrade, Sjenica and Veliko Gradiste.

The least number of bright days⁷ was recorded in Sjenica, total of 1 day, whereas the highest number of bright days, total of 5 days, was recorded in Banatski Karlovac. Belgrade registered 3 bright days. The observed number of bright days was 2 to 6 days above September average in most of the country.

Cloudy days⁸ ranged from 1 day in Banatski Karlovac and Belgrade to 7 days in Sjenica. Number of cloudy days was 2 to 5 days below September average.

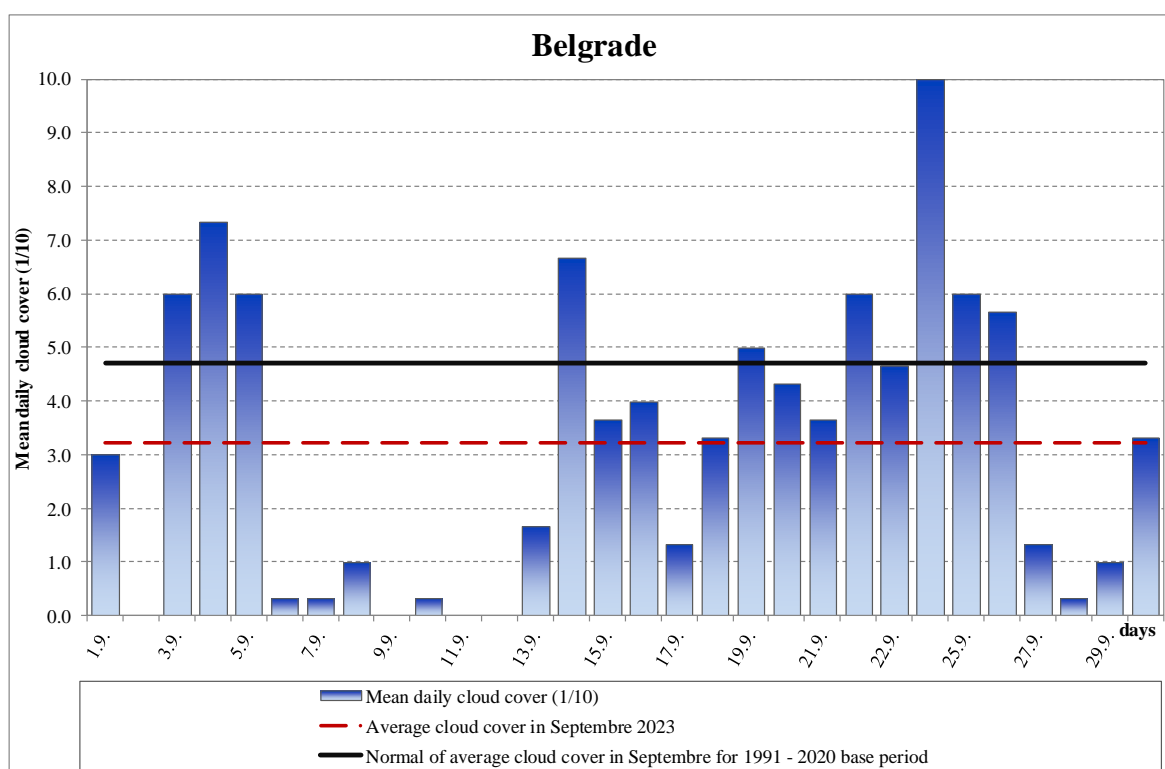


Figure 19. Mean daily cloud cover in Belgrade

⁷ Bright day refers to a day with cloud cover less than 2/10

⁸ Cloudy day refers to a day with cloud cover over 8/10

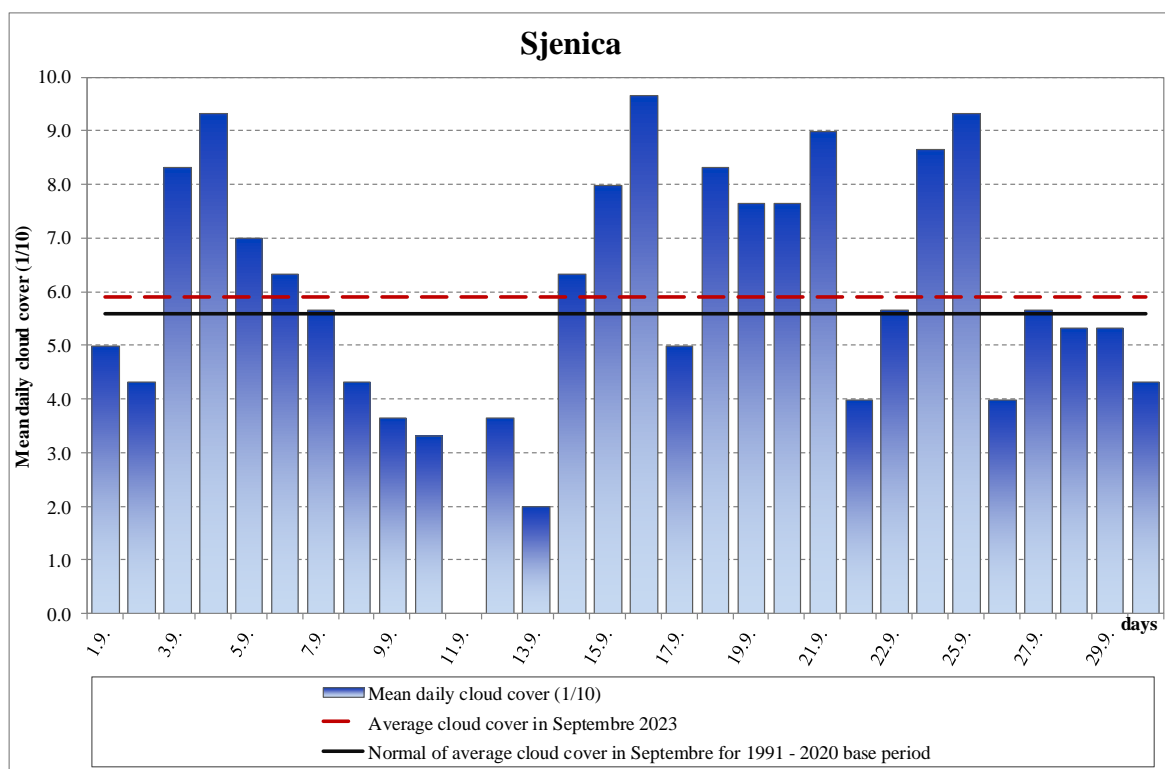


Figure 20. Mean daily cloud cover in Sjenica

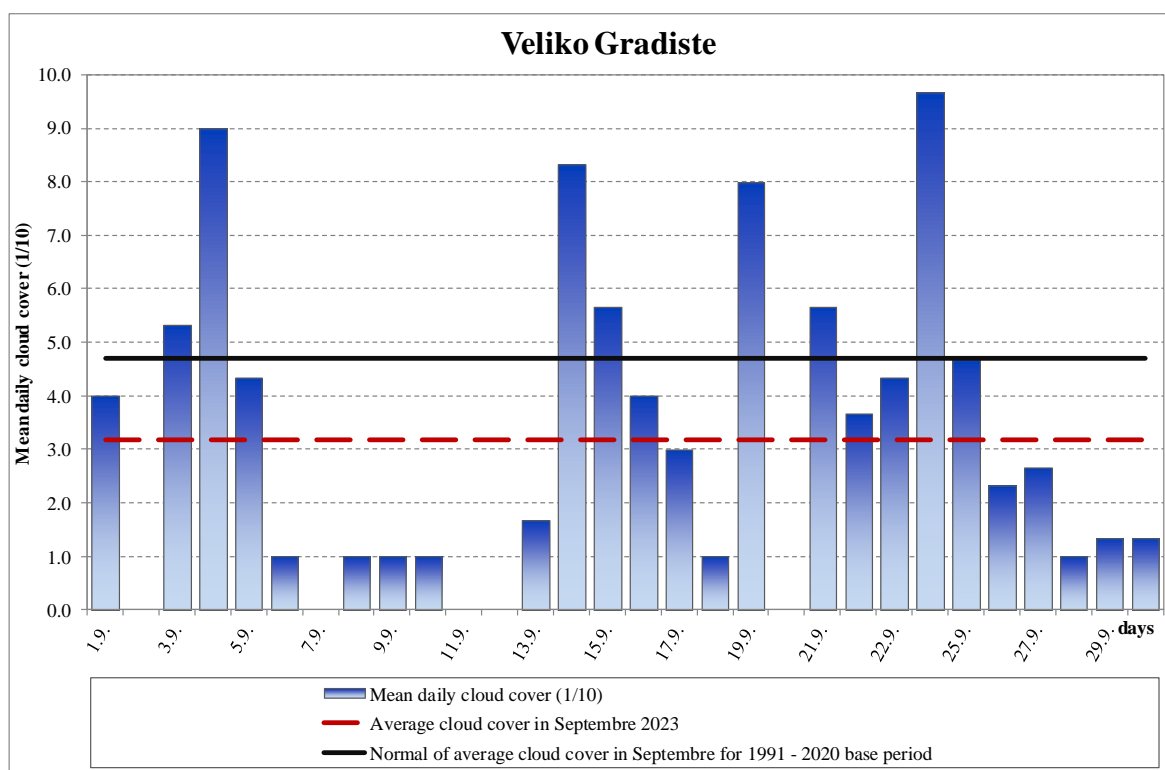


Figure 21. Mean daily cloud cover in Veliko Gradište

SUNSHINE DURATION (INSOLATION)

Sunshine duration in September ranged from 159,1 hours in Zajecar to 273,0 hours in Kikinda (Figure 22).

September insolation ranged from 90% in Zajecar to 130% in Kikinda relative to the normal for the 1991-2020 base period (Figure 23).

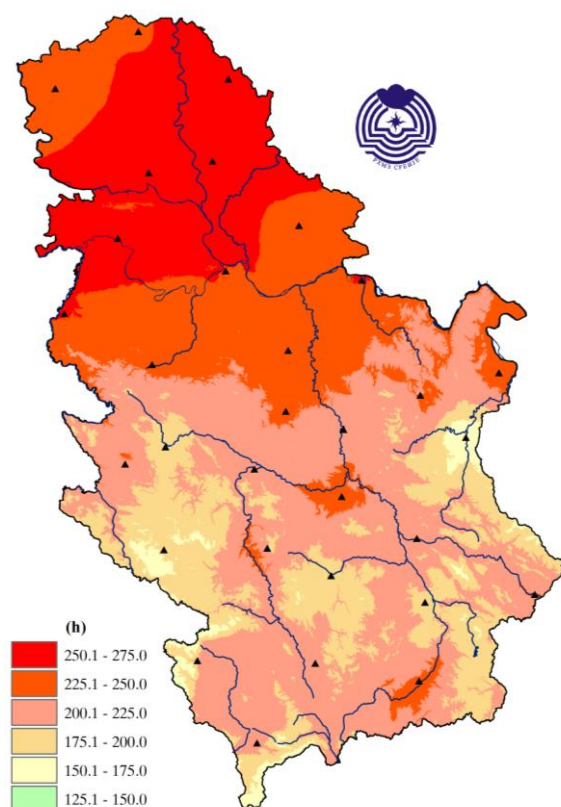


Figure 22. Insolation, expressed in hours

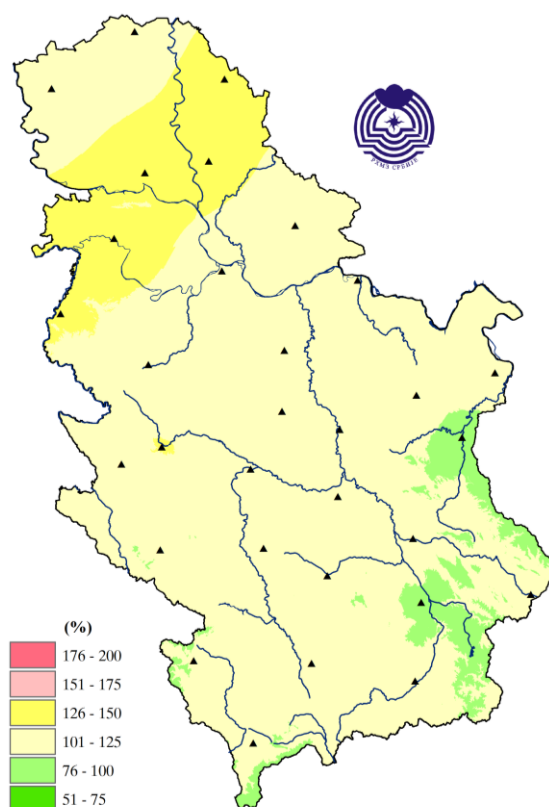


Figure 23. Insolation expressed in the percentages of normal

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

OVERVIEW OF THE SYNOPTIC SITUATION*

Warm, with few incursions of wet air from the west and northwest along with influence of low pressure circulation emanating from the Adriatic Sea and central Mediterranean at the beginning and mid-month, during the second decade as well as middle of third decade, locally heavy rain and severe weather events

The first few days with settled and warm weather were followed by passage of cold atmospheric front from the northwest on the periphery of the spatial anticyclone from the north and west of the continent, within the shallow upper air trough with the axis across the Alps and the Pannonia Plain. Thundershowers with heavy rain affected mostly northeast of the country. Until the middle of the second decade, warm, settled and predominantly dry conditions prevailed apart from showers that were occasionally observed in the southeast and east of the continent due to the influence of pronounced low pressure whirlpool with the center in the Ionian Sea and central Mediterranean.

The middle of the month was characterized by disruption of ridge in the western Mediterranean due to the development and deepening of upper air trough across the eastern Atlantic and western Europe along with establishment of weakly gradient field of geopotential across the central Europe and Balkans. Impact and passage of wet air waves from the west impacting most the north, central areas and east of the country caused heavy rain and thundershowers.

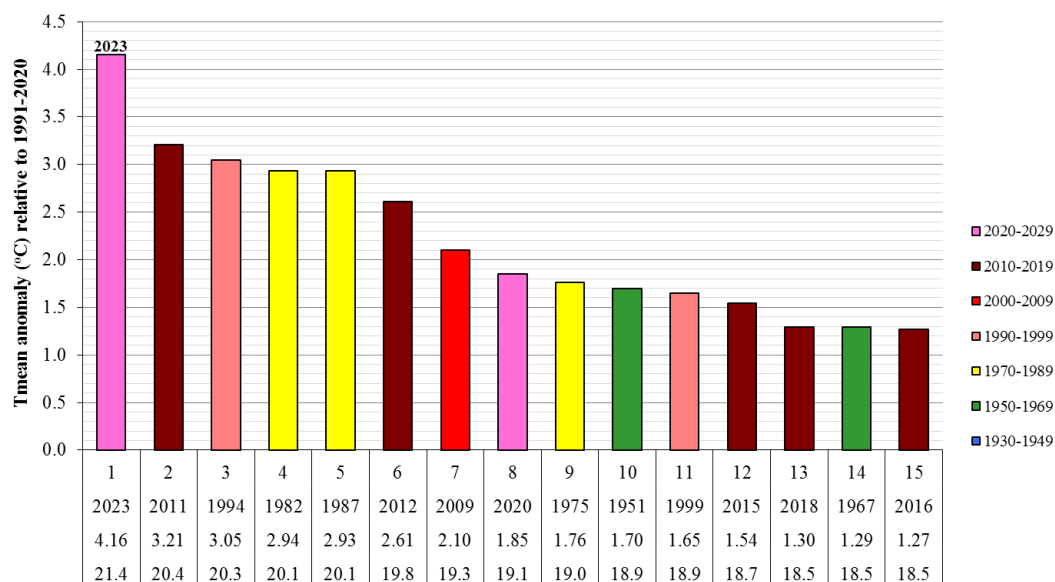
Middle of third decade was characterized by development of another low pressure in the western Mediterranean and Adriatic Sea and accompanying frontal waves which produced significant precipitation sums and severe weather events that were mostly pronounced in Sumadija, Pomoravlje and east of the country. At the end of the month, settled and dry weather prevailed, influenced by ridge from the west as well as weakly pronounced anticyclone on the ground.

* National Center for Hydrometeorological Early Warning System

APPENDIX

Ranks of the warmest September

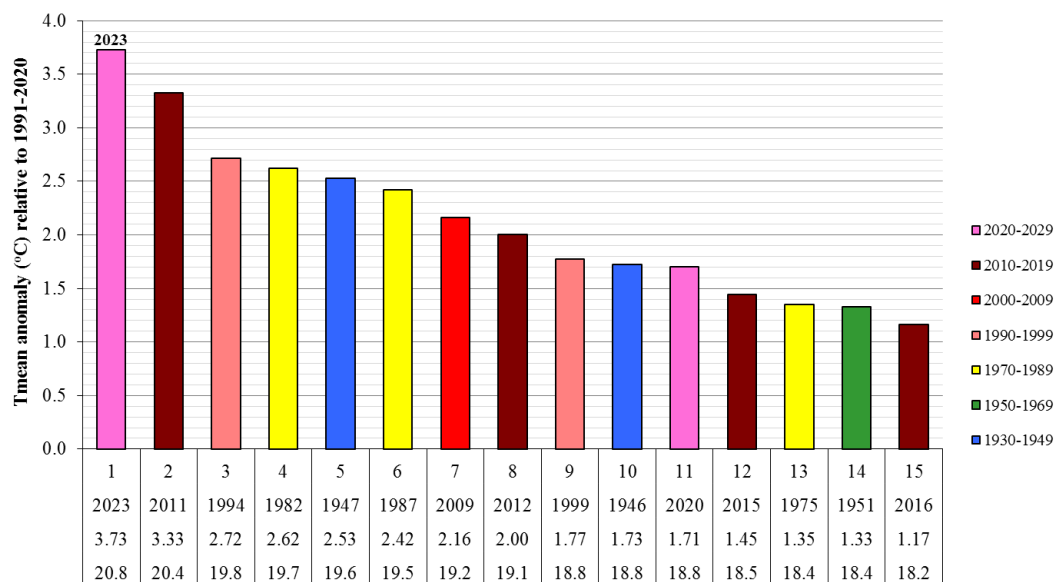
Anomaly of mean September temperature relative to 1991-2020 base period
Novi Sad - 1948-2023 period



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 1. Rank of the warmest September in Novi Sad

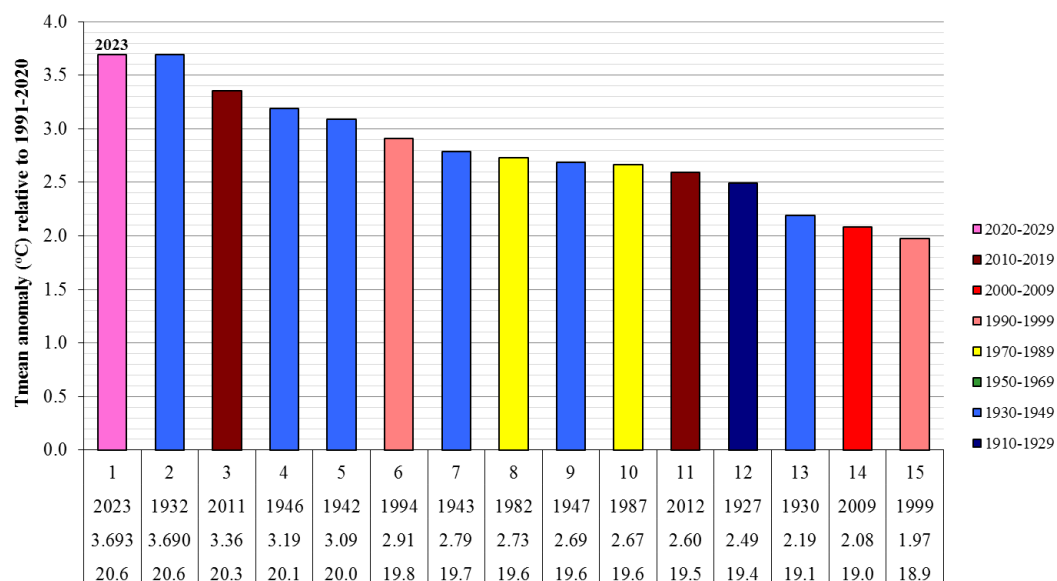
Anomaly of mean September temperature relative to 1991-2020 base period
Palic - 1945-2023 period



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 2. Rank of the warmest September in Palic

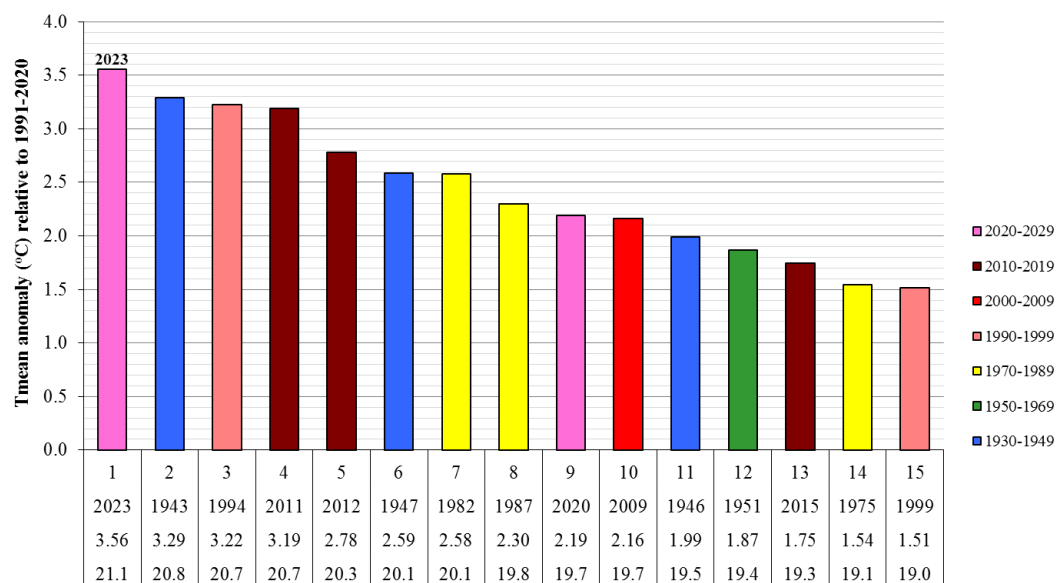
**Anomaly of mean September temperature relative to 1991-2020 base period
Sremska Mitrovica - 1925-2023 period**



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 3. Rank of the warmest September in Sremska Mitrovica

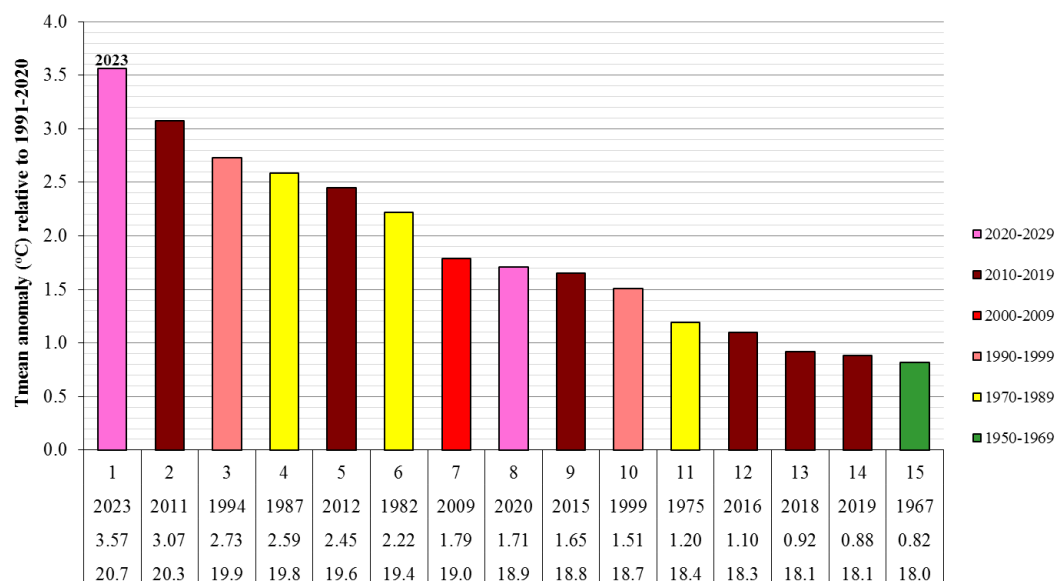
**Anomaly of mean September temperature relative to 1991-2020 base period
Zrenjanin - 1943-2023 period**



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 4. Rank of the warmest September in Zrenjanin

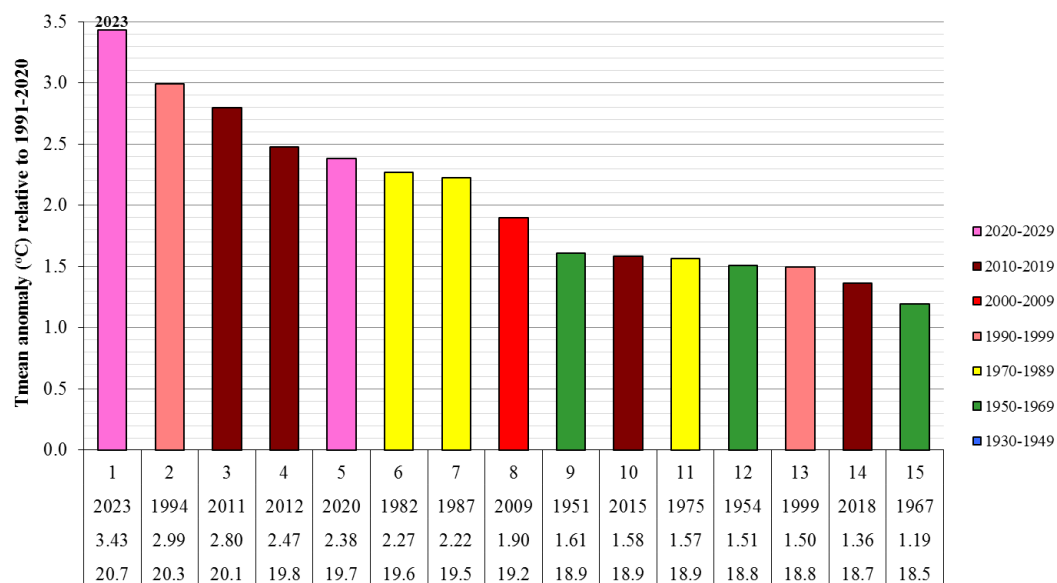
**Anomaly of mean September temperature relative to 1991-2020 base period
Loznica - 1952-2023 period**



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 5. Rank of the warmest September in Loznica

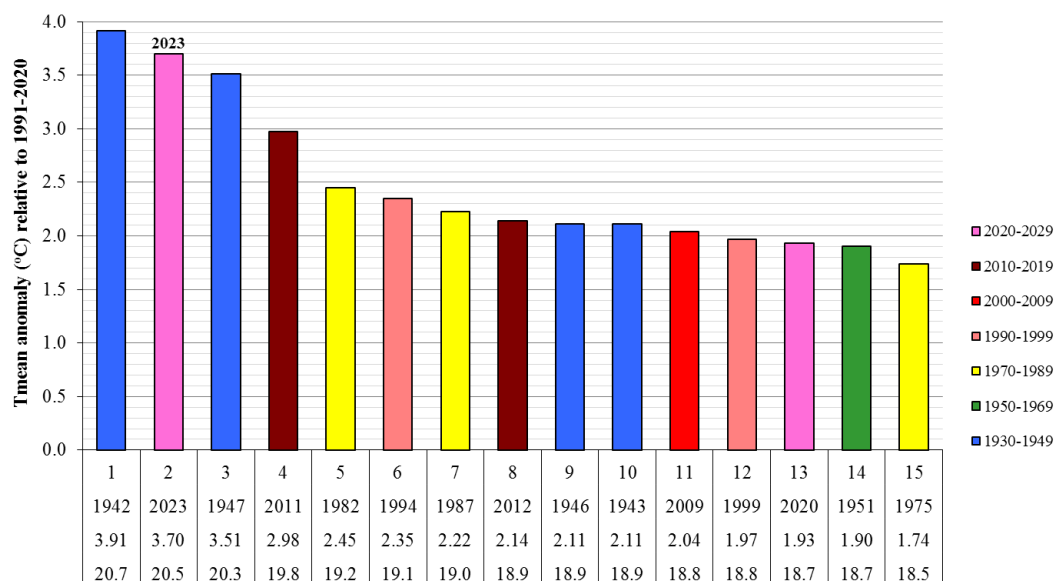
**Anomaly of mean September temperature relative to 1991-2020 base period
Kikinda - 1948-2023 period**



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 6. Rank of the warmest September in Kikinda

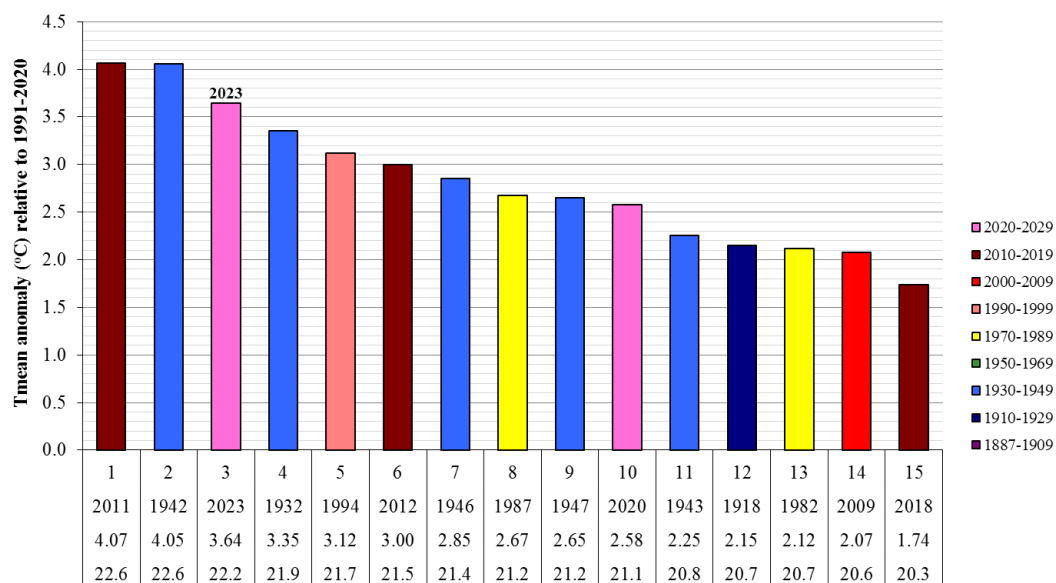
**Anomaly of mean September temperature relative to 1991-2020 base period
Sombor - 1941-2023 period**



ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 7. Rank of the warmest September in Sombor

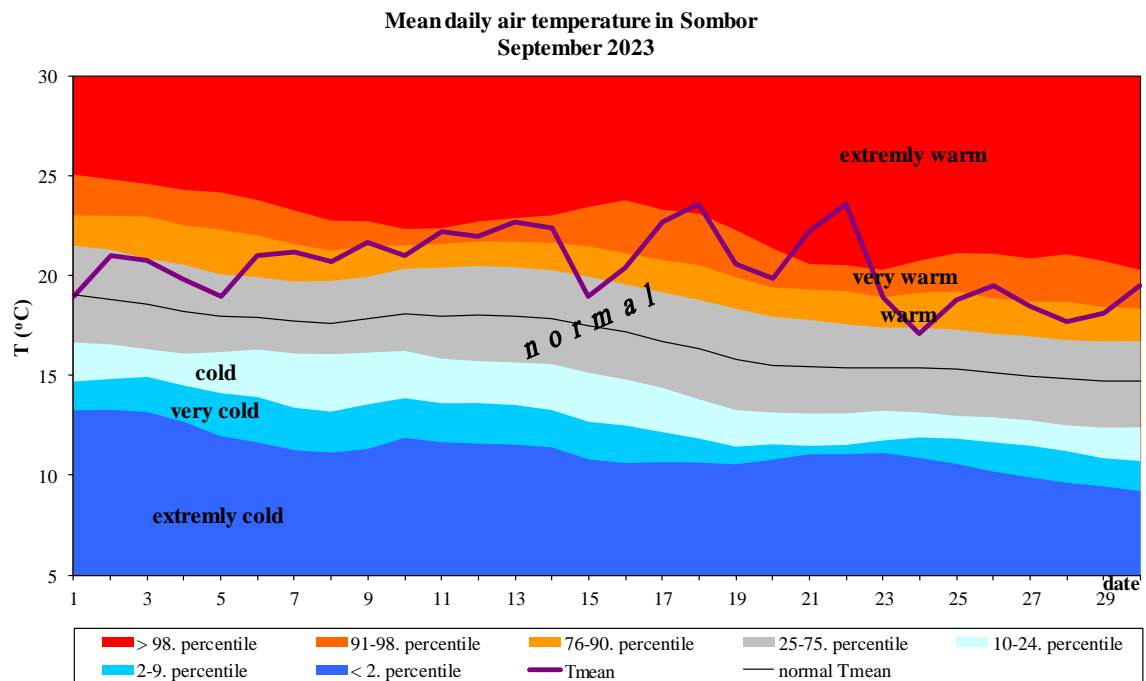
**Anomaly of mean September temperature relative to 1991-2020 base period
Belgrade - 1887-2023 period**



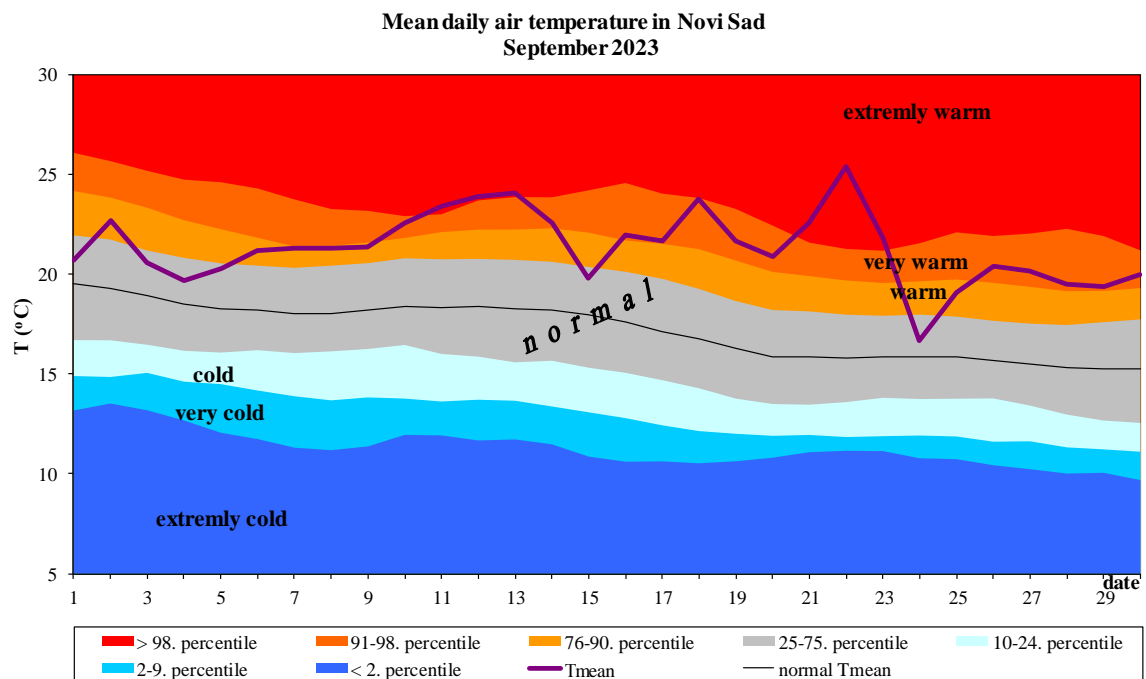
ranking - year - Tmean anomaly (°C) relative to 1991-2020 - Tmean

Appendix 8. Rank of the warmest September in Belgrade

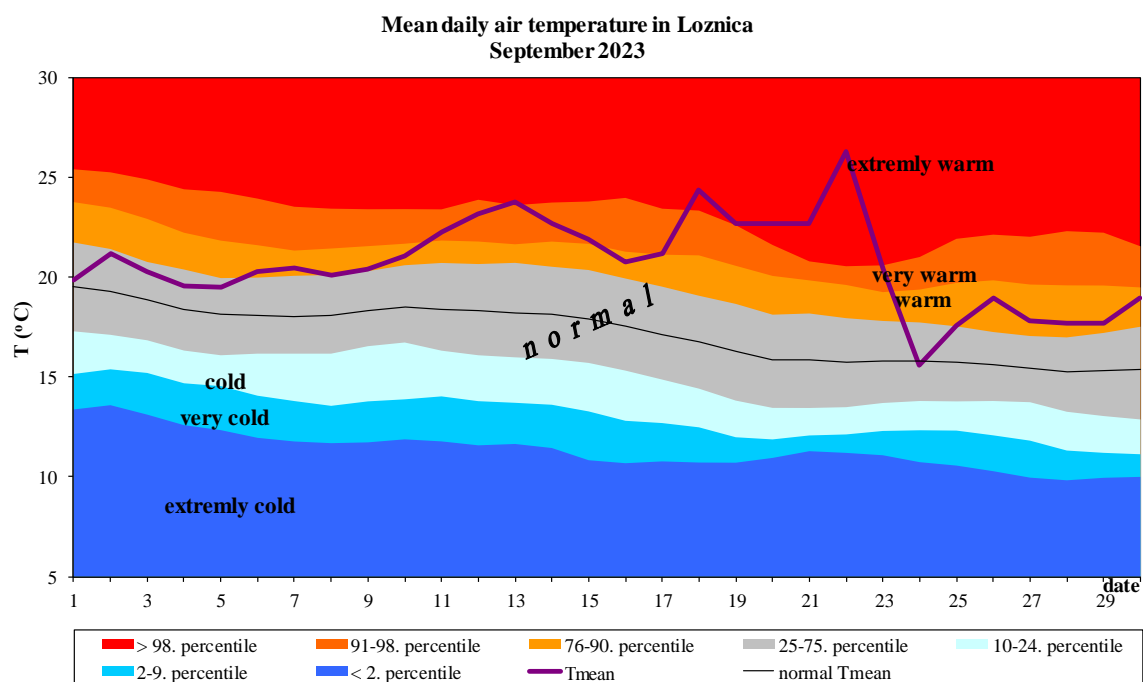
Mean air temperature



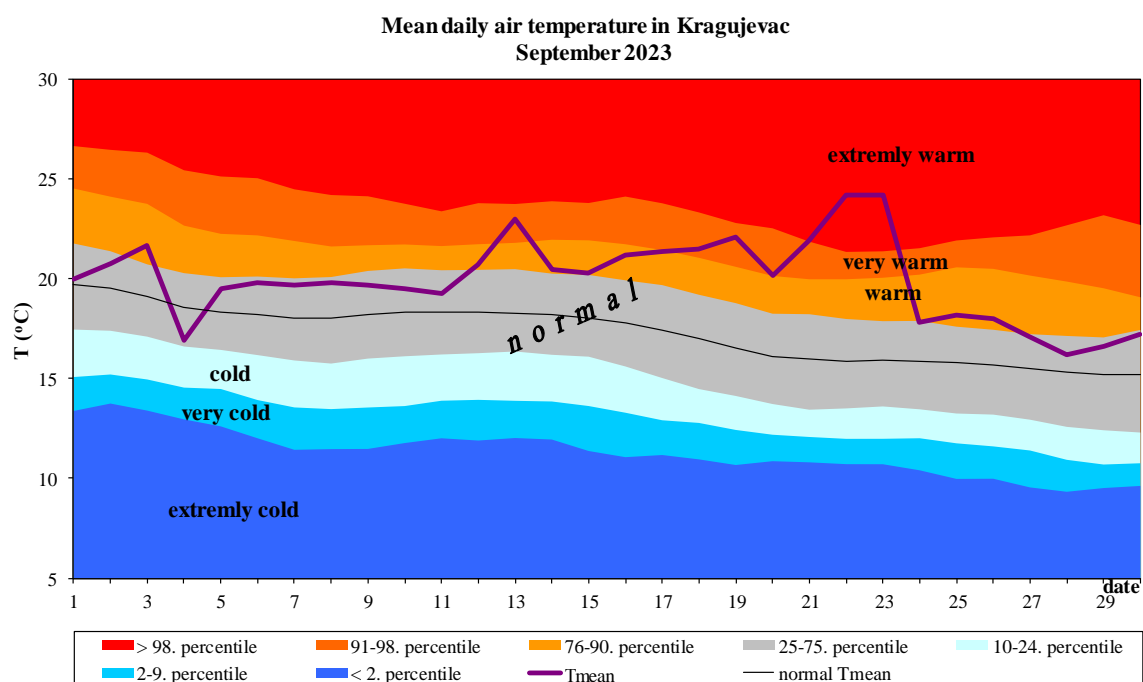
Appendix 9. Daily course of the mean daily air temperature and accompanying percentile for Sombor



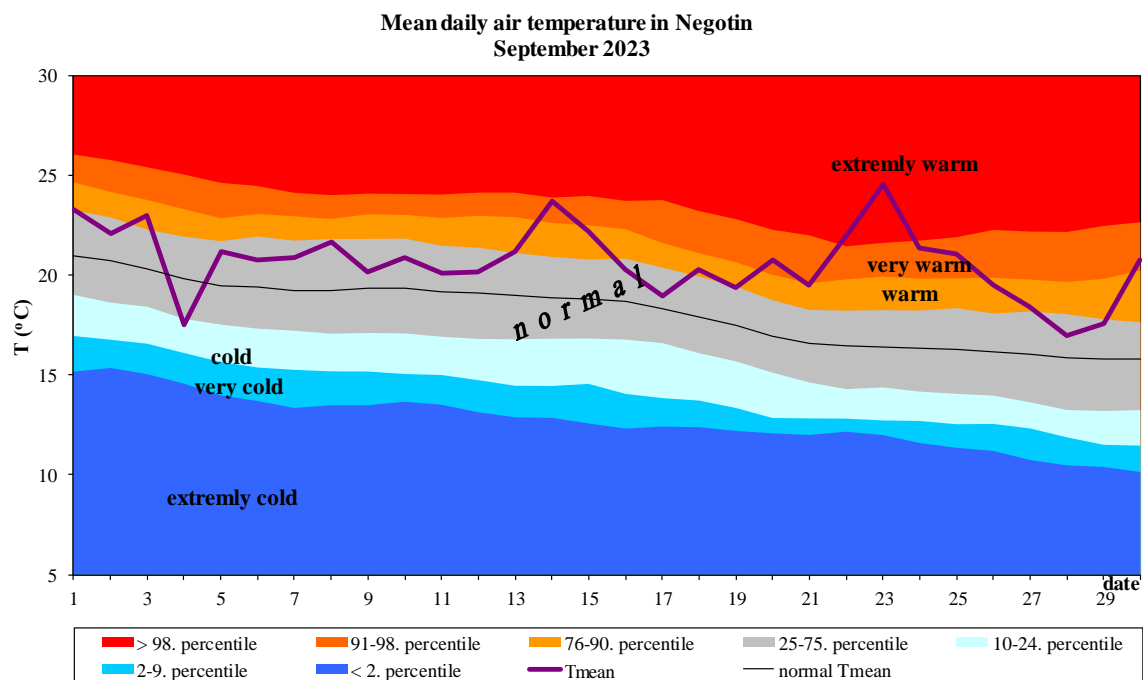
Appendix 10. Daily course of the mean daily air temperature and accompanying percentile for Novi Sad



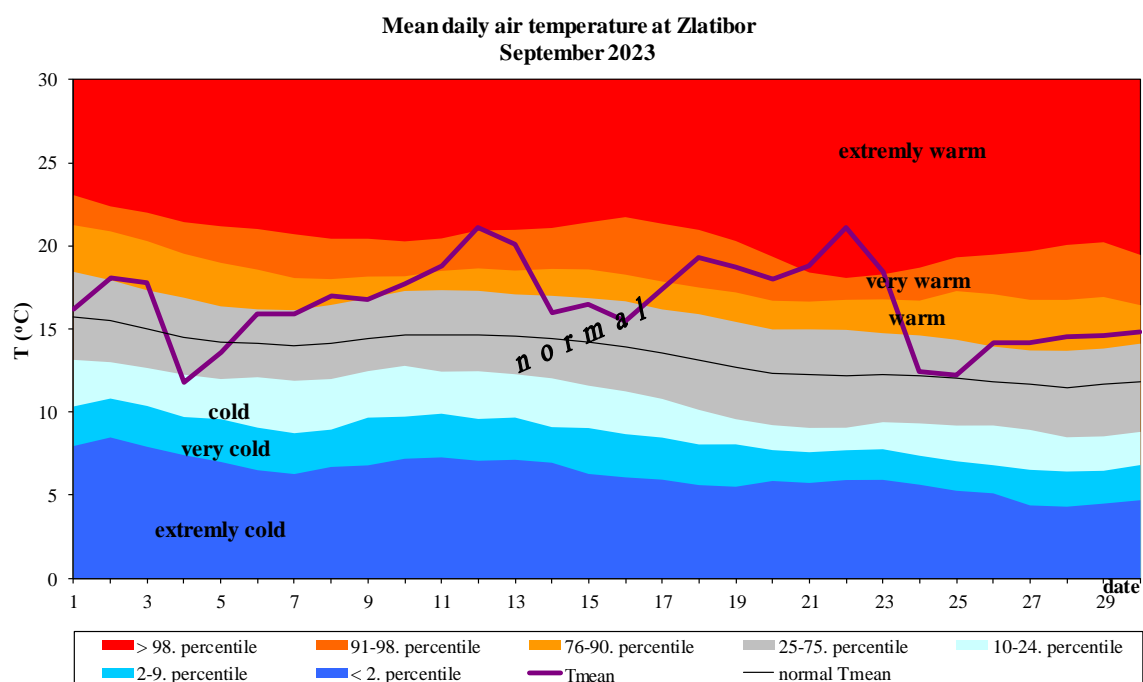
Appendix 11. Daily course of the mean daily air temperature and accompanying percentile for Loznica



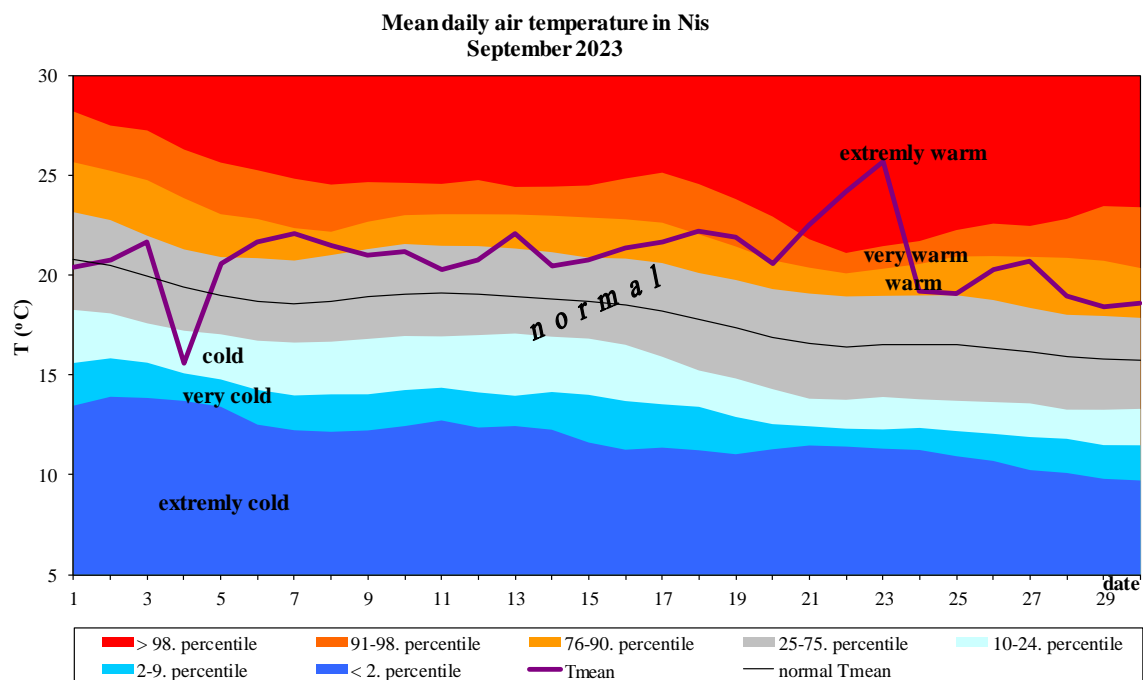
Appendix 12. Daily course of the mean daily air temperature and accompanying percentile for Kragujevac



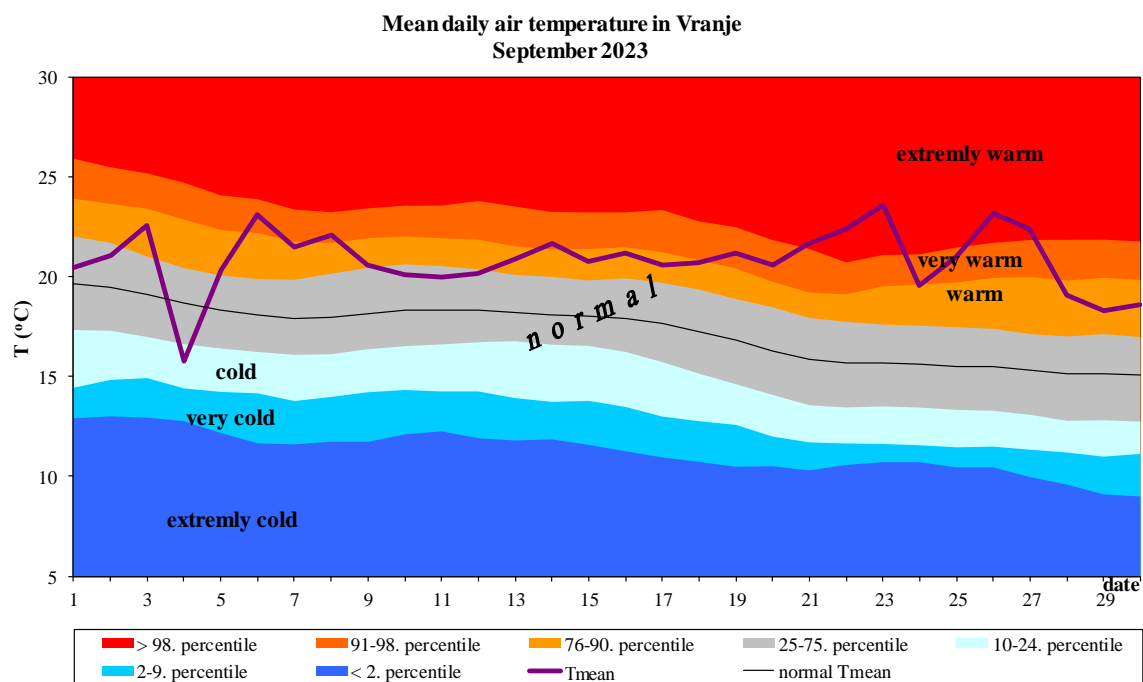
Appendix 13. Daily course of the mean daily air temperature and accompanying percentile for Negotin



Appendix 14. Daily course of the mean daily air temperature and accompanying percentile on Zlatiboru

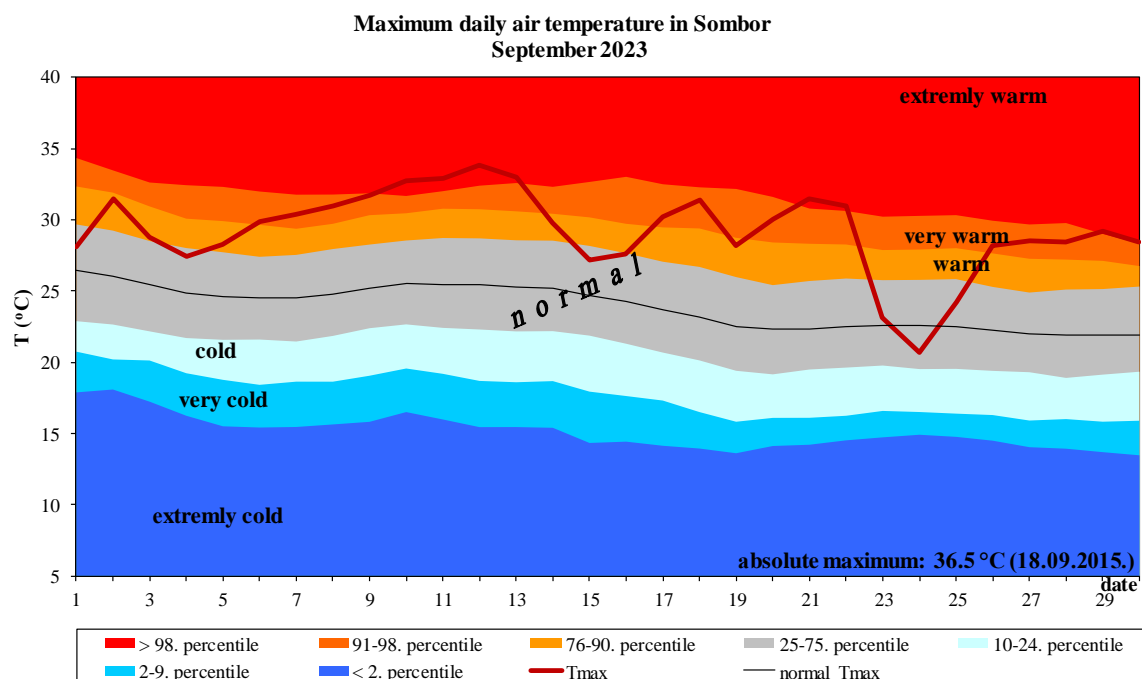


Appendix 15. Daily course of the mean daily air temperature and accompanying percentile for Nis

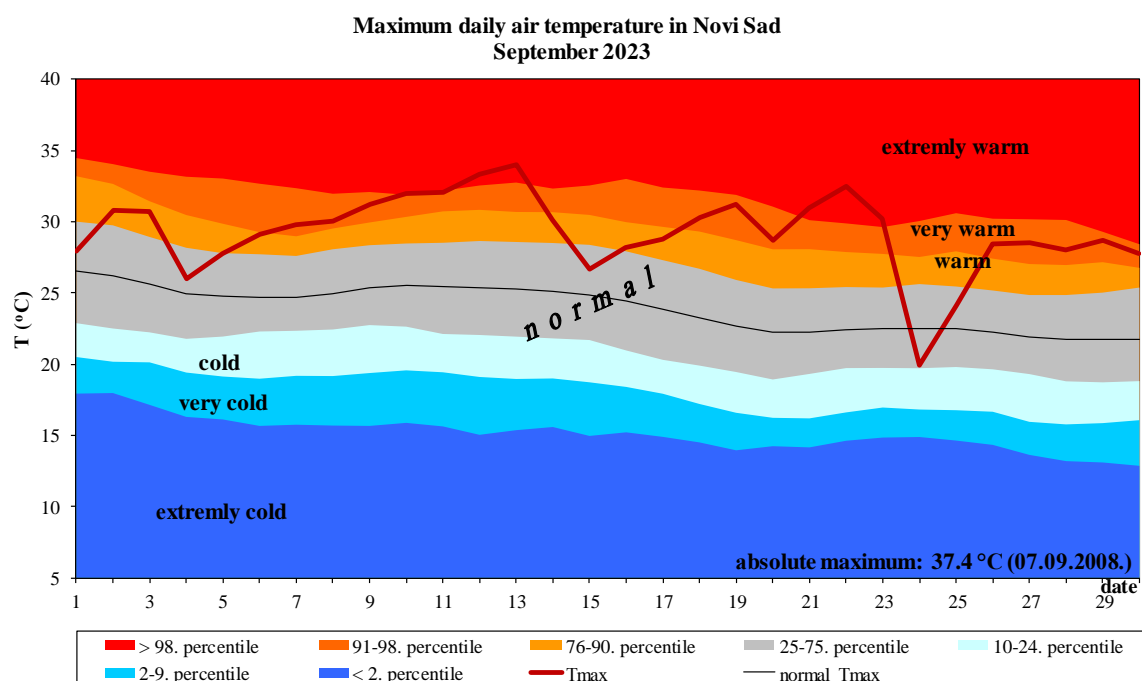


Appendix 16. Daily course of the mean daily air temperature and accompanying percentile for Vranje

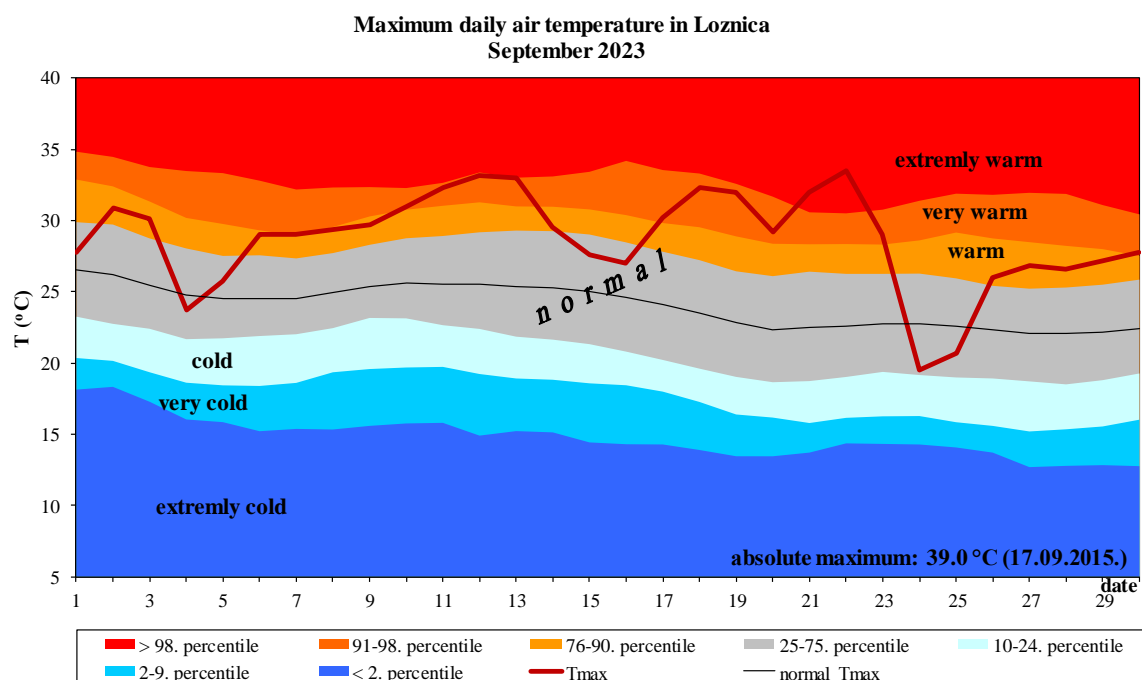
Maximum air temperature



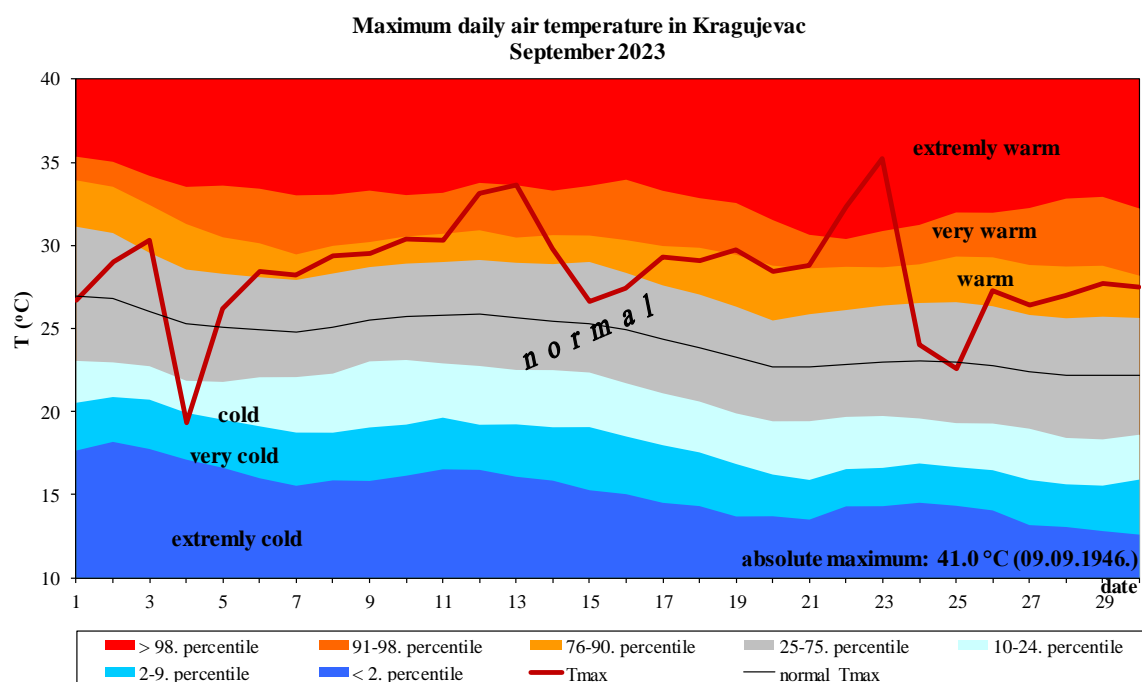
Appendix 17. Daily course of the maximum daily air temperature and the accompanying percentile for Sombor



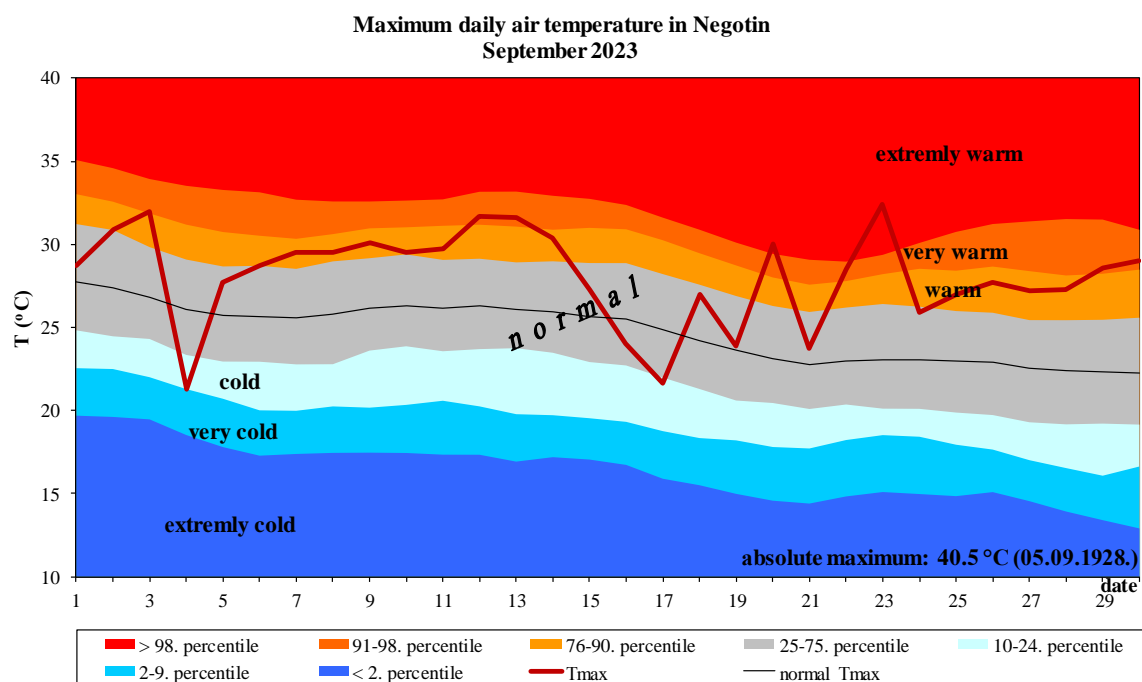
Appendix 18. Daily course of the maximum daily air temperature and the accompanying percentile for Novi Sad



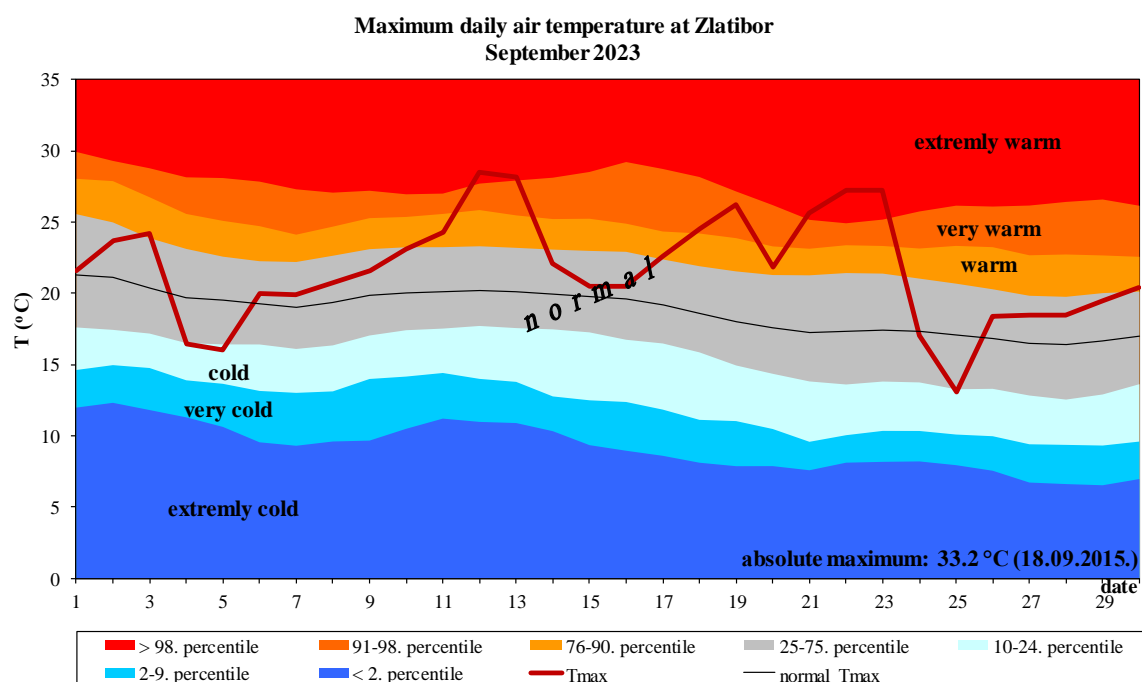
Appendix 19. Daily course of the maximum daily air temperature and the accompanying percentile for Loznica



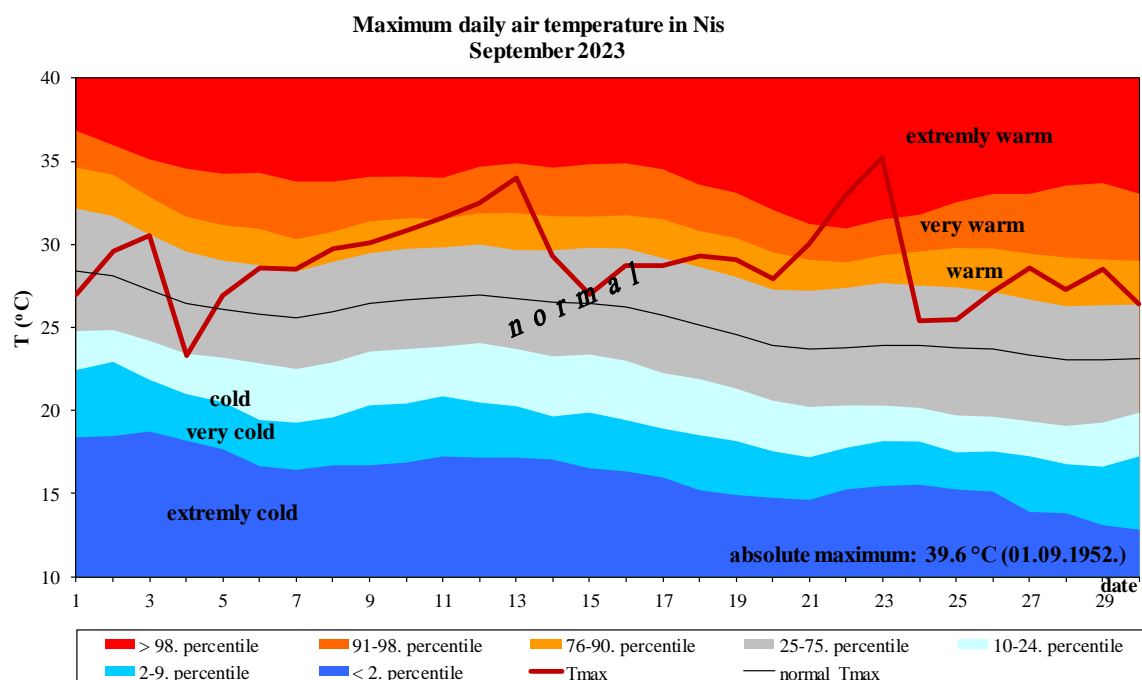
Appendix 20. Daily course of the maximum daily air temperature and the accompanying percentile for Kragujevac



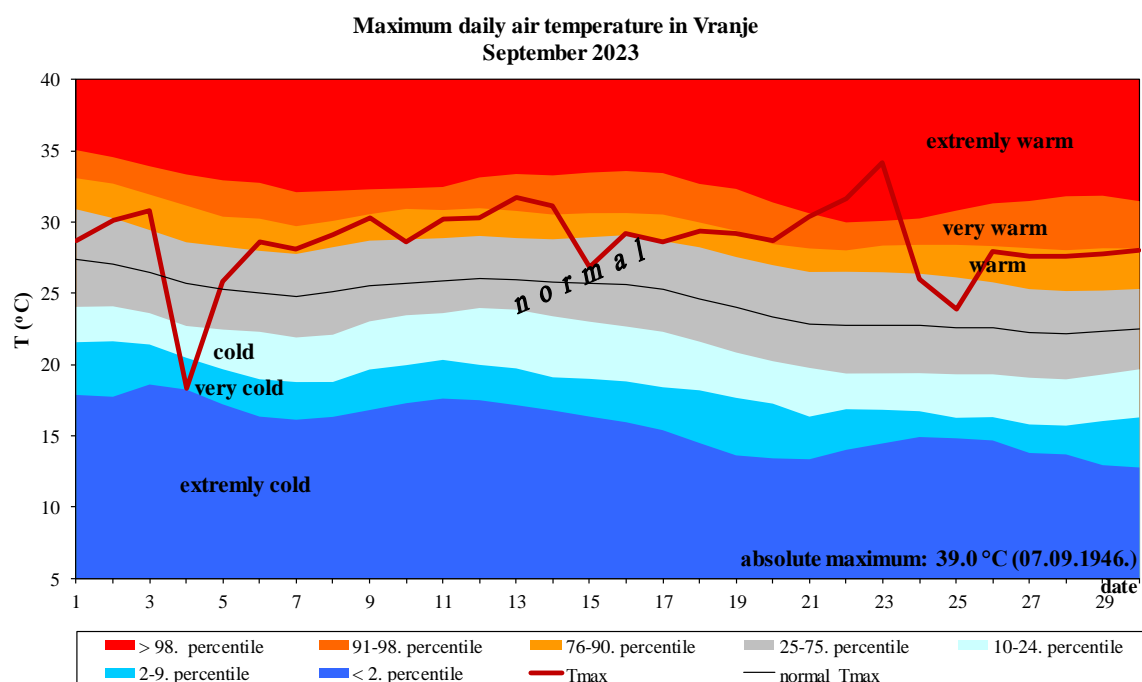
Appendix 21. Daily course of the maximum daily air temperature and the accompanying percentile for Negotin



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

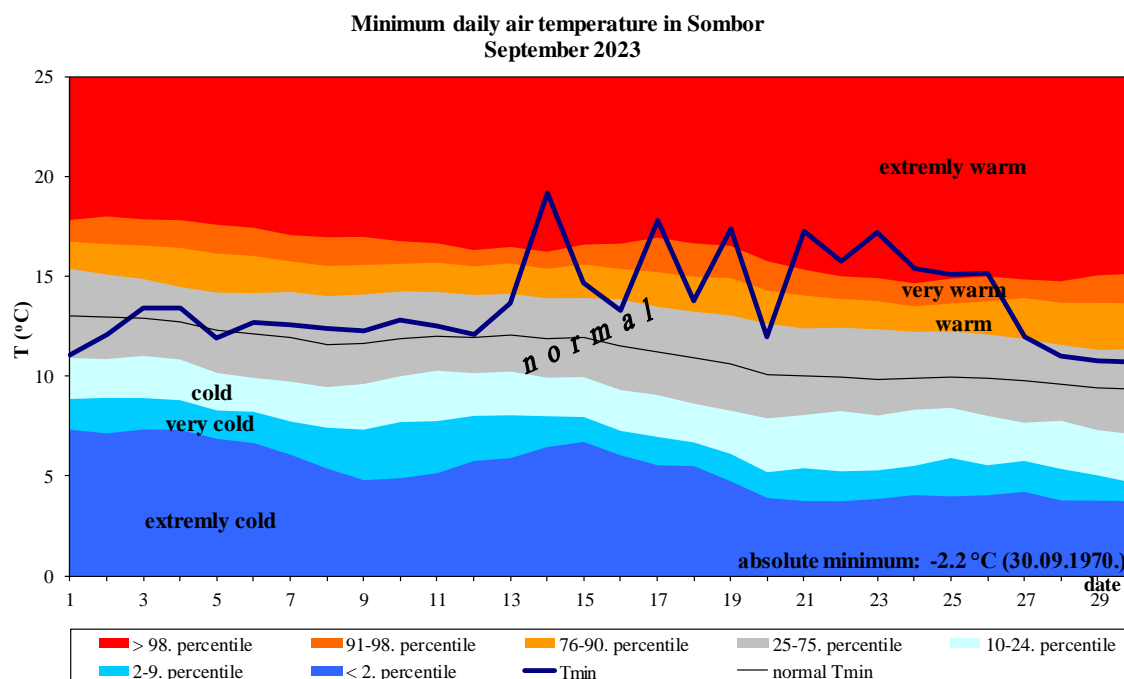


Appendix 23. Daily course of the maximum daily air temperature and the accompanying percentile for Nis

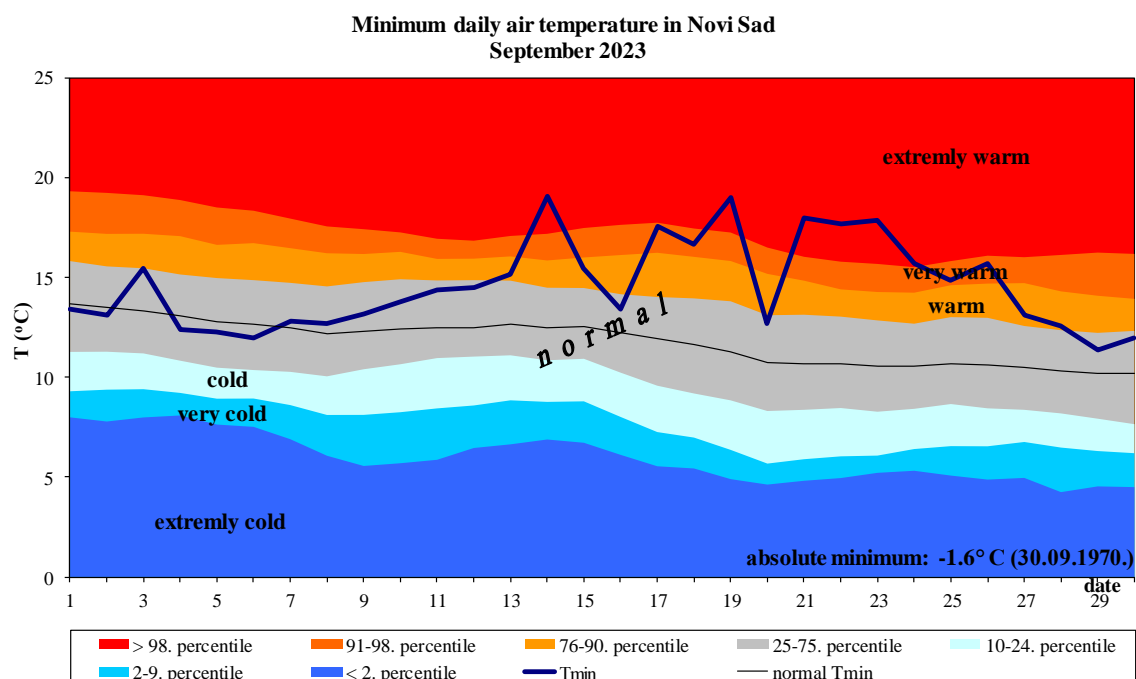


Appendix 24. Daily course of the maximum daily air temperature and the accompanying percentile for Vranje

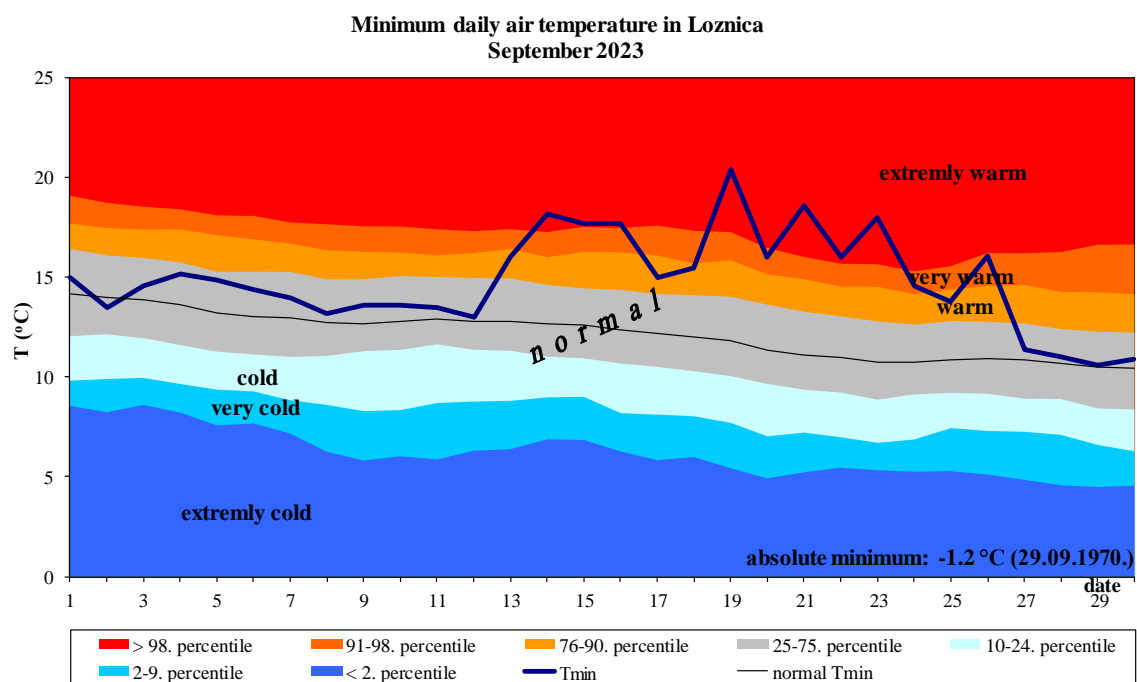
Minimum air temperature



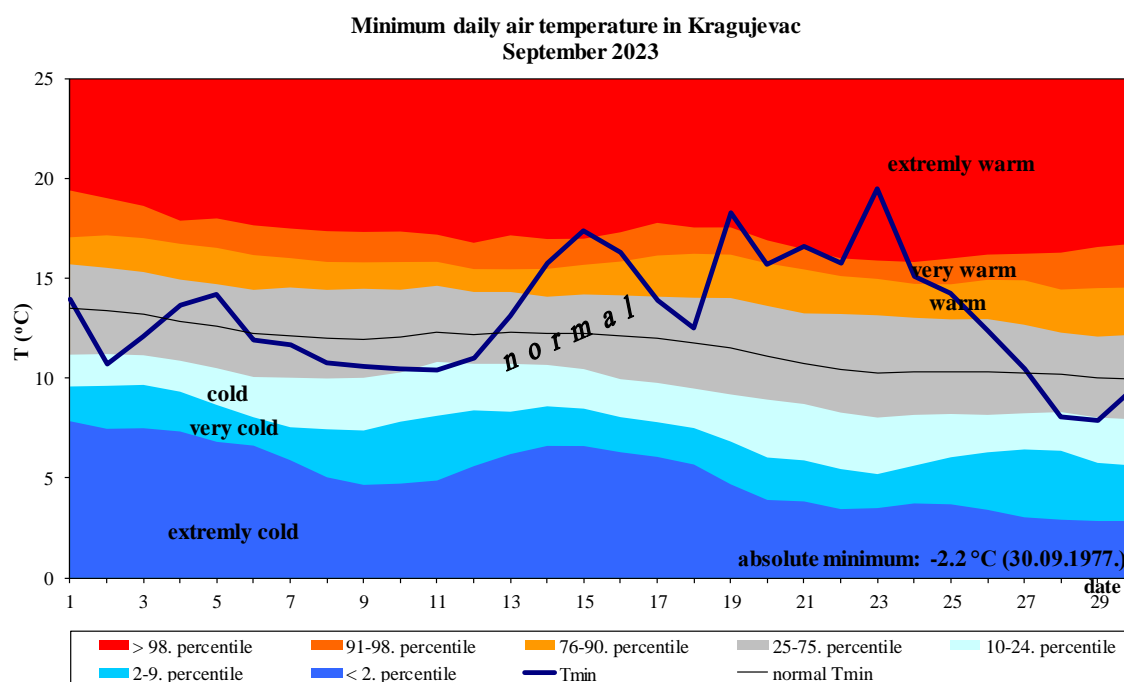
Appendix 25. Daily course of the minimum daily air temperature and the accompanying percentile for Sombor



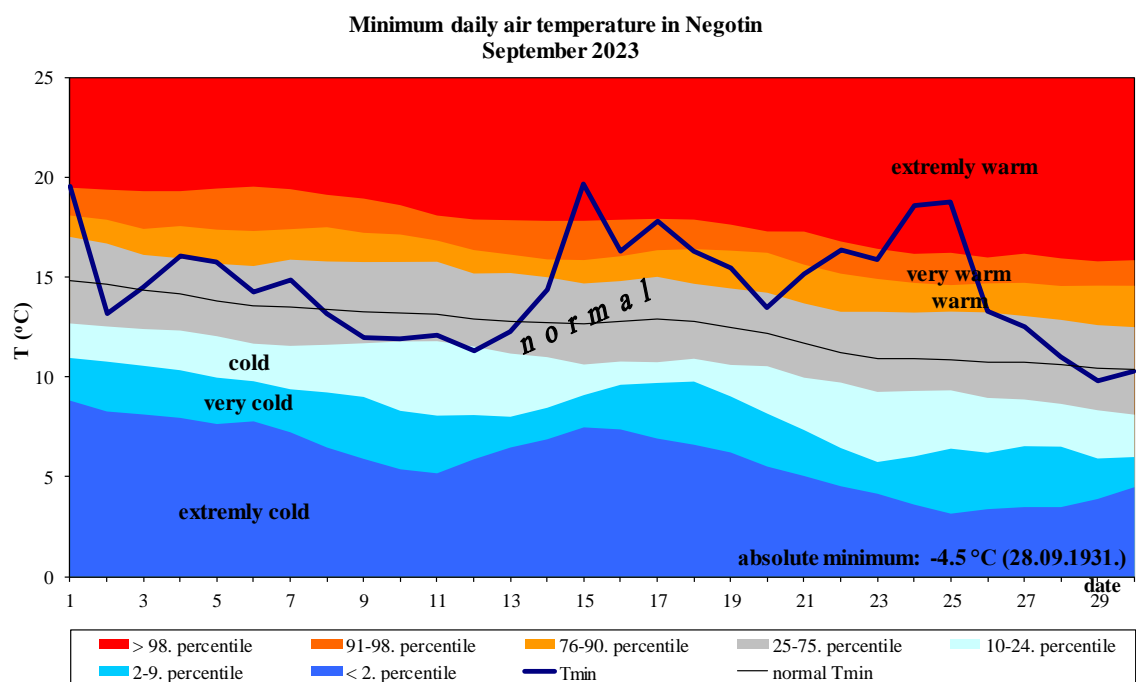
Appendix 26. Daily course of the minimum daily air temperature and the accompanying percentile for Novi Sad



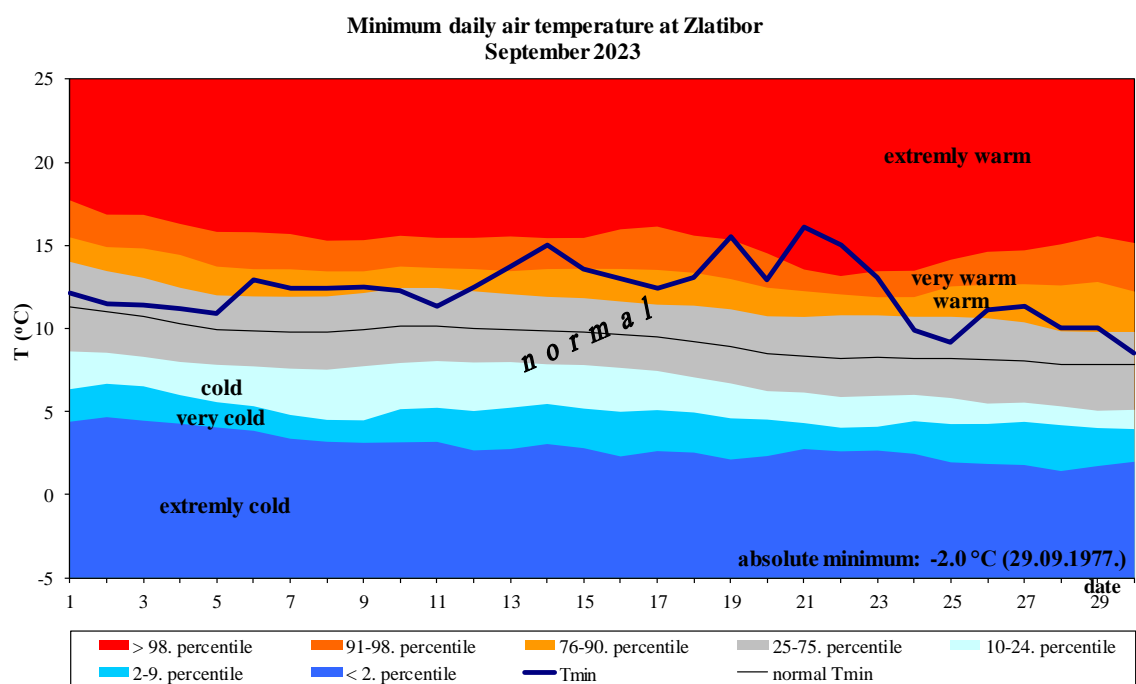
Appendix 27. Daily course of the minimum daily air temperature and the accompanying percentile for Loznica



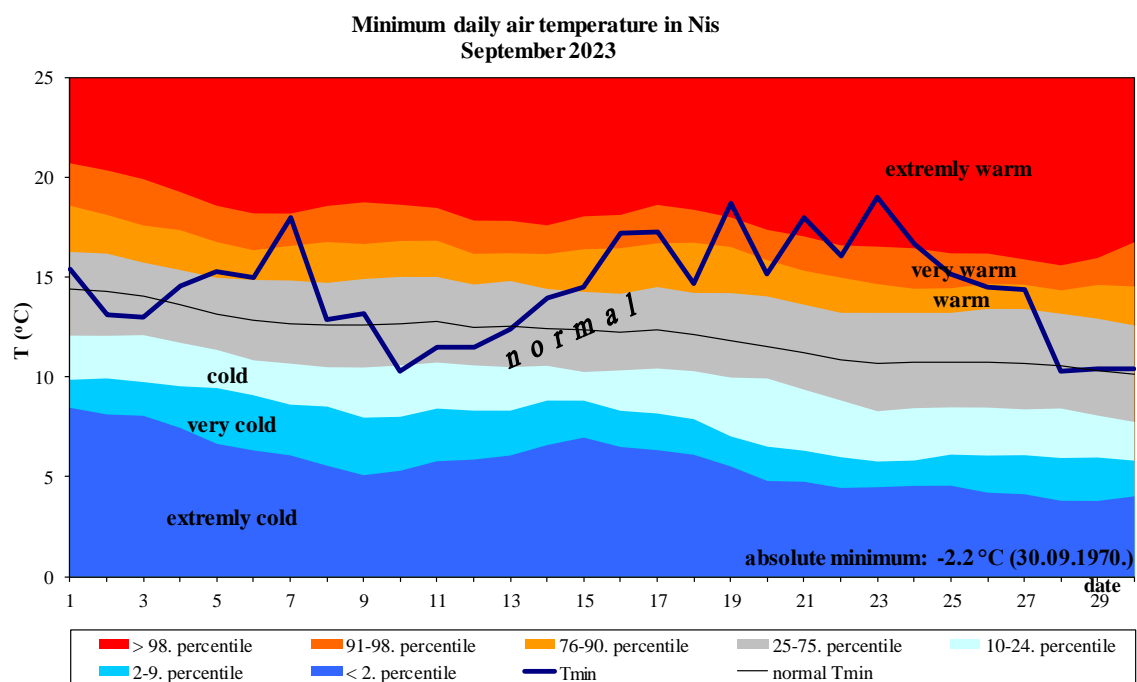
Appendix 28. Daily course of the minimum daily air temperature and the accompanying percentile for Kragujevac



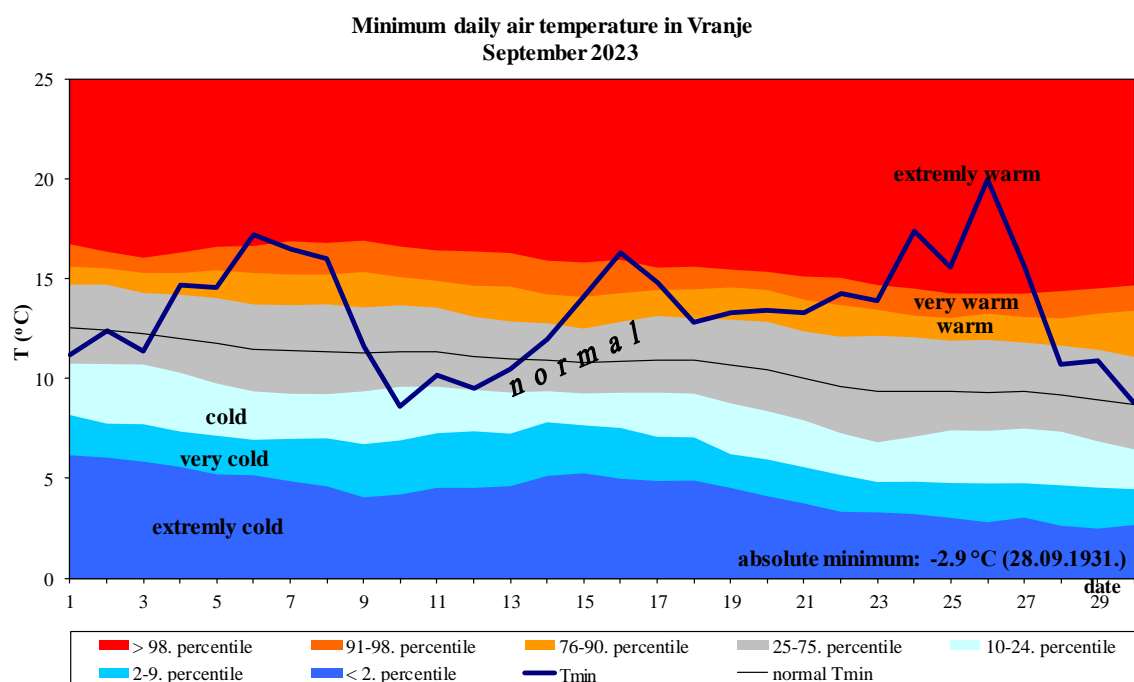
Appendix 29. Daily course of the minimum daily air temperature and the accompanying percentile for Negotin



Appendix 30. Daily course of the minimum daily air temperature and the accompanying percentile on Zlatibor

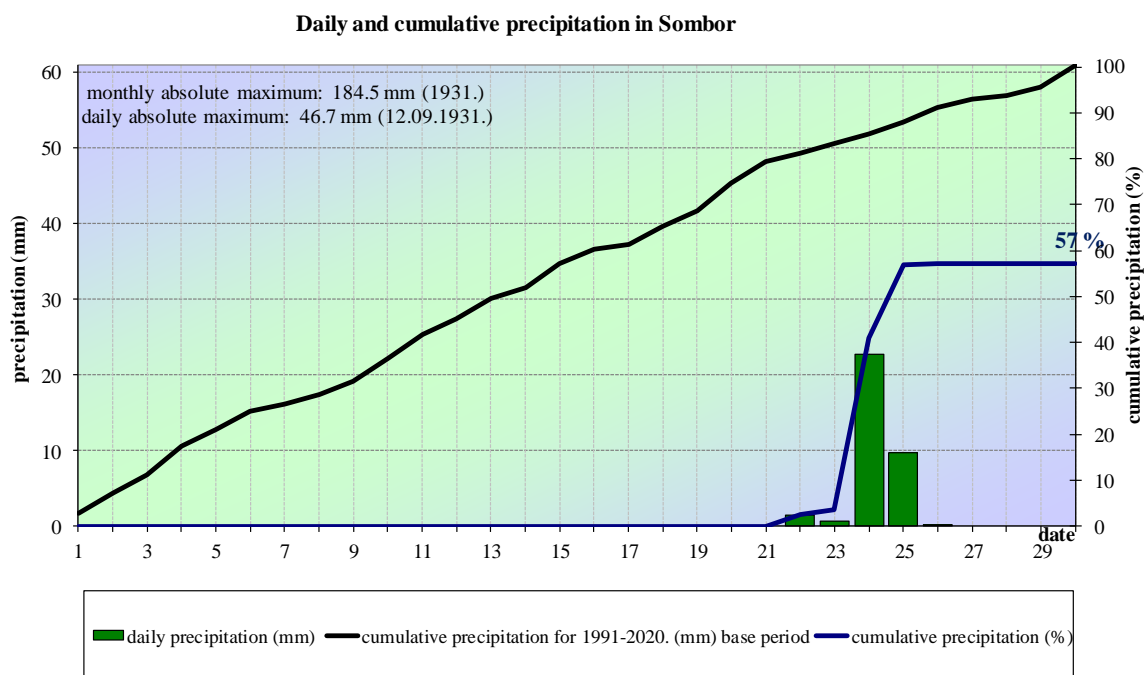


Appendix 31. Daily course of the minimum daily air temperature and the accompanying percentile for Nis

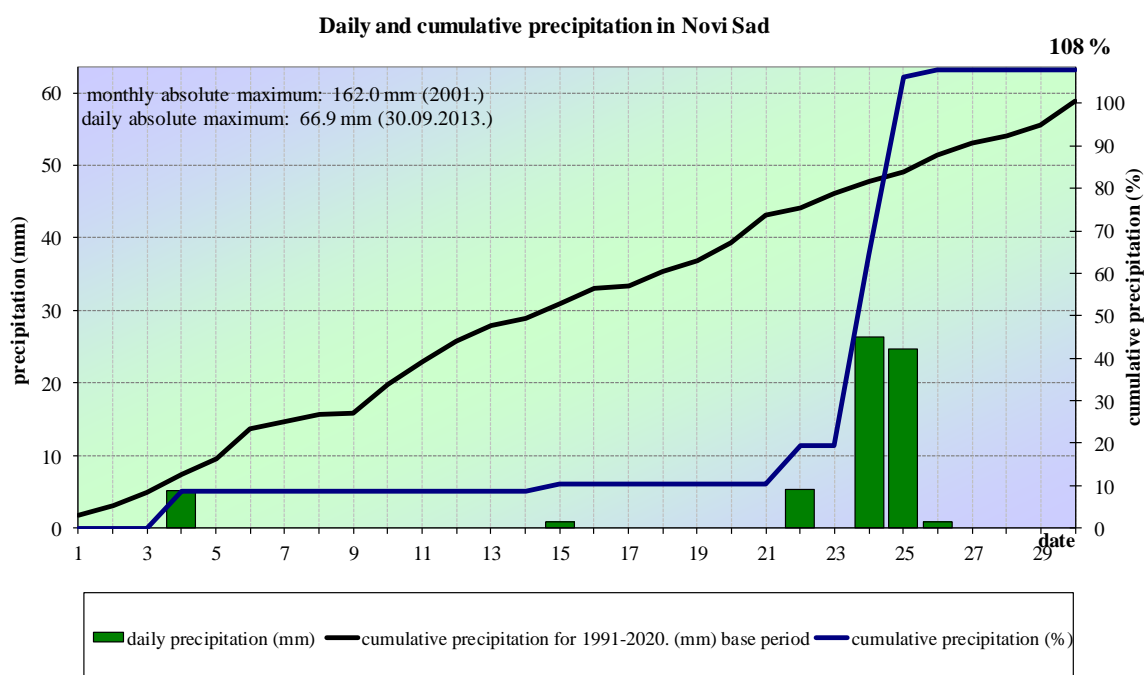


Appendix 32. Daily course of the minimum daily air temperature and the accompanying percentile for Vranje

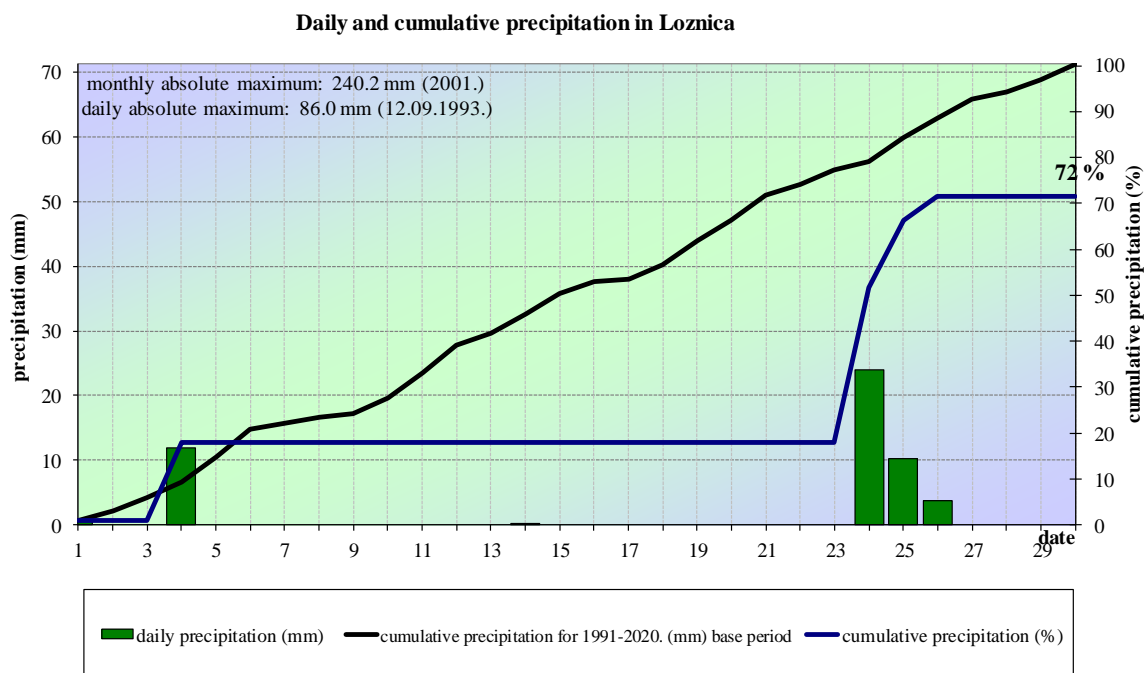
Precipitation



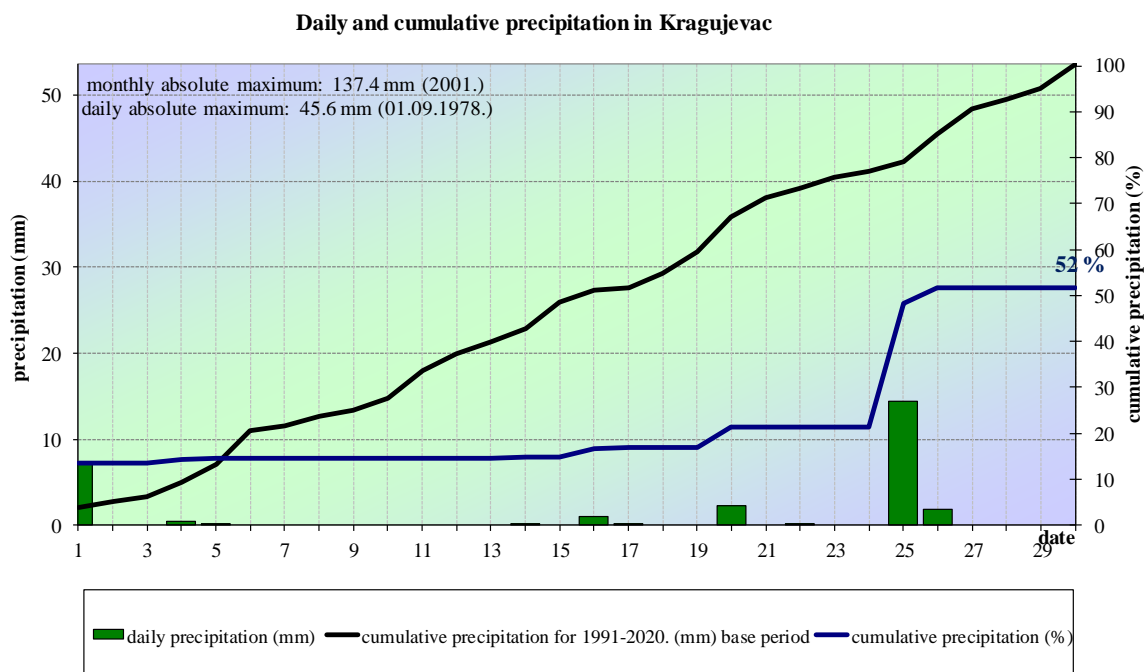
Appendix 33. Daily and cumulative precipitation sums for Sombor



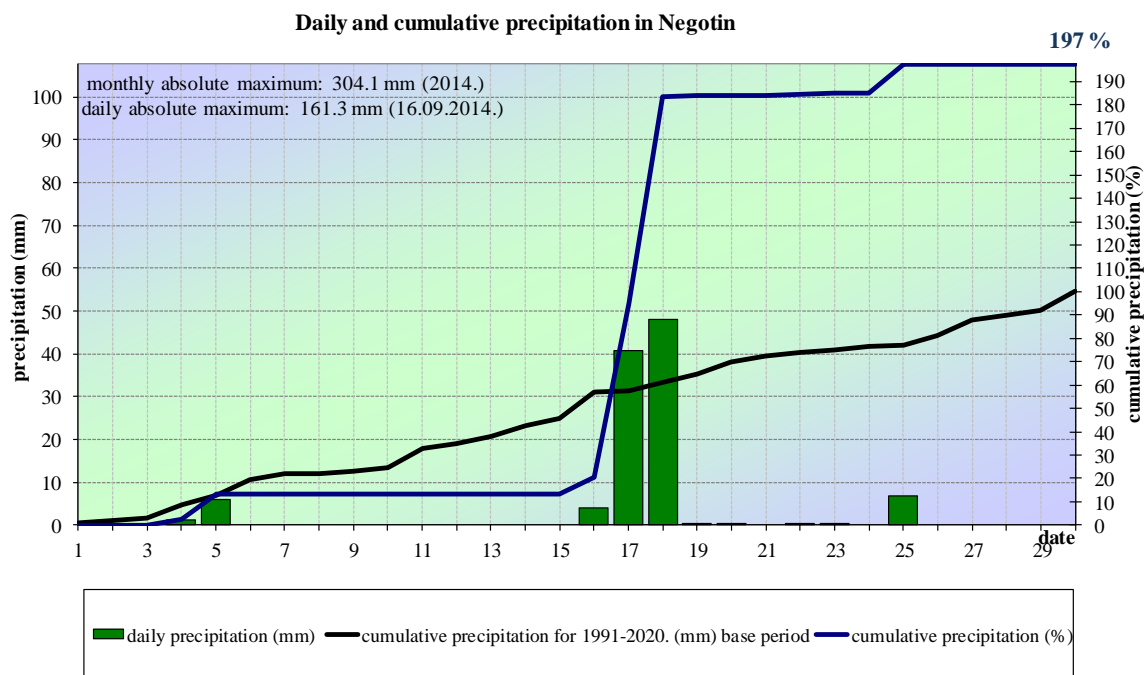
Appendix 34. Daily and cumulative precipitation sums for Novi Sad



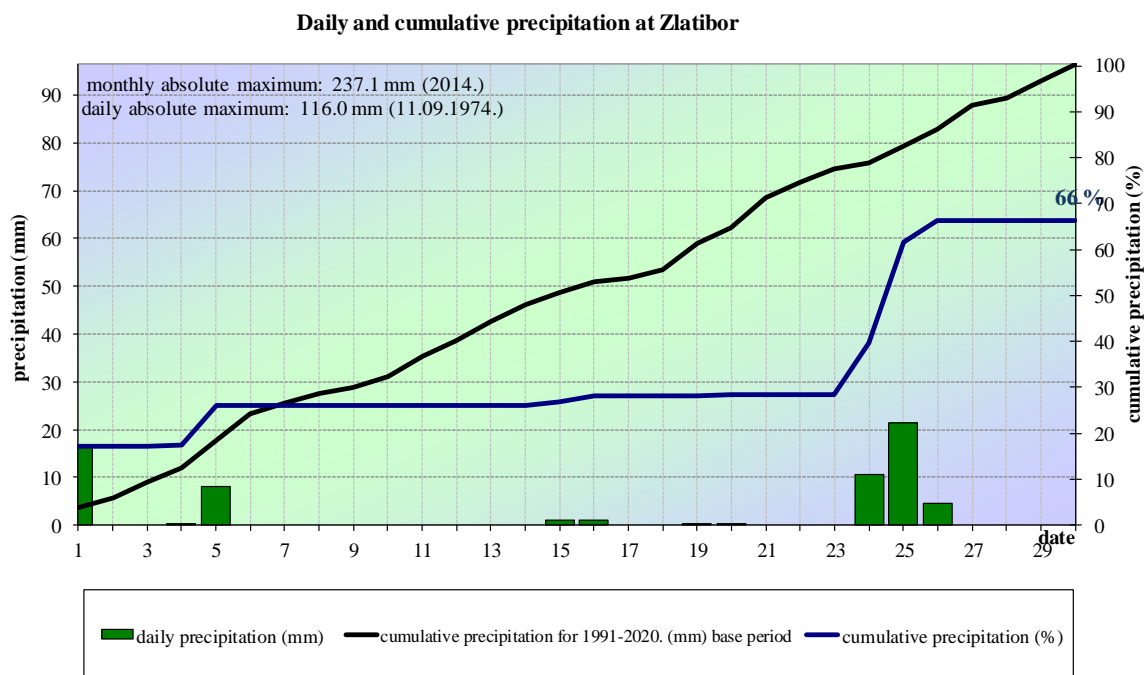
Appendix 35. Daily and cumulative precipitation sums for Loznica



Appendix 36. Daily and cumulative precipitation sums for Kragujevac

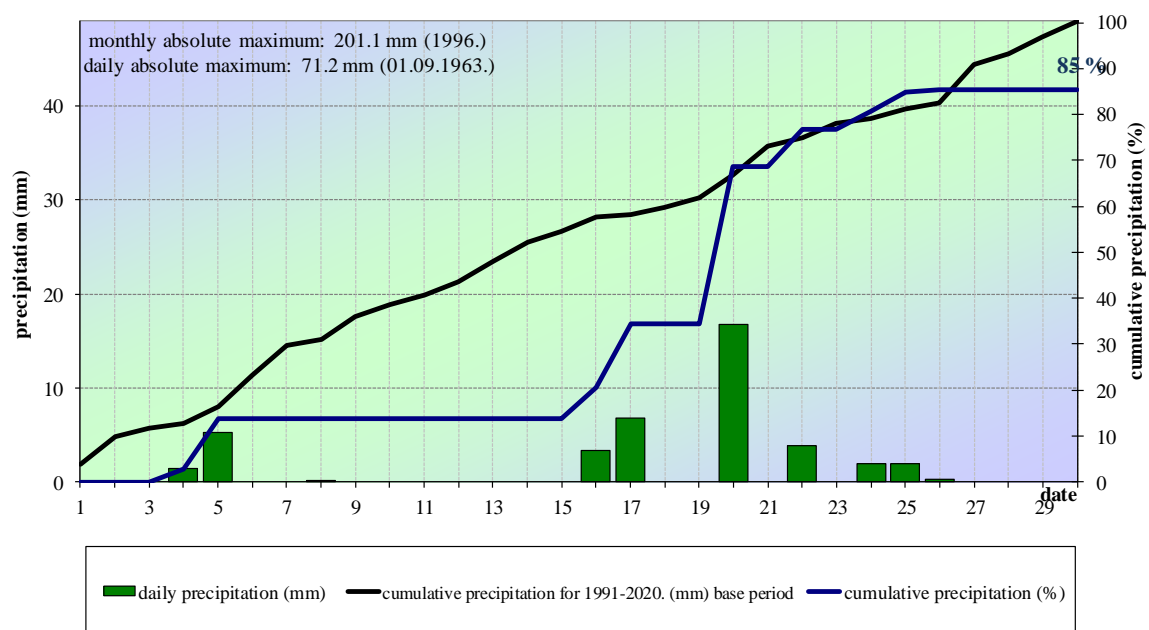


Appendix 37. Daily and cumulative precipitation sums for Negotin



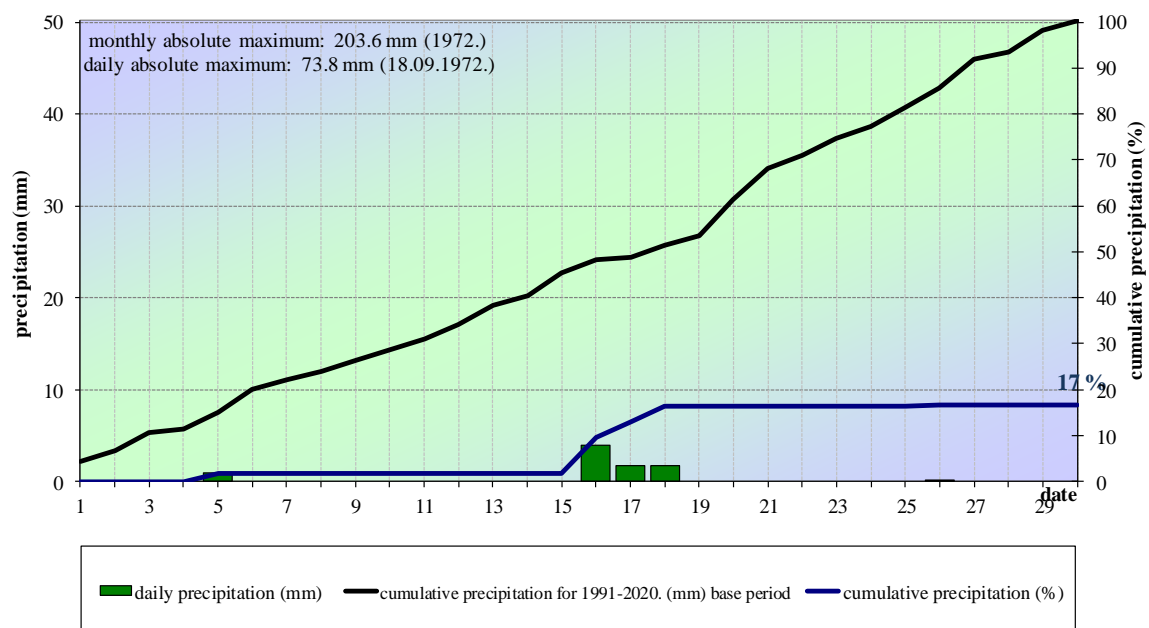
Appendix 38. Daily and cumulative precipitation sums on Zlatibor

Daily and cumulative precipitation in Nis



Appendix 39. Daily and cumulative precipitation sums for Nis

Daily and cumulative precipitation in Vranje



Appendix 40. Daily and cumulative precipitation sums for Vranje