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

MONTHLY BULLETIN FOR SERBIA

DECEMBER 2025

Belgrade, the 5th of January 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 8
CLOUD COVER, BRIGHT AND CLOUDY DAYS 14
SUNSHINE DURATION (INSOLATION) 16
OVERVIEW OF THE SYNOPTIC SITUATION* 17
APPENDIX 18
Ranks of the driest December 18
Mean air temperature 22
Maximum air temperature 26
Minimum air temperature 30
Precipitation 34

- ***The 8th driest and warm December for Serbia***
- ***At 13 stations, December was among 6 to 10th driest***

AIR TEMPERATURE

Mean monthly air temperature

Mean air temperature in December ranged from 1.7 ºC in Pozega to 5.0 ºC in Belgrade, and on the mountains from -0.5 ºC at Kopaonik to 0.7 ºC at Zlatibor (*Figure 1*).

Departure of the mean monthly air temperature from the normal[1] for the 1991-2020 base period ranged from +1.3 ºC in Leskovac to +2.9 ºC in Veliko Gradiste (*Figure 2*).

Mean December air temperature, based on the percentile method[2], was in the categories of warm and very warm in most of the country, and normal in Loznica and Leskovac (*Figure 5).*

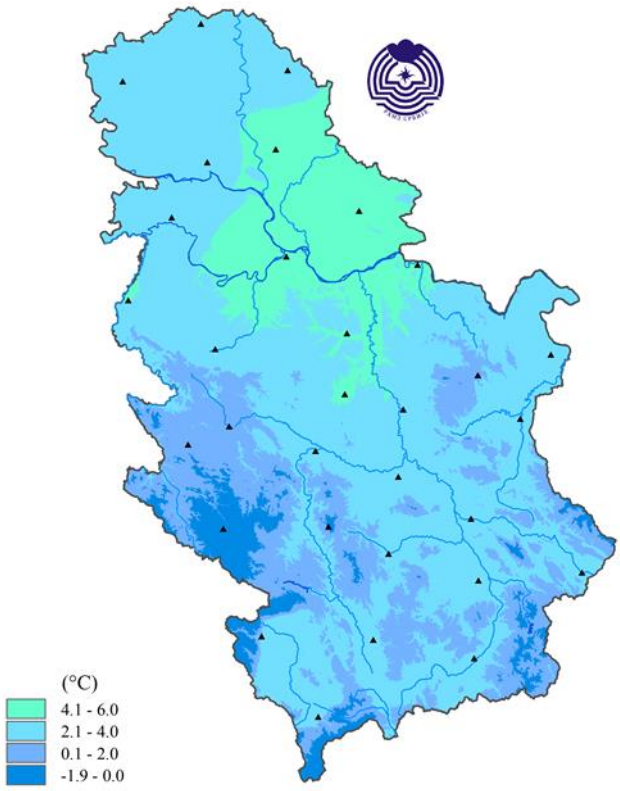


Figure 1. Spatial distribution of mean monthly air temperature (ºC)

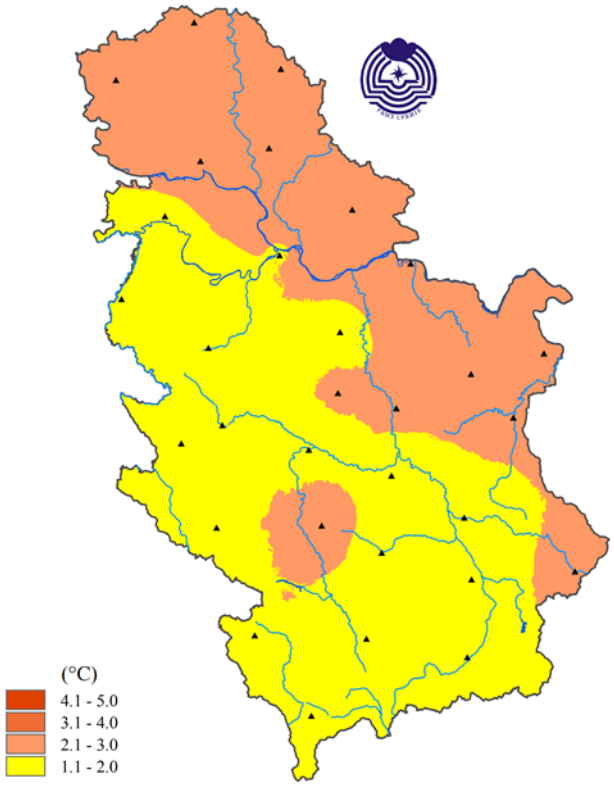


Figure 2. Spatial distribution of mean monthly air temperature anomaly (ºC)

[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

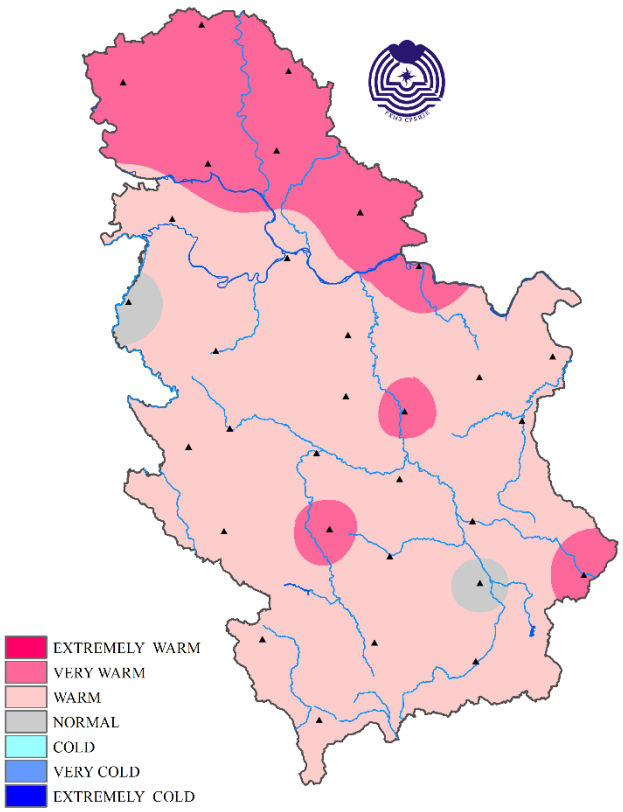


Figure 3. Spatial distribution of the mean monthly air temperature using percentile method

December 2025 was **the 6th warmest** for Banatski Karlovac since the record-keeping began, **the 7th warmest** for Kopaonik, **the 8th warmest** for Veliko Gradiste, and **the 9th warmest** for Crni Vrh (*Figures 4, 5, 6 and 7).*

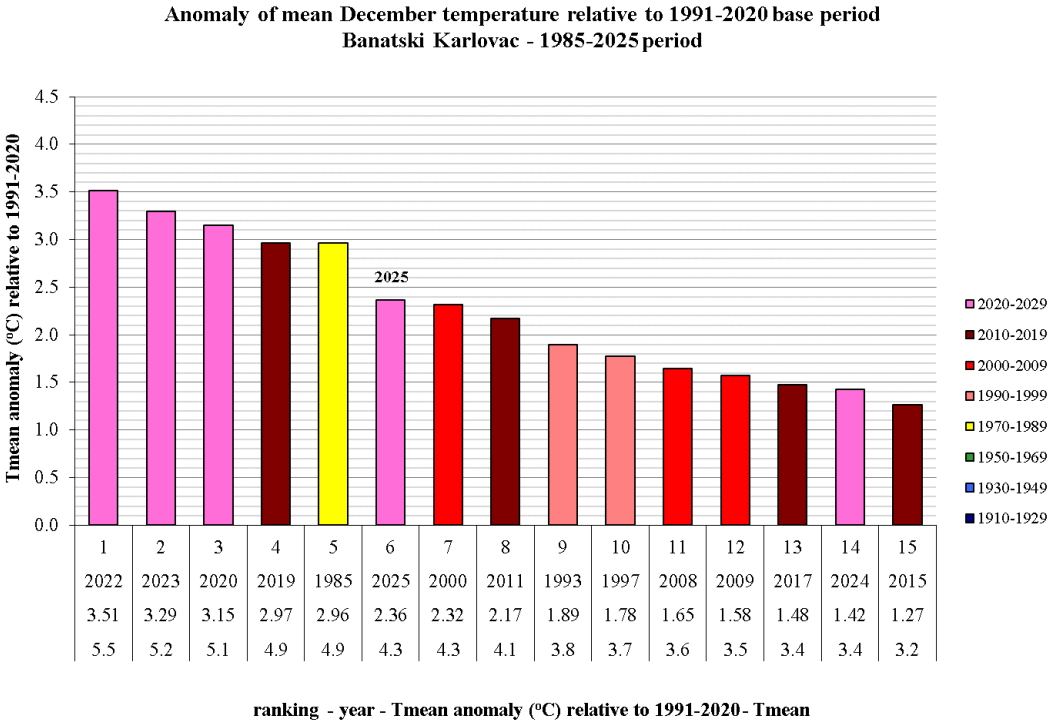


Figure 4. Rank of the warmest December in Banatski Karlovac

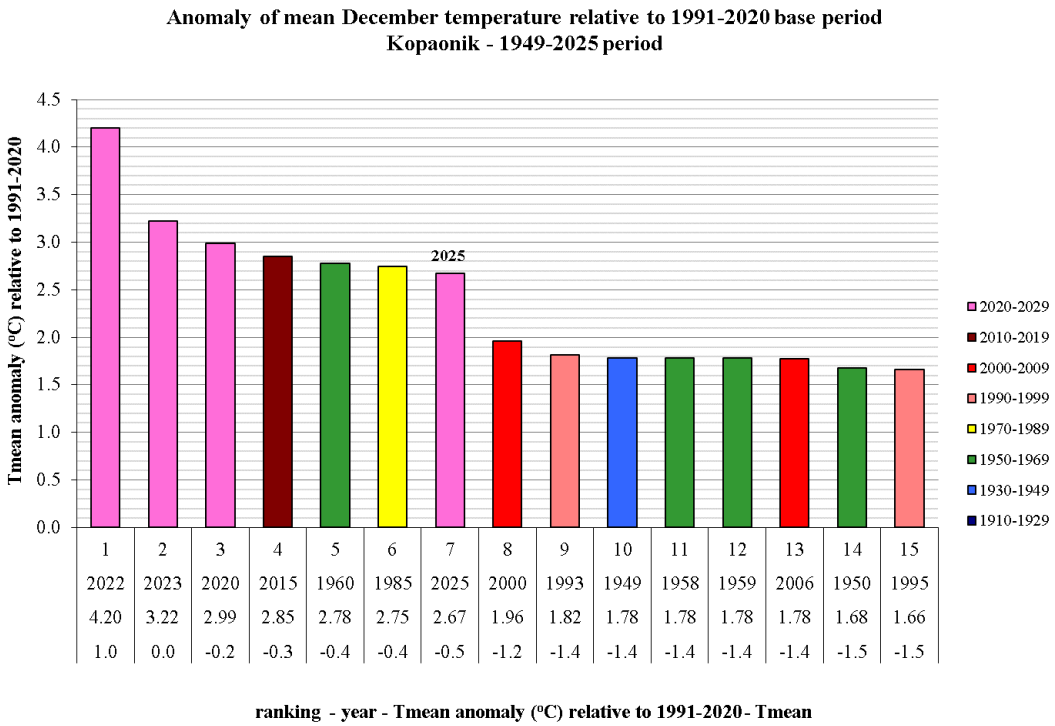


Figure 5. Rank of the warmest December on Kopaonik

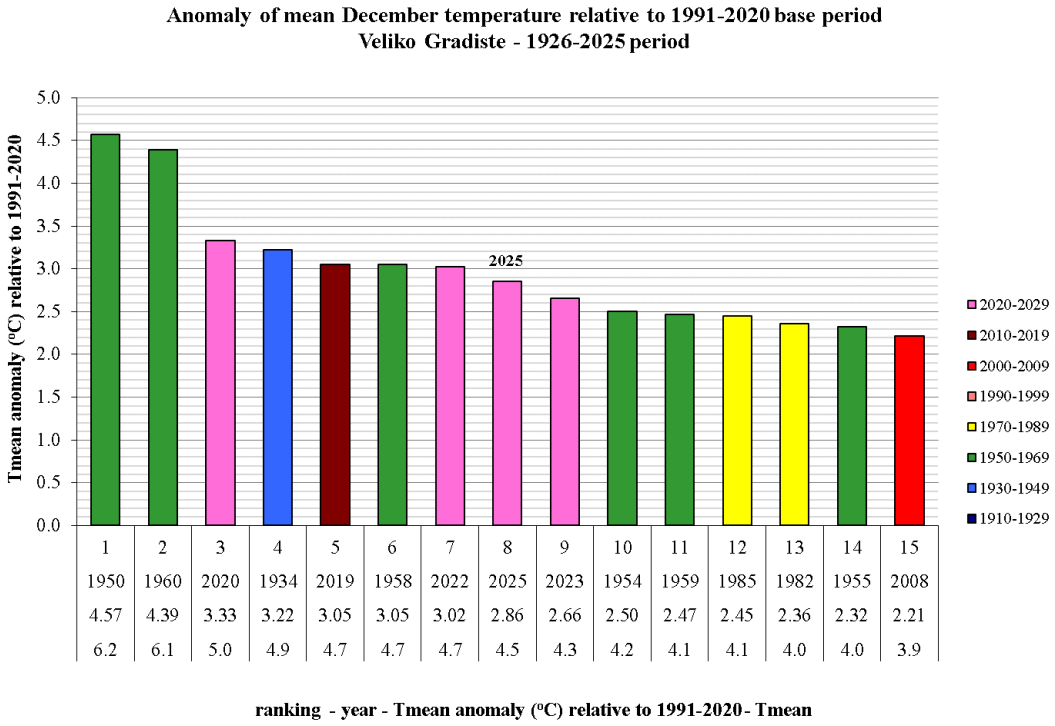
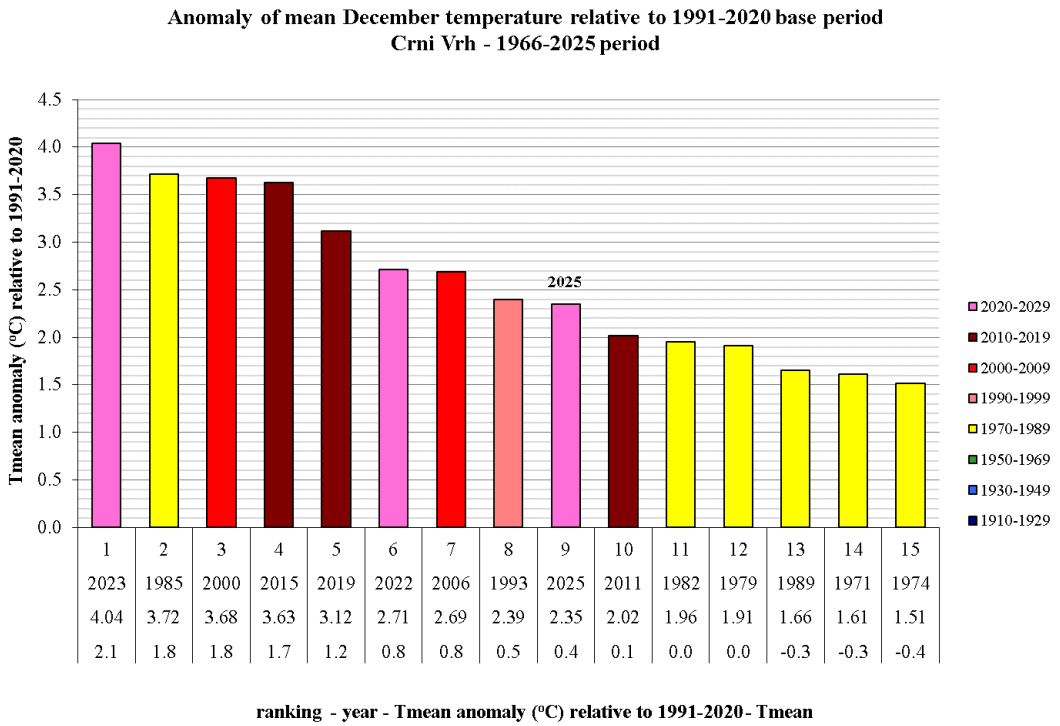


Figure 6. Rank of the warmest December in Veliko Gradiste



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2023	1985	2000	2015	2019	2022	2006	1993	2025	2011	1982	1979	1989	1971	1974
	4.04	3.72	3.68	3.63	3.12	2.71	2.69	2.39	2.35	2.02	1.96	1.91	1.66	1.61	1.51
	2.1	1.8	1.8	1.7	1.2	0.8	0.8	0.5	0.4	0.1	0.0	0.0	-0.3	-0.3	-0.4

Figure 7. Rank of the warmest December on Crni Vrh

Mean daily air temperature in Belgrade, based on the percentile method, was in the categories of warm and very warm during most of the first decade as well as mid-December, and during rest of the month it was normal (*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.

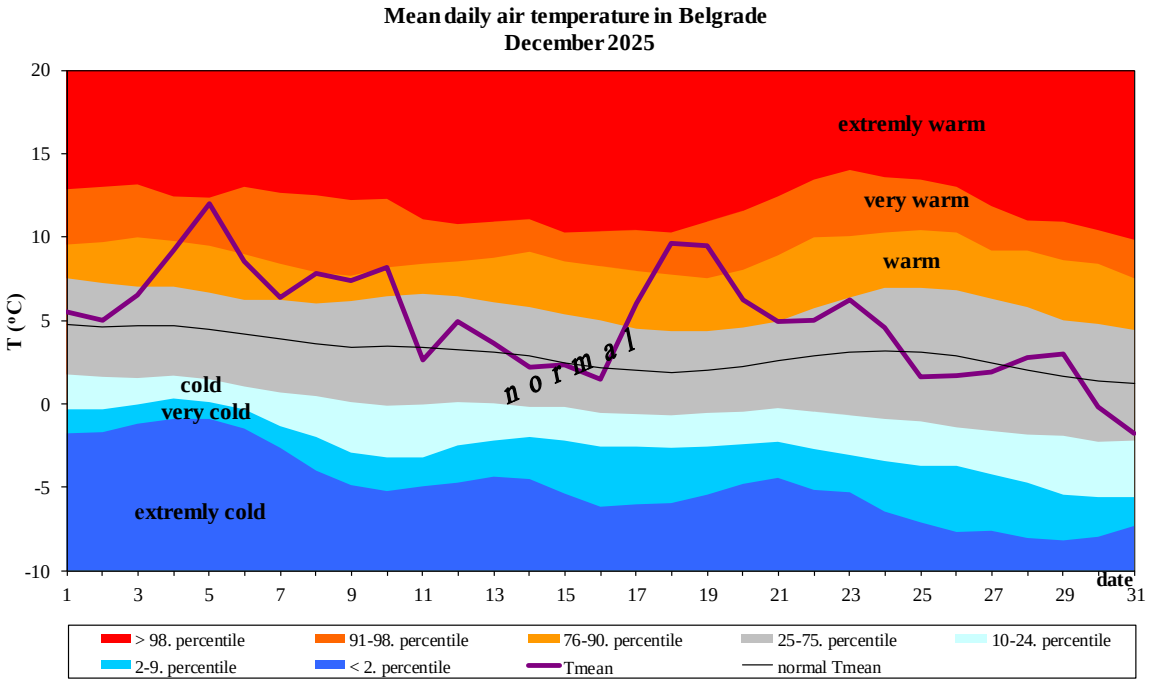


Figure 8. Daily course of the mean daily air temperature and accompanying percentiles for Belgrade

Maximum air temperature

Mean maximum air temperature in December ranged from 4.8 ºC in Pozega to 8.9 ºC in Kragujevac, while Belgrade observed 8.2 °C. On the mountain, mean maximum December aira temperature ranged from 3.1 ºC at Kopaonik and Crni Vrh to 5.1 ºC in Sjenica.

Based on the percentile method, mean maximum monthly air temperature was in the following categories: warm in most of Serbia, very warm in Veliko Gradiste, Vranje and Kopaonik, and normal in Sombor, Loznica, Valjevo, Pozega, Nis, Leskovac and Zlatibor.

The highest maximum daily air temperature of 18.8 ºC was measured in Zajecar on December 10, while Belgrade recorded 14.8 ºC on the same day.

One ice day[3] was recorded in Dimitrovgrad, on the mountains their number ranged from 1 in Sjenica to 9 at Crni Vrh. The recorded number of ice days was 4 to 9 days below December average.

Heat wave[4] was recorded at Crni Vrh and Kopaonik lasting from 15 to 19 December.

Figure 9 shows daily course of the maximum daily air temperature and the accompanying percentiles for Belgrade in December 2025 and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the Appendix.

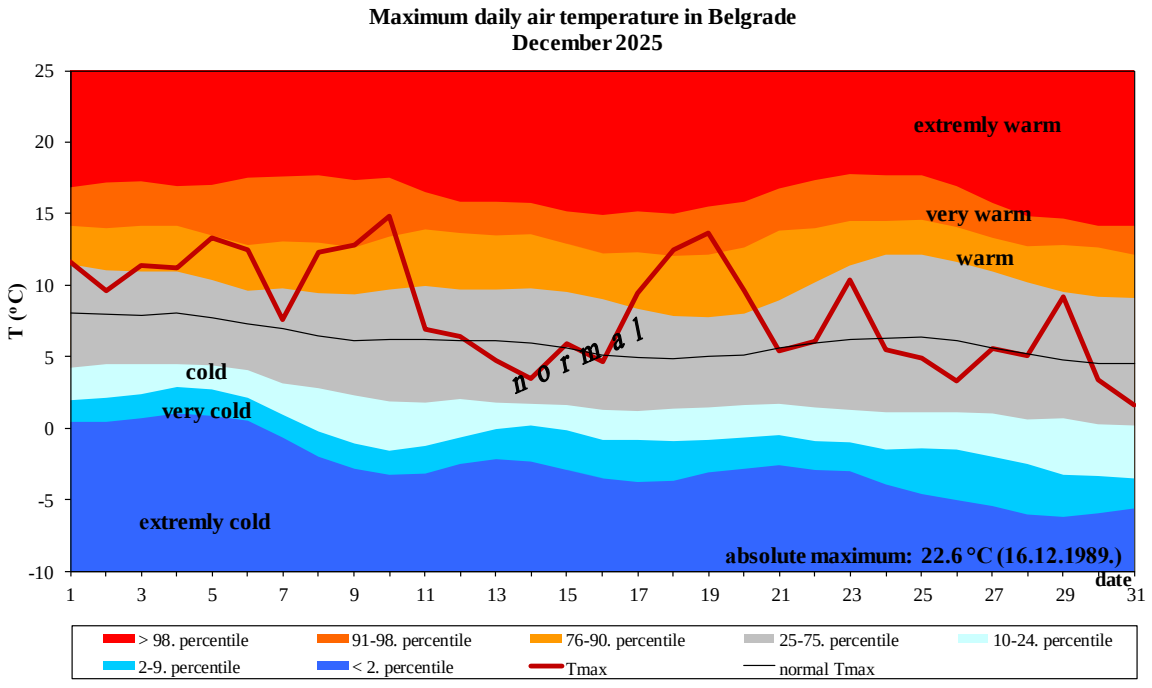


Figure 9. Daily course of the maximum daily air temperature and accompanying percentiles for Belgrade

[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

Minimum air temperature

Mean minimum December air temperature ranged from -0.7 ºC in Vranje to 2.6 ºC in Belgrade. On the mountains, mean minimum air temperature ranged from -4.0 ºC in Sjenica to -1.7 ºC at Zlatibor.

Based on the percentile method, mean minimum monthly air temperature was in the categories of very warm in most of Serbia, warm in Smederevska Palanka, Kursumlija, Cuprija, Nis and Crni Vrh, and normal in Sjenica, Kraljevo and Leskovac.

The lowest minimum daily air temperature of -14.7 ºC was measured on December 31 at Kopaonik. In the lowland, the lowest daily air temperatures of -9.0 ºC and -4.0 º were measured in Zajecar and Belgrade, respectively.

The fewest frost days[5], total of 4, was registered in Belgrade, then in the north of the county, between 8 and 12 days, elsewhere it was between 10 and 19 frost days. On the mountains, number of frost days ranged from 21 at Zlatibor and Crni Vrh to 26 at Kopaonik. In most of country, number of frost days was 7 days below December average, and in the north 4 to 10 days below the average.

Three days with severe frost[6] were recorded at Kopaonik, 2 days in Sjenica, and 1 day at Crni Vrh

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

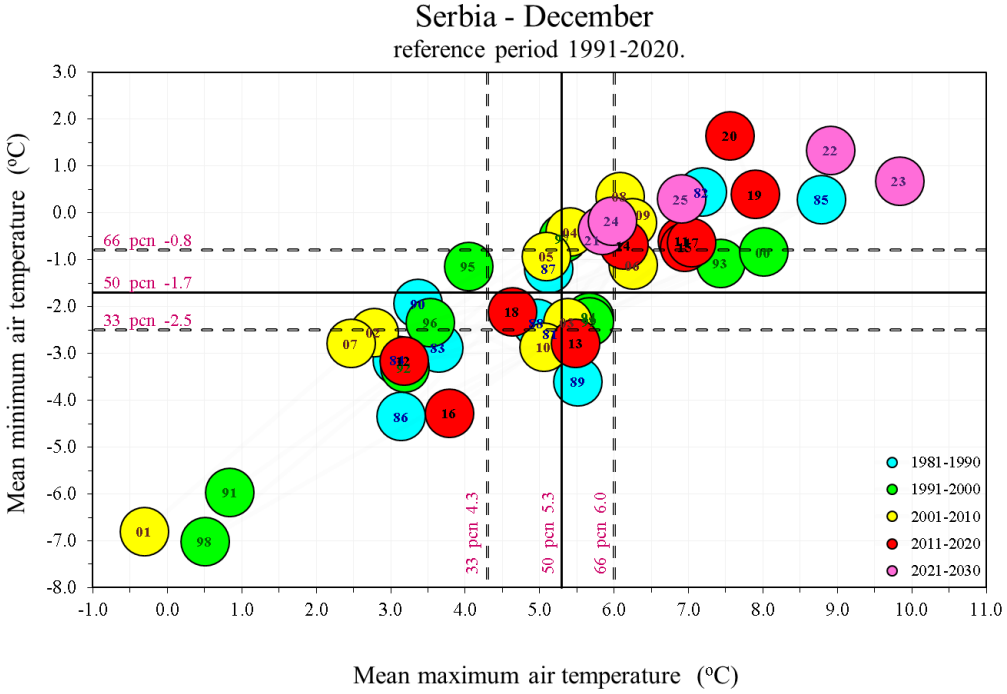


Figure 10. Assessment of minimum and maximum air temperature for Serbia with the accompanying terciles in relation to the 1991-2020 base period

[5] Frost day is defined as the day with minimum air temperature lower than 0 °C
[6] Day with severe frost is defined as the day with the minimum air temperature -10 °C and below

Figure 11 shows daily course of the minimum daily air temperature and the accompanying percentiles for Belgrade in December 2025, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje are given in the Appendix.

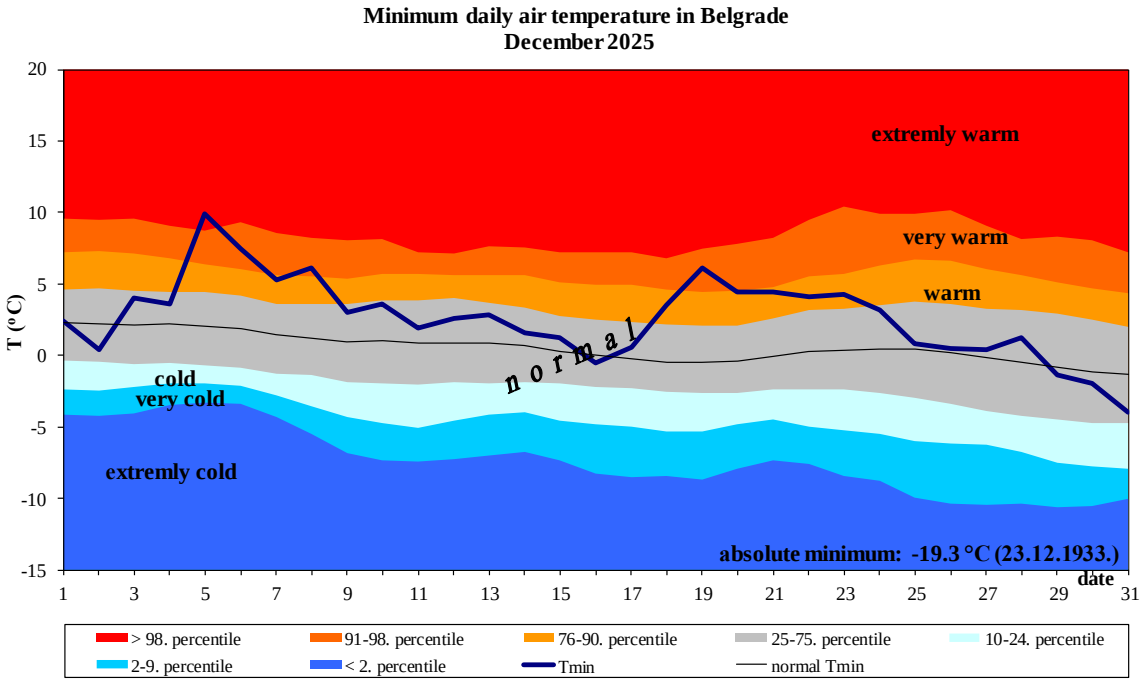


Figure 11. Daily course of the minimum daily air temperature and accompanying percentiles for Belgrade

PRECIPITATION

December 2025 was **the 8th driest** for Serbia since 1951 (*Figure 12*). Out of 13 stations, between 6 and 10 stations observed the driest December since record-keeping began (*Table 1).*

In the appendix are graphs showing 15 driest years since the record-keeping began for the stations: Veliko Gradiste, Vranje, Zlatibor, Sremska Mitrovica, Sjenica, Palic, Krusevac i Loznica.

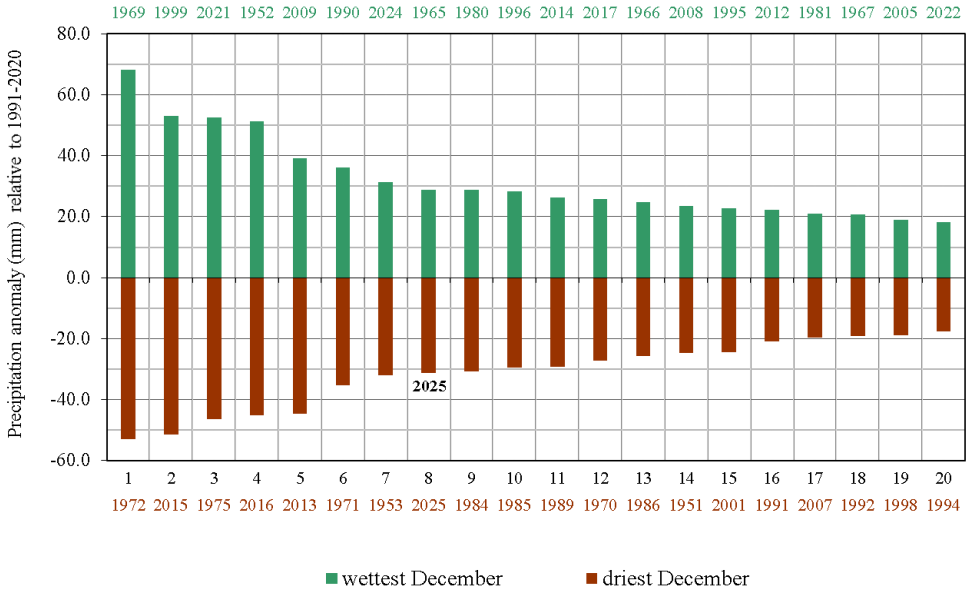


Figure 12. Rank of the wettest and driest December in Serbia for the period from 1951 to 2025

Table 1. The ranking of December 2025 in terms of precipitation, average, and percentage of the 1991-2020 normal

STATION	historical period	∑RR for December 2025 (mm)	normal for December 1991-2020	percentage (%) from normal	ranking for November 2025 (ascending RR)
V.GRADISTE	1926-2025	11.6	49.2	24	**6**
VRANJE	1926-2025	13.0	53.6	24	6
ZLATIBOR	1950-2025	22.2	79.9	28	**6**
S.MITROVICA	1925-2025	**8.6**	45.7	19	**7**
SJENICA	1925-2025	13.0	64.7	20	**7**
PALIC	1936-2025	13.4	43.5	31	**7**
KRUSEVAC	1925-2025	14.1	53.6	26	**7**
LOZNICA	1925-2025	17.4	71.7	24	**7**
SOMBOR	1931-2025	15.2	47.3	32	9
NOVI SAD	1945-2025	16.5	49.1	34	9
VALJEVO	1926-2025	17.6	60.6	29	9
NIS	1925-2025	13.5	53.9	25	10
KOPAONIK	1949-2025	32.9	78.1	42	10

December precipitation sums ranged from 8.6 mm in Sremska Mitrovica to 78.2 mm at Crni Vrh, while Belgrade recorded 15.4 mm (*Figure 13).*

Precipitation totals compared to the normal for the 1991-2020 base period ranged from 19% in Sremska Mitrovica to 129% at Crni Vrh (*Figure 14*).

Based on the percentile method, precipitation sums were in the following categories: very dry and dry in most of Serbia and normal in Negotin, Zajecar and Crni Vrh (*Figure 15).*

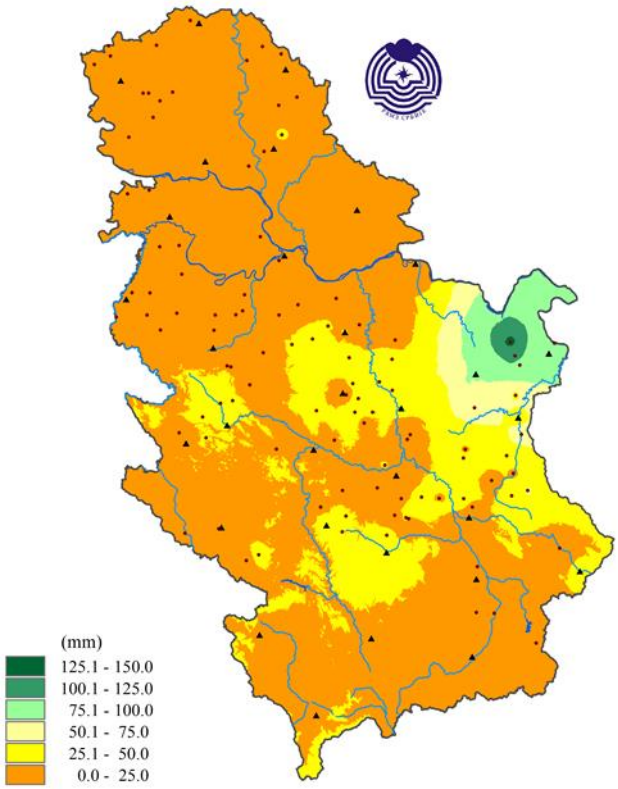


Figure 13. Spatial distribution of the monthly precipitation sums (mm) according to data from 28 major meteorological, 20 climatological and 82 rain gauge stations

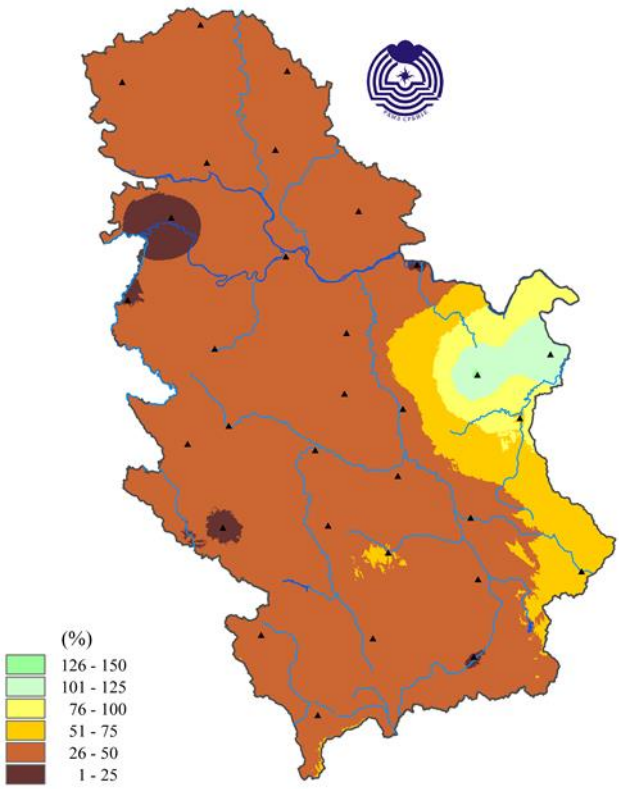


Figure 14. Spatial distribution of the monthly precipitation sums in the percentages of normal for the 1991–2020 base period

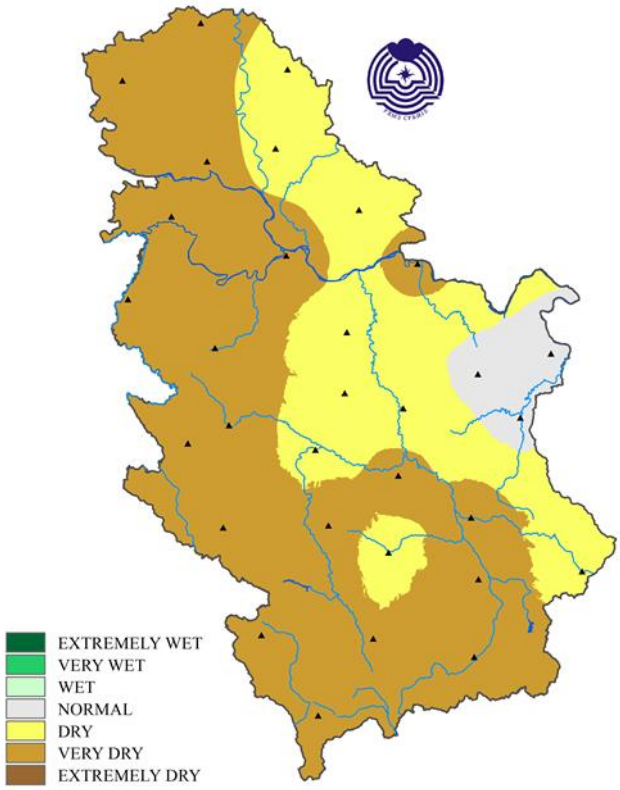


Figure 15. Monthly precipitation sums according to the percentile method

The highest daily precipitation sum of 34.2 mm was measured in Negotin on December 25. On the same day, Belgrade recorded the highest daily precipitation sum of 6.1 mm.

Number of days with precipitation in December ranged from 7 in Novi Sad, Sremska Mitrovica and Veliko Gradiste to 15 days in Zrenjanin (*Figure 16).* The recorded number of days with precipitation was 1 to 5 days below December average in most of the country (*Figure 17).*

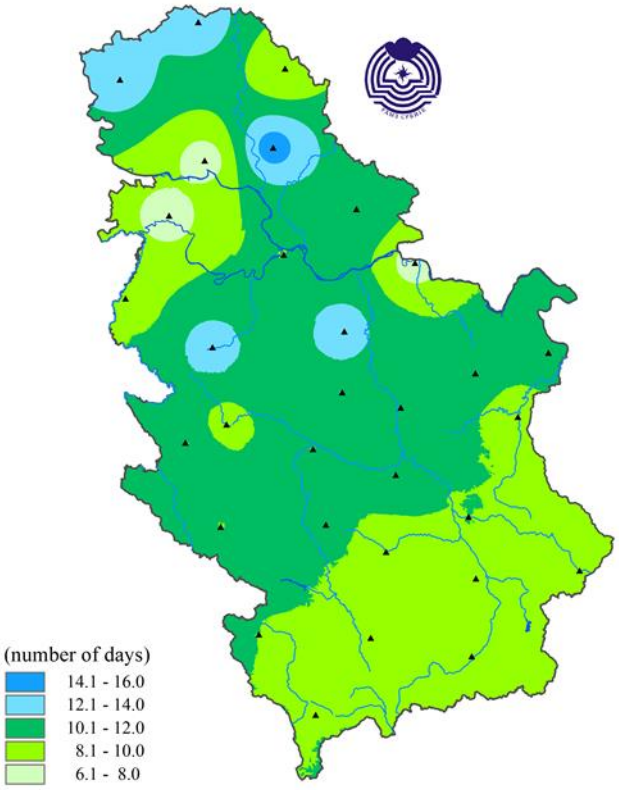


Figure 16. Spatial distribution of number of days with precipitation

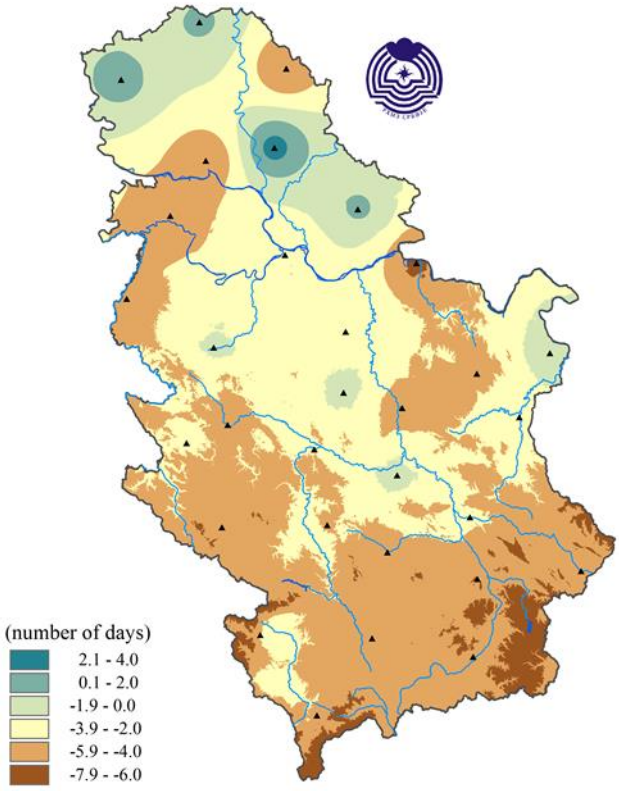


Figure 17. Spatial distribution of deviation of number of days with precipitation

Snow cover at the beginning of the month was registered only on the mountains, expanding on the lowland of the eastern and southwestern Serbia throughout middle of the last decade. The highest snow depth of 38 cm was registered on December 26 at Crni Vrh. As for the lowland, the highest snow depth of 16 cm was measured in Negotin.

Snow cover persisted from 1 to 5 days. On the mountains, number of days with snow cover ranged from 5 in Sjenica to 20 days at Kopaonik. The observed number of days with snow cover was 5 to 9 days below December average.

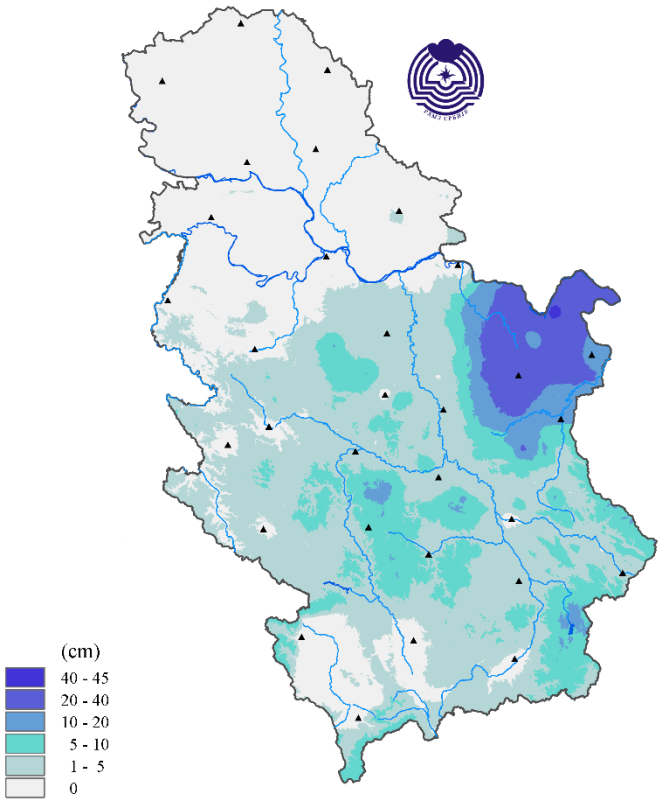


Figure 18. Snow cover height (cm) in Serbia at 8 a.m. on December 26, 2025

Figure 19 shows assessment of air temperature and precipitation sums for Serbia for December based on the tercile distribution relative to the 1991 – 2020 base period. It can be noted that December 2025 was marked by air temperature above upper tercile threshold and precipitation sums below lower tercile threshold.

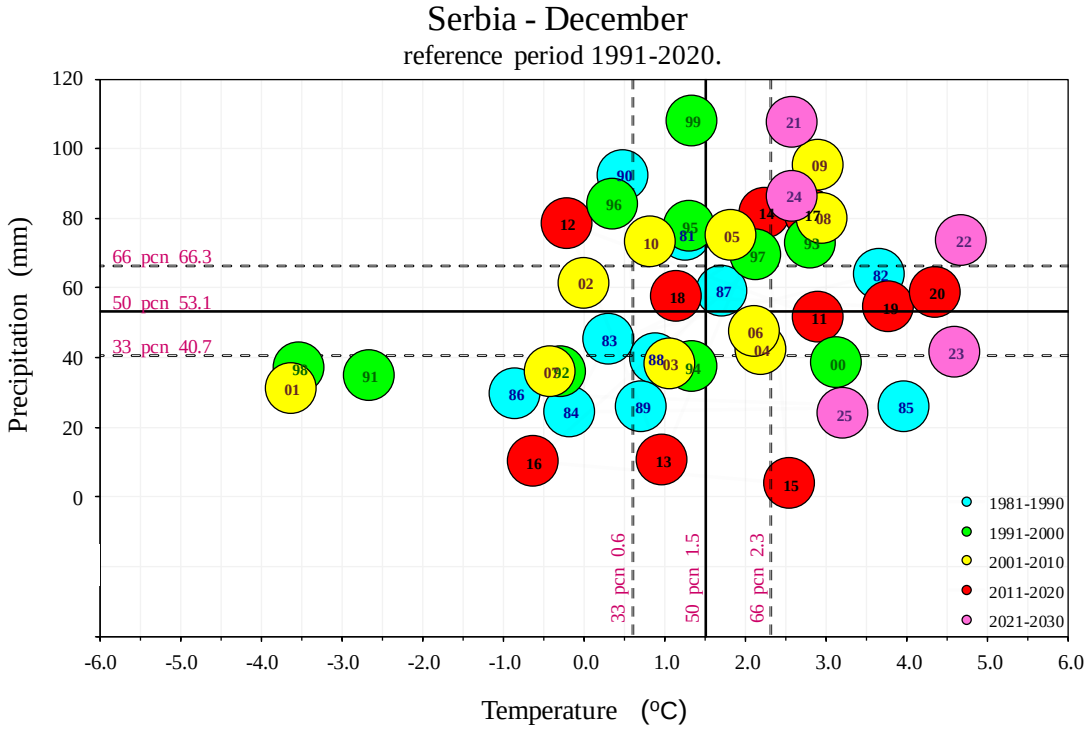


Figure 19. Assessment of air temperature and precipitation for Serbia with the accompanying terciles in relation to the 1991-2020 base period

Figure 20 show daily and cumulative precipitations sums with averaged normal 1991-2020 for December in Belgrade, and for the stations Sombor, Novi Sad, Loznica, Negotin, Kragujevac, Zlatibor, Nis and Vranje precipitation sums are given in Appendix.

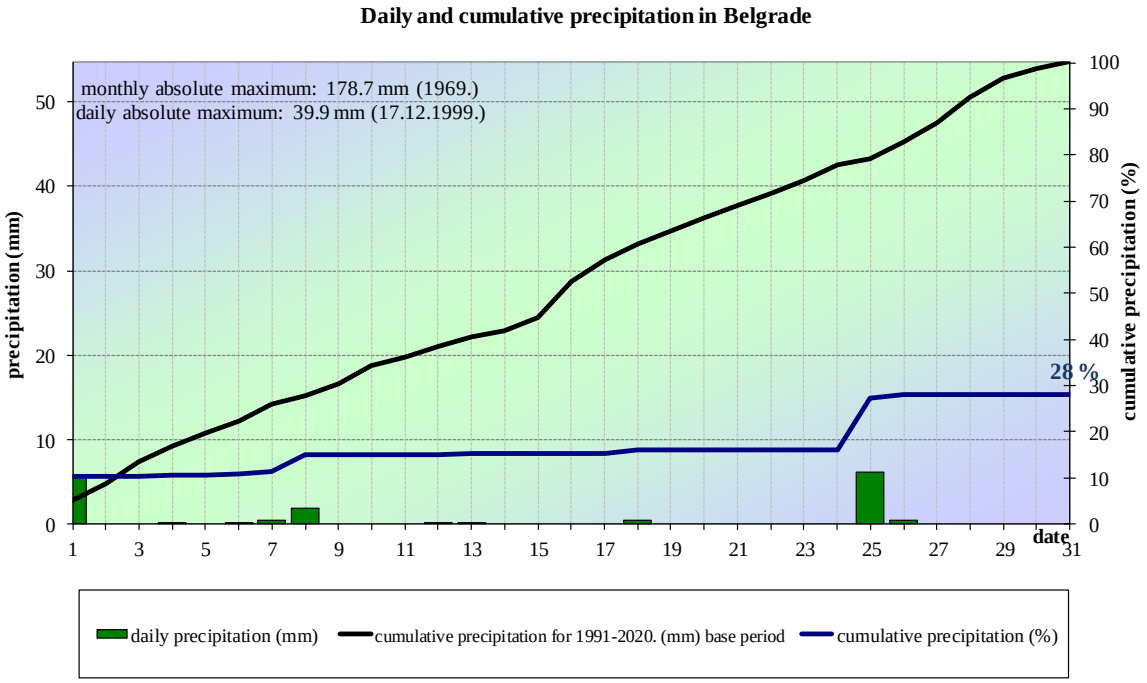


Figure 20. Daily and cumulative precipitation in Belgrade

CLOUD COVER, BRIGHT AND CLOUDY DAYS

Mean December cloud cover for Serbia was around the average, ranging from 5/10 to 9/10. Figures 21, 22 and 23 show average daily cloud cover in December for Belgrade, Pozega and Kopaonik.

Bright days[7] were not recorded in Veliko Gradiste and Dimitrovgrad. The highest number of bright days, total of 9 days, was recorded at Kopaonik. Belgrade registered one bright day. The observed number of bright days was around December average in most of the country.

Number of cloudy days[8] ranged from 9 at Kopaonik to 25 days in Pozega. Belgrade registered 14 cloudy days. Number of cloudy days was around 5 days below December average.

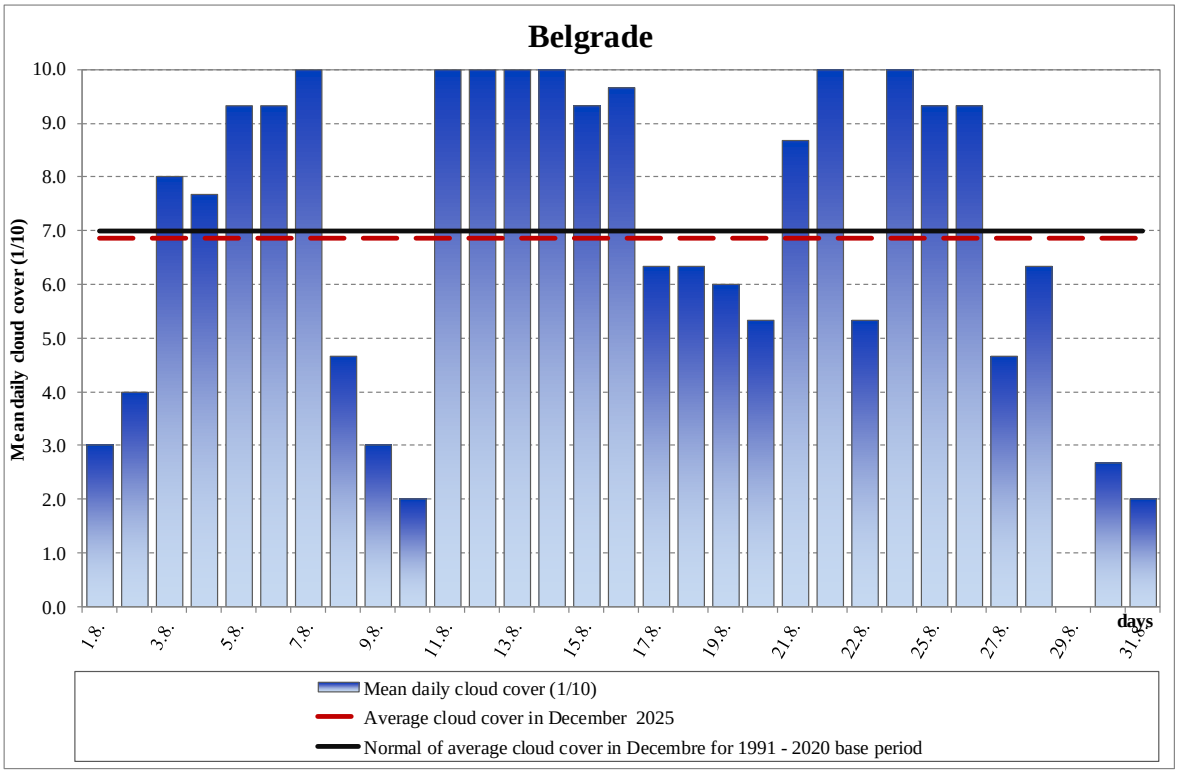


Figure 21. Mean daily cloud cover in Belgrade

[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

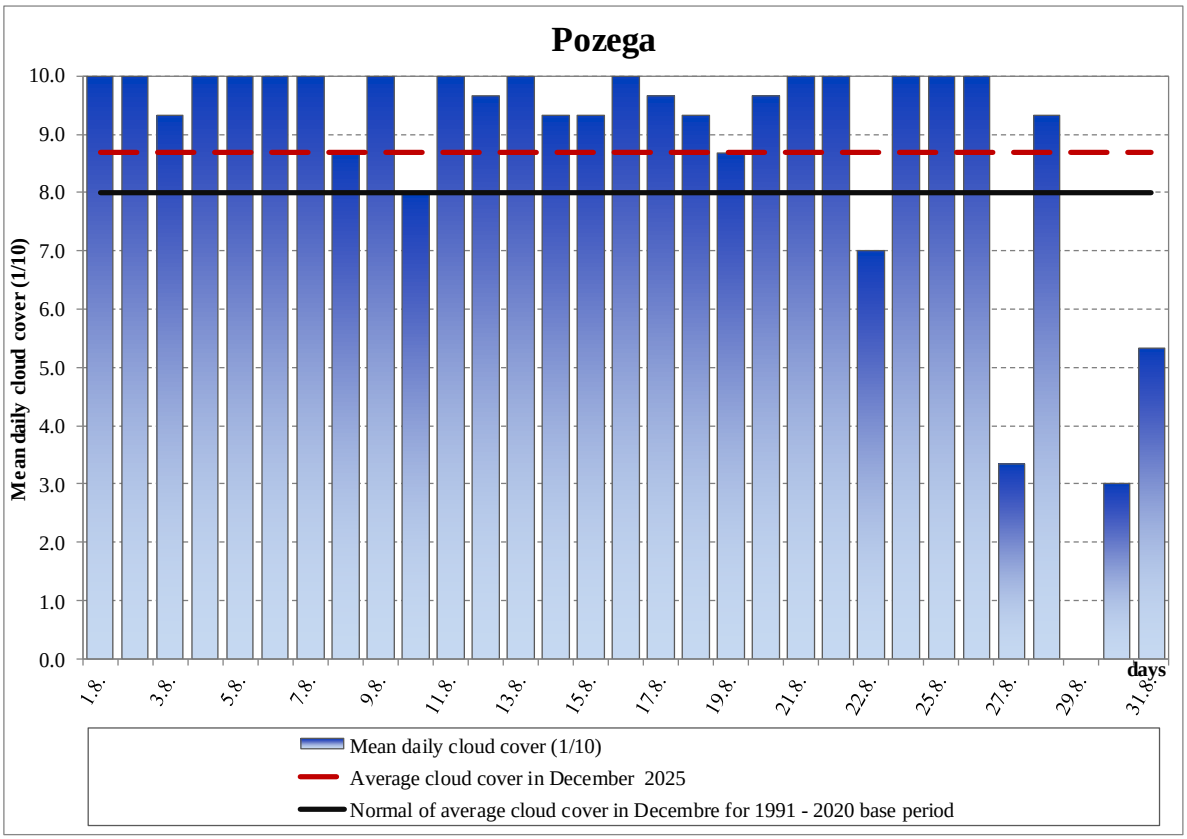


Figure 22. Mean daily cloud cover in Pozega

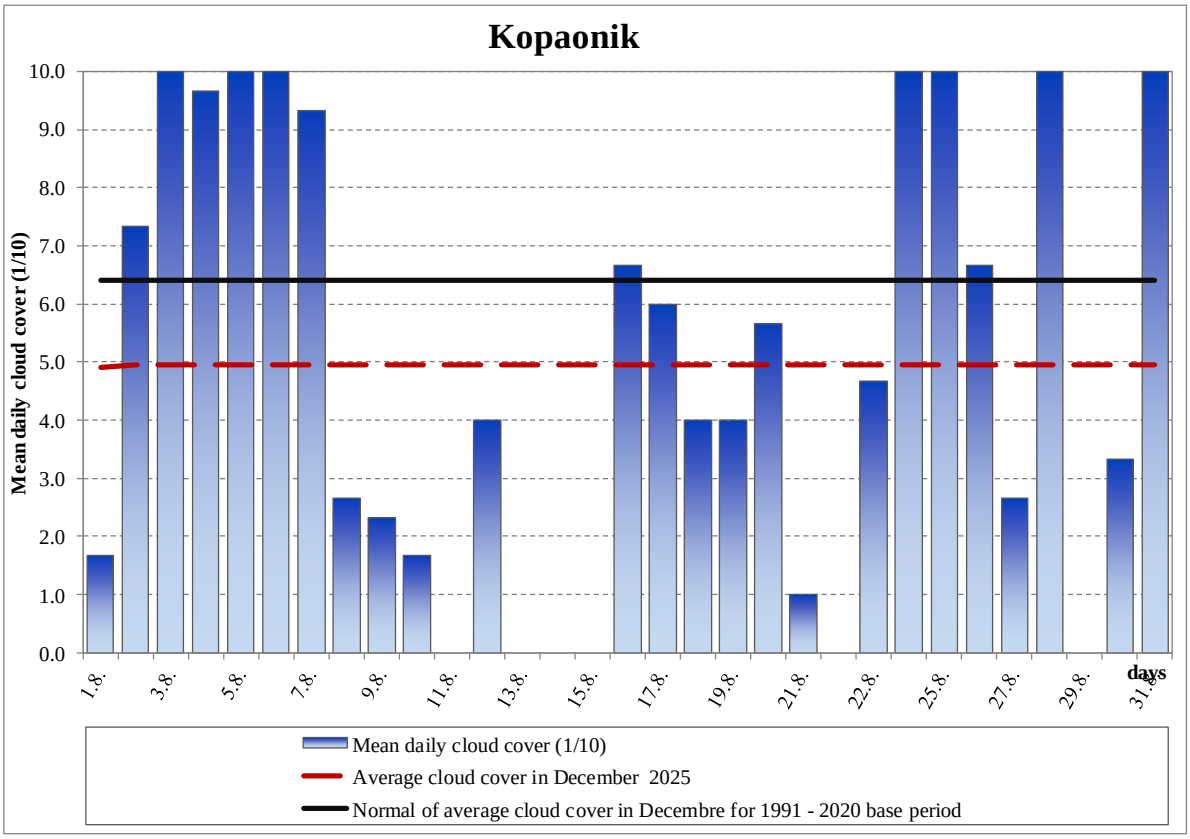


Figure 23. Mean daily cloud cover on Kopaonik

SUNSHINE DURATION (INSOLATION)

Sunshine duration in December ranged from 29.9 hours in Pozega to 99.9 hours at Kopaonik (*Figure 24*).

December insolation ranged from 69% at Zlatibor to 131% in Zajecar compared to the normal for the 1991-2020 base period (*Figure 25*).

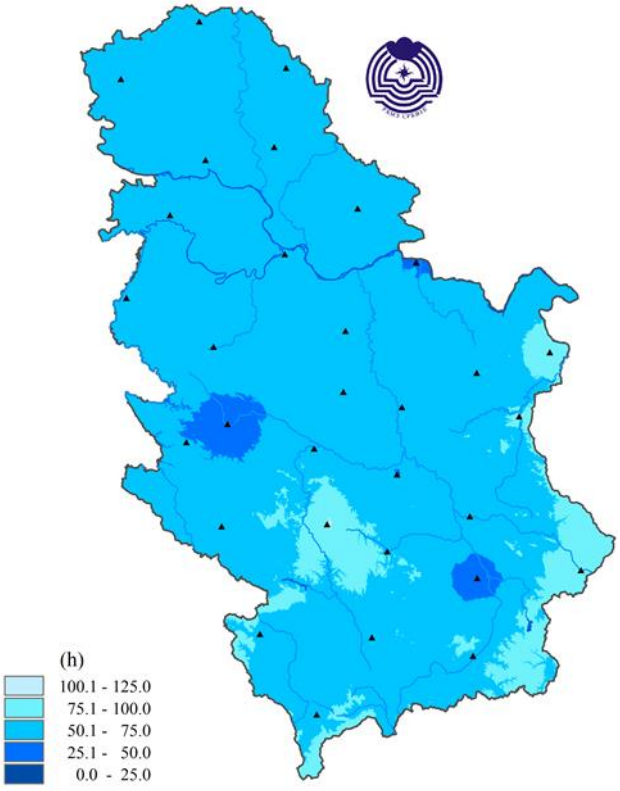


Figure 24. Insolation, expressed in hours

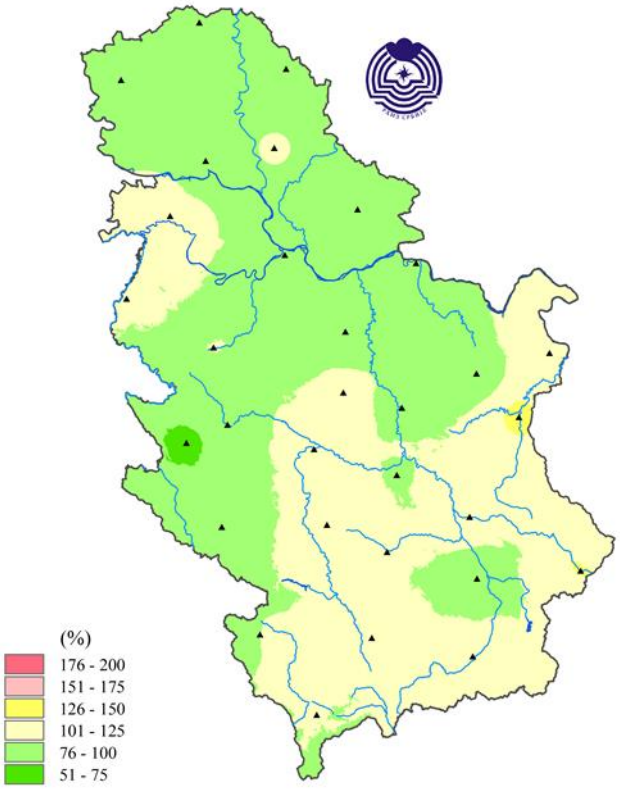


Figure 25. Insolation expressed in the percentages of normal

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

OVERVIEW OF THE SYNOPTIC SITUATION*

Predominantly dry and warm, influence of ridge in the geopotential field and warm air masses from the Mediterranean. Several weather changes and the passage of moist air waves from the Adriatic, as well as a few short-lived incursion of colder air from the northwest and north, linked to cyclonic circulations originating from the north and northeast. During the third decade, a pronounced incursion of cold air from the north, at places with snow

Period at the beginning of the month war marked by warmer conditions, changeable cloudiness and windy weather, accompanied by scattered light rain in the eastern and northern regions, becoming more frequent toward the end of the first decade. This weather pattern was linked with the forward flank of a spatial low pressure system, with its center located over northwestern Europe, encompassing the North Sea, the British Isles, and the western Mediterranean, as well as with shallow wave disturbances from the southwest, across the central Mediterranean and the southern Apennines and Adriatic, accompanied by a warm air mass. In the eastern part of the continent anticyclone persisted. At the end of the first decade, a change in the circulation took place, with the development of a new depression over the northwest, cold air advection, and the passage of a weakly pronounced cold front across the Pannonian Plain and northern regions, followed by a rise in surface pressure.

Then, until the middle of the third decade, a ridge and high values in the geopotential field prevailed, accompanied by a warm air mass and occasional passages of moist air waves from the southwest and south across our region, under a surface anticyclone. Predominantly stable and dry conditions, with fog and low cloudiness in some areas, more frequent in the lowlands, and occasionally throughout the day.

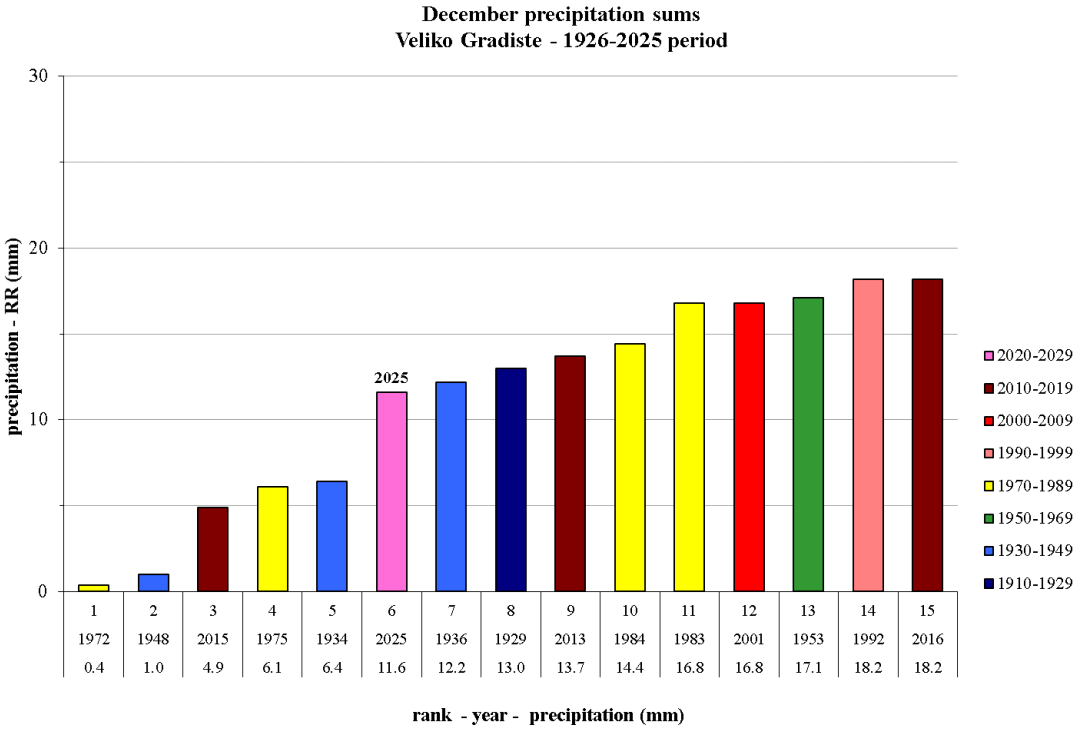
Period in the middle of the third decade was marked by a passage of a cold atmospheric front from the north and northwest, accompanied by the strengthening of an upperair trough over the Pannonian Plain and the Carpathians toward the southern Balkans, and advection of a cold air mass. Considerably colder weather with rain in some areas, and snow in lowland in the Pomoravlje region, in the west and southwest, as well as in the eastern part of Serbia, with short-lived snow cover in lower areas and heavier precipitation in the eastern regions.

At the end of the year, anticyclone and strong northerly circulation, cold and mostly dry, in Pomoravlje region and in the southern and southeastern Serbia, light and moderate frost.

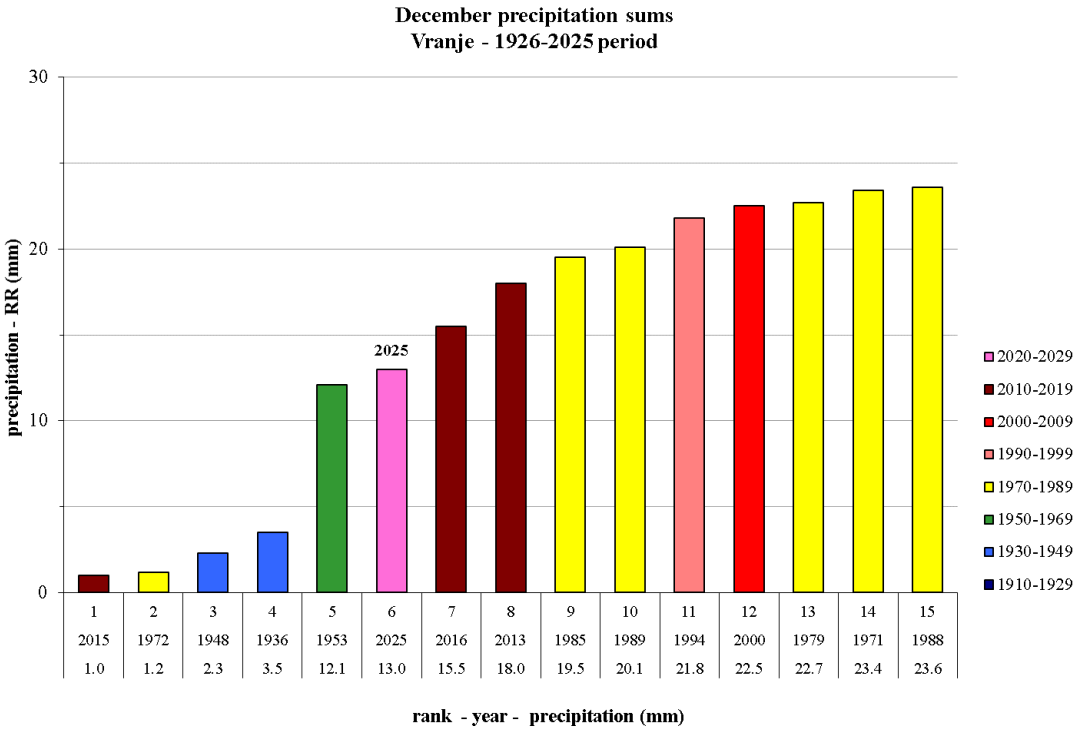
* National Center for Hydrometeorlogical Early Warning System

APPENDIX

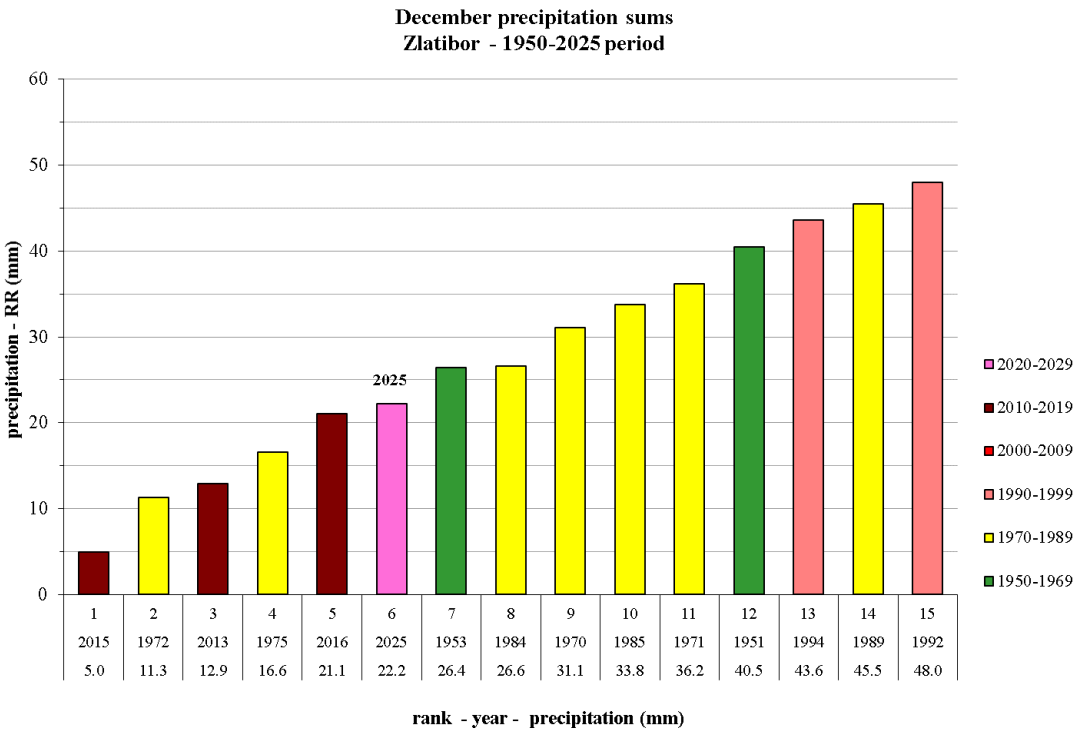
Ranks of the driest December



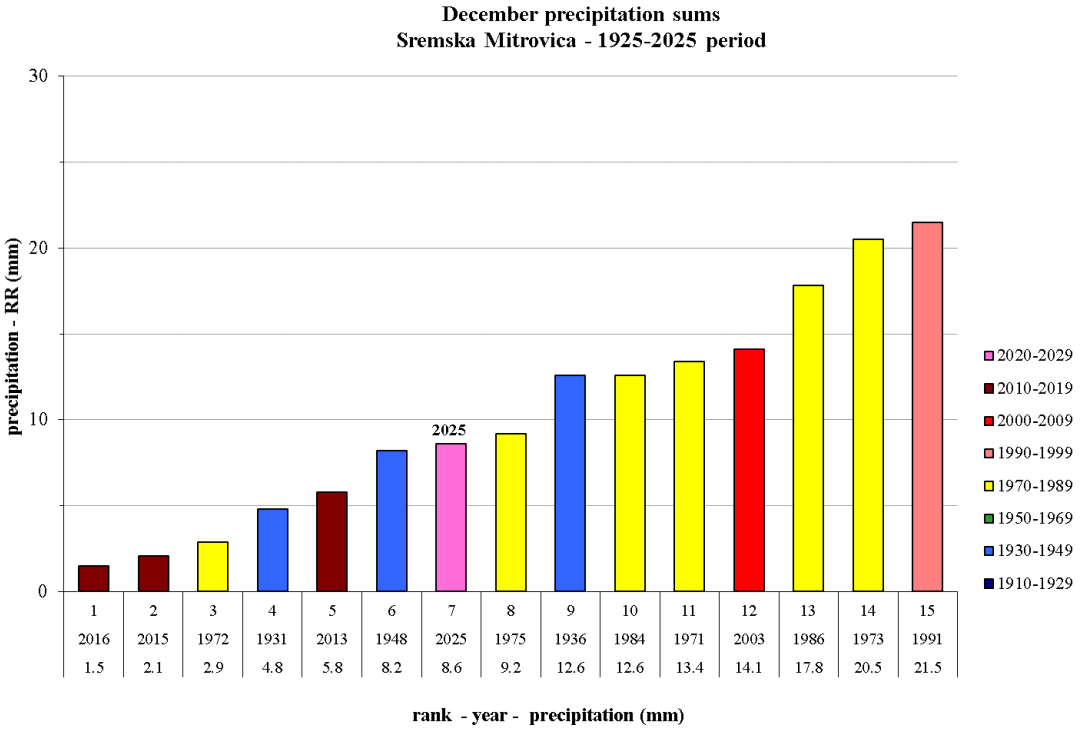
Appendix 1. Rank of the lowest precipitation in Veliko Gradiste



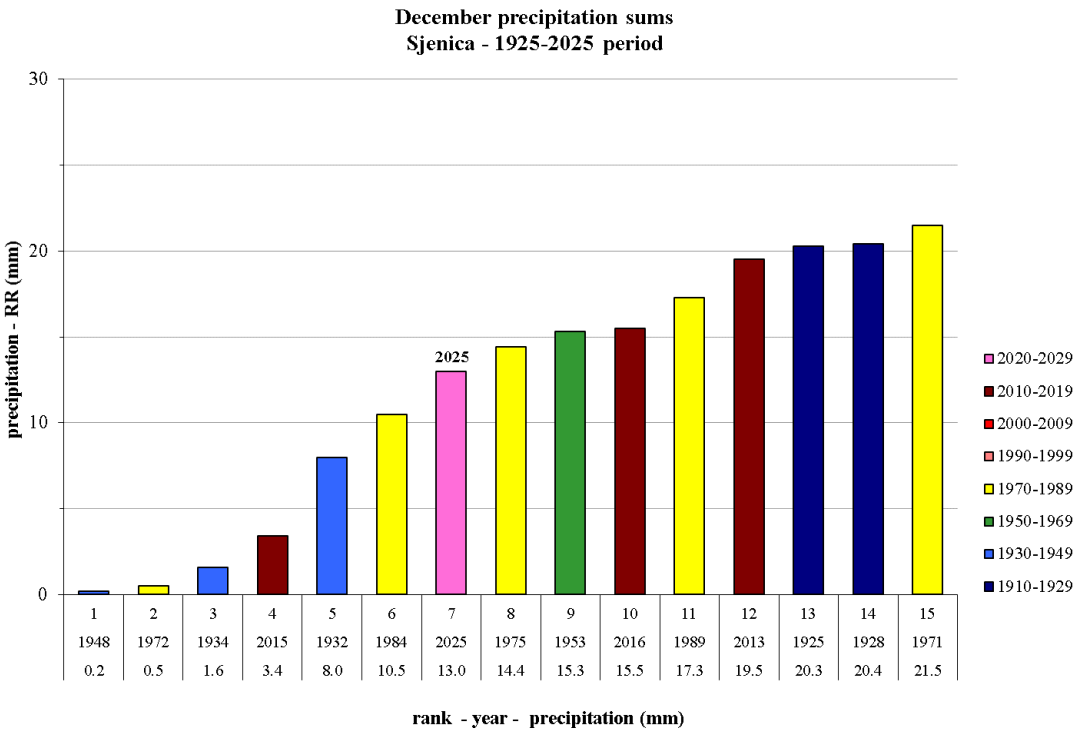
Appendix 2. Rank of the lowest precipitation in Vranje



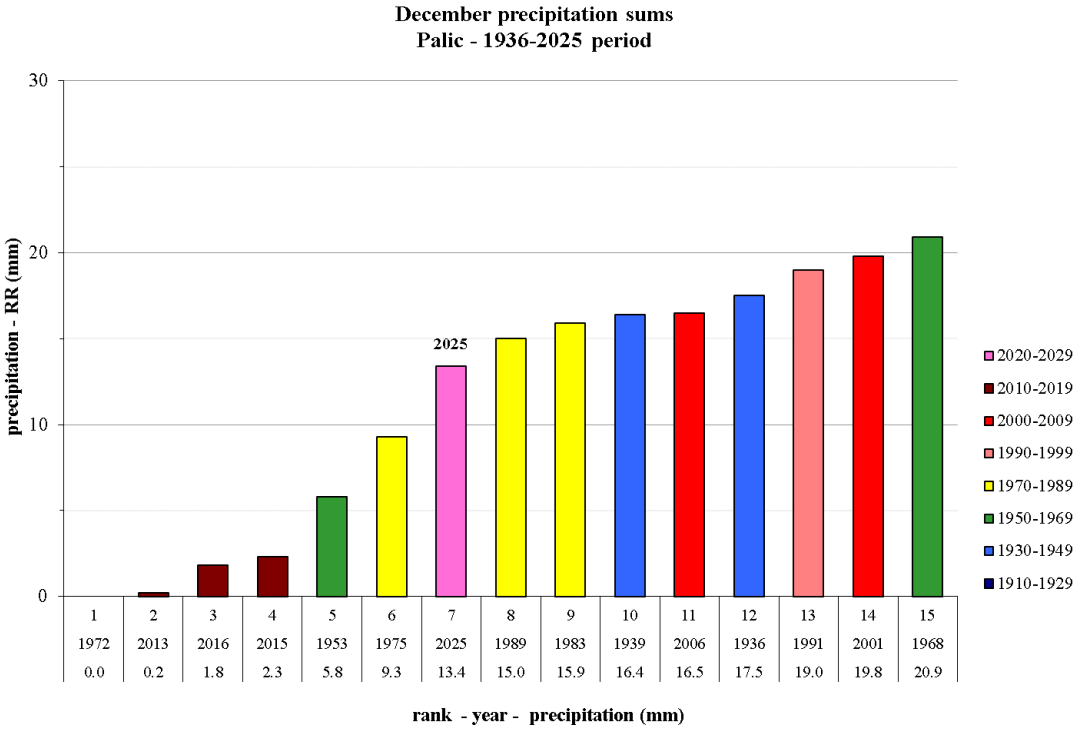
Appendix 3. Rank of the lowest precipitation on Zlatibor



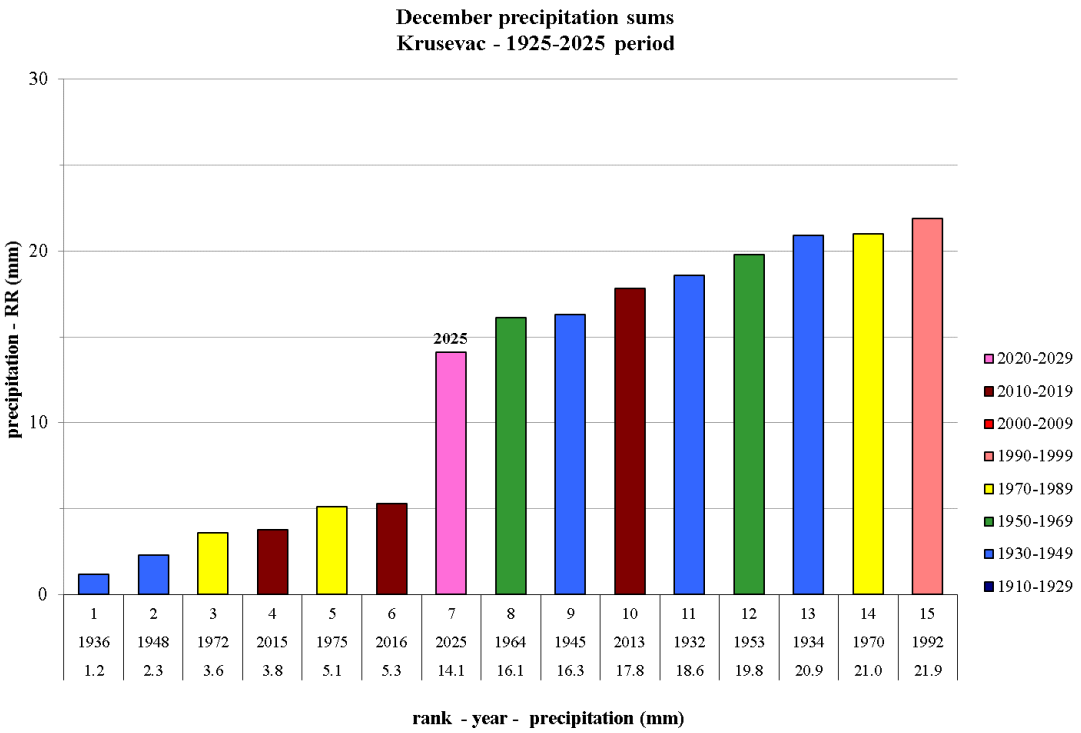
Appendix 4. Rank of the lowest precipitation in Sremska Mitrovica



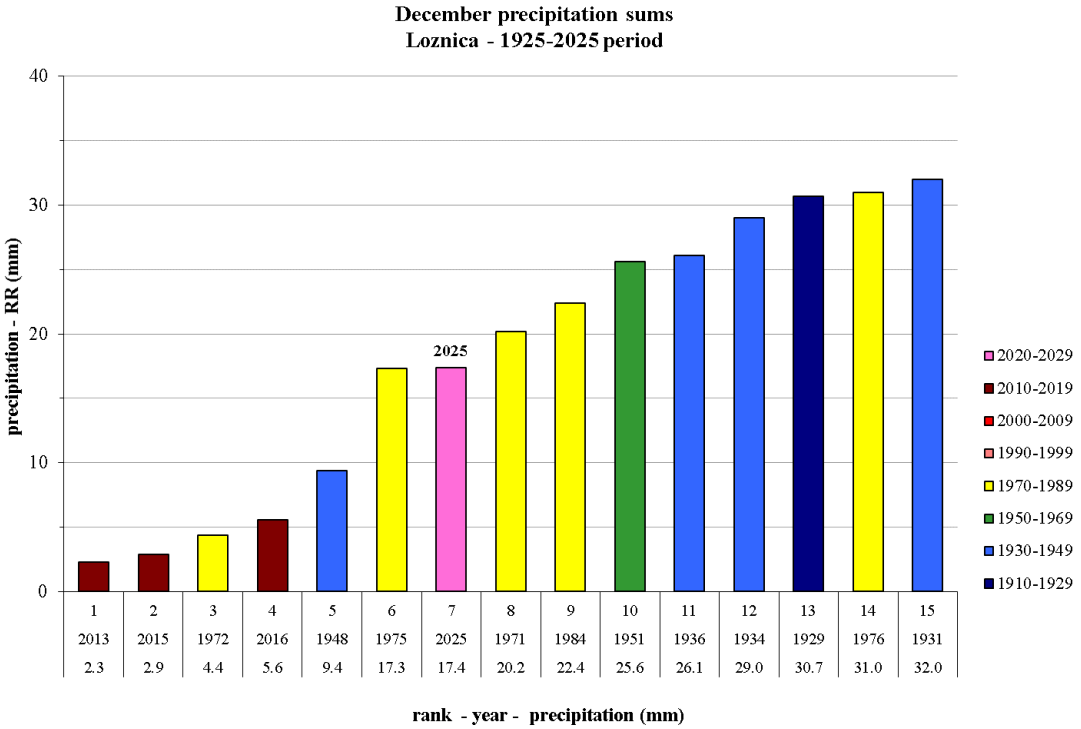
Appendix 5. Rank of the lowest precipitation in Sjenica



Appendix 6. Rank of the lowest precipitation on Palic

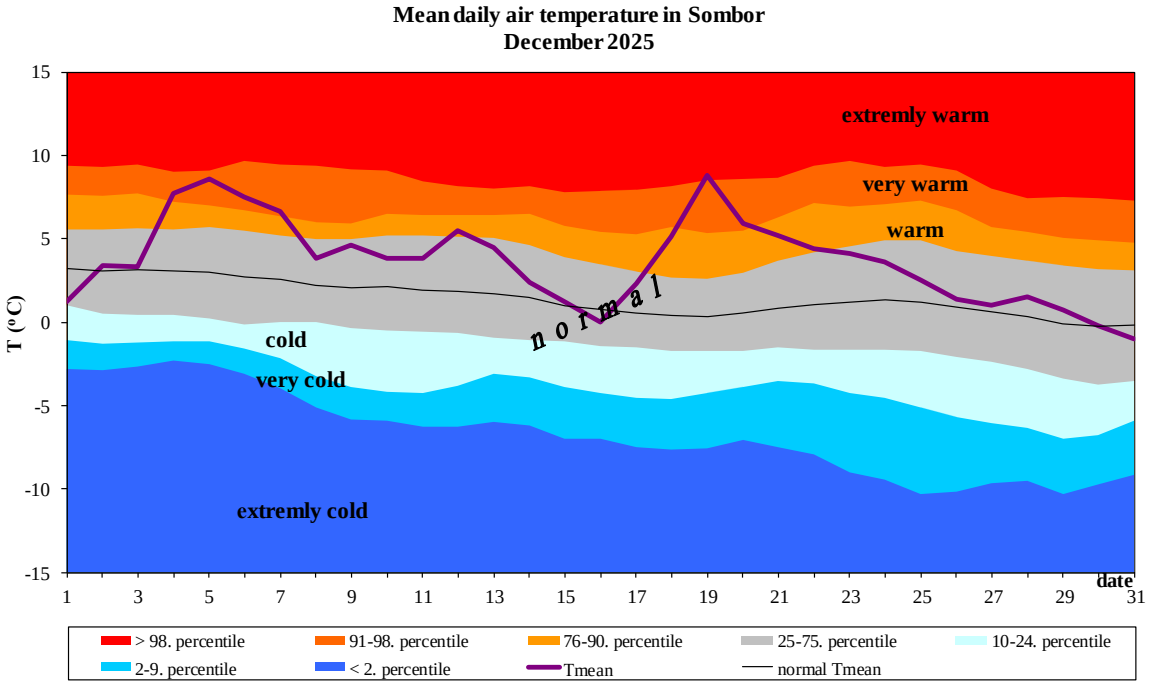


Appendix 7. Rank of the lowest precipitation in Krusevac

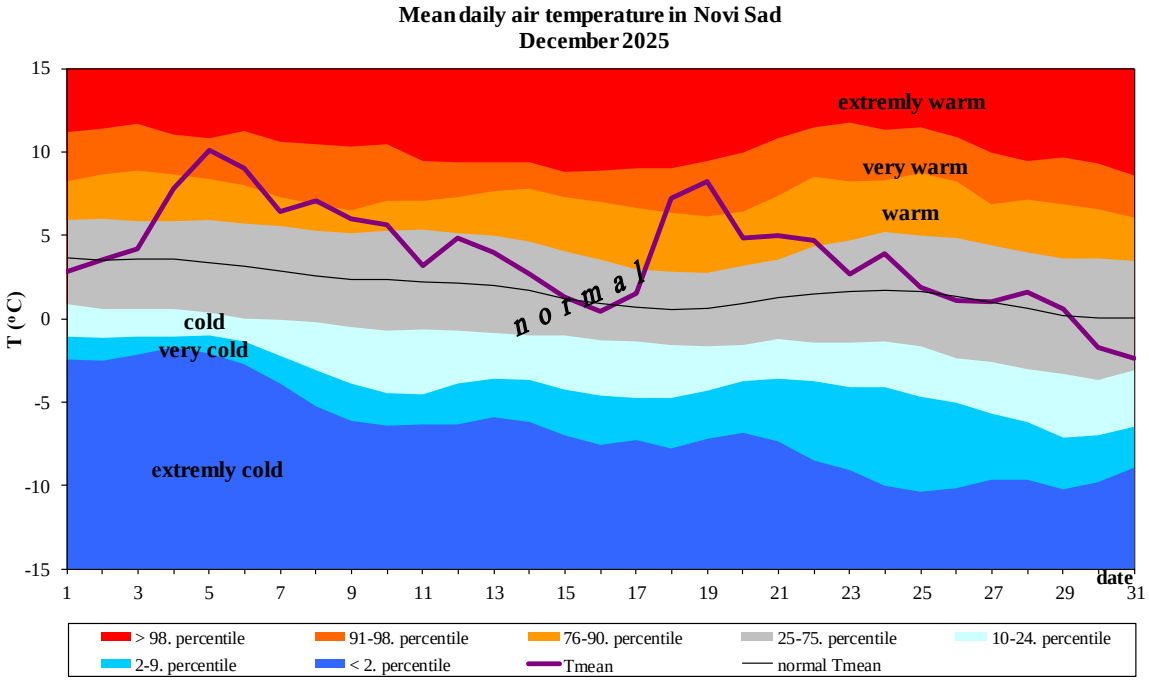


Appendix 8. Rank of the lowest precipitation in Loznica

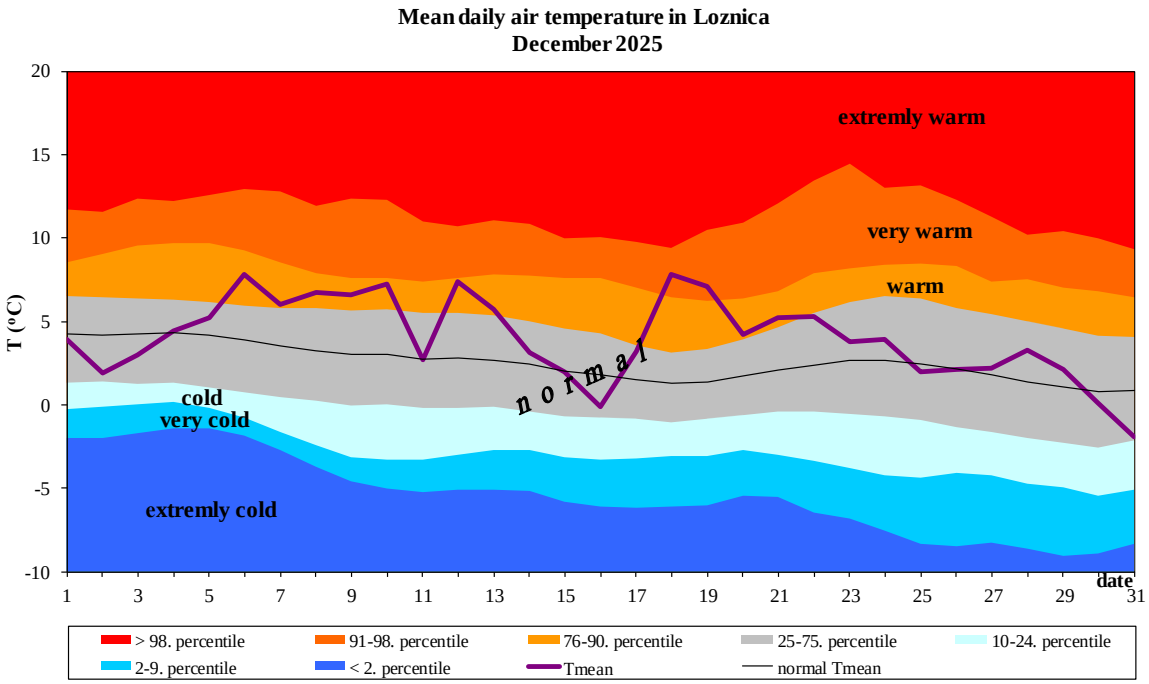
Mean air temperature



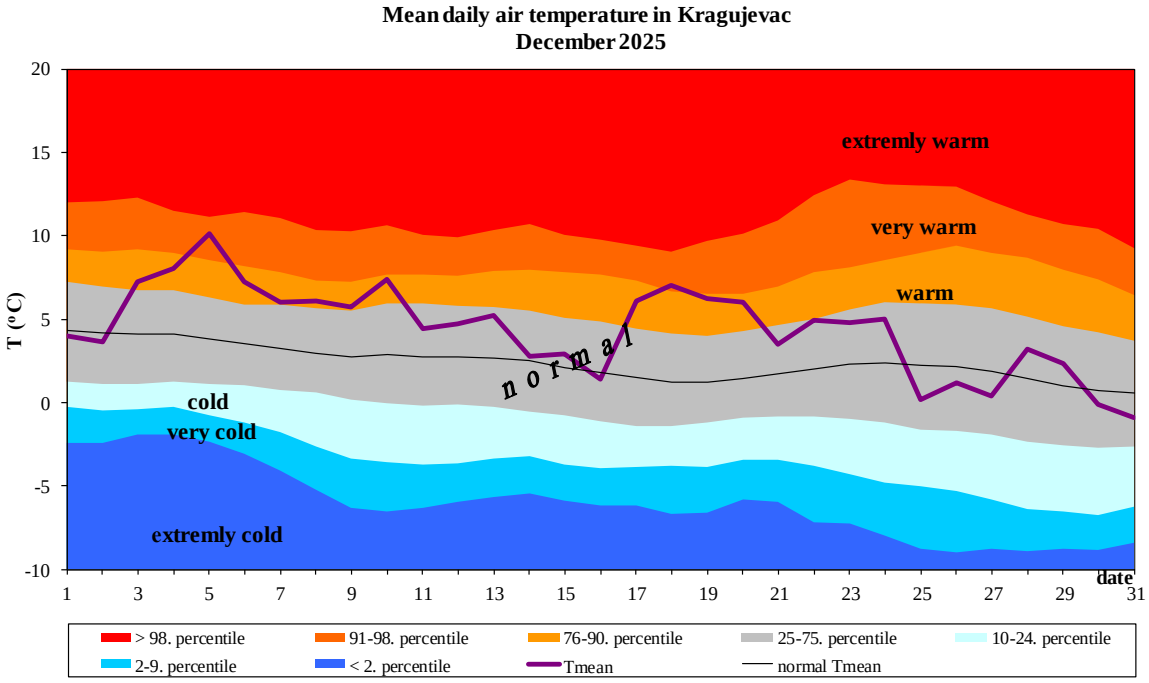
Appendix 9. Daily course of the mean daily air temperature and accompanying percentile for Sombor



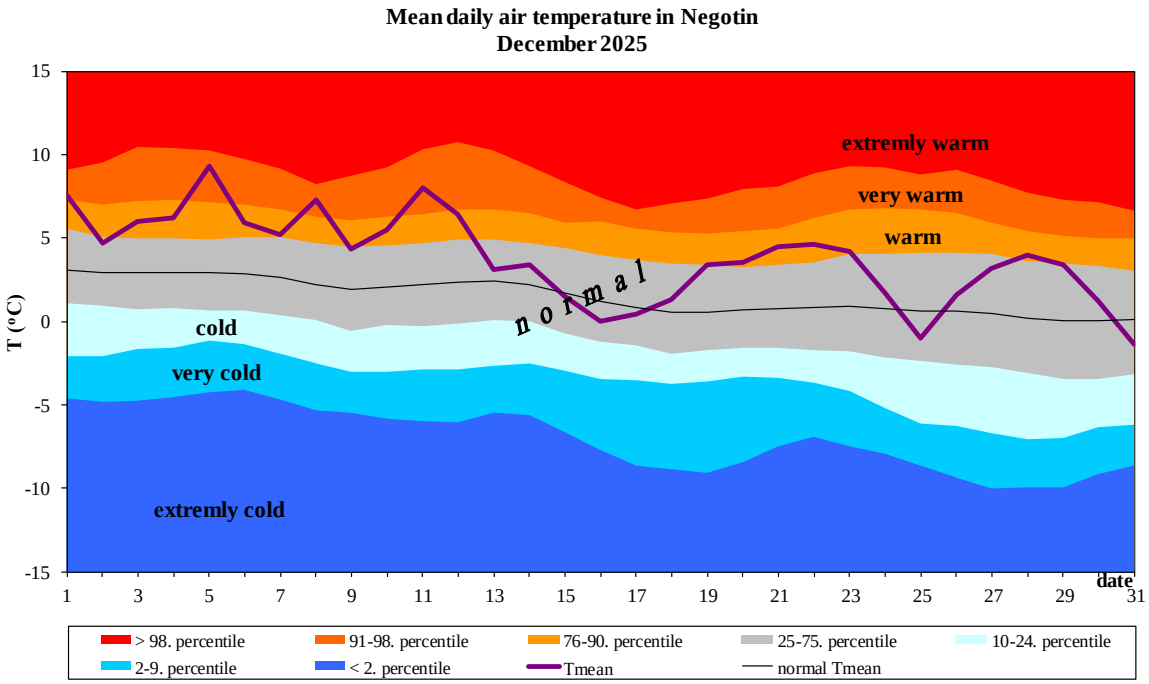
Appendix10. Daily course of the mean daily air temperature and accompanying percentile for Novi Sad



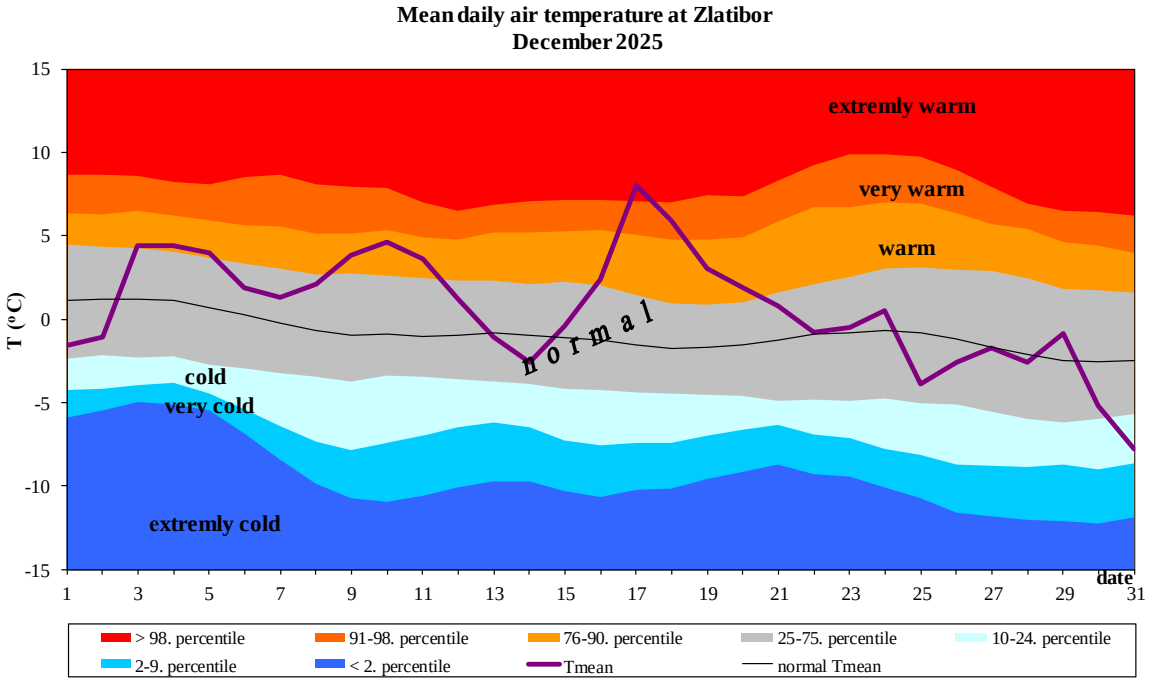
Appendix 11. Daily course of the mean daily air temperature and accompanying percentile for Loznica



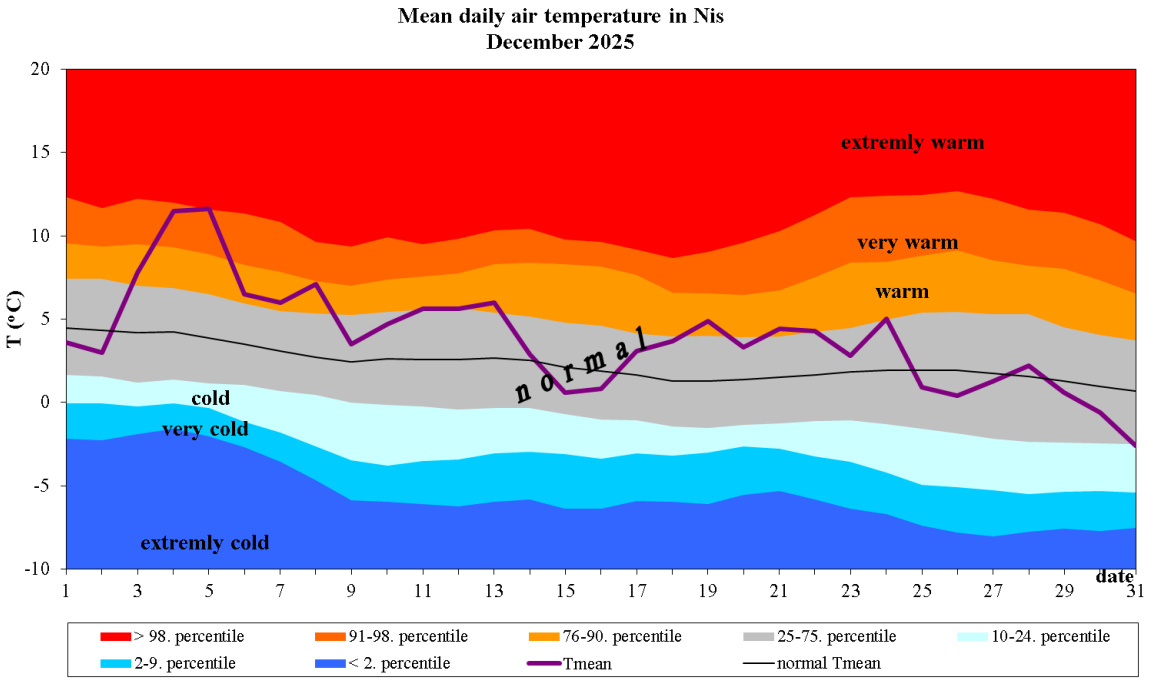
Appendix 12. Daily course of the mean daily air temperature and accompanying percentile for Kragujevac



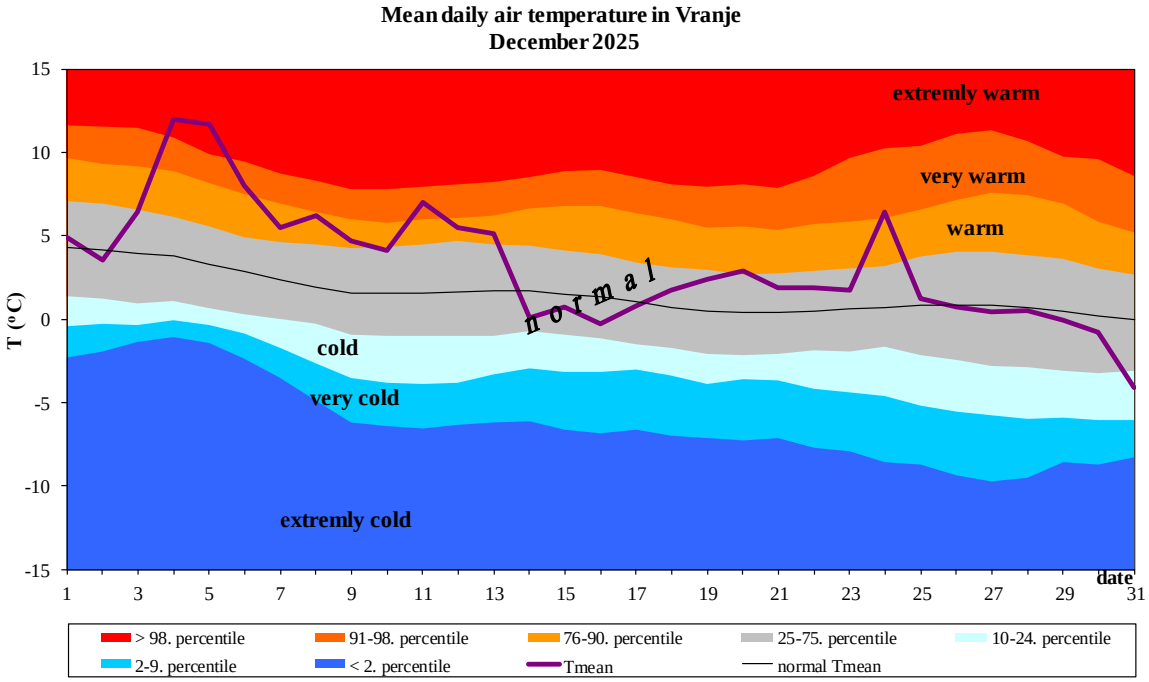
Appendix 13. Daily course of the mean daily air temperature and accompanying percentile for Negotin



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

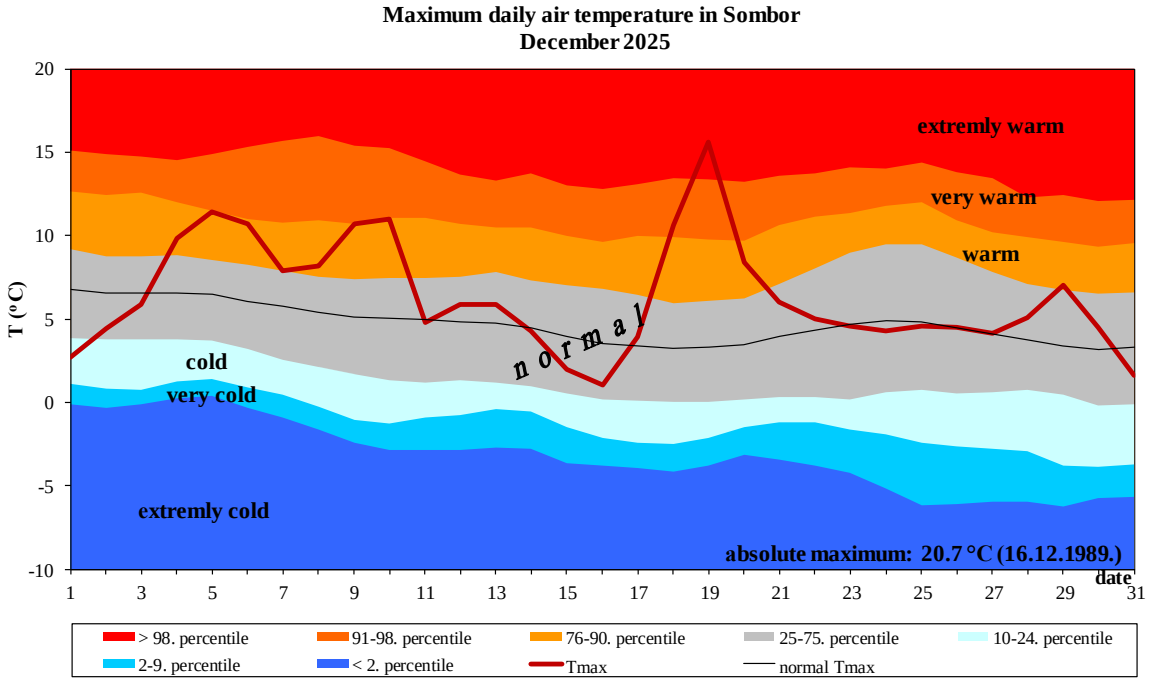


Appendix 15. Daily course of the mean daily air temperature and accompanying percentile for Nis

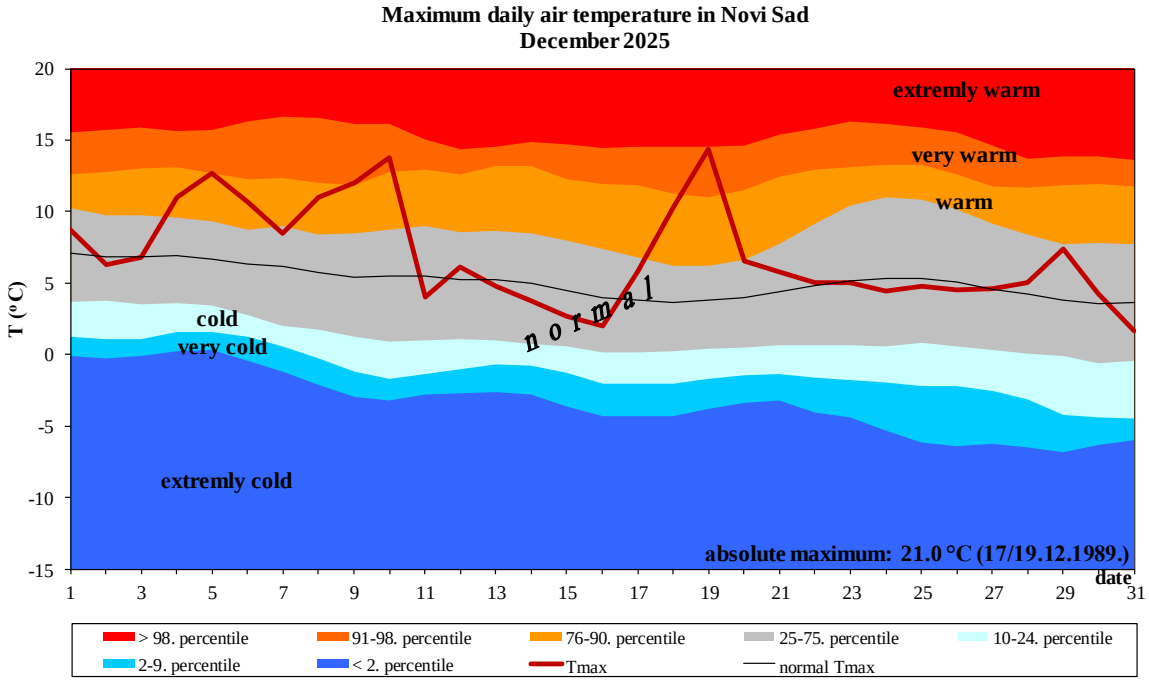


Appendix 16. Daily course of the mean daily air temperature and accompanying percentile for Vranje

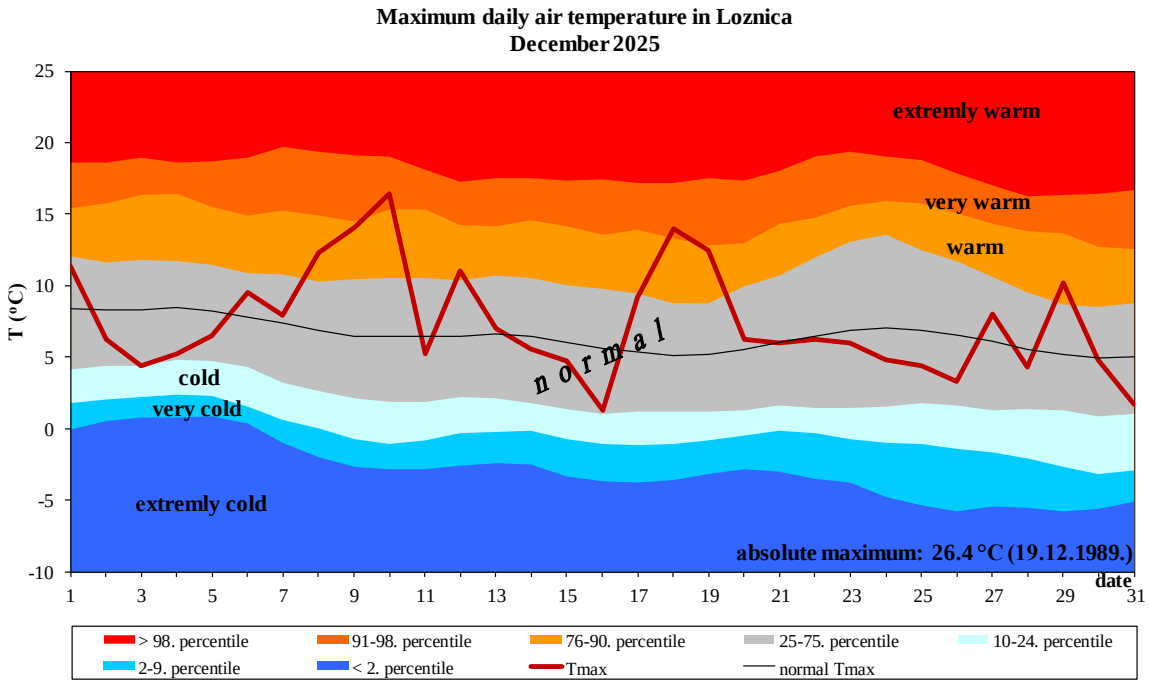
Maximum air temperature



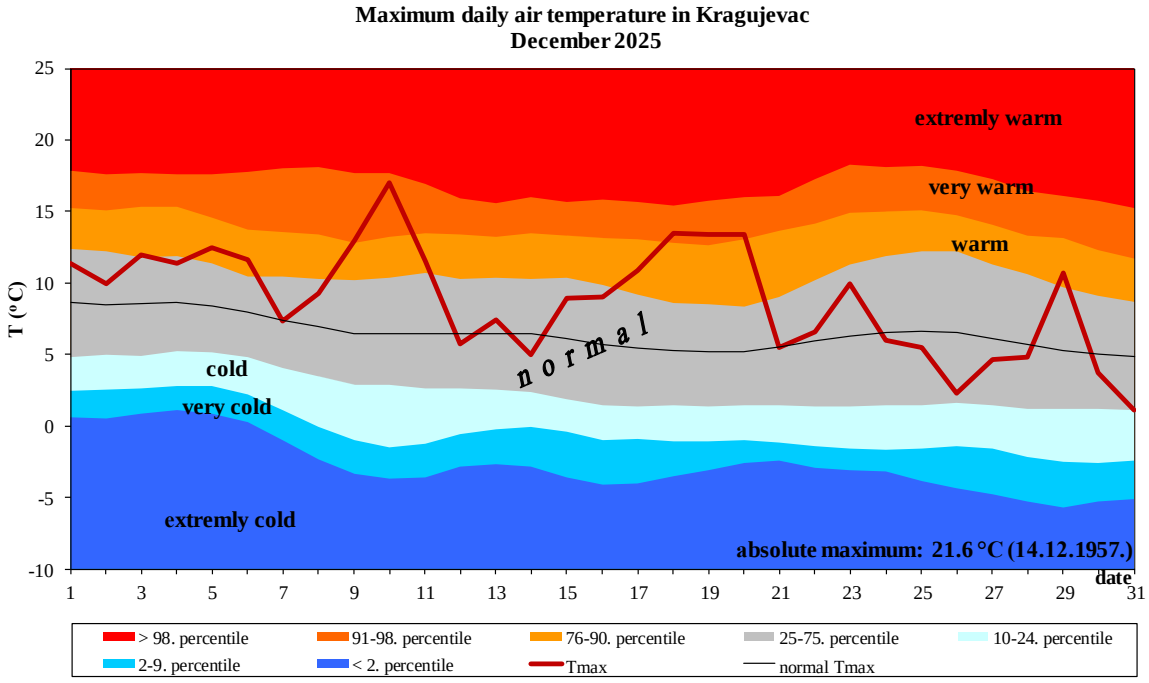
Appendix 17. Daily course of the maximum daily air temeperature and the accompanying percentile for Sombor



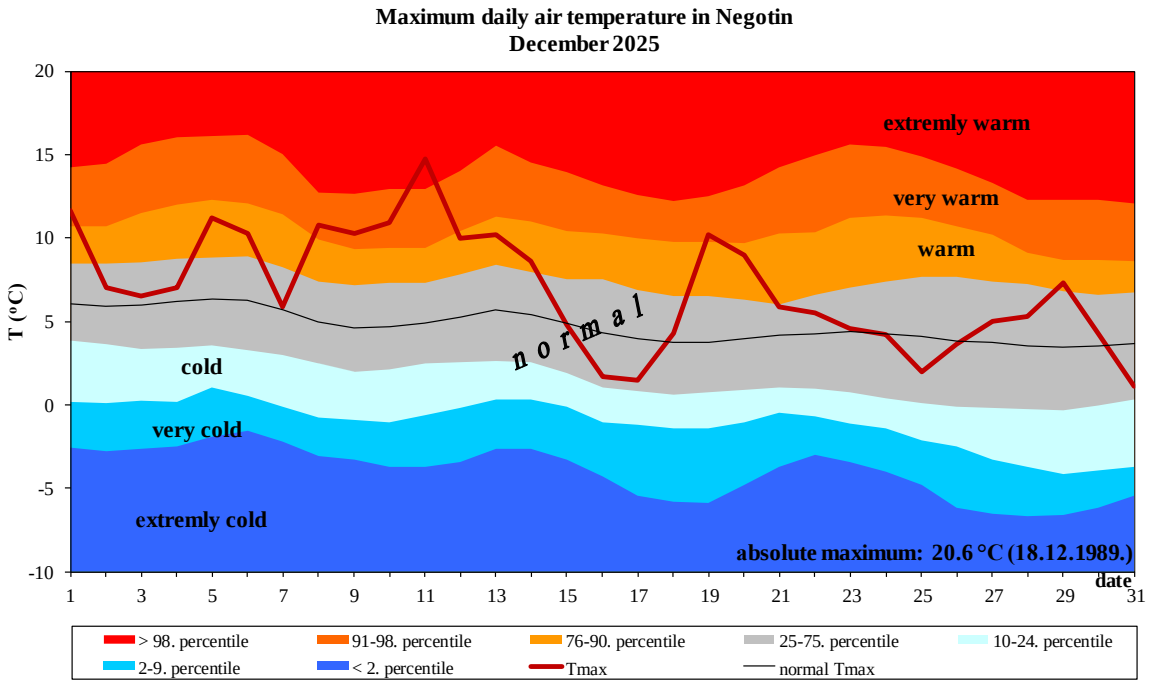
Appendix 18. Daily course of the maximum daily air temeperature and the accompanying percentile for Novi Sad



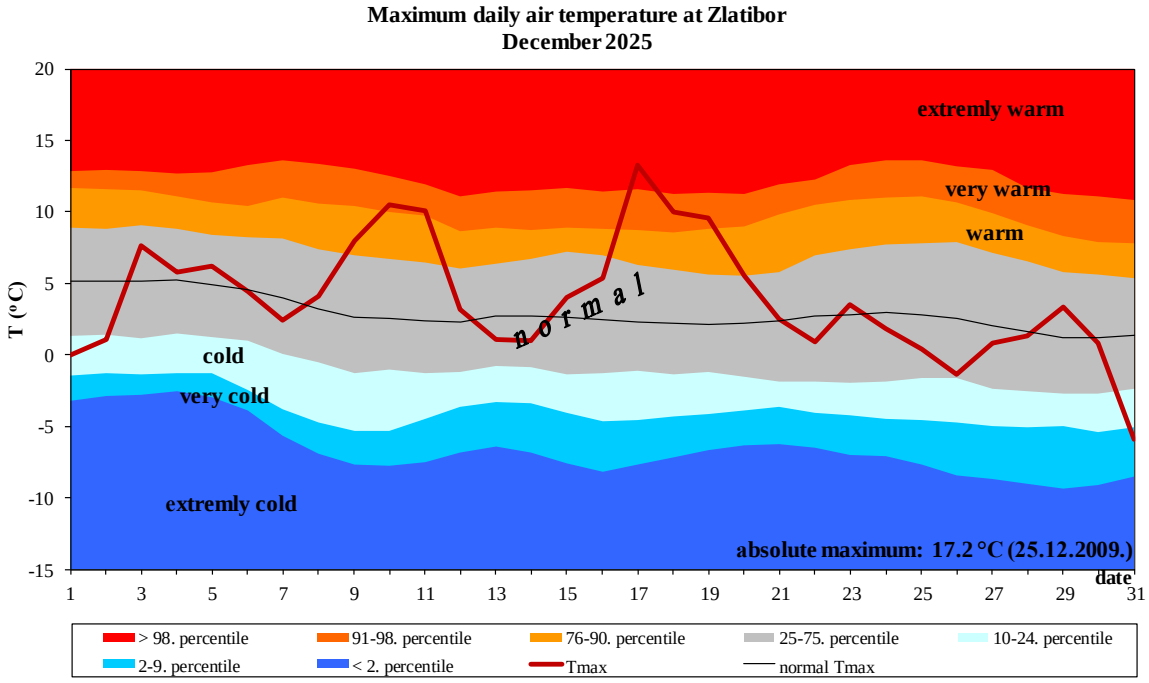
Appendix 19. Daily course of the maximum daily air temeperature and the accompanying percentile for Loznica



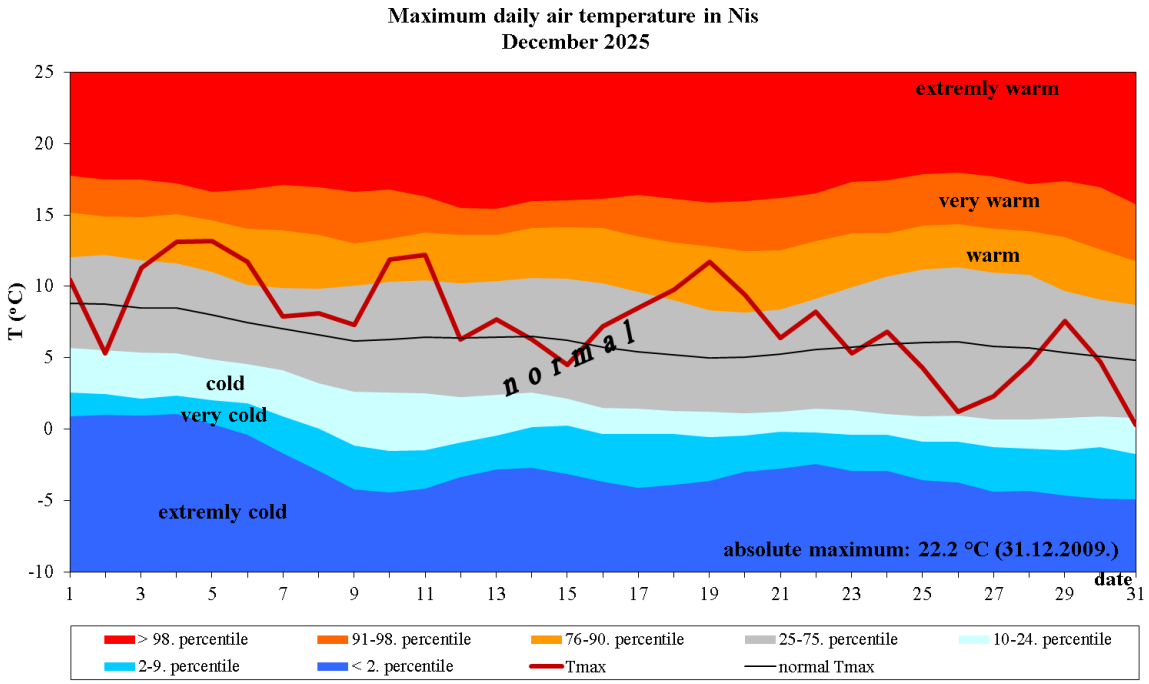
Appendix 20. Daily course of the maximum daily air temeperature and the accompanying percentile for Kragujevac



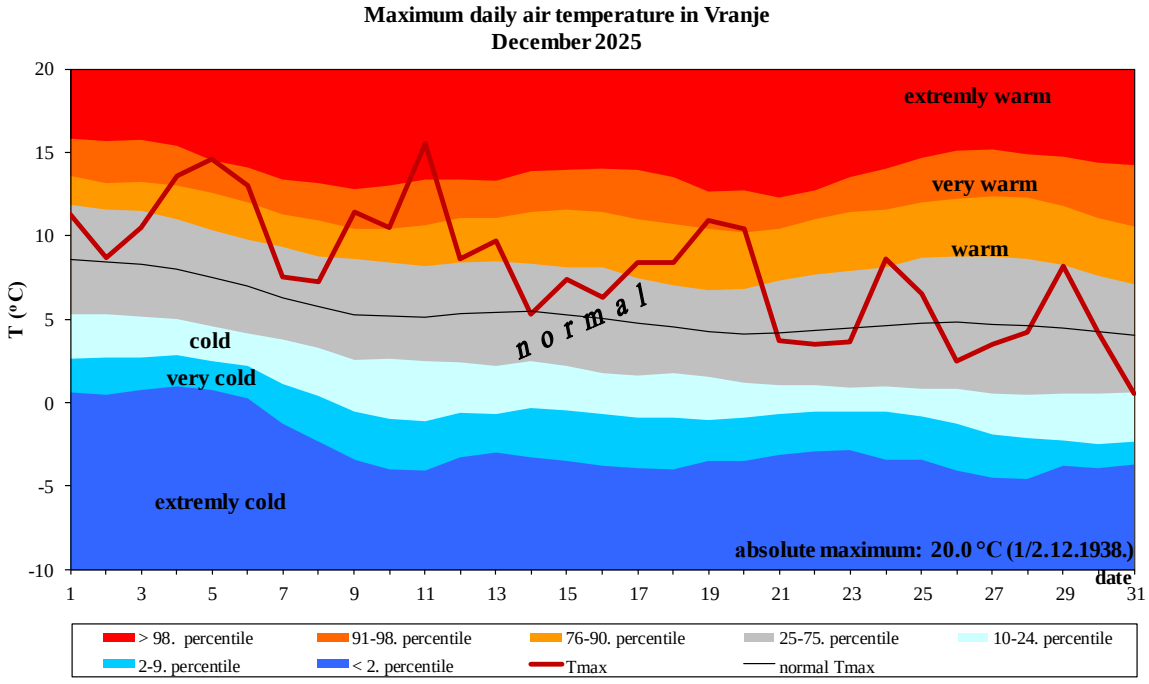
Appendix 21. Daily course of the maximum daily air temeperature and the accompanying percentile for Negotin



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

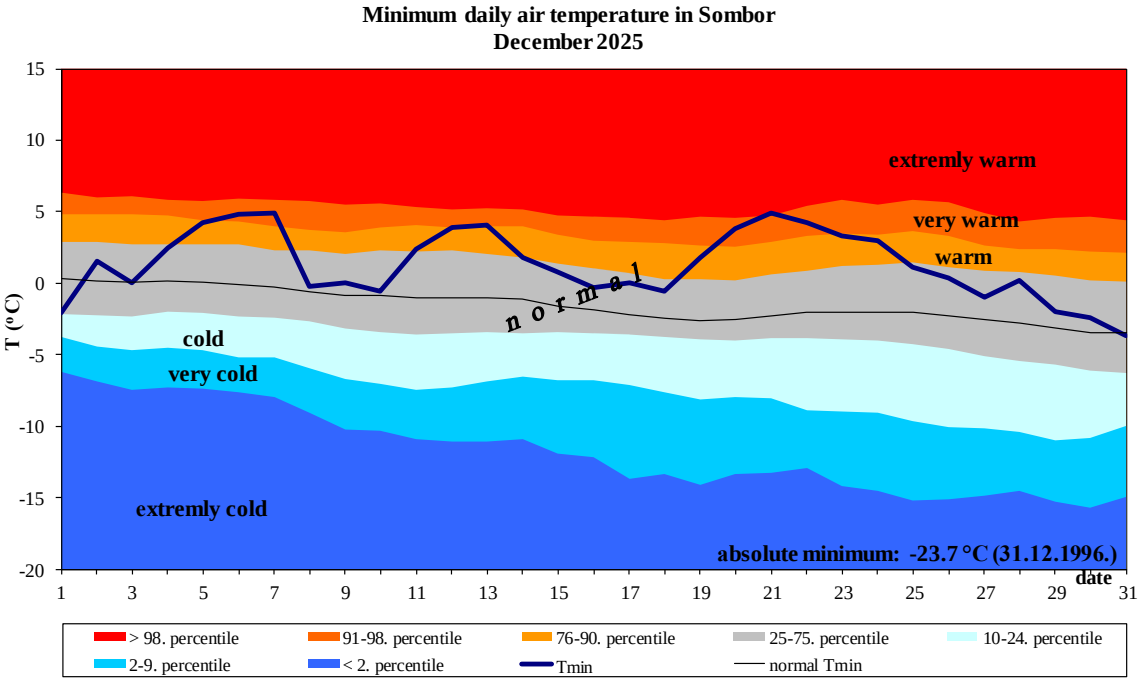


Appendix 23. Daily course of the maximum daily air temeperature and the accompanying percentile for Nis

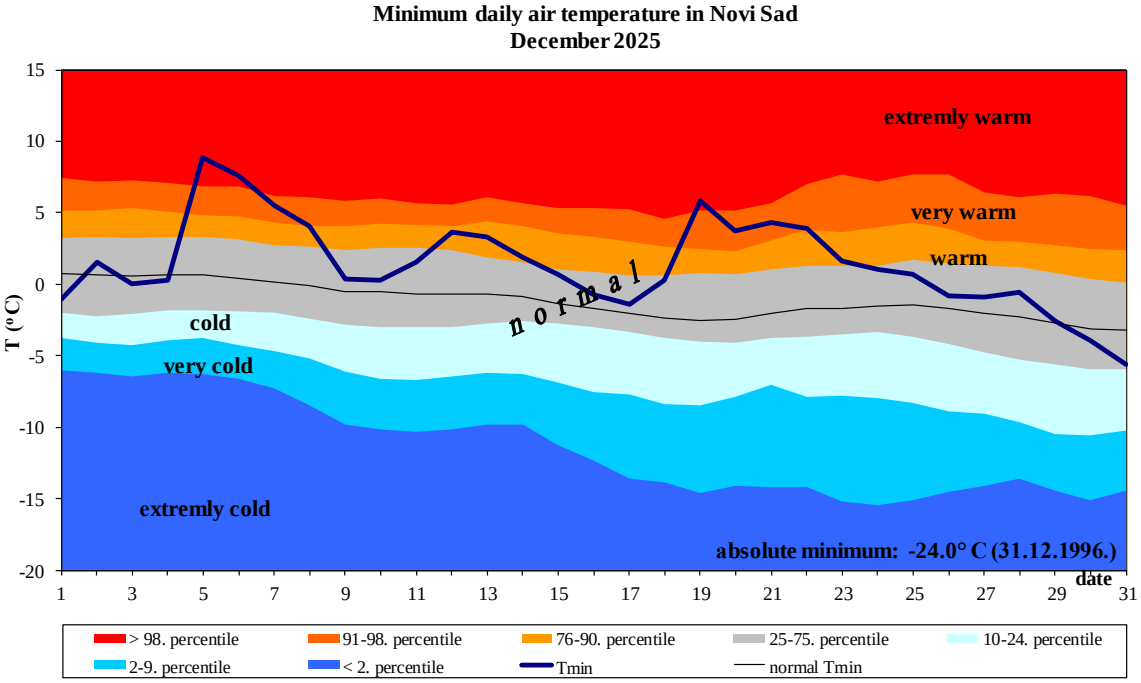


Appendix 24. Daily course of the maximum daily air temeperature and the accompanying percentile for Vranje

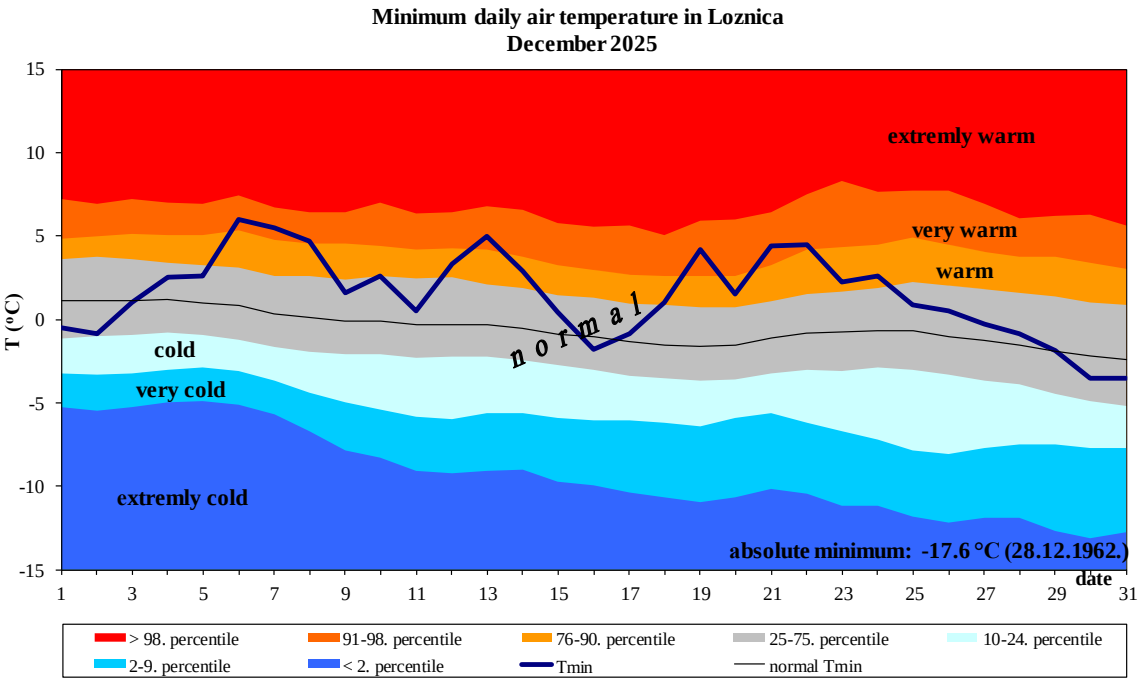
Minimum air temperature



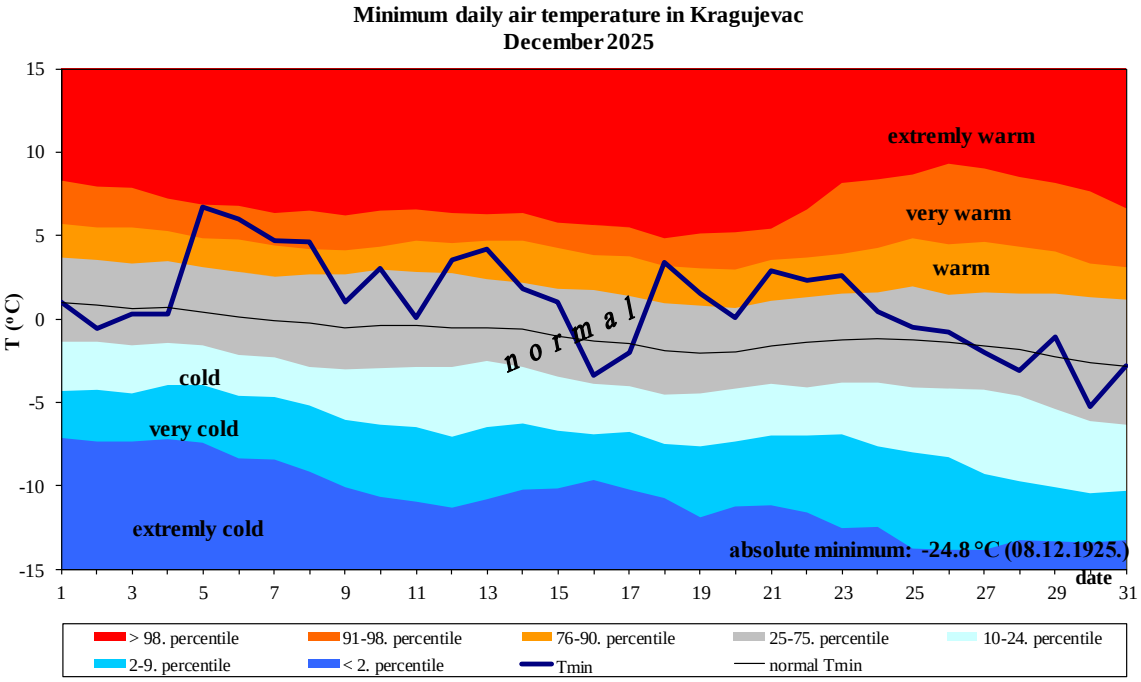
Appendix 25. Daily course of the minimum daily air temperature and the accompanying percentile for Sombor



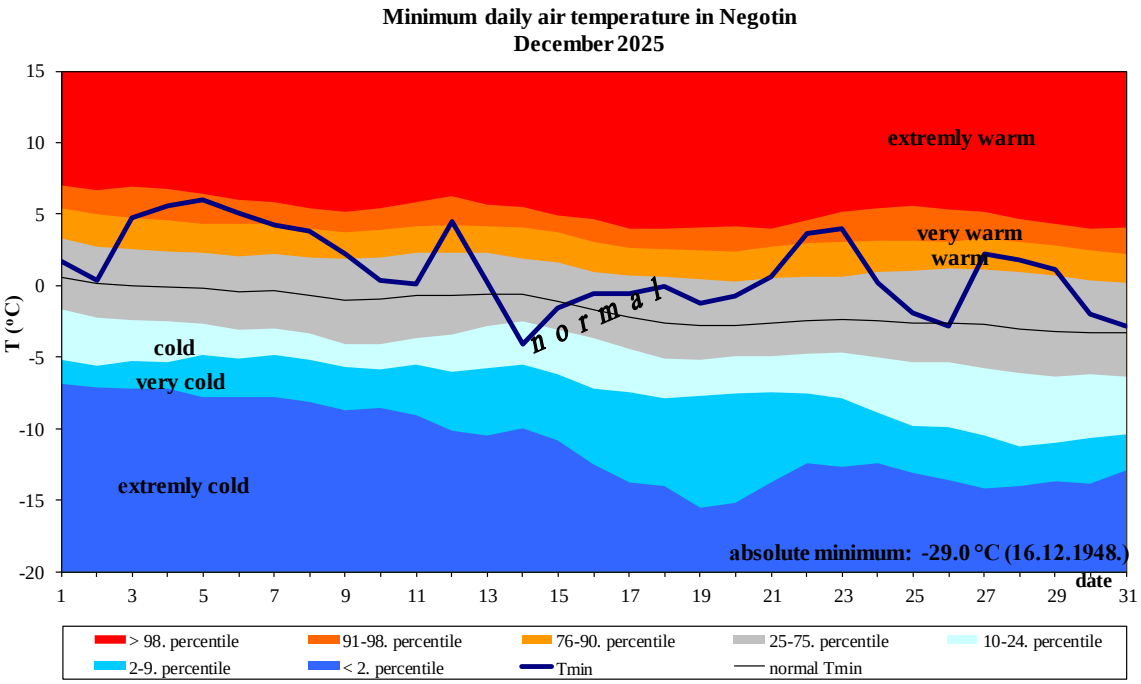
Appendix 26. Daily course of the minimum daily air temperature and the accompanying percentile for Novi Sad



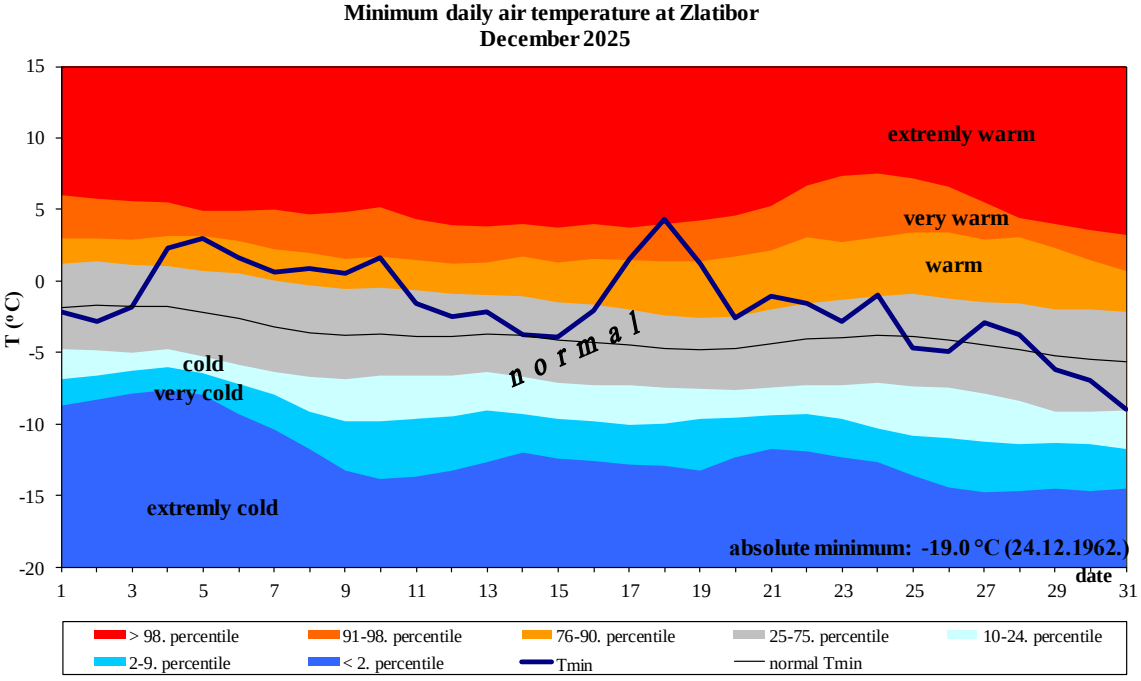
Appendix 27. Daily course of the minimum daily air temperature and the accompanying percentile for Loznica



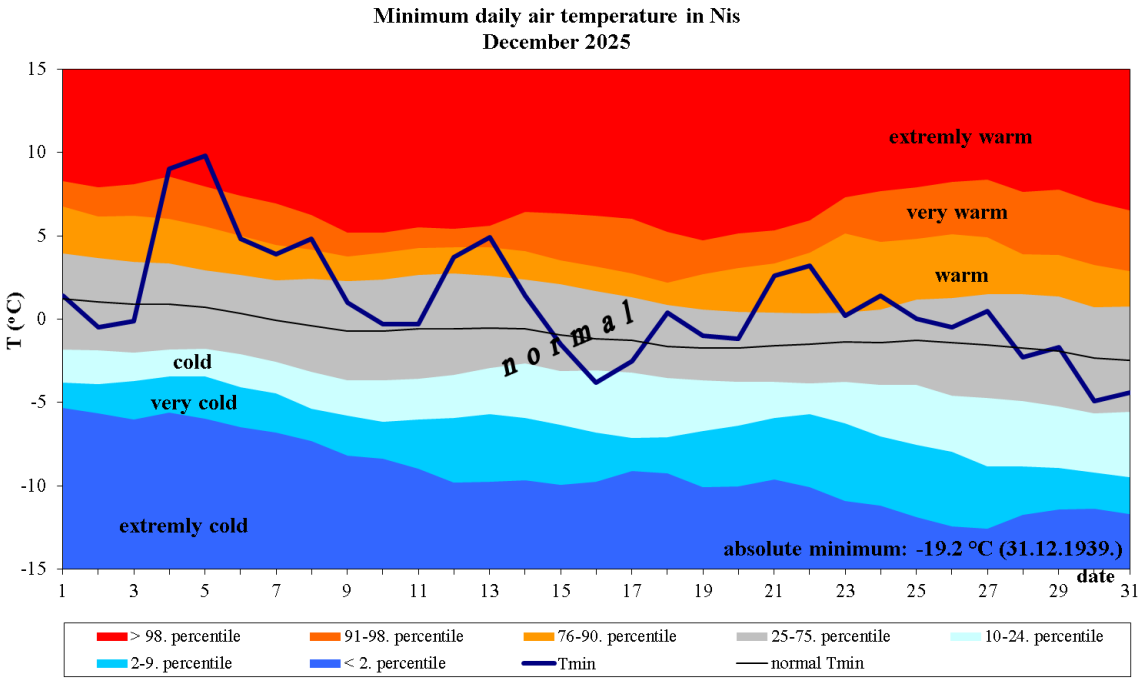
Appendix 28. Daily course of the minimum daily air temperature and the accompanying percentile for Kragujevac



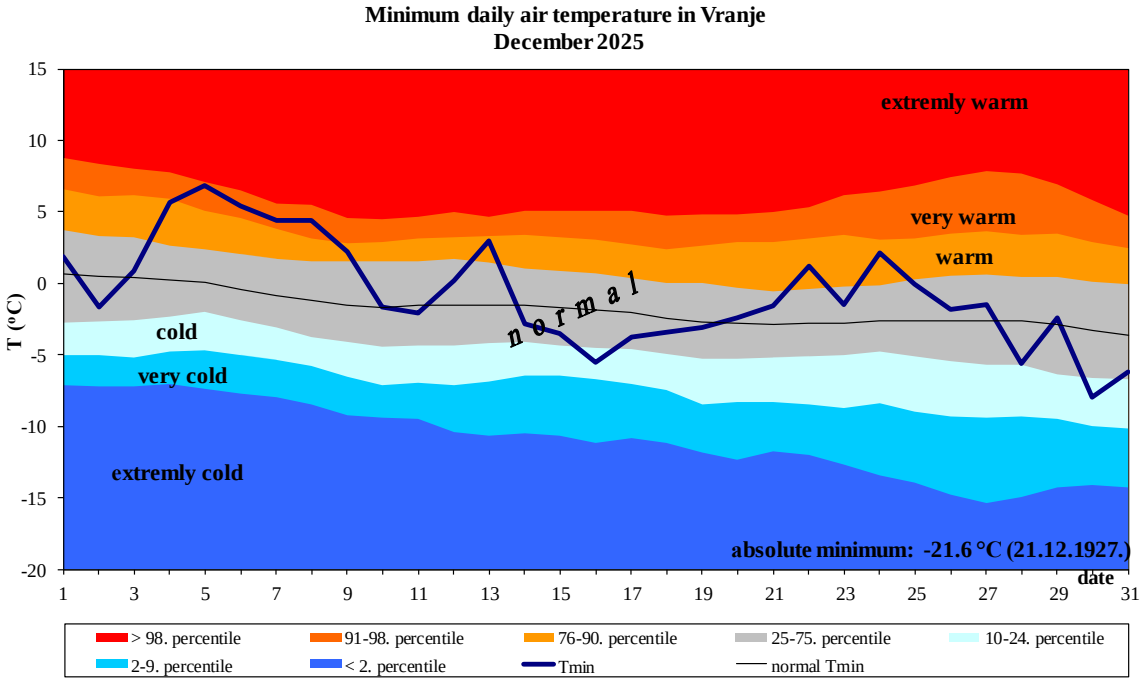
Appendix 29. Daily course of the minimum daily air temperature and the accompanying percentile for Negotin



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

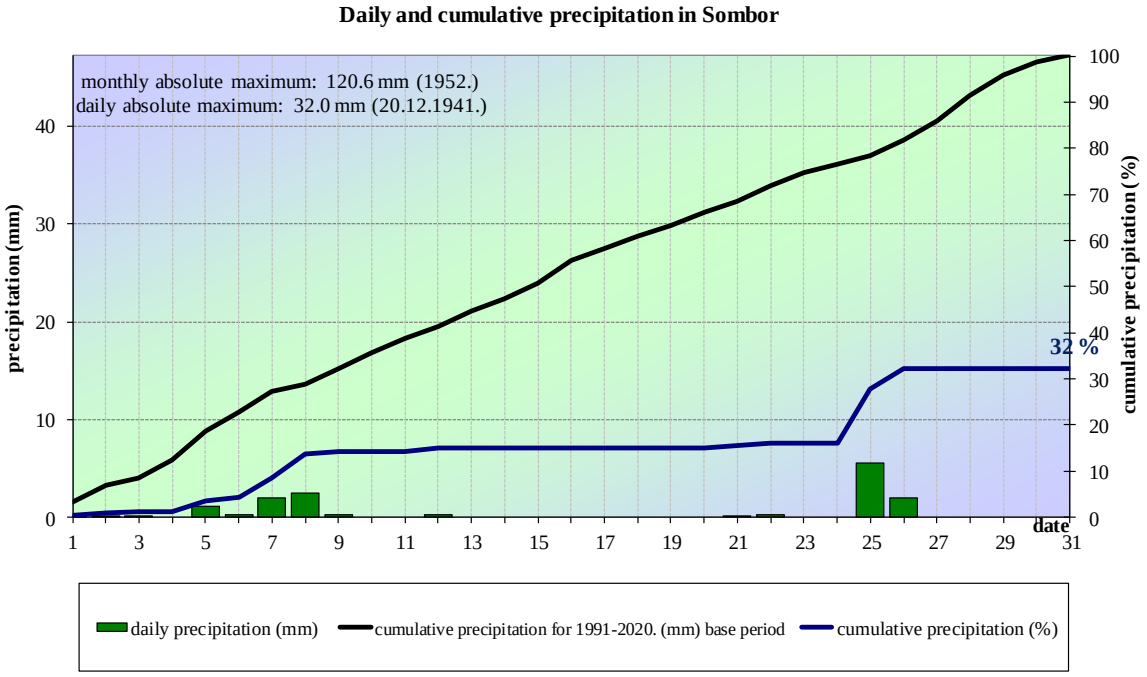


Appendix 31. Daily course of the minimum daily air temperature and the accompanying percentile for Nis

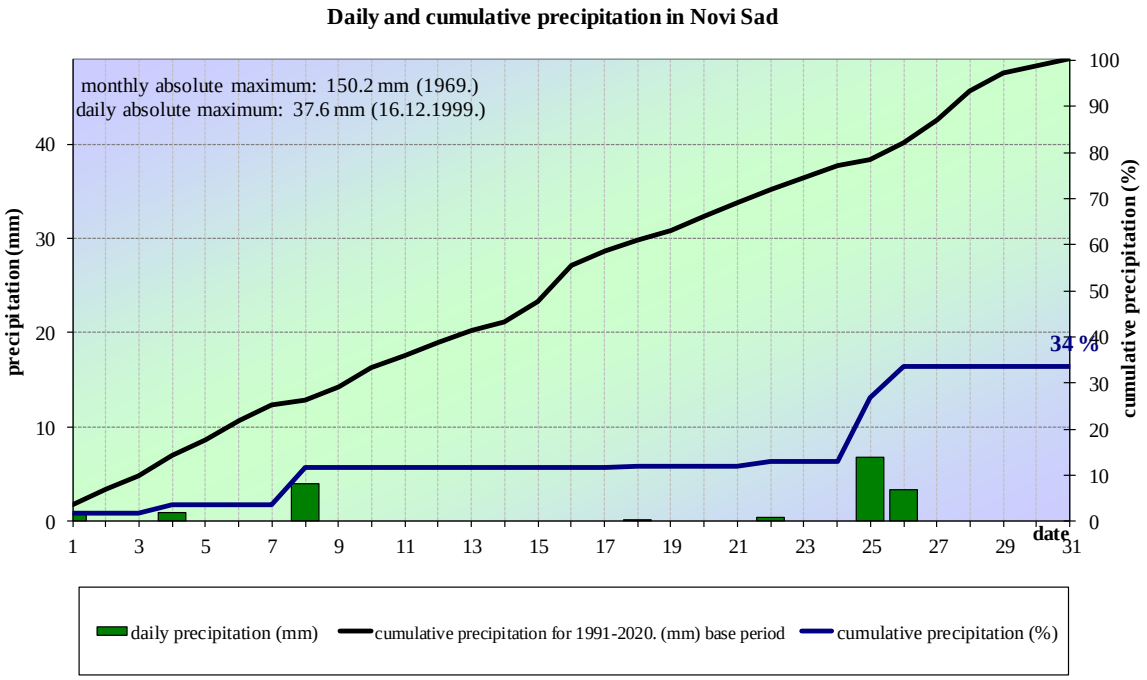


Appendix 32. Daily course of the minimum daily air temperature and the accompanying percentile for Vranje

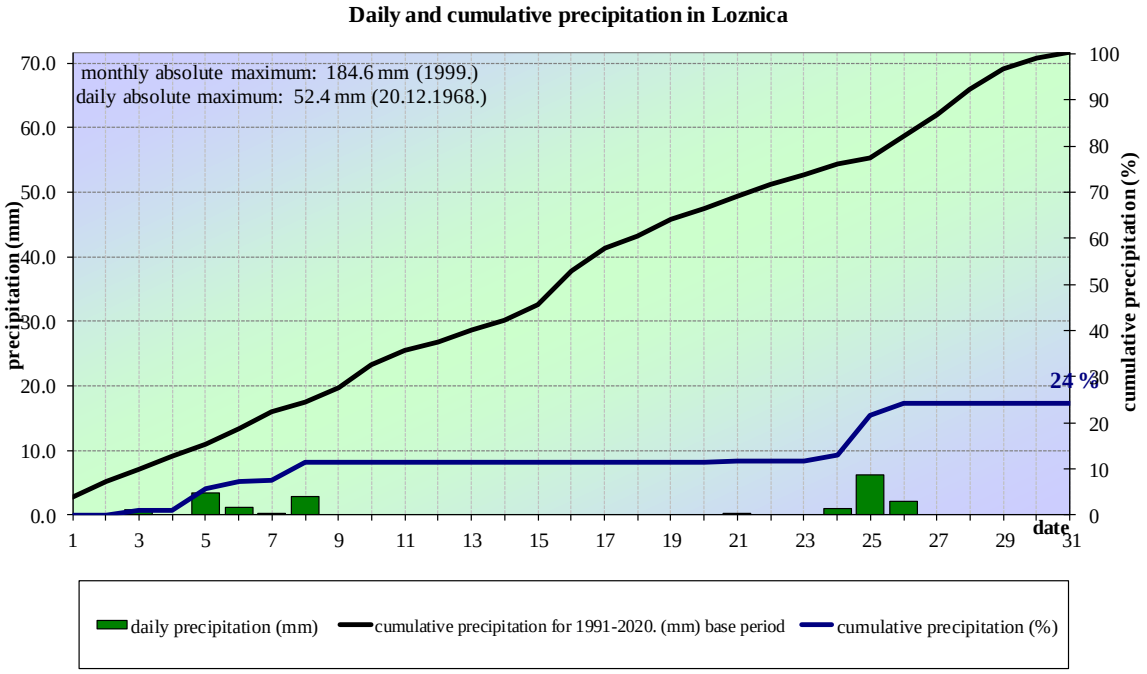
Precipitation



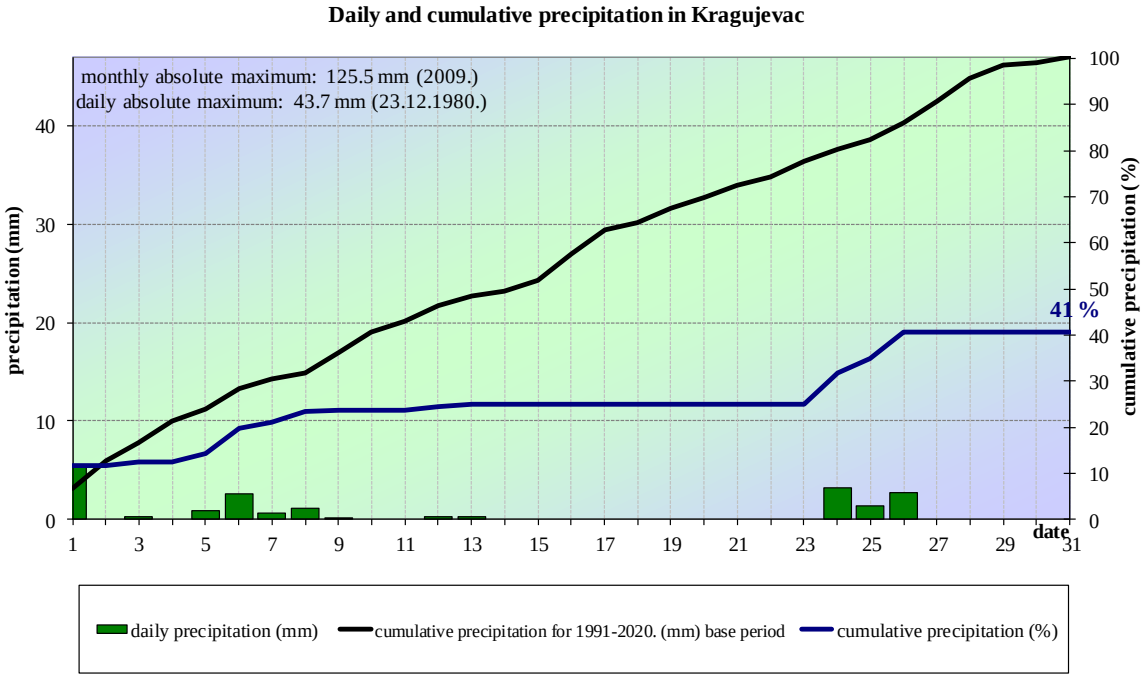
Appendix 33. Daily and cumulative precipitation sums for Sombor



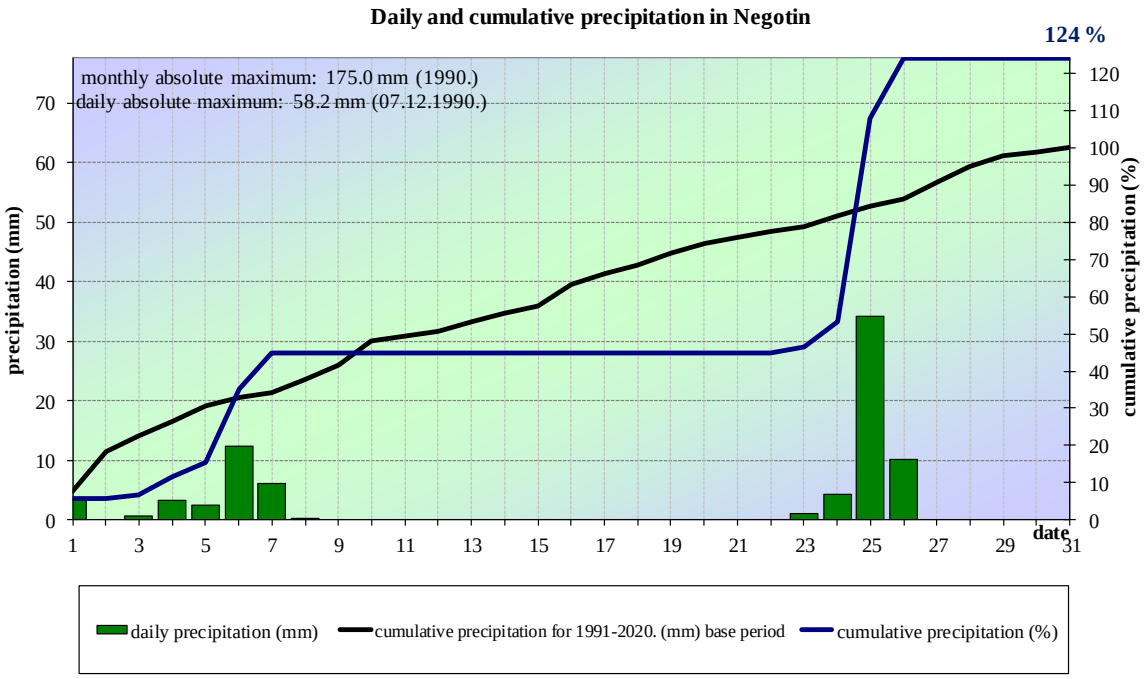
Appendix 34. Daily and cumulative precipitation sums for Novi Sad



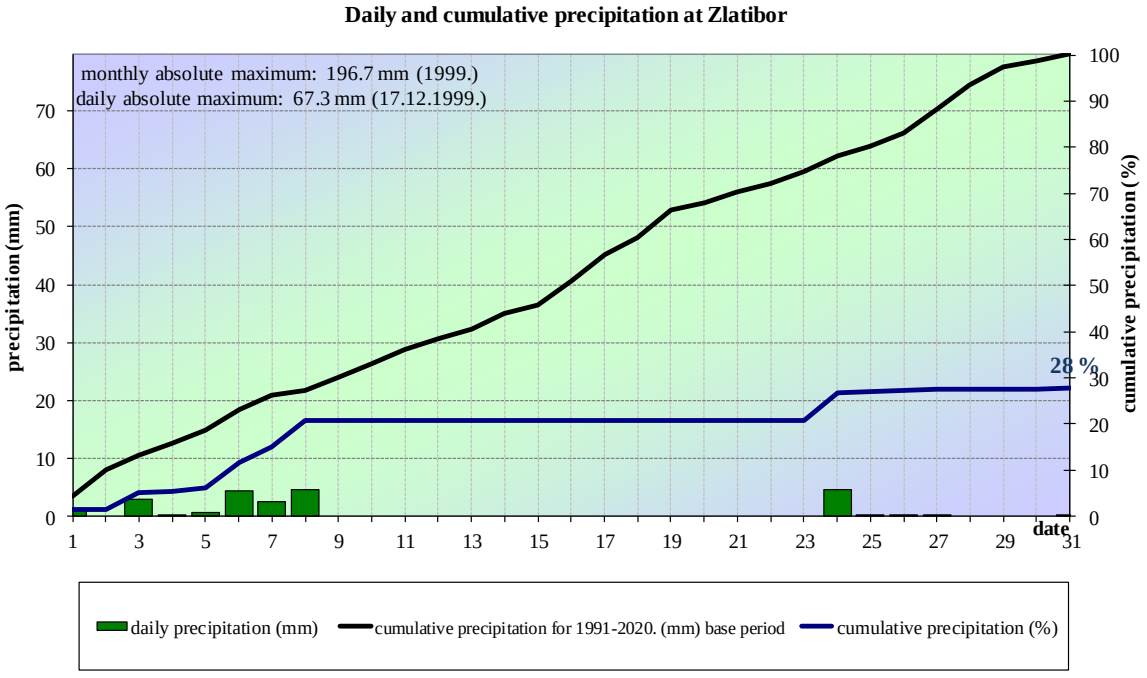
Appendix 35. Daily and cumulative precipitation sums for Loznica



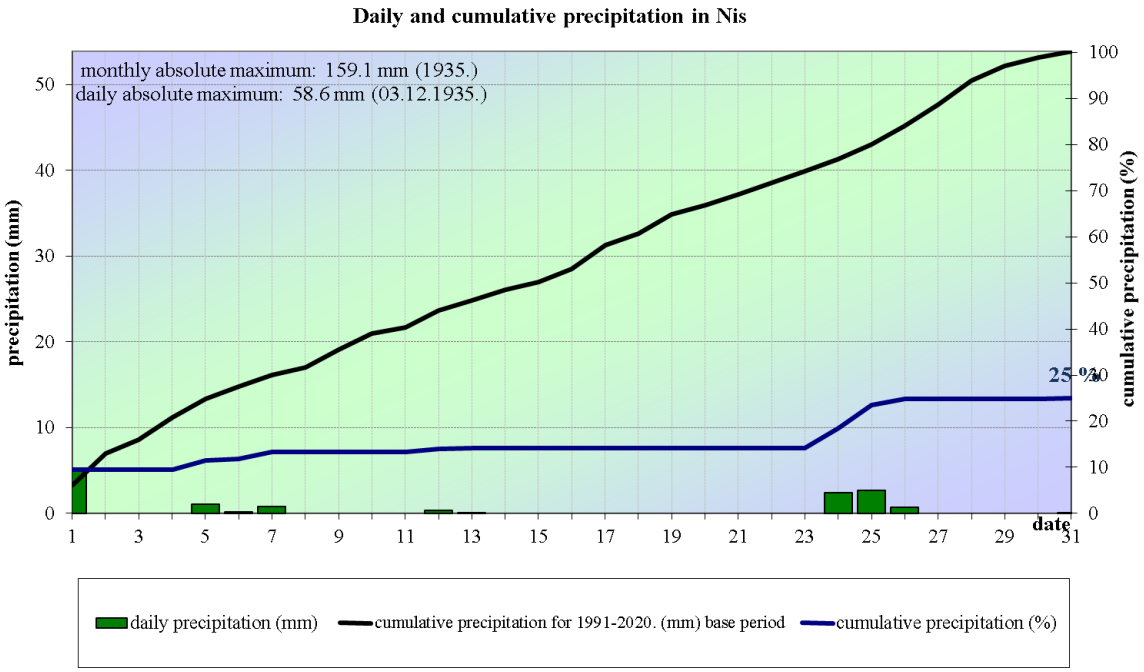
Appendix 36. Daily and cumulative precipitation sums for Kragujevac



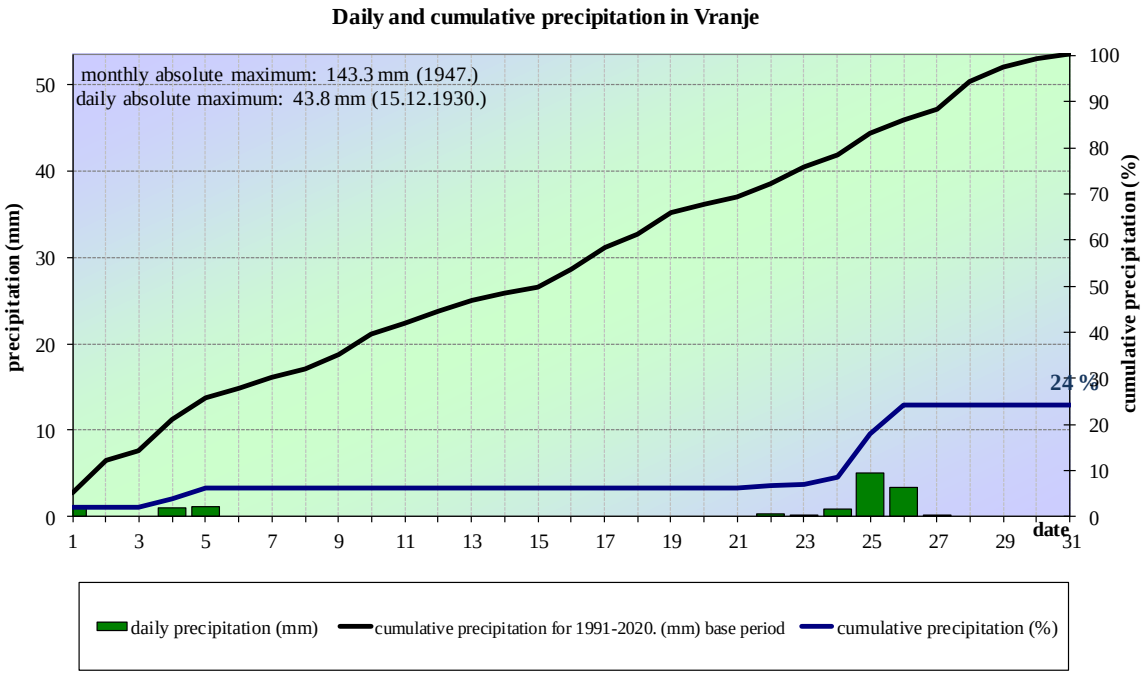
Appendix 37. Daily and cumulative precipitation sums for Negotin



Appendix 38. Daily and cumulative precipitation sums on Zlatibor



Appendix 39. Daily and cumulative precipitation sums for Nis



Appendix 40. Daily and cumulative precipitation sums for Vranje