

Monthly Climate Report_August 2021 in Tunisia

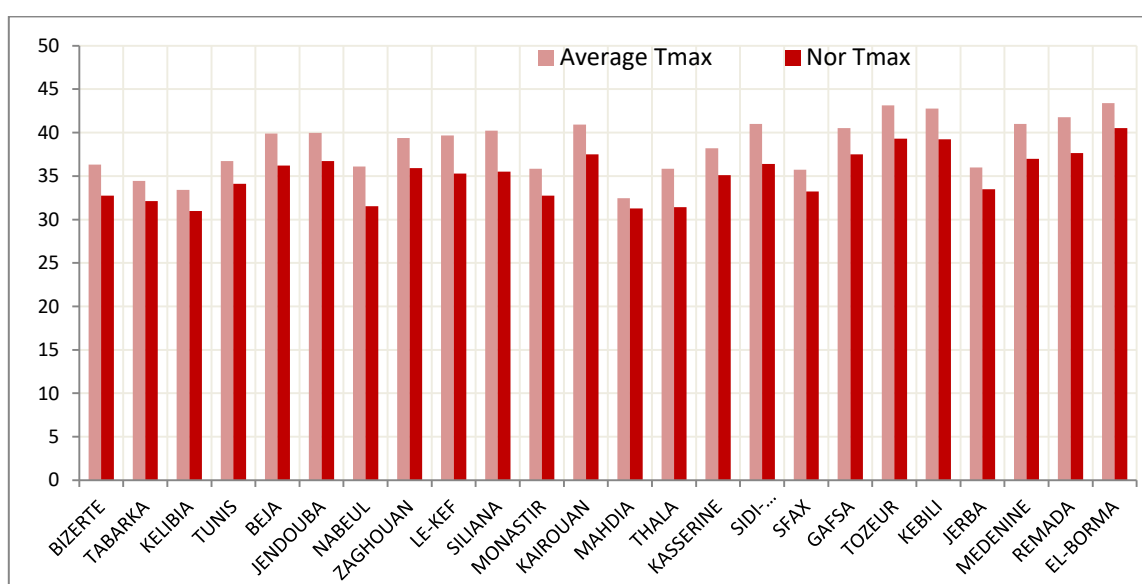
August 2021 is the hottest on record since 1950

August 2021 was marked by a significant rise in temperatures in all regions and Tunisia was affected by extreme heat waves that it had never seen before. During this wave several regions broke their absolute records. The average temperature across Tunisia of 31.5 °C was (+2.99)°C above normal (28.6°C). This gap ranks August this year as the the hottest month ever in the months of August since 1950.

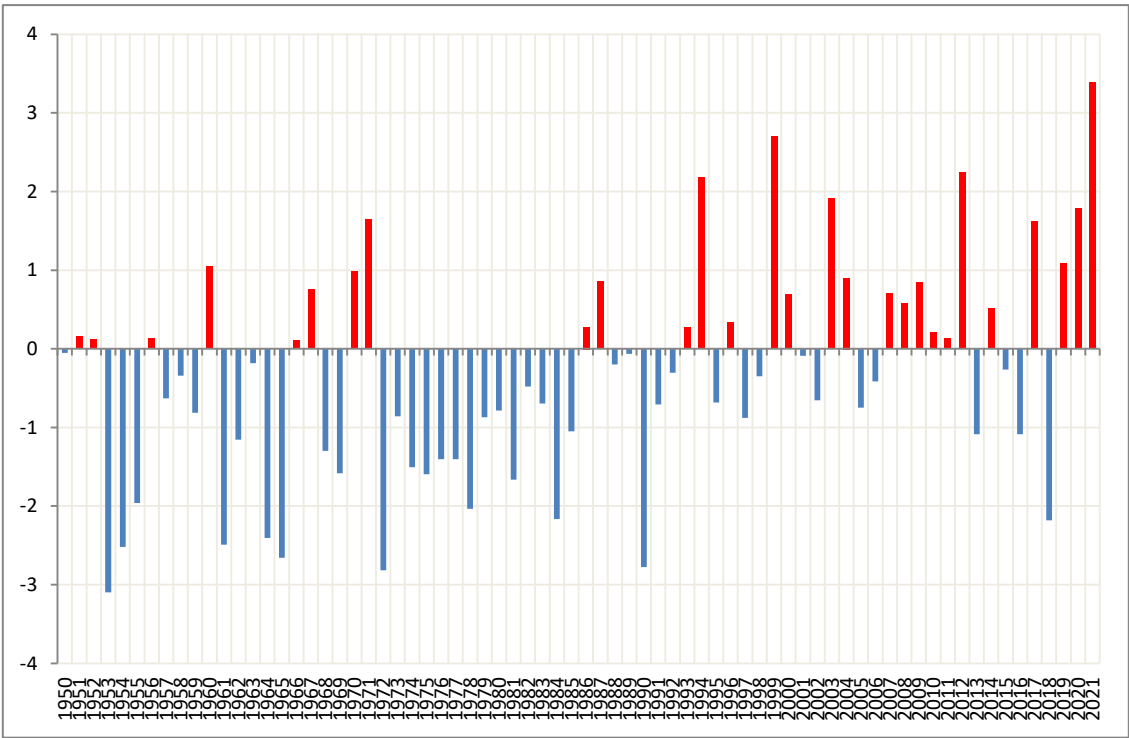
Regarding the rain, Tunisia witnessed during August 2021 a decrease in rainfall by 67%. The total for the month was 97 mm, while the normal for the same stations 223 mm which represents 43% .

- Maximum temperatures

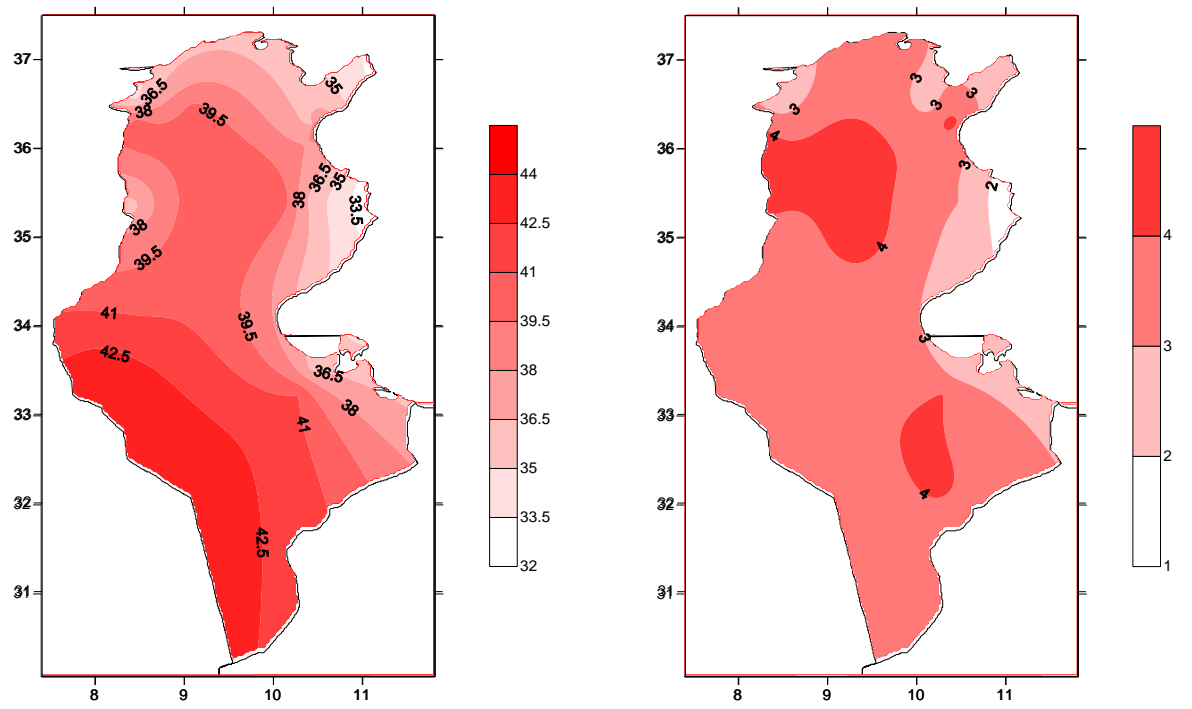
Maximum temperatures increased significantly in all regions during the month of August 2021 and exceeded the reference rates by a difference of 9 to 15°C in most regions, especially in the first half of the month. The maximum temperatures ranged between 32.5°C in Mahdia and 43.4 degrees in El Borma and were above the reference rates, where the difference ranged between (+1.2)°C in Mahdia and (+4.7)°C in Siliana. As for the general average of the maximum temperature, it reached 38.5°C and exceeded the reference rate (35.1°C) with a significant difference of (+3.4)°C, which made August 2021 ranked first in the hottest August months since 1950.



Comparing the maximum temperatures of August 2021 with the reference rates (1981-2010)



Comparing the maximum temperatures of August with the reference rates since 1950



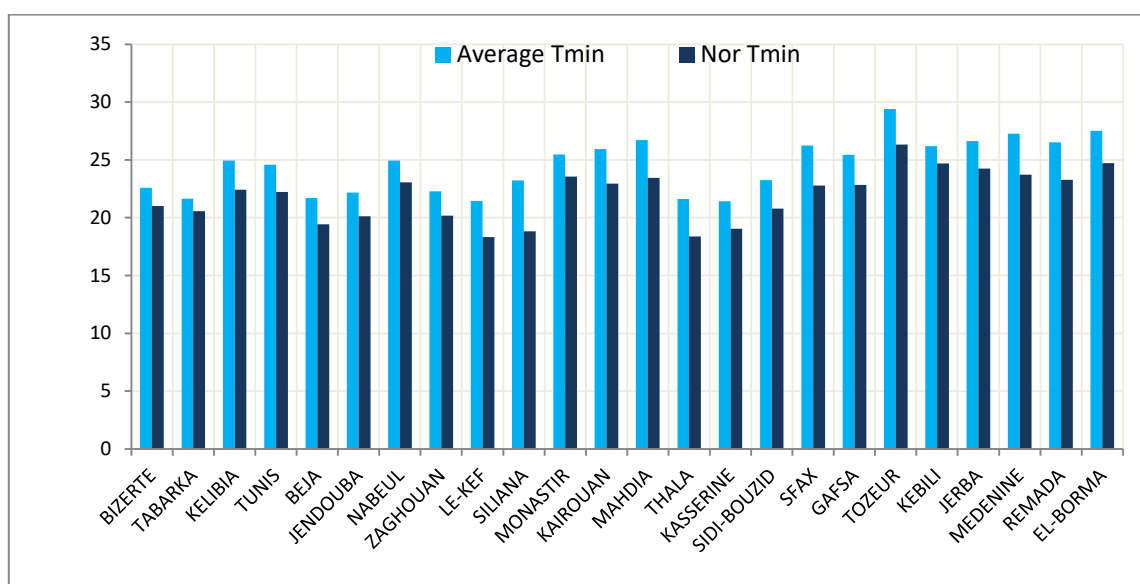
Average Tmax (°C) of August 2021

The difference from the reference rate

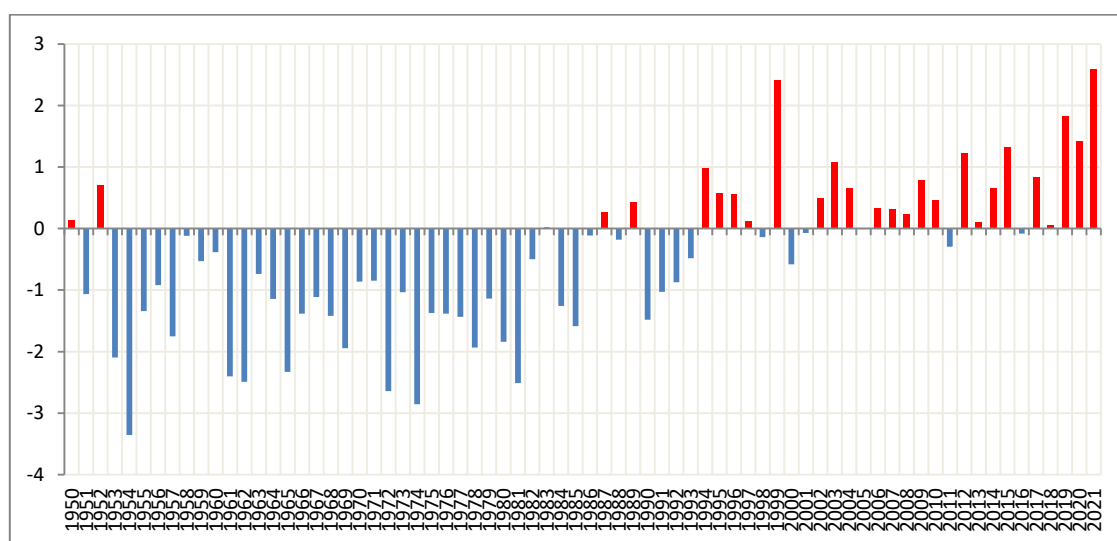
- Minimum temperatures

The minimum temperature rates were also high in all regions in August 2021 and ranged from 21.4°C in Kasserine to 29.4°C in Tozeur, and they exceeded the reference rates for the month, where the difference ranged between (+1.1)°C in Tabarka to (+4.4) °C in Siliana.

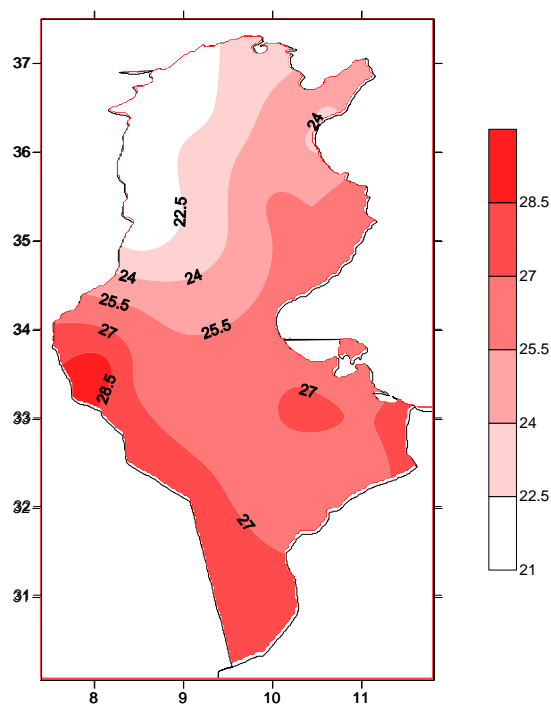
As for the general average of minimum temperatures, it reached 24.6 °C, and it was above the reference average (22°C), and the difference was (+2.6)°C. At the level of minimum temperature August 2021 ranks first for the warmest August months since 1950.



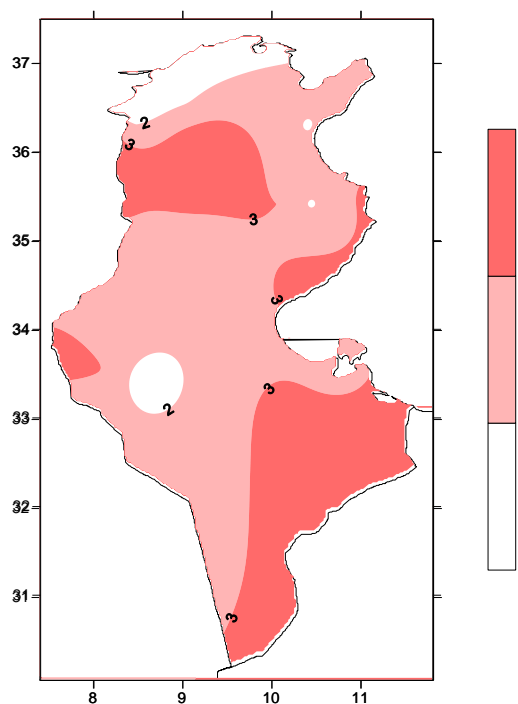
**Comparing the minimum temperatures for the month of August 2021
with the reference rates (1981-2010)**



**The difference in the average minimum temperature during the month of August relative
to the reference rate since 1950**



Average Tmin (°C) of August 2021



The difference from the reference rate

- Daily evolution of temperature:

At the beginning of August 2021, the temperature remained high in all regions, in continuation with the severe heat wave that our country witnessed in late July 2021. The temperature increased significantly in all regions on August 04, especially in the northwest, central and southern regions, where the maximum ranged from 39°C to 46 °C and reached 47°C in Tozeur and Medenine.

Our country was affected by a severe heat wave during the period from 07 to 12 August 2021, where the temperature rose exceptionally in most regions and the maximum temperature exceeded the reference rates by a difference between 10 and 15 degrees, and new records were recorded in many regions (14 stations) with a maximum of 50.3°C in Kairouan on a day August 11, 2021, and thus Kairouan topped the list of the highest temperature extremes in the history of Tunisia (in August).

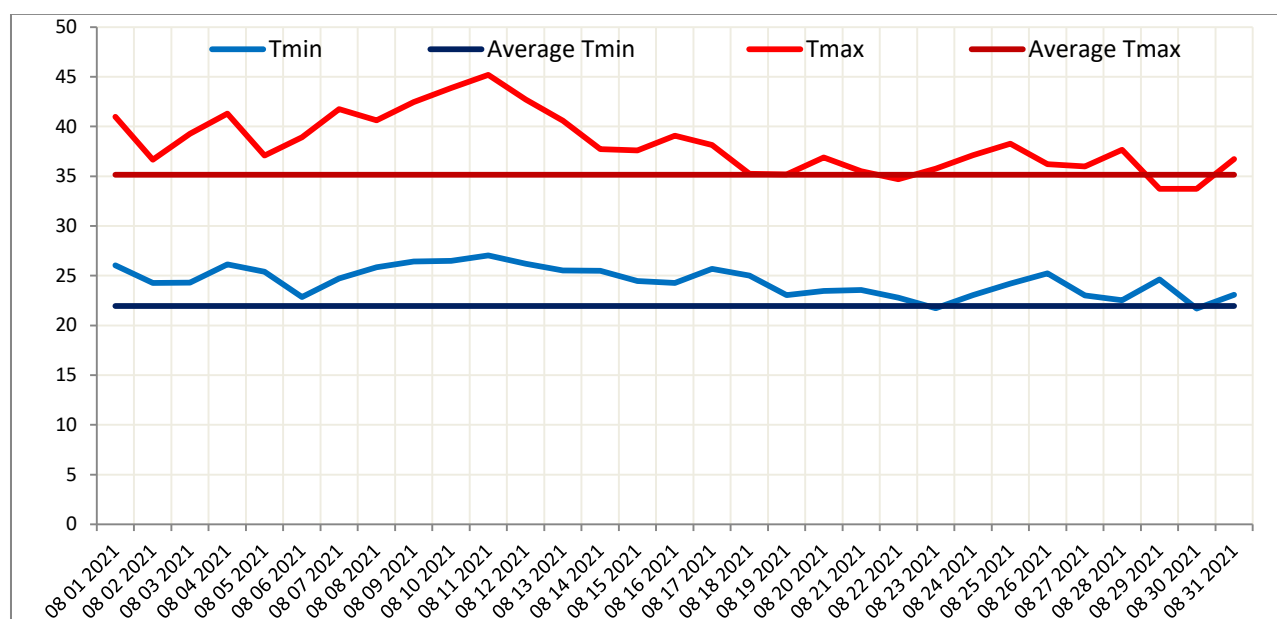
As for the minimum temperature, it was also high in all regions, and the minimum temperature exceeded the reference rates with a difference of between 8 and 12 degrees. August 10, 2021 as shown in the following table:

- New records: **Maximum temperatures:**

Station	new Tmax record (°C)	date	last Tmax record (°C)	date
Thala	41.3	08/08/2021	40.6	08/05/2012
Kasserine	43.5	08/08/2021	43.0	08/20/2020
Gafsa	46.1	08/08/2021	45.7	08/02/2005
Kébili	48.5	08/08/2021	47.6	08/10/1999
Jendouba	49	08/09/2021	48.2	08/09/1999
Bizerte	48.9	08/10/2021	45.4	08/09/1999
Tunis	48.9	08/10/2021	46.8	08/01/1982
Béja	48.9	08/10/2021	47.6	08/09/1999
Siliana	46.2	08/10/2021	46.1	08/09/1999
Zaghuan	47.5	08/10/2021	46.5	08/07/1970
Nabeul	46.3	08/11/2021	41.0	08/16/1987
kélibia	43.5	08/11/2021	40.7	08/12/1987
Kairouan	50.3	08/11/2021	48.1	08/10/1999
Sidi Bouzid	47.4	08/11/2021	47.0	08/11/1963

- New records: **Minimum temperatures (Tmin *: the highest minimum temperature in August)**

Station	Nouveau record Tmin*	date	Dernier record Tmin*	date
Bizerte	28.6	08/10/2021	28.40	08/10/1997
Remeda	35.7	08/05/2021	34.3	08/19/2005



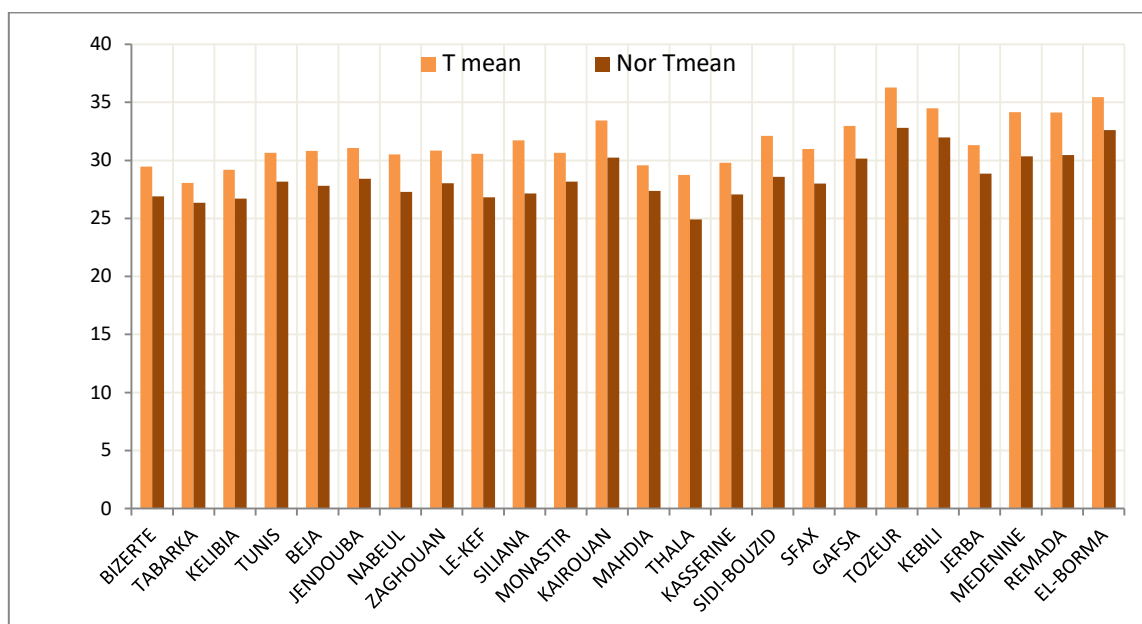
Daily evolution of maximum and minimum temperatures during August 2021

- Average temperatures:

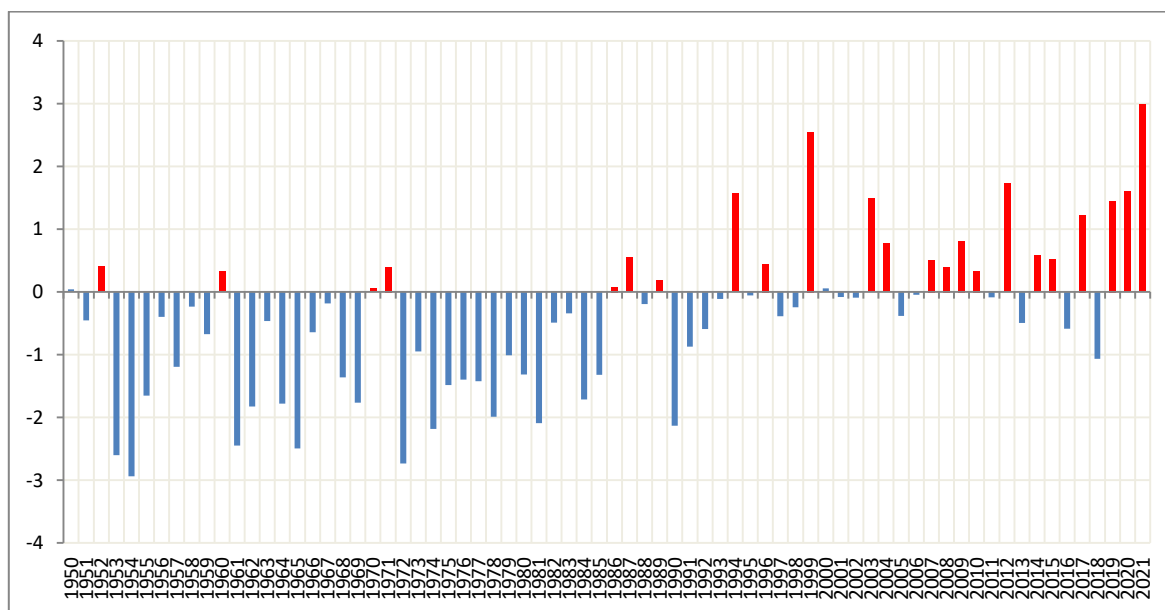
Average temperatures vary between 28.1 °C in Tabarka and 36.3 °C in Tozeur.

The average temperature over all of Tunisia reached 31.5°C, it was above normal (28.6 °C) with a difference of (+2.99) °C.

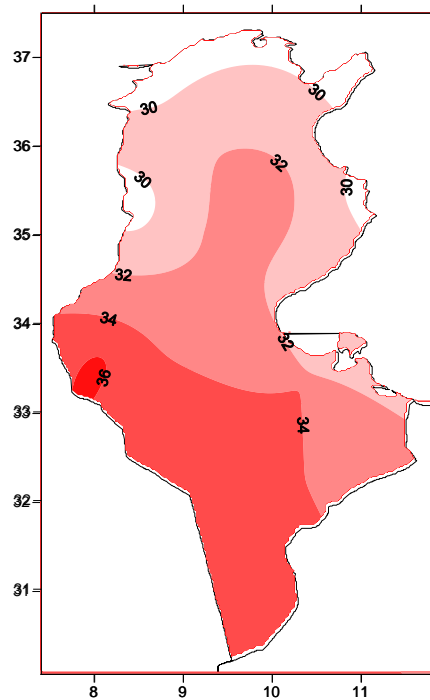
This gap ranks August of this year as the **1st hottest** August since 1950.



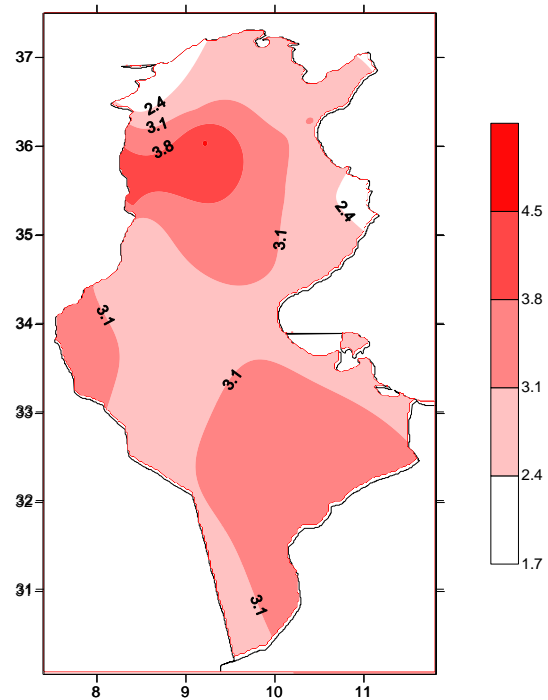
Comparing the average temperature rates for August 2021 with the reference rates (1981-2010)



The difference in the average temperature of August relative to the monthly reference rate since 1950



Average temperature (°C) of August 2021



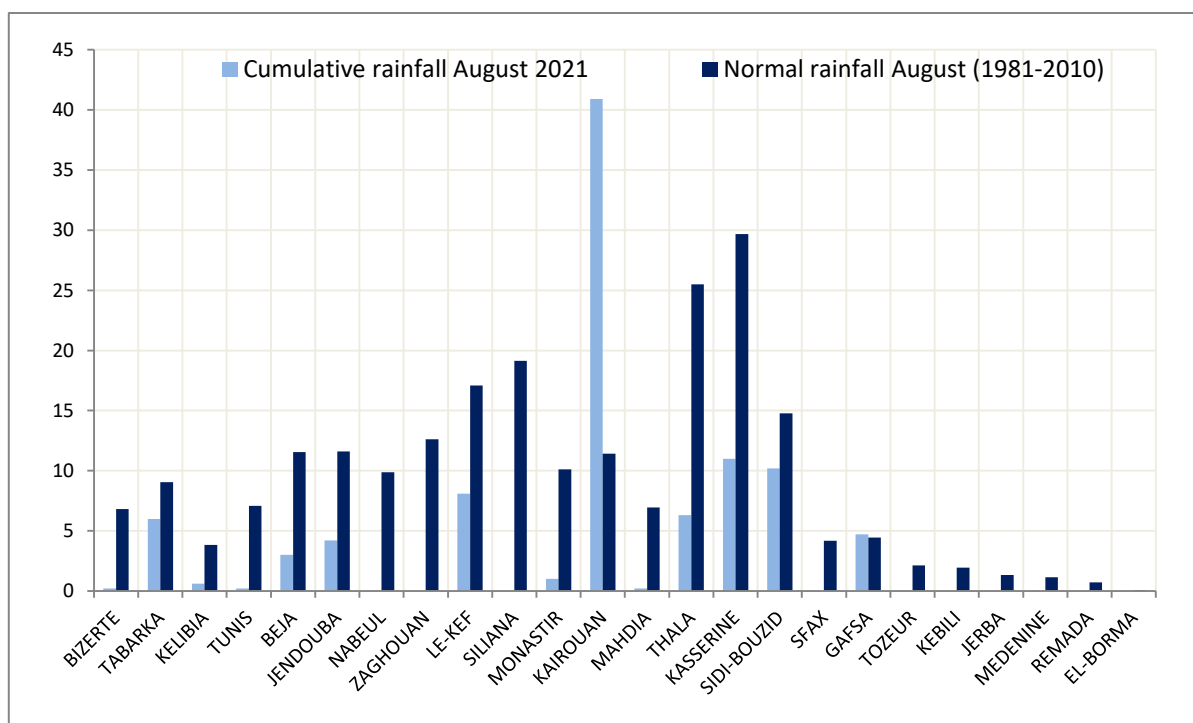
The difference from the reference rate

- Rainfall:

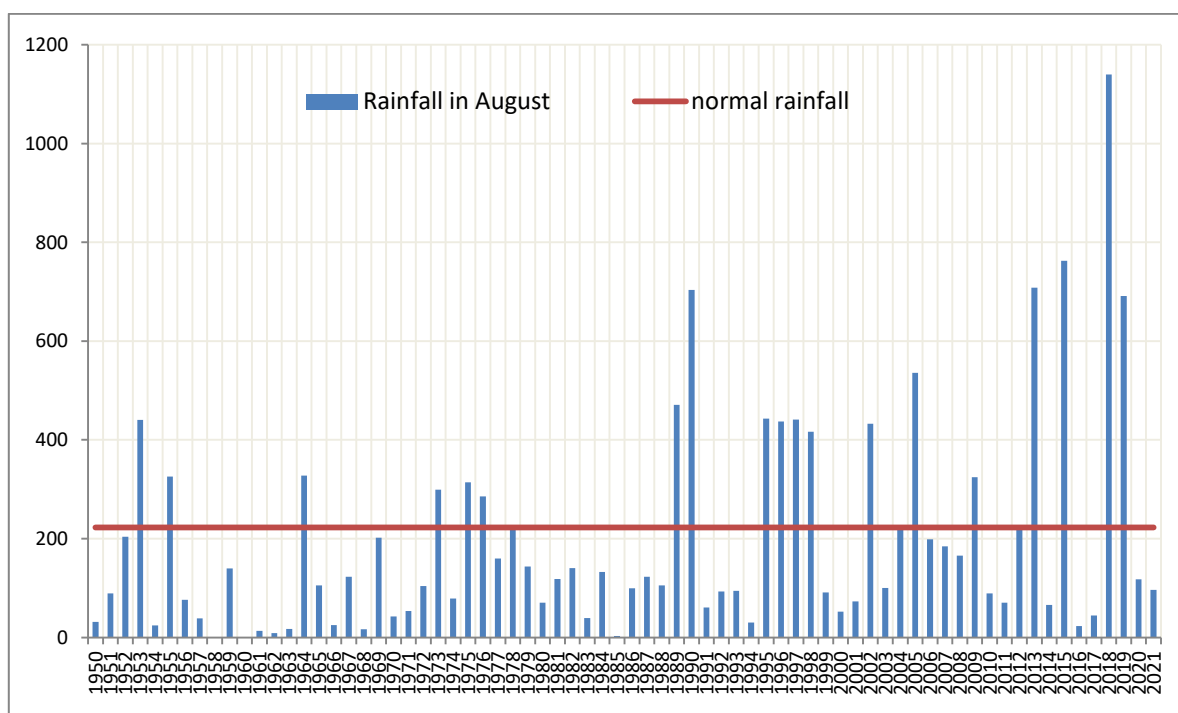
Regarding rainfall, August 2021 was in deficit. The monthly cumulative precipitation over all regions (24 main stations) was lower than the monthly reference cumulative over most regions, with the exception of Kairouan (41 mm) and Gafsa (5 mm), where the cumulative amounts exceeded the normal ones.

The total for the month was 97 millimeters, while the baseline cumulative for the same stations was 223 millimeters, which represents 43%.

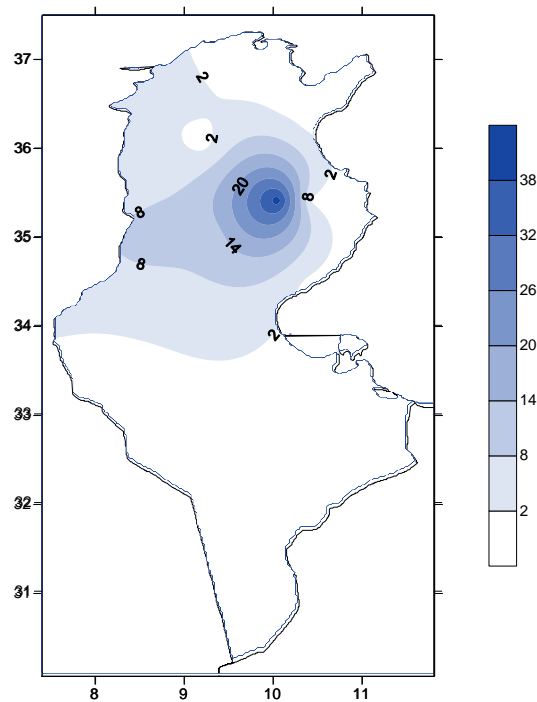
Note that the rains did not fall during the month of August 2021 in the regions of Nabeul, Zaghouan, Siliana and in all the regions of the South except the region of Gafsa.



Comparing the total amounts of rain of August 2021 with the reference monthly total



Total amounts of rain (in millimeters) of August since 1950



Total rainfall during August 2021

The winds :

The winds were light to moderate, and their speed increased during the period from 01 to 04 August 2021, as the winds were locally strong in the south, and the maximum speed varied from 58 km / h in Remada to 76 km / h in Kebili.

The wind speed also increased on August 09 over the northern regions, with a maximum speed varying from 61 km / h in Tabarka to 101 km / h in Bizerte.

The period from August 17 to 20 was marked by strong winds over the center and south of the country where the maximum speed was between 58 km / h in Kelibia and 101 in Kasserine and reaching 104 km / h in El Borma.

The winds were also strong during August 25 and 26 over the north and the center, with a maximum speed ranging from 72 km / h in Zaghouan to 104 in Jendouba, and reaching 137 km / h in Enfidha.

At the end of the month, the central and southern regions were affected by strong winds from August 28 to 31, with a maximum speed varying from 65 km / h in Djerba to 97 in Gafsa and reaching 112 km / h in Monastir.

