

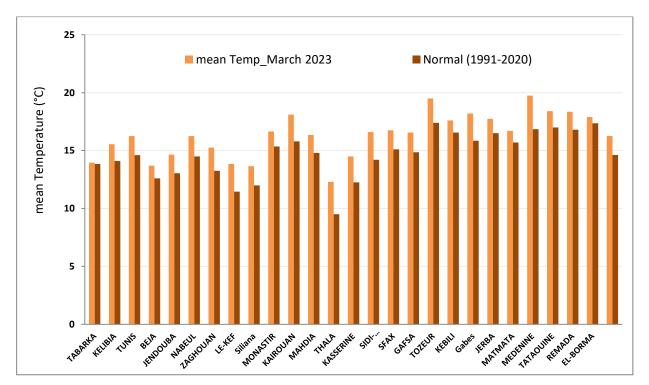
# Monthly Climatological Report\_March 2023 in Tunisia

The month of March 2023 was marked by the stability of meteorological conditions. The general mean temperature (27 main stations) was  $16.3^{\circ}$ C and it was higher than the reference average, with a difference of +1.7°C. This difference ranks the month as the **2nd hottest month of March** since 1950.

Tunisia, which was already under water stress, suffered during this month from a significant rainfall deficit which aggravated the situation. The deficit which exceeded 80% ranks the month as the **2nd driest month of March** since 1970.

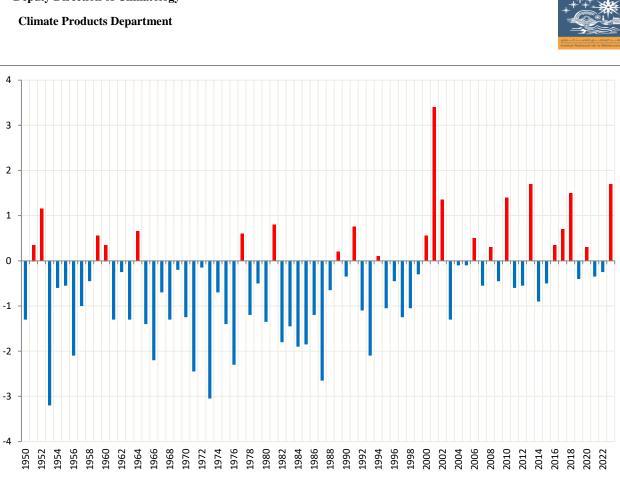
## - Mean temperature :

The average temperatures were between  $12.3^{\circ}$ C in Thala and  $19.8^{\circ}$ C in Medenine and they were higher than the reference rates (1991-2020) in all regions, and the differences varied between +0.1°C in Tabarka and + 2.9°C in Medenine. As for the national average temperature (27 main stations), it reached 16.3°C, exceeding the reference average (14.6°C) with a difference of + 1.7°C. This difference ranks the month as the **2nd hottest month of March since 1950** (March 2001 ranked 1st with a difference of 3.4°C).



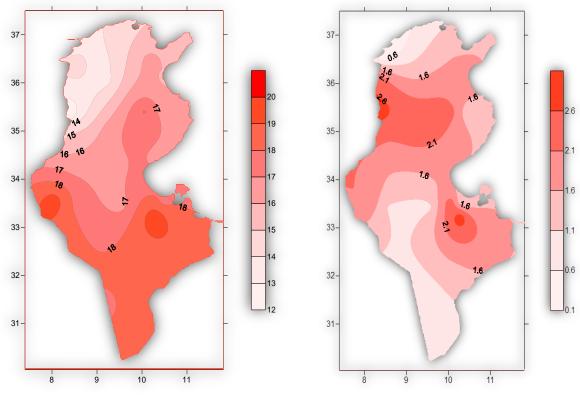
Comparison of the mean temperature (March 2023) to the normal of the month (1991-2020)

**Deputy Direction of Climatology** 



Deviation of mean temperatures to normal (1991-2020)

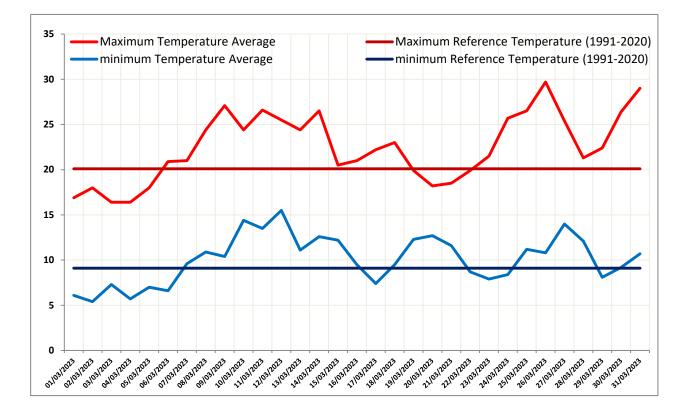




Mean Temperature (Tmean) °C

Deviation from normal Tmean (°C)





Evolution of daily temperatures in Tunisia compared to the normal of March

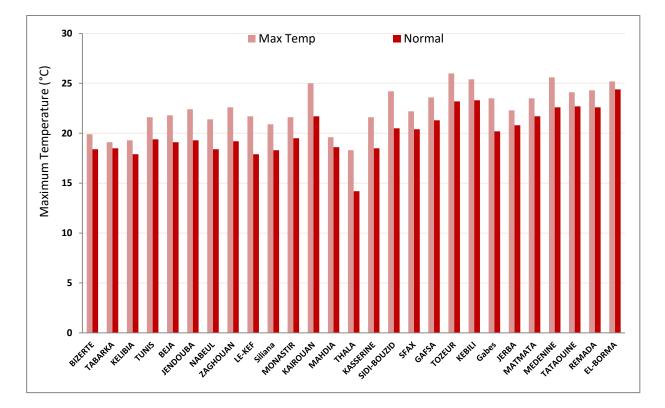
March started with below normal temperatures during the first week of the month. From the 7th of the month, temperatures were high in all regions and exceeded the reference averages with differences reaching  $10^{\circ}$ C (26th of the month).

## - Maximum temperatures:

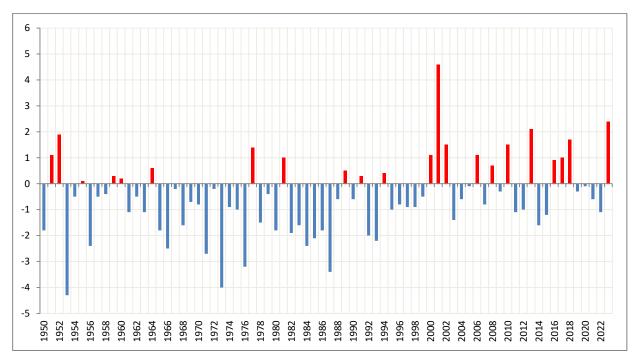
Maximum temperatures were below the reference normal (1991-2020) in most regions during the first week of the month, then they showed a relative increase. The average maximum temperatures varied between  $18.3^{\circ}$ C in Thala and  $26^{\circ}$ C in Tozeur, and they were higher than the reference averages in most regions with differences between  $+0.6^{\circ}$ C in Tabarka and  $+4.1^{\circ}$ C in Thala .

Note that the absolute maximum temperature reached 34.1°C in Kairouan on March 26, 2023. As for the national average maximum temperature (27 main stations), it reached 22.5°C, exceeding the reference average for the same stations (20.1 °C) with a difference of +2.4 °C.



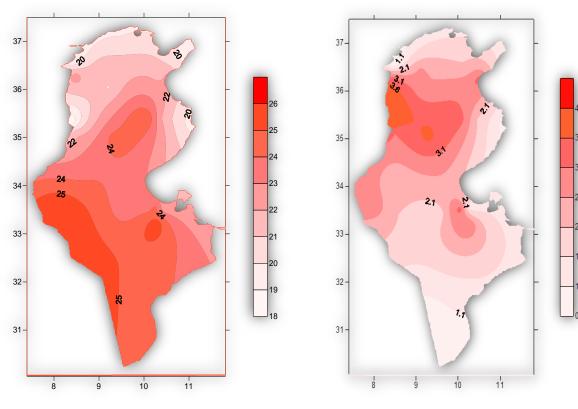


Comparison of the maximum temperature (March 2023) to the normal of the month (1991-2020)



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





Maximum temperature  $maxT(^{\bullet}C)$ 

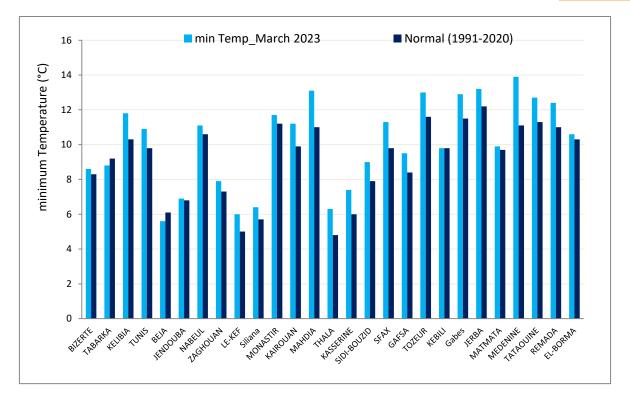
Deviation from normal of  $maxT(^{\bullet}C)$ 

## - Minimum temperatures:

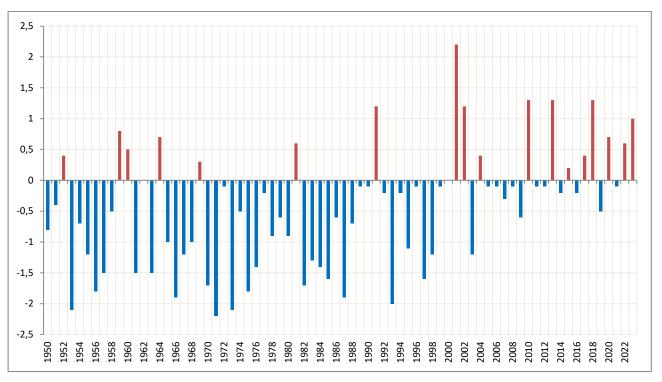
Minimum temperatures varied from  $5.6^{\circ}$ C in Beja to  $13.9^{\circ}$ C in Medenine, and were above the reference averages in most regions with variations ranging from  $+0.1^{\circ}$ C in Kebili to  $+2.8^{\circ}$ C in Medenine, in except for the far north and the mountainous regions, where the averages were below normal, and the deviations varied from  $-0.5^{\circ}$ C in Beja to  $-0.4^{\circ}$ C in Tabarka.

The absolute minimum temperature reached -1.5 °C at Thala on March 02, 2023. As for the general average minimum temperature (27 main stations), it reached 10.1 °C, exceeding the reference average (9.1 °C) with a difference  $+1^{\circ}C$ .



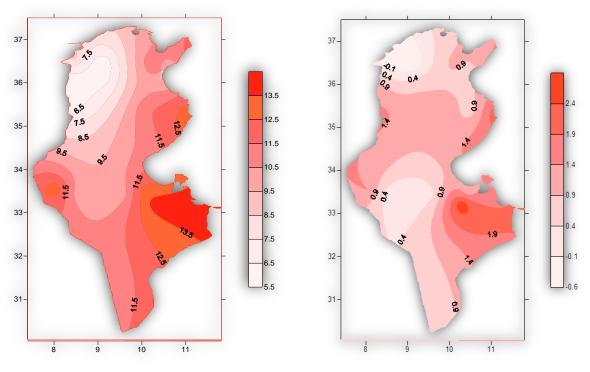


Comparison of the minimum temperature (March 2023) to the normal of the month (1991-2020)



Deviation from the normal (1991-2020) of minimum temperatures since 1950: Month of March





Minimum temperature  $\_minT(^{\bullet}C)$ 

Deviation of minT from normal in  $(^{\bullet}C)$ 

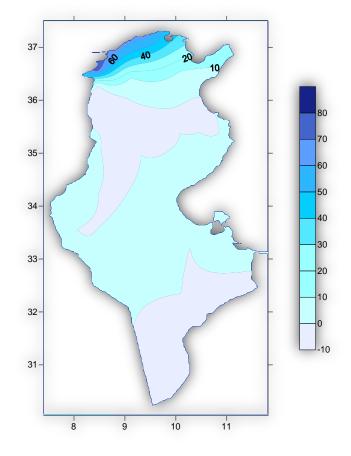
## - Rainfall :

The total rainfall balance recorded during this month was 184.5 mm. It should be noted that the normal for the same stations was 935.4 mm. With this accumulation, this month is ranked 2nd among the driest months of March since 1970 after March 2000 (173.5mm).

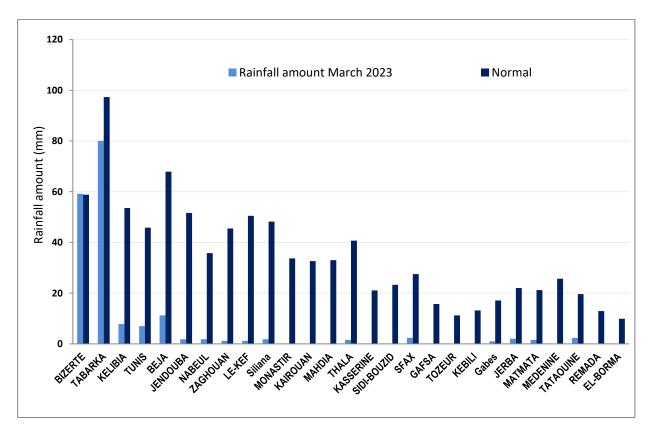
Rainfall was absent in several regions of the country with the exception of Bizerte which recorded a total of 59.2mm very close to normal (58.8mm) and Tabarka recorded a total of 80mm close to normal (97.3mm).

The amounts of rainfall recorded during this month only reached 19.7% of the normal for the month of March, adding to the episodes of drought that Tunisia has been facing for years, and aggravating the negative consequences on the reserves of the dams in point of reaching an unprecedented level of weakness.



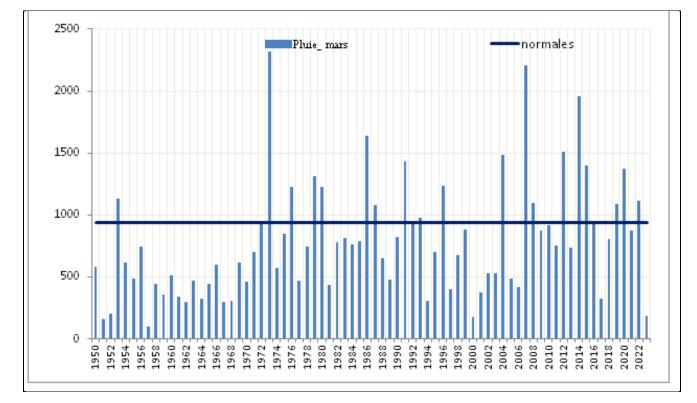


Total rainfall amounts \_ March 2023 (mm)



Comparison of monthly accumulations of rain( March 2023 ) to normals for the month





Cumulative monthly precipitation since 1950 on Tunisia: Month of March

## - The winds:

The winds were generally light to moderate and their maximum speed increased during the days of March 01, 04 and 06, 2023 in most regions, and the maximum speed varied from 58 km/h in Médenine to 94 km/h in Thala (Kasserine).

During the days of March 11 and 12, the winds were strong in the northern and central regions and their maximum speed varied from 68 km/h in Mahdia to 86 km/h in Nabeul and Zaghouan and reached a maximum of 122 km/h in Kasserine on the 12th of the month.

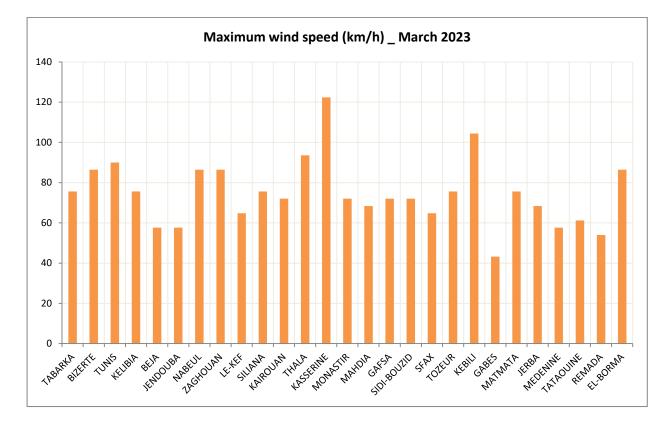
The winds were also strong during 15th March in the northern regions, and their maximum speed was between 60 km/h in Beja and 86 km/h in Bizerte and Zaghouan with a maximum of 90 km/h in Tunis- Carthage.

The winds were also strong during the period from March 19 to 21 in the southern regions, and their maximum speed varied from 58 km/h in Remada to 86 km/h in El Borma and it reached a maximum of 104 km/h. h in Kebili where sand phenomena were observed.

### ➢ Fig. 01 and fig. 02



# Figure 01



# Figure 02

