

Monthly Climatological Report _ May 2023 in Tunisia

(Exceptionally rainy month of May)

After a historic drought, most of our regions experienced notable climatic changes during the month of May 2023. Indeed, the weather conditions were unstable and exceptional heavy rains and in significant quantities were recorded. The total monthly accumulation (27 main stations) was 1718.7 millimeters, while the baseline total (1991-2020) for the same stations was 541.9 millimeters. Therefore, May 2023 is ranked the **1st wettest May** since 1950.

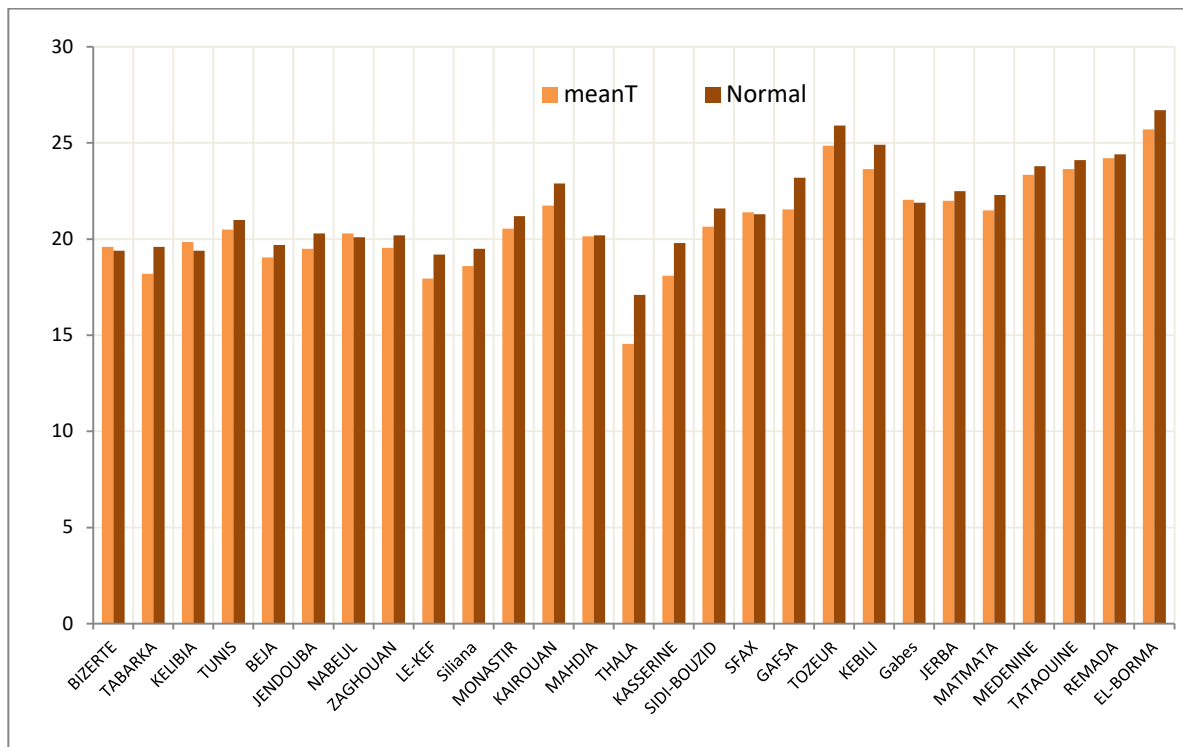
Regarding the temperature, the month of May 2023 was milder than usual, with a drop in temperature compared to normal by a deviation of $(-0.8)^\circ\text{C}$.

- Mean temperature :

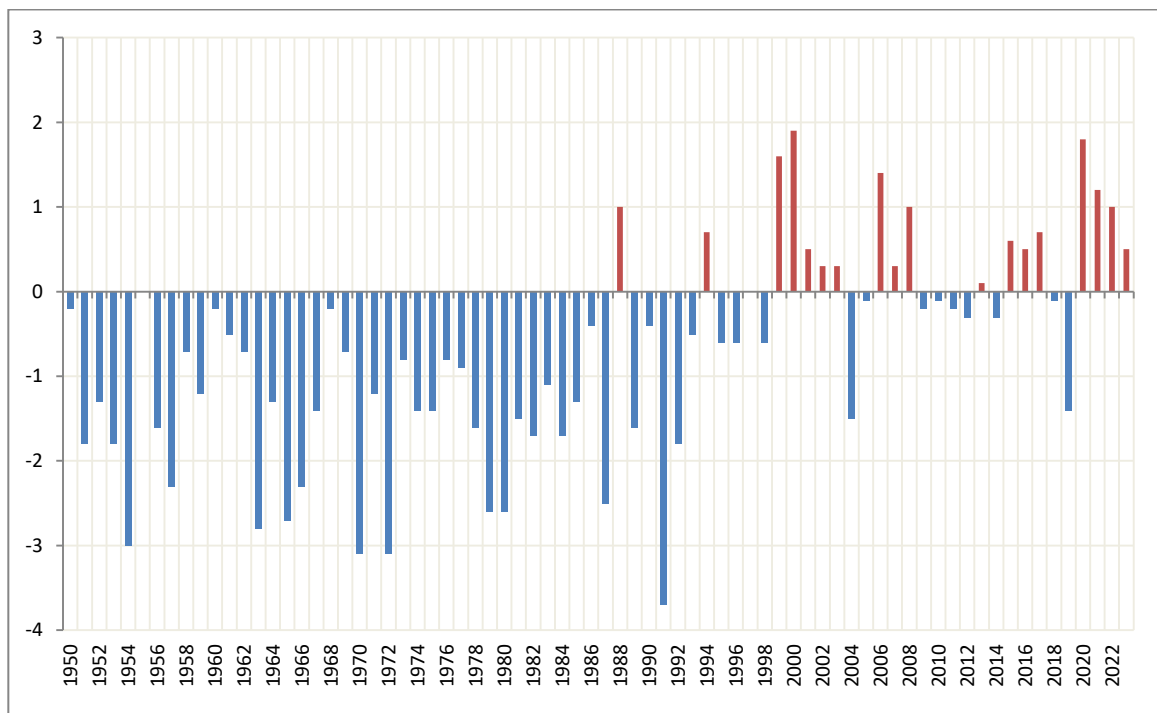
This month of May, the last month of spring 2023, was unstable and marked by the succession of atmospheric disturbances in our country. The temperature, whether minimum or maximum, was often relatively cold and the averages were generally lower than the normals for the month.

The mean temperatures during the month of May varied between 14.6°C in Thala and 25.7°C in El Borma and they were lower than the reference averages (1991-2020) in all regions and the deviations varied between $(-0.1)^\circ\text{C}$ in Mahdia and $(-2.6)^\circ\text{C}$ in Thala, with the exception of Bizerte, Kelibia, Nabeul, Sfax and Gabes where it slightly exceeded the reference averages with differences ranging from from $(+0.1)^\circ\text{C}$ in Sfax to $(+0.5)^\circ\text{C}$ in Kelibia.

As for the general average temperature (27 main stations), it was 20.8°C and lower than the reference average (21.6°C) with a difference of $(-0.8)^\circ\text{C}$.

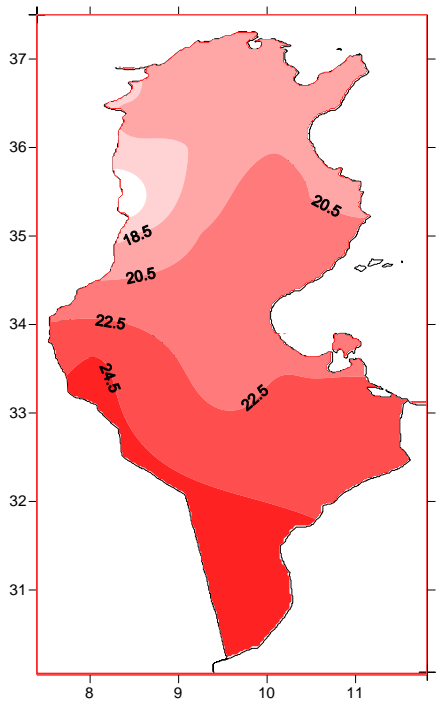


Comparison of mean and normal temperatures for the month of May

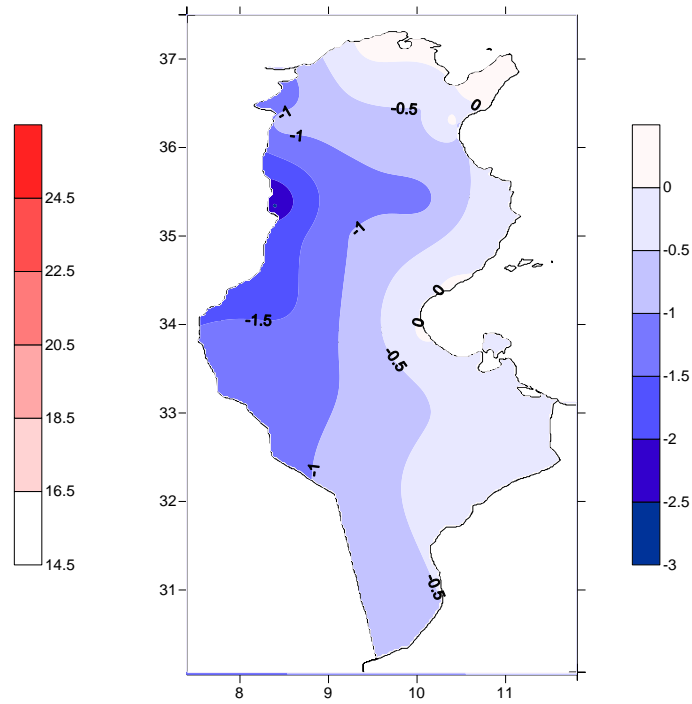


Deviation of mean temperatures from normal (1991-2020)

since 1950: Month of May

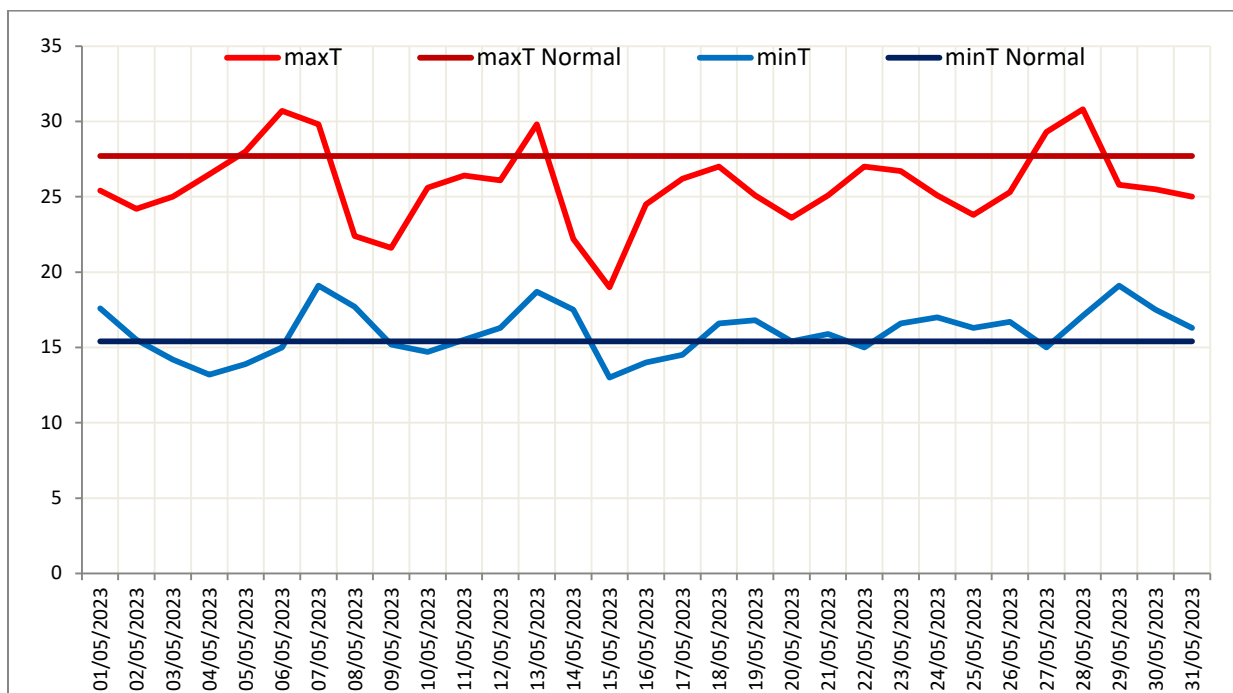


Mean temperature meanT(°C)



Deviation from normal of meanT (°C)

During this month, minimum or maximum temperature rates were often low, and daily averages were generally below baseline rates (1991-2020).



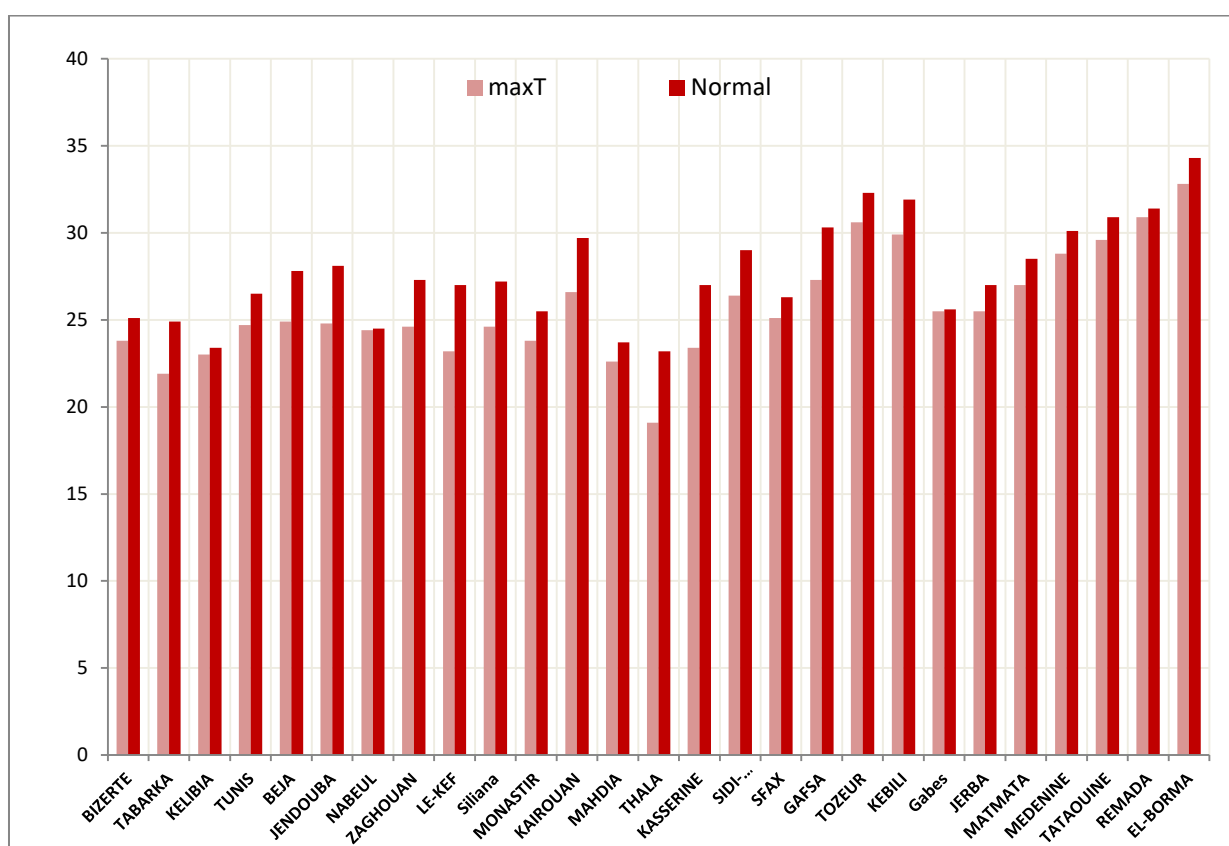
Evolution of daily temperatures in Tunisia compared to the normal for the month of May

- Maximum temperature:

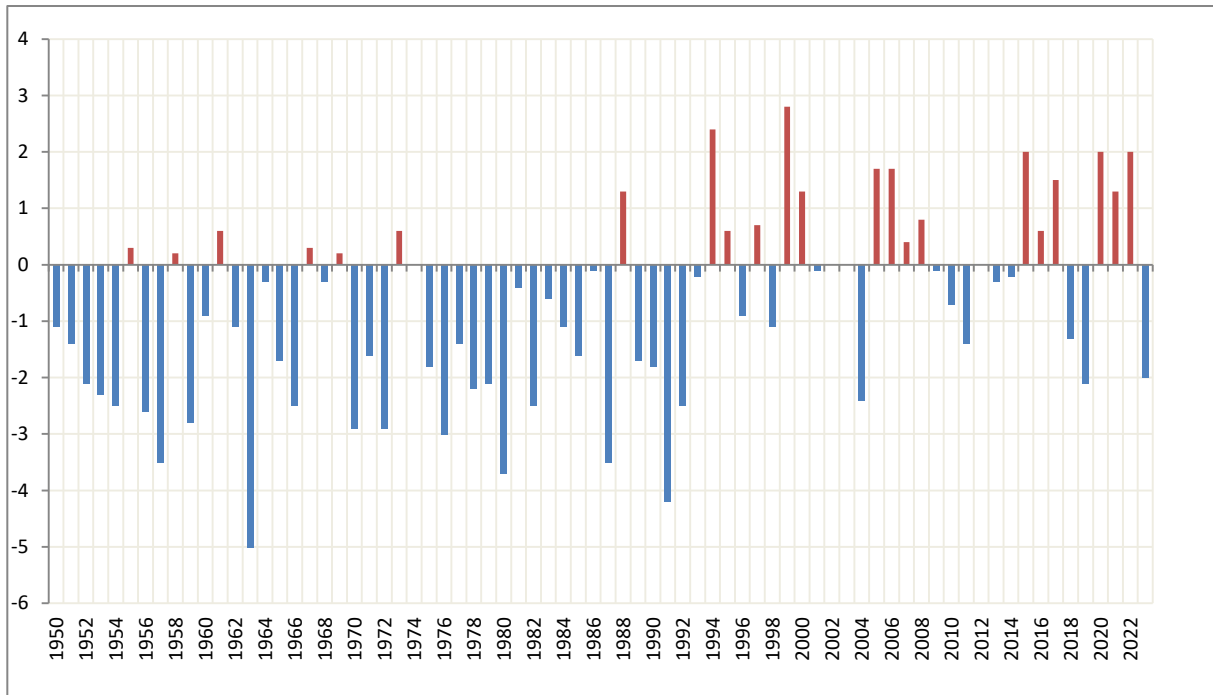
The average maximum temperatures ranged from 19.1°C at Thala to 32.8°C at El Borma, and were below baseline averages over all regions. As for the national average maximum temperature (27 main stations), it reached 25.7°C, lower than the reference average for the same stations (27.7°C) with a difference of (-2)°C.

The average maximum temperatures varied between 19.1°C in Thala and 32.8°C in El Borma and they were lower than the reference averages in all regions, where the differences varied between (-4.1)°C in Thala and (-0.1)°C in Nabeul and Gabes.

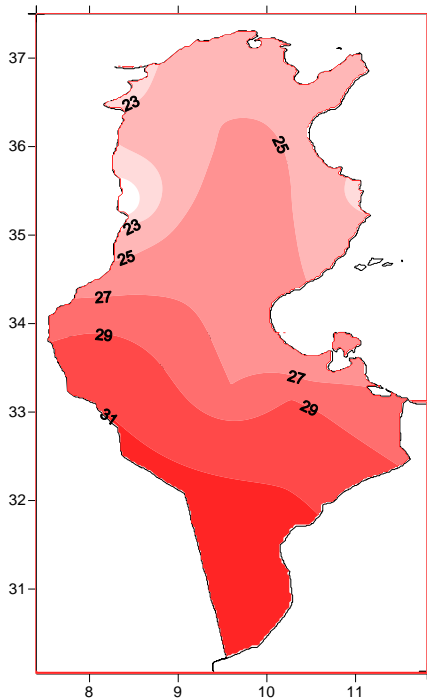
Note that the absolute maximum temperature reached **42.5°C** in El Borma on May 13, 2023. The general average maximum temperature (27 main stations) reached 25.7°C and was lower than the reference average for the same stations (27.7°C) with a difference of (-2.0)°C.



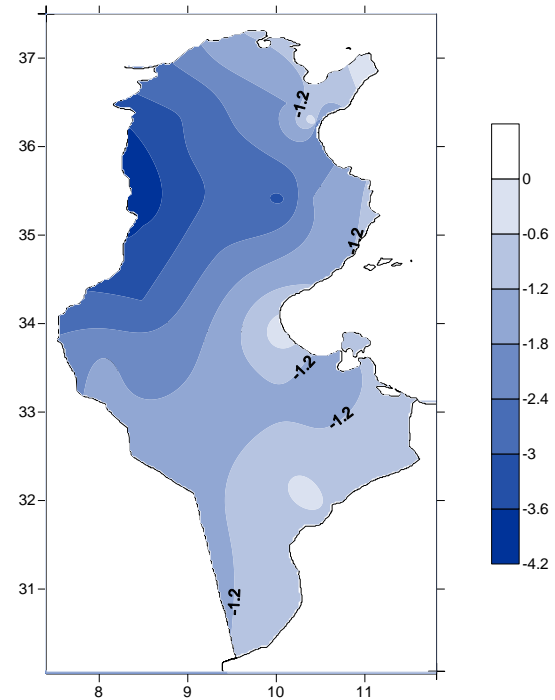
Comparison of maximum and normal temperatures for the month of May



*Deviation of maximum temperatures from normal (1991-2020)
since 1950: Month of May*



Maximum temperature (°C)



Deviation from normal of Tmax (°C)

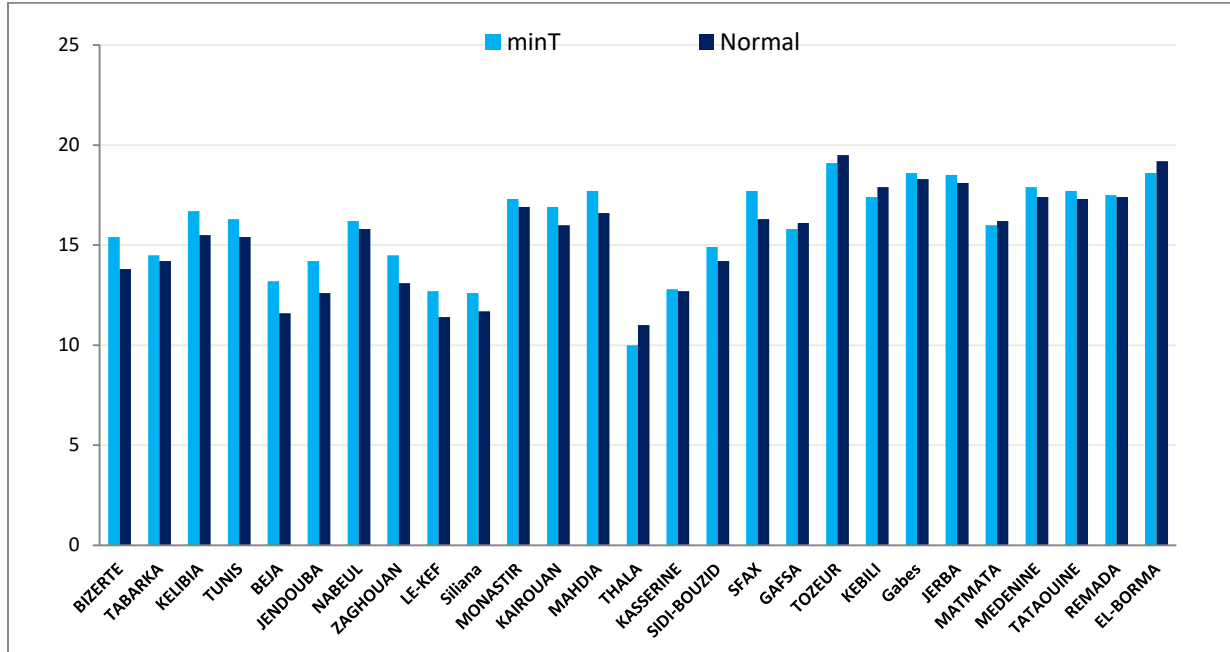
-Minimum temperature:

Mean minimum temperatures ranged from 10°C in Thala to 19.1°C in Tozeur and exceeded baseline rates in most regions, where differences ranged from (+0.3)°C in Tabarka and Gabes at (+1.6)°C in Bizerte, Beja, and Jendouba with the exception of Thala, Gafsa, Tozeur, Kebili,

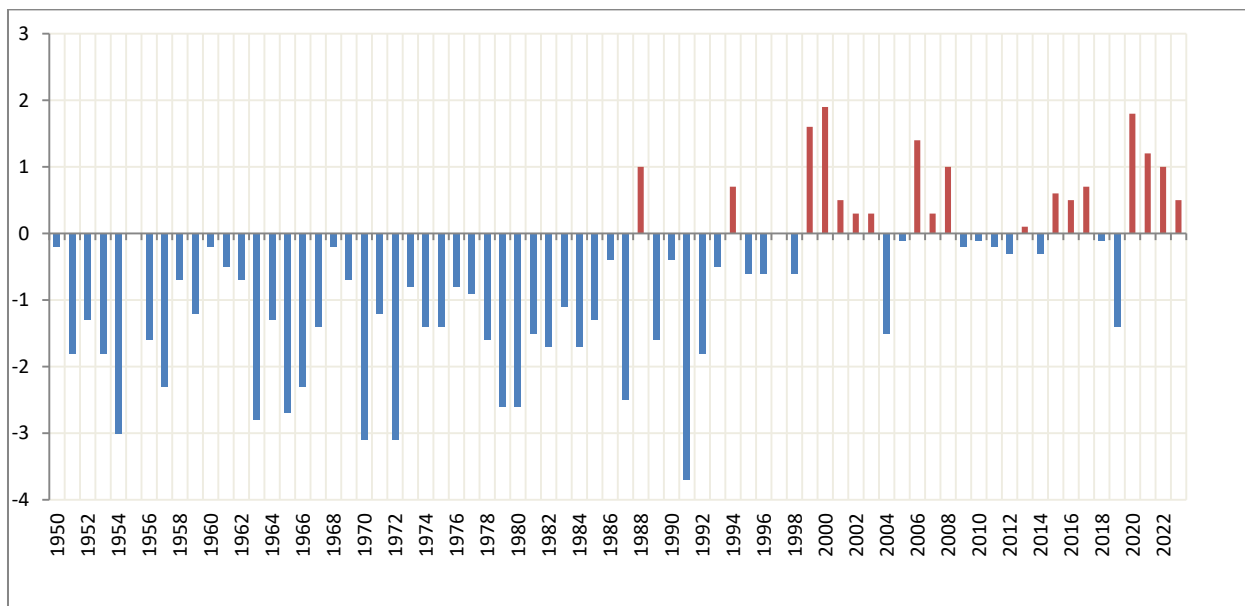


Matmata and El Borma. The month is lower than the reference averages, and the differences oscillated between $(-0.2)^{\circ}\text{C}$ in Matmata and $(-1.0)^{\circ}\text{C}$ in Thala. The absolute minimum temperature reached 4.8°C in Thala on May 15, 2023.

As for the average minimum temperature, it was 15.9°C , exceeding the reference average (15.4°C) with a difference of $(+0.5)^{\circ}\text{C}$.

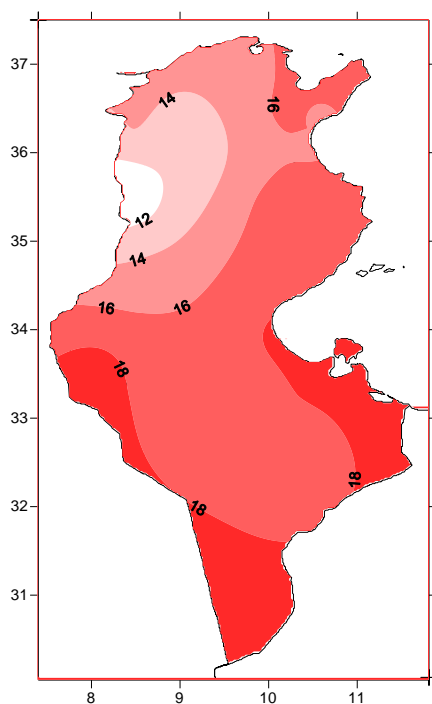


Comparison of minimum and normal temperatures for the month of May

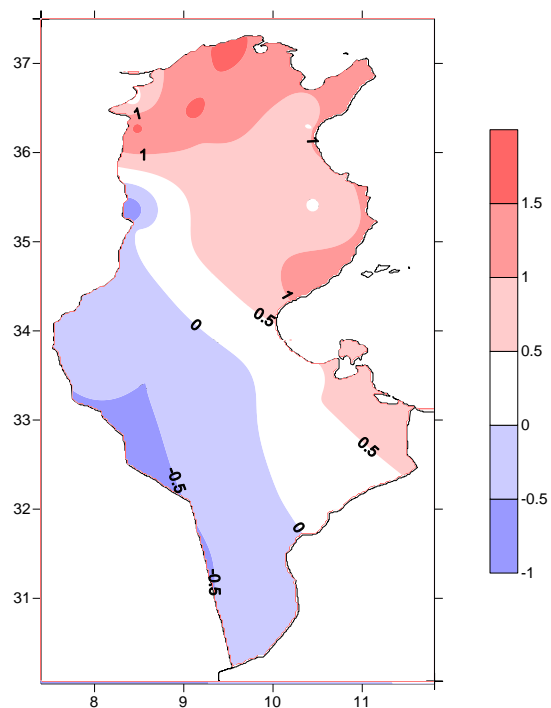


Deviation of minimum temperatures from normal (1991-2020)

since 1950: Month of May



Température minimale (Tmin)



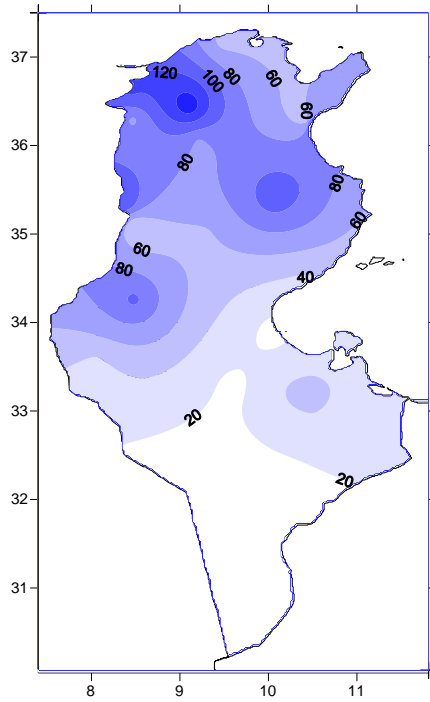
Ecart à la normale de Tmin en (°C)

- Rainfall:

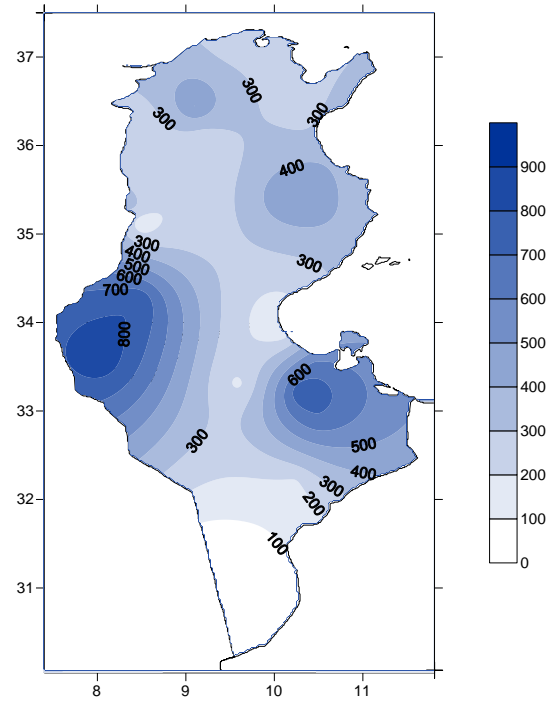
The month of May 2023 was exceptional in terms of the total amount of rain recorded in most regions. The month was characterized by successive weather fluctuations of varying effectiveness on many days, with temporary thunderstorms and locally heavy rains.

The total rainfall exceeded the reference total (1991-2020) for the month in all regions, and the groups were very high, reaching a maximum of 157.2 millimeters in Beja, 122 millimeters in Tabarka, 118.8 millimeters in Thala, 114.7 millimeters in Kairouan, and 155 millimeters in Gafsa.

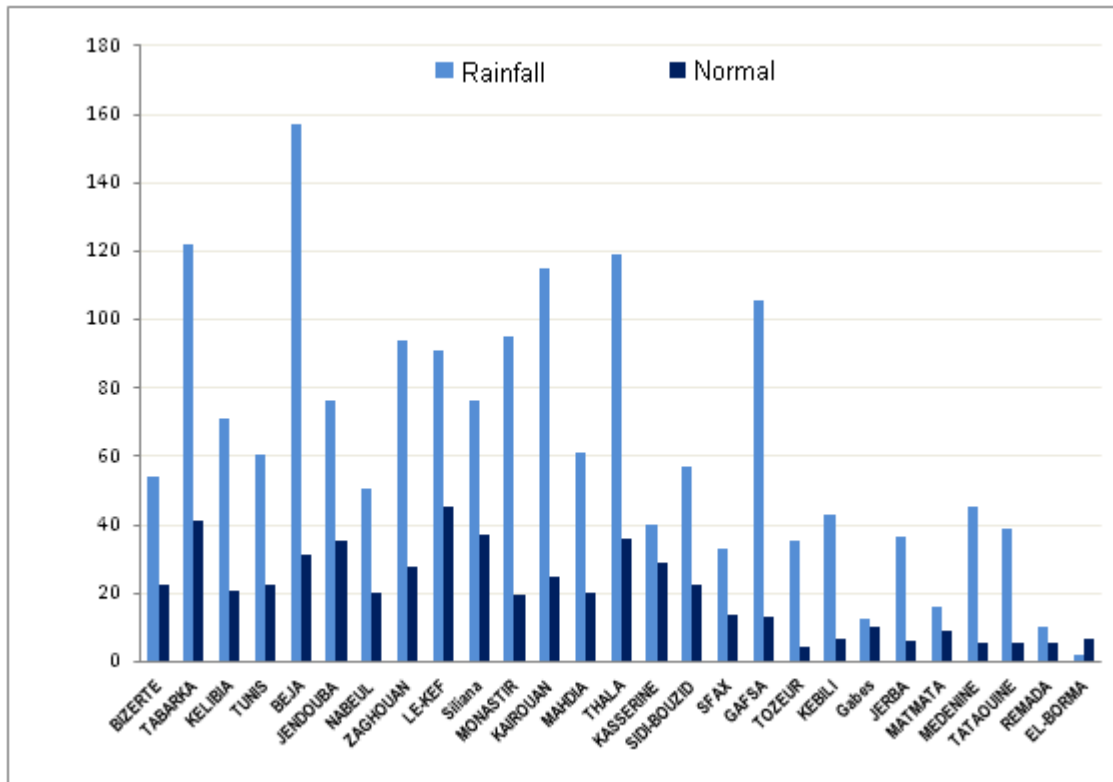
The total rainfall recorded (27 main stations) during this month was 1718.7 mm, while the reference rate for the same stations was 541.9 mm. The amounts of rain recorded during this month amounted to 317.2 % of the reference total, which made the month of May 2023 rank **the first rainiest month of May** since 1950.



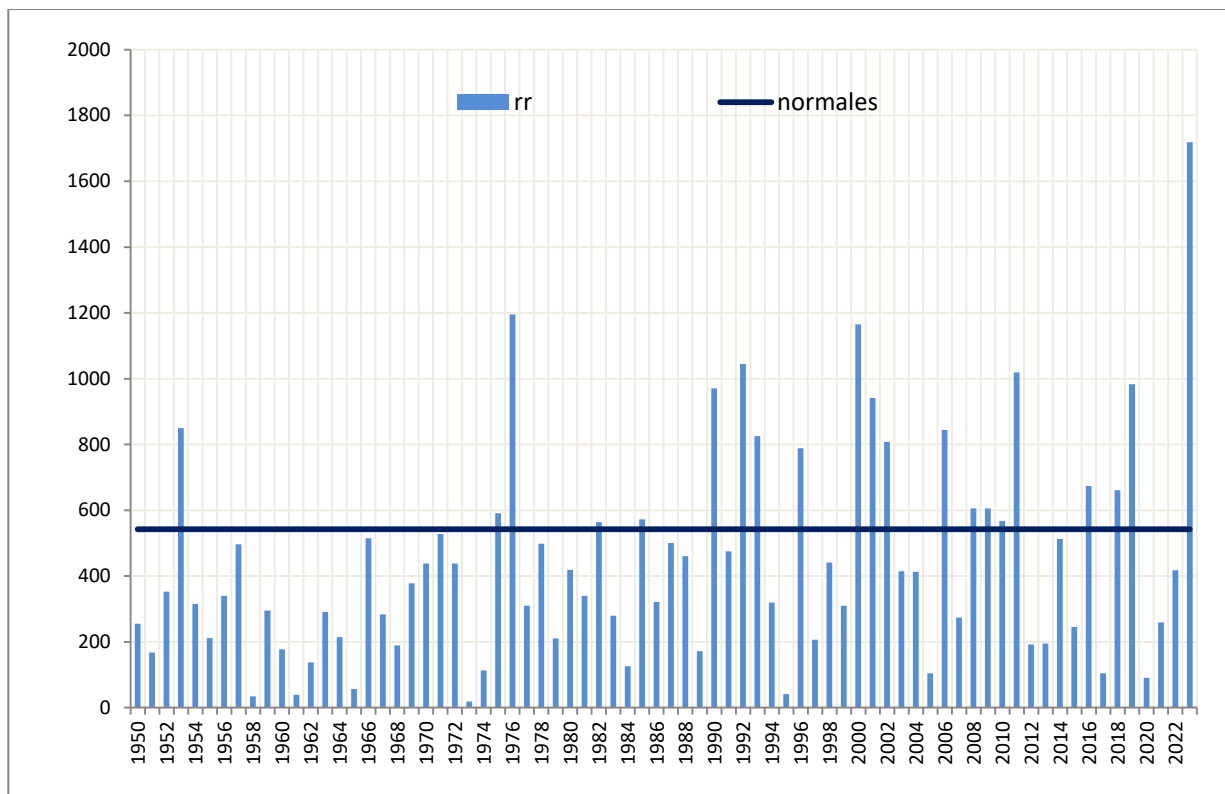
Cumulative monthly rainfall (mm)



Ratio to normal (%)



Comparison of monthly rainfall totals(May) with the reference averages of the accumulations



Cumulative monthly rainfall (rr) since 1950 on Tunisia: Month of May

- The winds:

The winds were generally weak to moderate and their speed increased during the day of May 02 over the north and the coastal regions, where its maximum speed varied from 65 km/h at Kef to 79 km/h at Bizerte.

During the days of 07 and 08 of the month, the winds were strong in most regions and their maximum speed varied from 61 km/h in Jendouba and Gabes to 112 km/h in Kebili.

The winds were strong during the period from May 11 to 16 in most regions and their maximum speed varied between 58 km/h in Béja and 101 km/h in Gafsa and Remada. These strong winds generated local sand phenomena in the south where horizontal visibility was reduced to less than 100 meters.

During the days 19 and 20 of May, the wind speed increased over the central and southern regions, with a maximum of 76 km/h in Mahdia and 101 km/h in El Borma, reaching a maximum of 108 km/h in Kasserine.



The winds were also strong during the period from 24 to 26 May over the central-western and southern regions and their maximum speed varied from 60 km/h in Medenine to 79 km/h in Gafsa and the weather was dusty and sandy in the south with a decrease in horizontal visibility to less than 500 meters.

