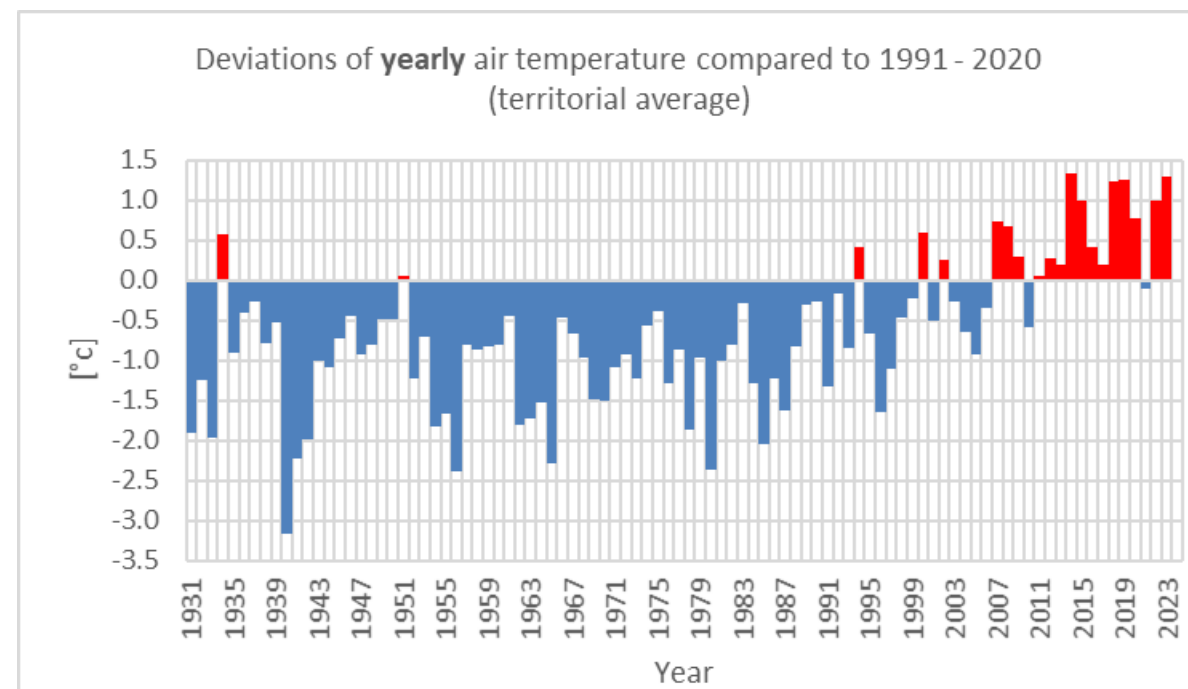


INTERESTING FACTS FROM 2023 IN CLIMATOLOGY AND AGROMETEOROLOGY

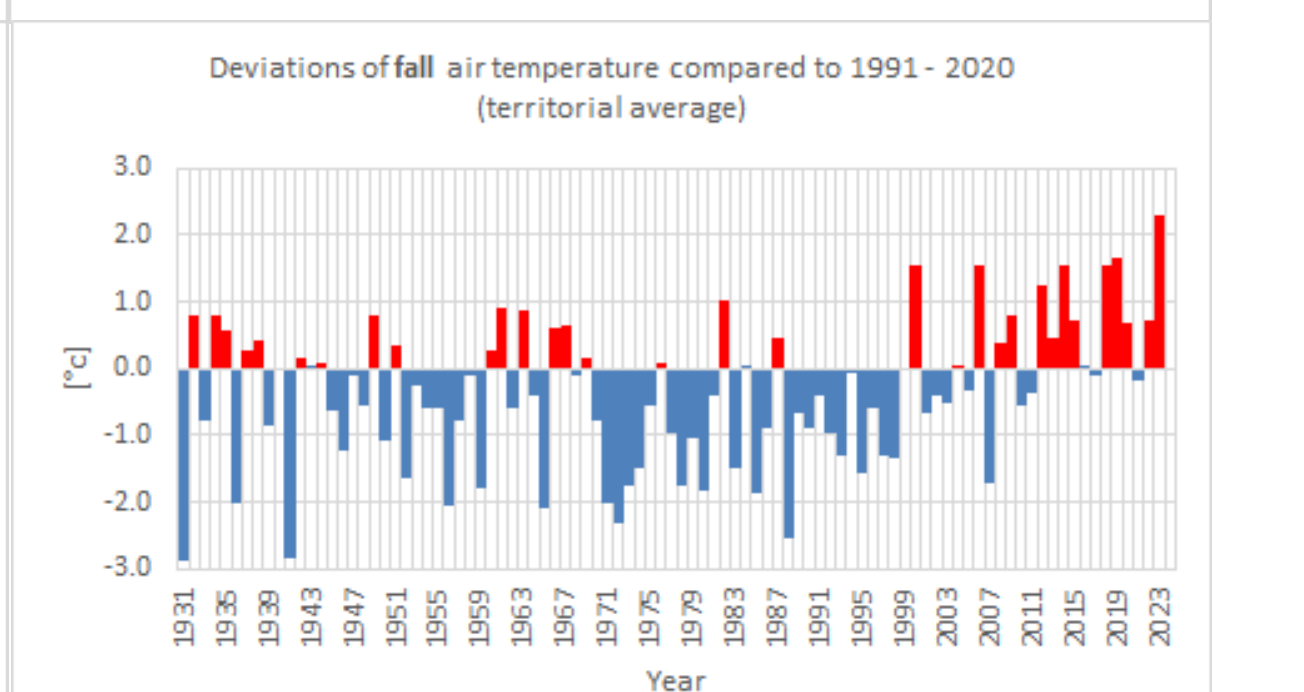
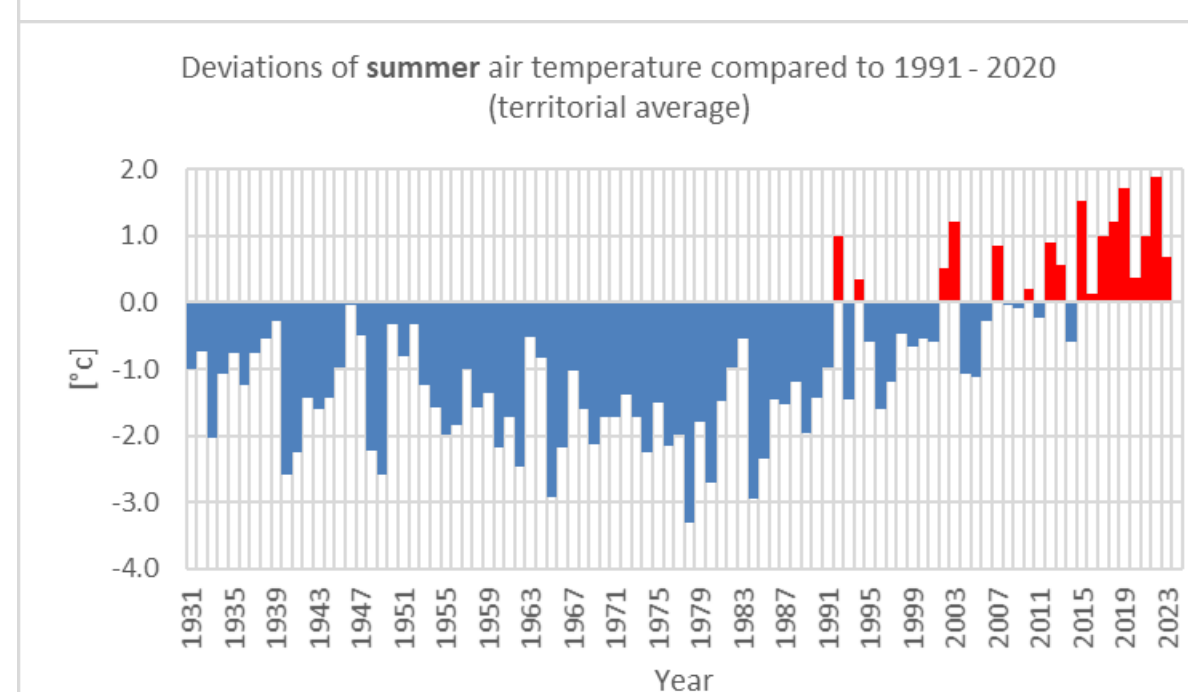
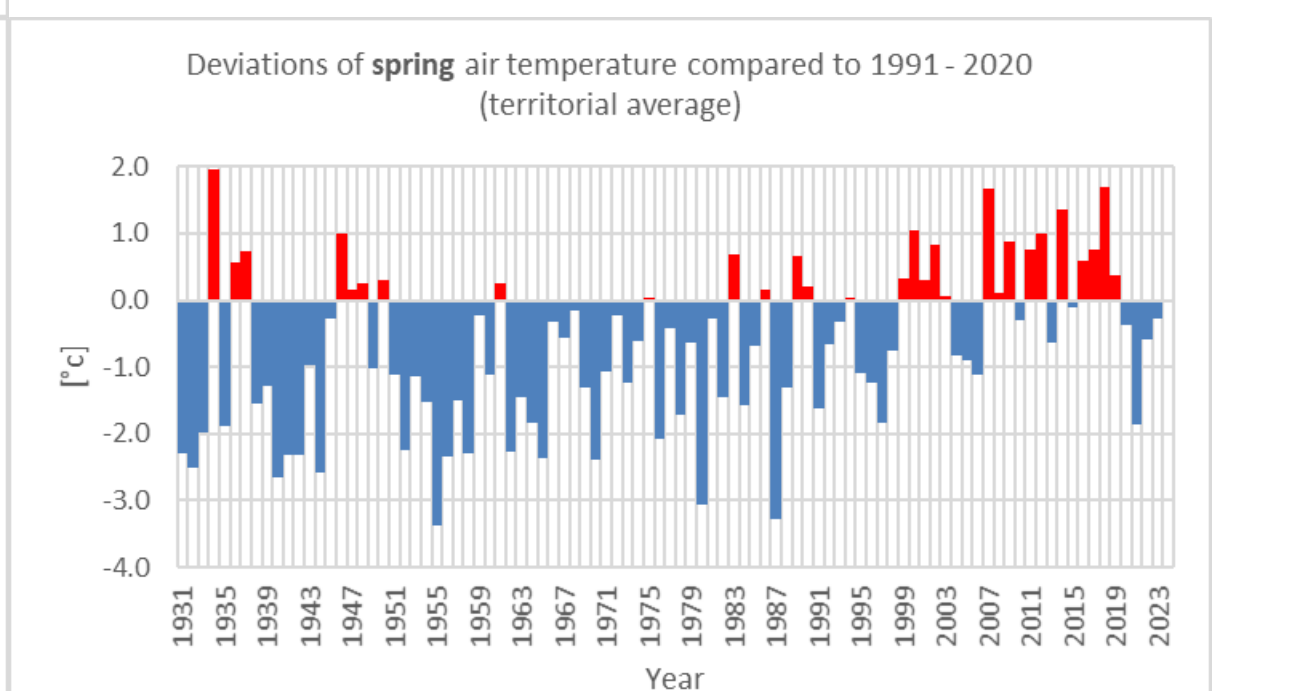
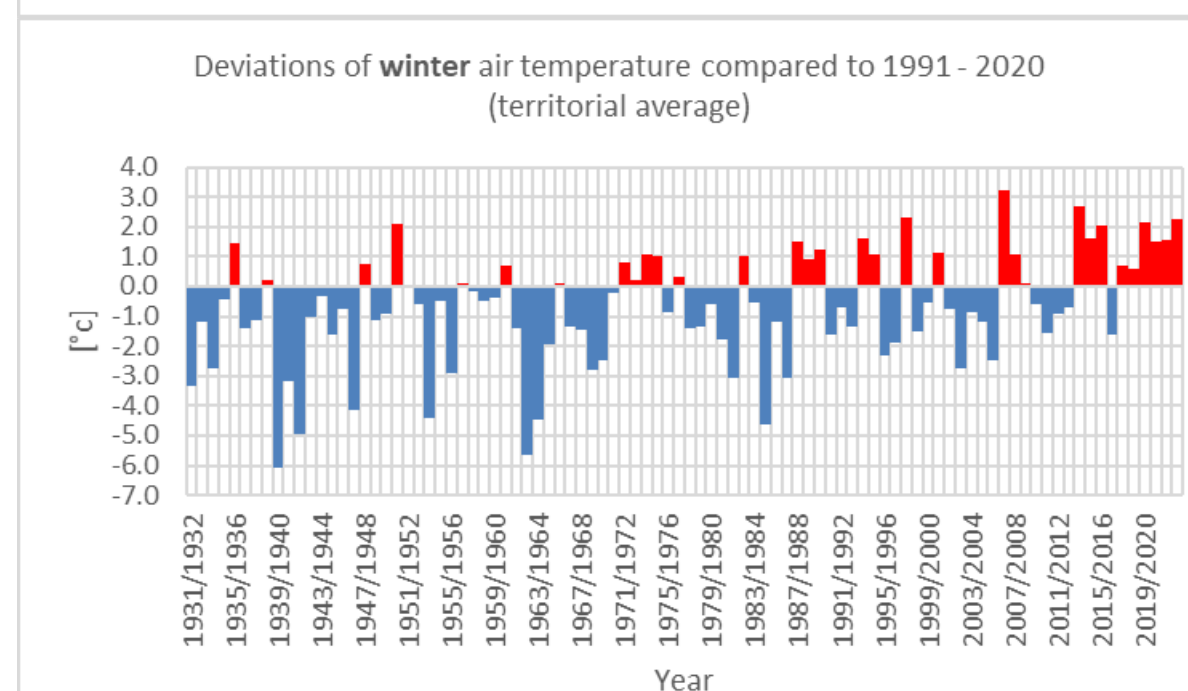
Oliver Bochníček, Pavel Faško, Peter Kajaba, Ladislav Markovič, Jozef Rozkošný, Kristína Szabóová, Maroš Turňa

AIR TEMPERATURE

Significant changes in Air Temperature during 2023.

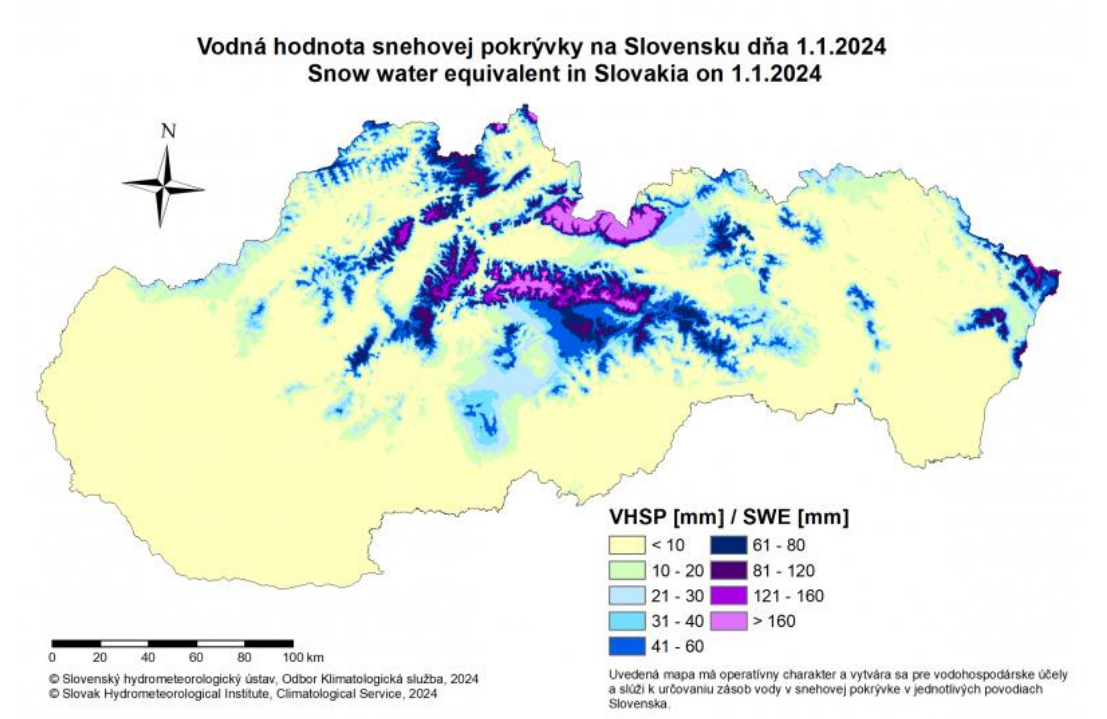
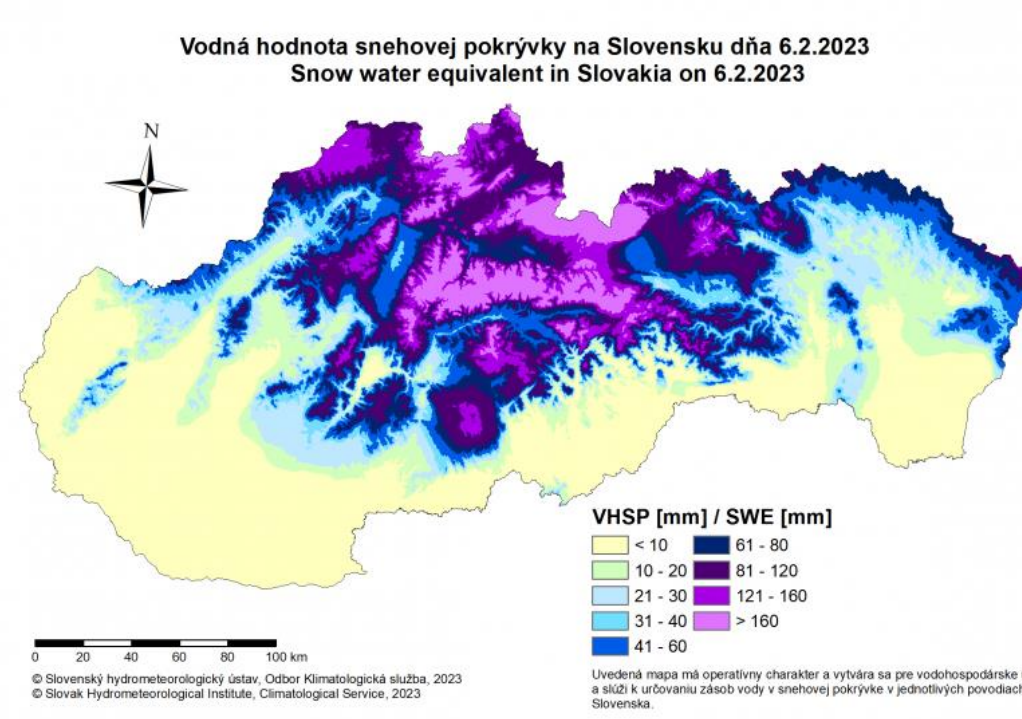
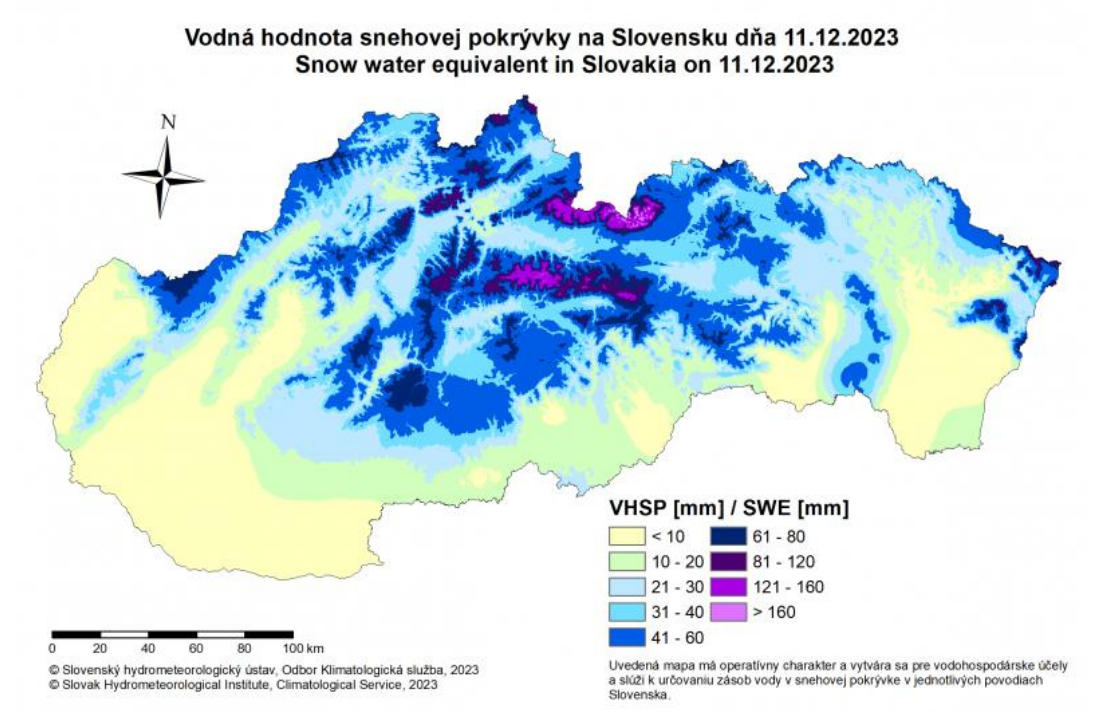
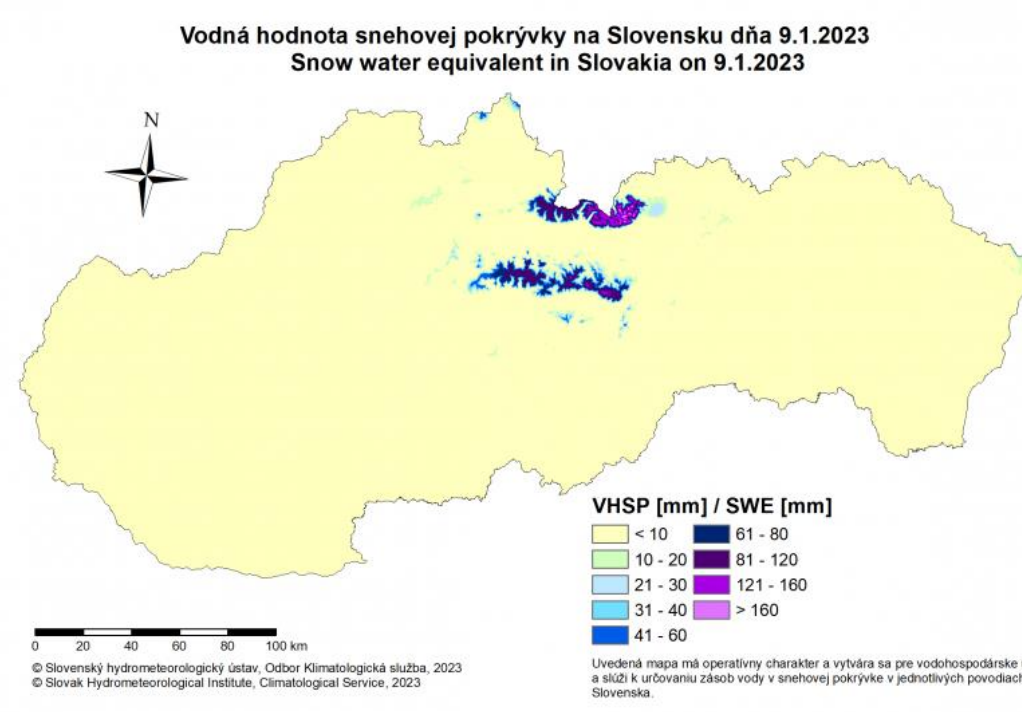


- Annual air temperature (2023) was the **2nd warmest** with a deviation of +1.3 °C compared to 1991-2020 (+1.8 °C to 1981-2010, +2.4 °C to 1961-1990)
- The **winter air temperature (2023/2023)** ranked 5th with a deviation of +1.3 °C compared to 1991-2020 (+1.8 °C to 1981-2010, +2.4 °C to 1961-1990)
- Spring air temperature (2023)** ranked 35th warmest with a variation of -0.3 °C compared to 1991-2020 (+0.1 °C to 1981-2010, +0.7 °C to 1961-1990)
- Summer air temperature (2023)** ranked 11th warmest with a deviation of +0.7 °C compared to 1991-2020 (+1.4 °C to 1981-2010, +2.5 °C to 1961-1990)
- Fall air temperature (2023)** ranked **1st warmest** with a deviation of +2.3 °C compared to 1991-2020 (+2.8 °C to 1981-2010, 3.0 °C to 1961-1990)
- January air temperature (2023)** ranked **2nd warmest** with a deviation of +4.3 °C compared to 1991-2020 (+4.8 °C to 1981-2010, +5.8 °C to 1961-1990)
- September air temperature (2023)** ranked **1st warmest** with a deviation of +3.5 °C compared to 1991-2020 (+3.8 °C to 1981-2010, +4.0 °C to 1961-1990)
- October air temperature (2023)** ranked **2nd warmest** with a deviation of +2.9 °C compared to 1991-2020 (+3.2 °C to 1981-2010, +3.4 °C to 1961-1990)

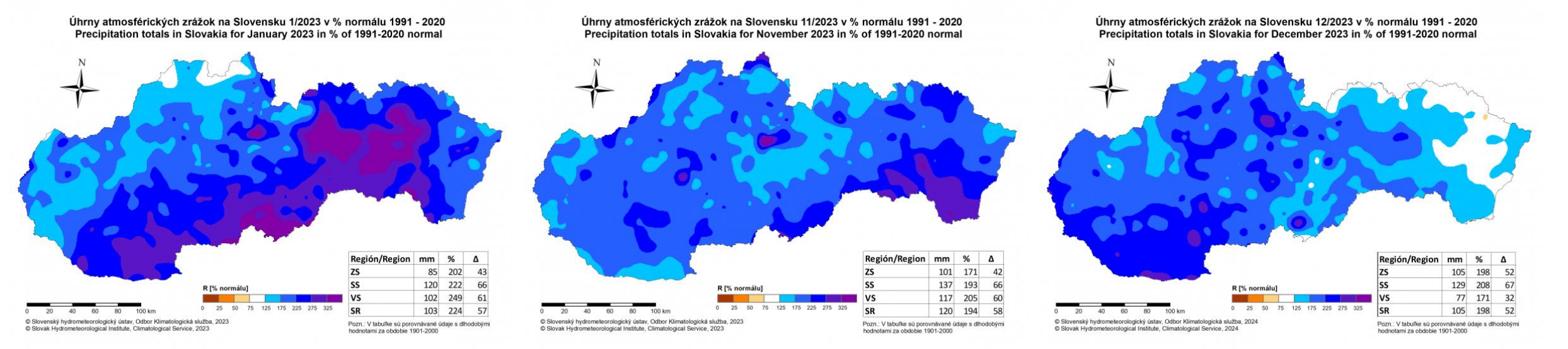


PRECIPITATION

Significant changes in Snow Water Equivalent values during 2023.



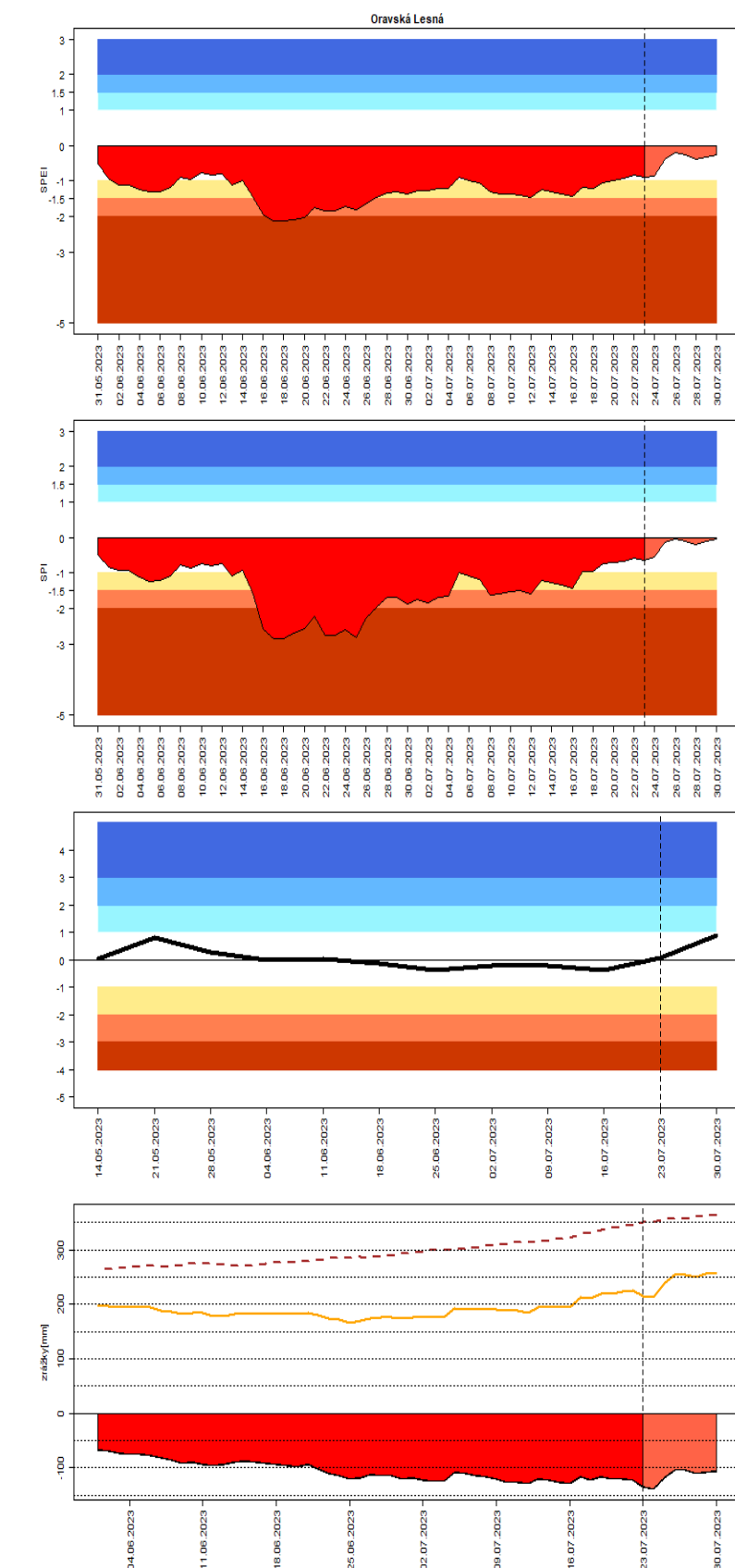
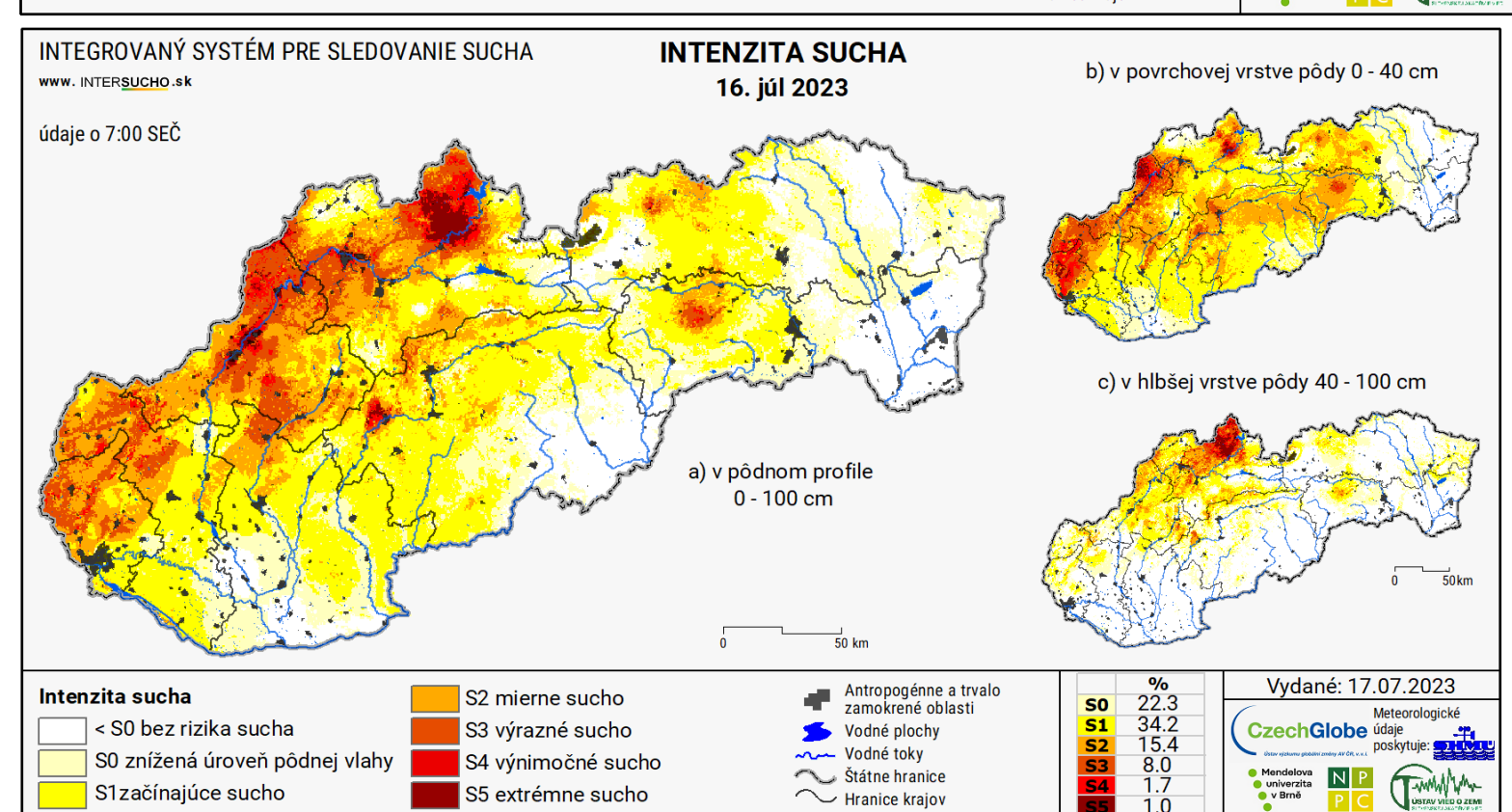
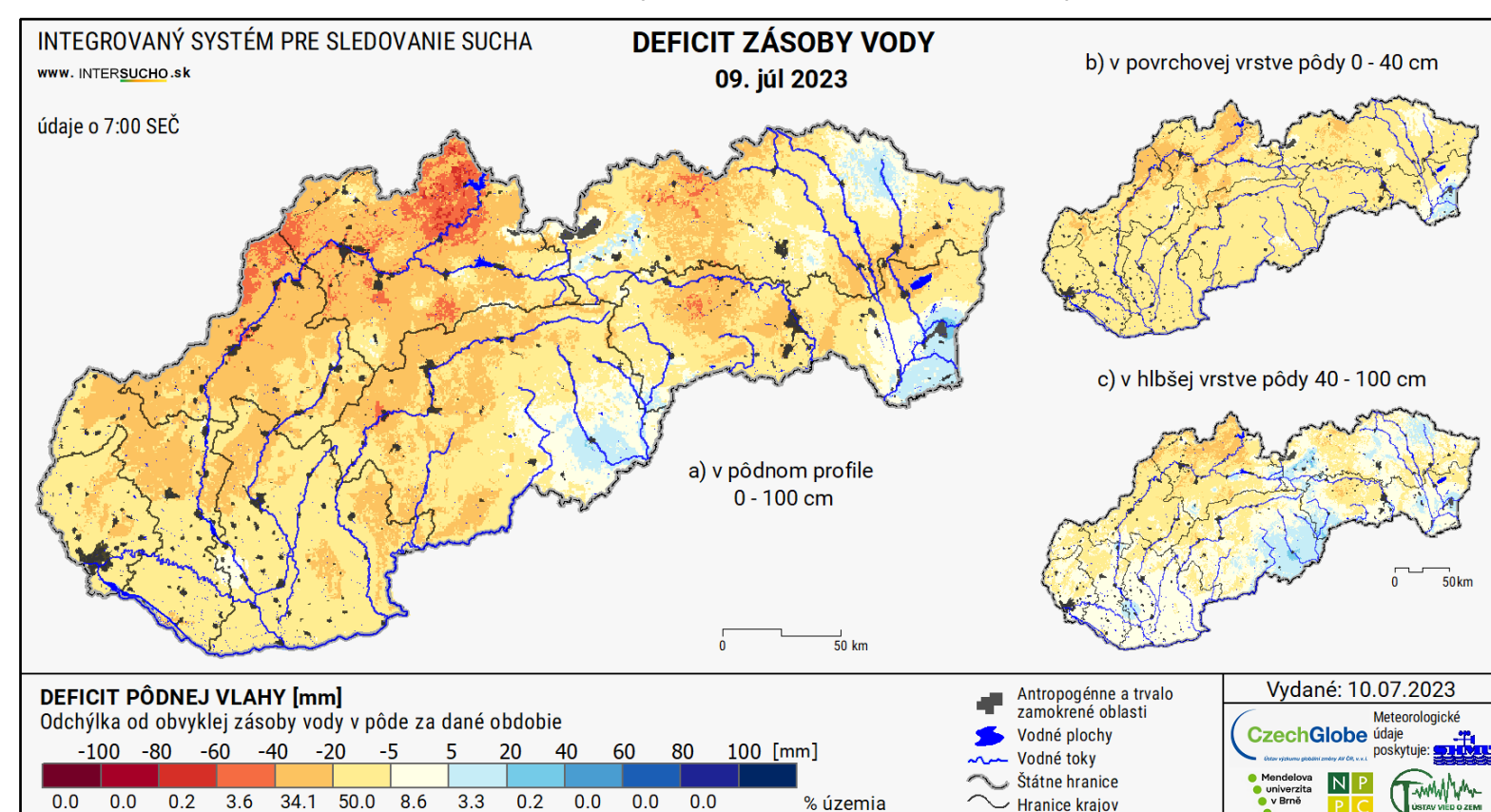
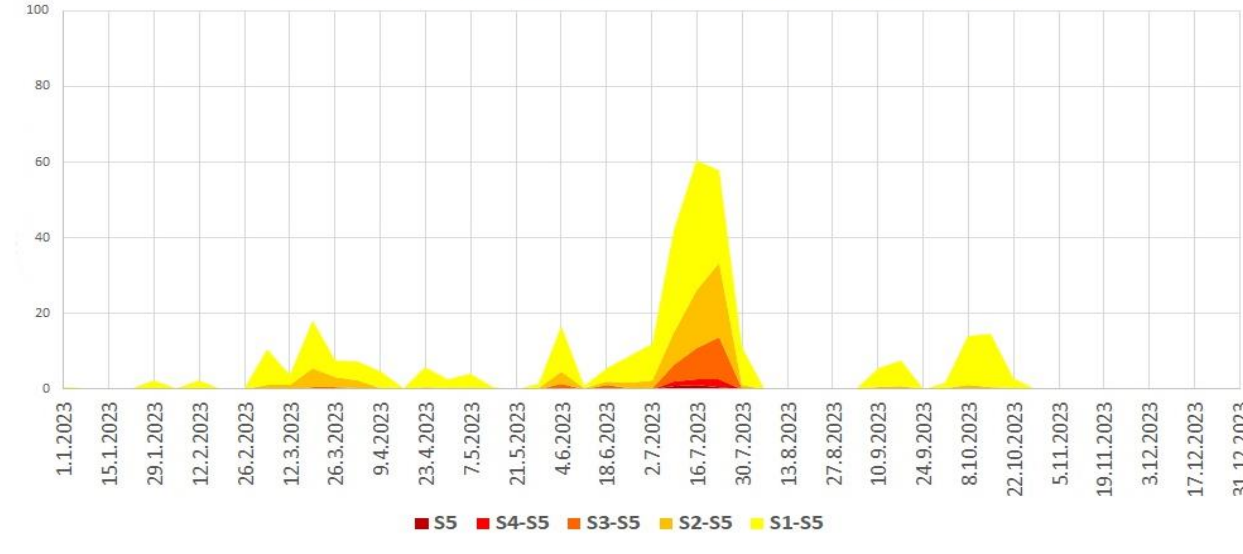
Months with abundant precipitation in 2023.



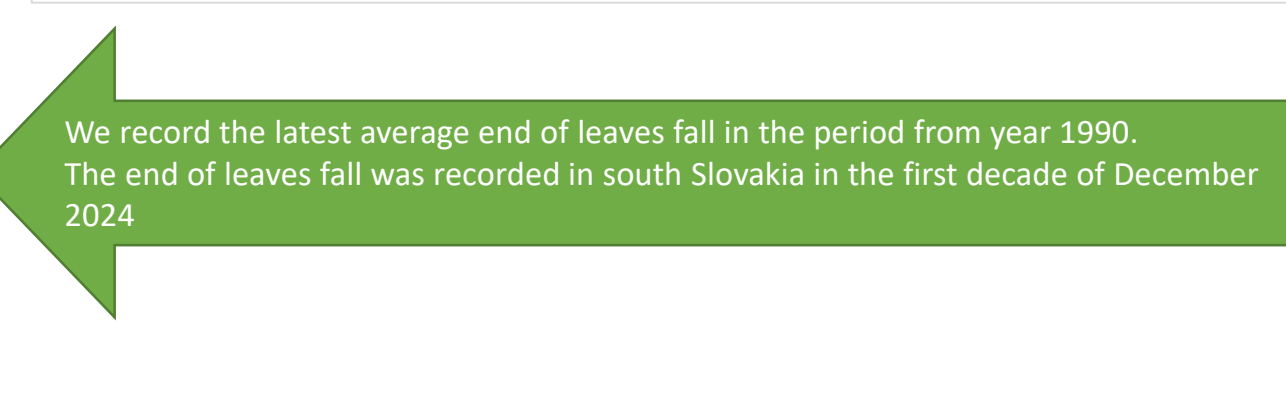
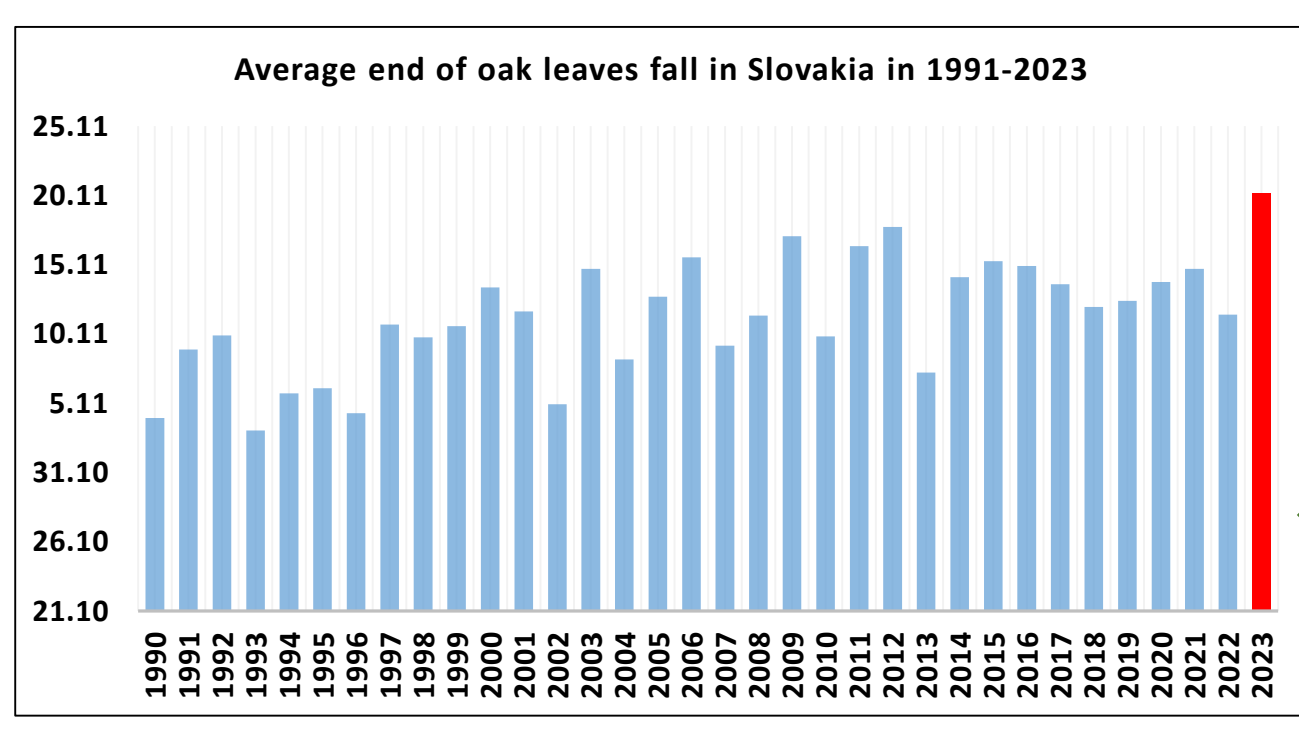
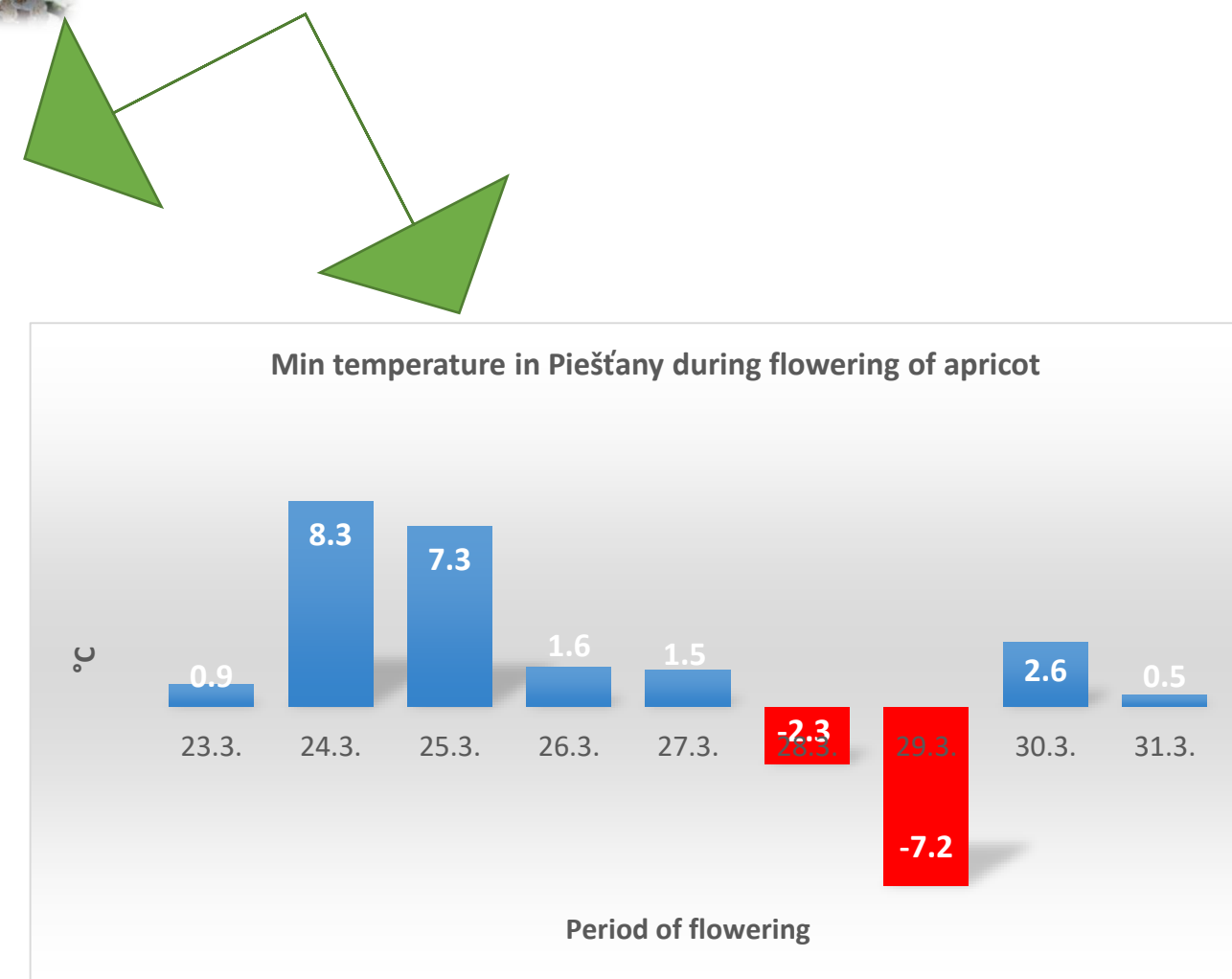
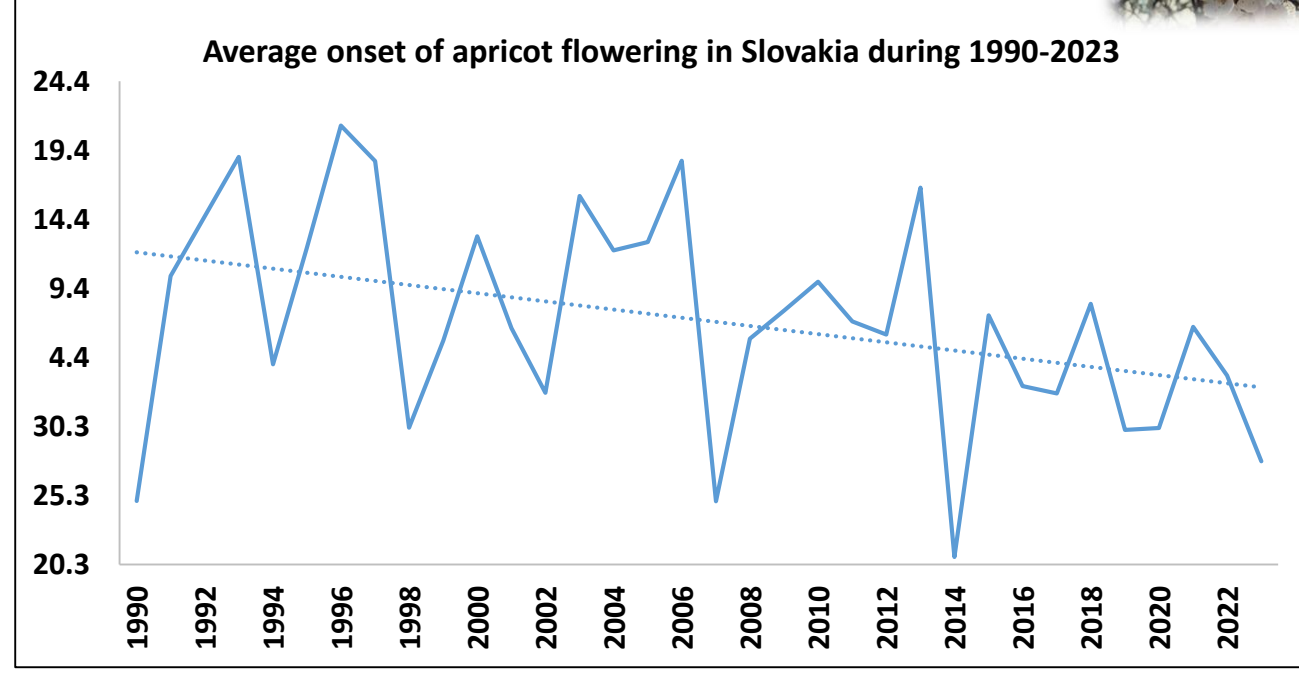
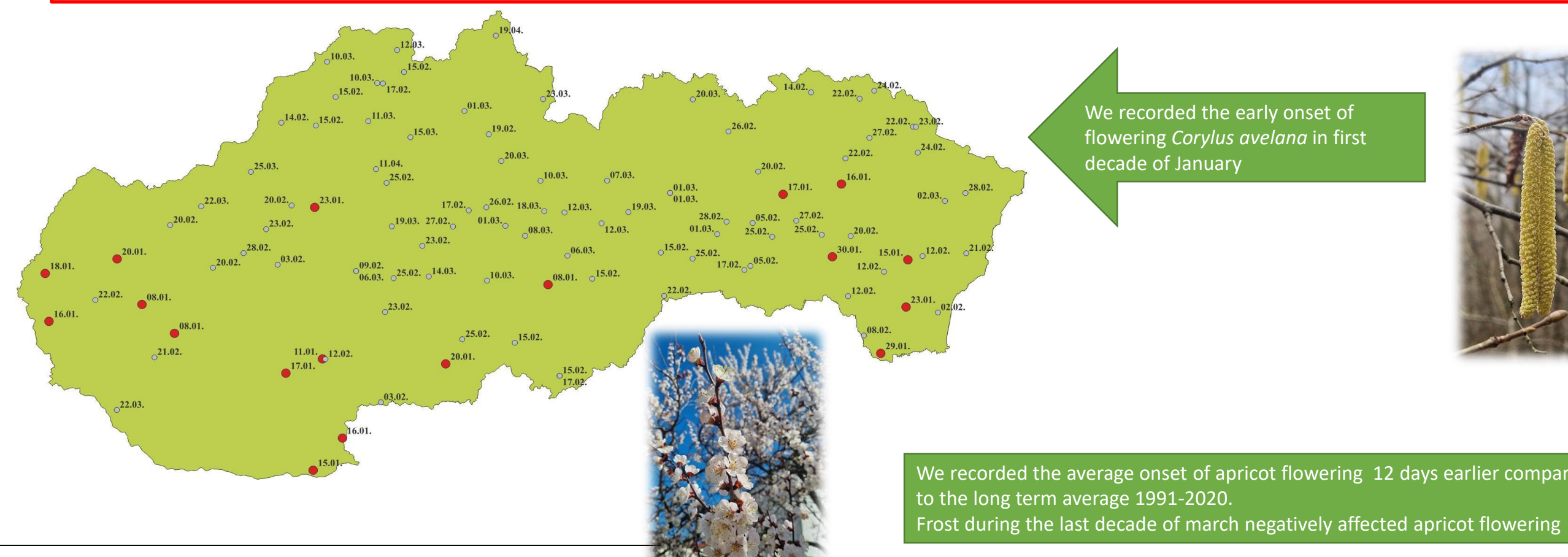
DROUGHT

Drought of various intensity – 60 % of territory of Slovakia
Extreme drought – 1,0 % of territory (northern part of Slovakia)
 Relative saturation below 10 % was on the southwestern and western Slovakia
Soil moisture deficit – from -40 to -80 mm in the north of central and western Slovakia
 Time scale – June/July 2024
 Drought episode duration by SPEI – 60 days (northern Slovakia)
 Minimal value of SPEI was -2,99 (southwestern Slovakia)

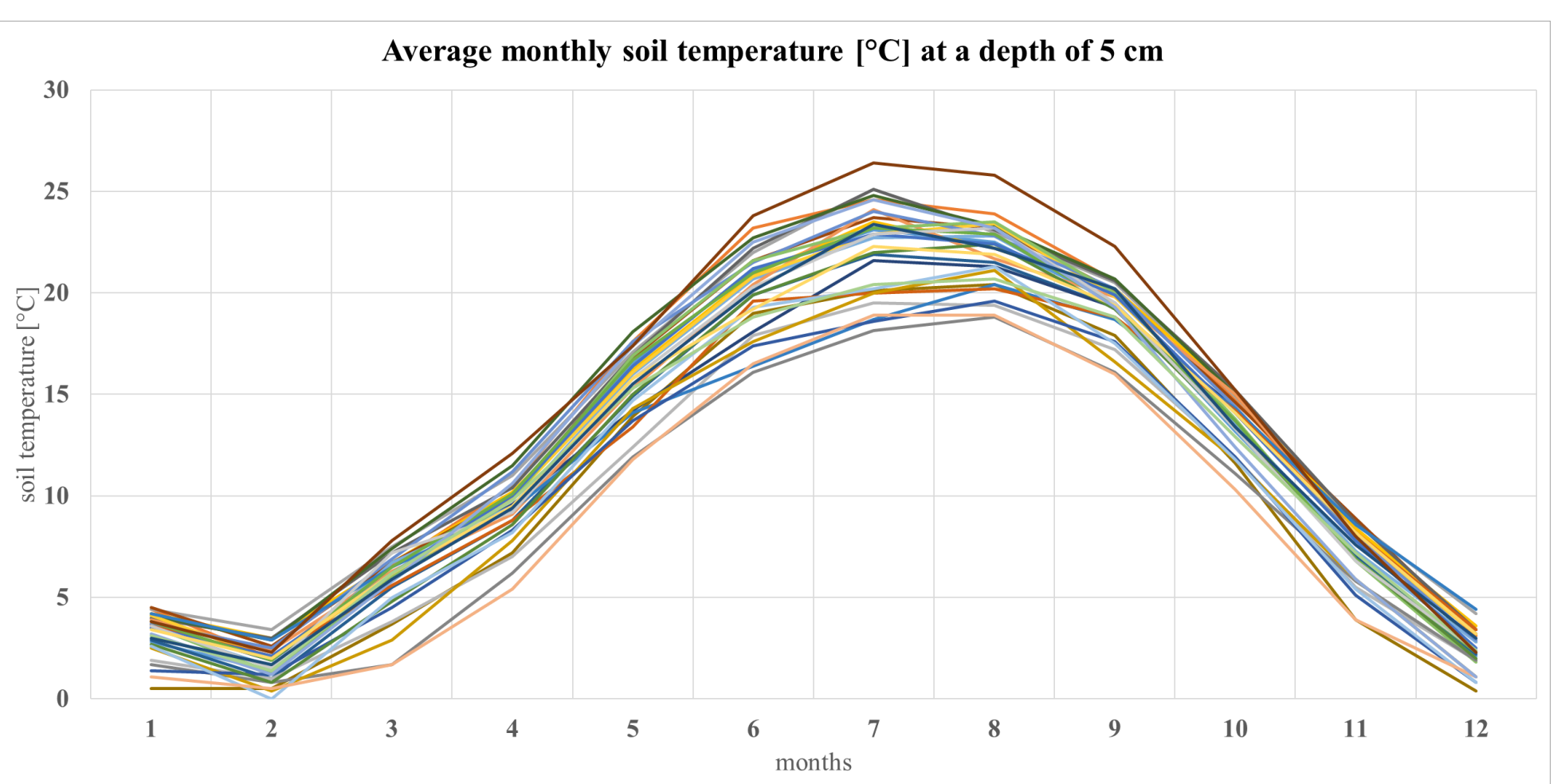
Percentage of area affected by all categories of drought (%)



PHENOLOGY



SOIL TEMPERATURE



The mean annual soil temperature at a depth of 5 cm ranged from 8.8 (Telgárt) to 13.9 °C (Dolné Plachtince) in 2023. The deviation from normal (1991-2020) was +0.9 to +2.1 °C. The average annual soil temperature at a depth of 5 cm in the warm half of the year (April to September) ranged from 3,1 (Telgárt) to 7,2 °C (Bratislava - Koliba), in the cold half of the year at the same depth it was 14,5 (Oravská Lesná) to 21,3 °C (Dolné Plachtince). The average annual soil temperature at a depth of 20 cm in 2023 ranged from 8.6 (Oravská Lesná) to 13.4 °C (Dolné Plachtince). The deviation from normal (1991-2020) was +1.1 (Holíč) to +1.9 °C (Banská Bystrica - Zelená). The average annual soil temperature at a depth of 5 cm in the warm half of the year (April to September) ranged from 3,6 (Telgárt) to 7,6 °C (Bratislava - Koliba), in the cold half of the year at the same depth it was 13,3 (Oravská Lesná) to 20,1 °C (Dolné Plachtince). The absolute maximum of the mean annual soil temperature at a depth of 5 cm was 26.4 (Dolné Plachtince - July) and the minimum 0.0 °C (Rožňava - February). The absolute maximum of the mean annual soil temperature at a depth of 20 cm was 24.8 (Dolné Plachtince - July) and the minimum 0.5 °C (Rožňava - February). At both depths, the coldest month of the year was February and the warmest was July.

