## METEOCLIMATIC REPORT

May 2020

May showed in part - AS HAPPENED IN THE 2019 - A MODERATE SYNOPTIC DYNAMICITY, with a frequent number of fronts linked to undulations of the westerly often very accentuated but not always harbingers of significant precipitation. The general thermal framework was affected by these advances of polar air masses, showing an overall lower than the thirty-year and recent climatic averages. It is possible to divide the month into two almost equal portions, as long as; the first half characterized by undulations of the milder western currents and with a frequent presence of the Azores anticyclone, the second more dynamic, at times unstable due to frequent elongations of the semi-permanent anticyclone towards northern latitudes and consequent descents of cold air towards the Mediterranean basin (figs. 1 and 2)


Figure 1 -ground pressures and geopotential at 500 hPa referring to 0 Z on may $20^{\text {th }}$
The most significant phases of instability occurred between 19 and 21 and especially between 27 and 31 of the month. In both cases, the descent of maritime polar air in the meridian direction "dug" a talweg at altitude over Italy and the cold fronts at the ground caused rainfall with a prevalent even thunderstorm character, with a slight hailstorm in the night of 19th.


Figure 2 ground pressures and geopotential at 500 hPa referring to to the 06 Z of may 29 $^{\text {th }}$
From the analysis of the complete thermometric data (tab.1), it is clear that the average monthly temperature was around $17.6^{\circ} \mathrm{C}$; the minimum one of $11.3^{\circ} \mathrm{C}$ the maximum one of $24^{\circ}$ C ; consequently the monthly temperature range was around $12.7^{\circ} \mathrm{C}$. Note that on day 23 , the first warm day of the 2020 summer season.- $30^{\circ} \mathrm{C}$ - occurred.

From the comparison with the average values for the thirty-year period CLINO 1981-2010 for the Ascoli Piceno station, there is a "below average" of about one degree despite the presence of a more continental overall signal, given that the minimum values were a couple of degrees lower than the average and the maximum coinciding with the average climatic values.

On the other hand, if you compare the data with those concerning the last fifteen years for the same station in Brecciarolo, a value lower than the average of about $0.7^{\circ} \mathrm{C}$ emerges, but in any case higher than the cold month of May 2019 when the average was $15,9^{\circ} \mathrm{C}$.

As regards rainfall, after a two-month period characterized by abundant and concentrated rainfall in a few days, there was a meteorological deficit of about $30 \%$ ( 70 mm Vs 101 mm of climatic average) with rainfall distributed over 8 days (average 10.4 days)

Table 1 and figure 3 show daily climatic data with the respective monthly averages and the relative thermo-rainfall graph

| Month | Day | AvTmin | Av Tmed | Avtmax | Prec mm R | RD | TS | Hd |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 1 | 12,3 | 18,7 | 25,1 | 0 |  |  |  |
| 5 | 2 | 11,5 | 17,1 | 22,7 | 1,2 * |  |  |  |
| 5 | 3 | 8,7 | 15,2 | 21,7 | 0,2 |  |  |  |
| 5 | 4 | 7,4 | 14,9 | 22,3 | 0 |  |  |  |
| 5 | 5 | 8,1 | 16,6 | 25,1 | 0 |  |  |  |
| 5 | 6 | 9,1 | 16,0 | 22,8 | 0 |  |  |  |
| 5 | 7 | 7,6 | 14,4 | 21,2 | 0 |  |  |  |
| 5 | 8 | 6,4 | 15,5 | 24,6 | 0 |  |  |  |
| 5 | 9 | 9,3 | 17,7 | 26 | 0 |  |  |  |
| 5 | 10 | 11,2 | 17,9 | 24,6 | 0 |  |  |  |
| 5 | 11 | 14,6 | 19,4 | 24,2 | 1,4* |  |  |  |
| 5 | 12 | 12,9 | 19,3 | 25,7 | 0 |  |  |  |
| 5 | 13 | 11,1 | 17,8 | 24,5 | 0 |  |  |  |
| 5 | 14 | 14,5 | 20,7 | 26,9 | 0 |  |  |  |
| 5 | 15 | 13,9 | 20,9 | 27,9 | 0,2 |  |  |  |
| 5 | 16 | 14,9 | 20,4 | 25,9 | 0 |  |  |  |
| 5 | 17 | 15,4 | 20,4 | 25,4 | 0,2 |  |  |  |
| 5 | 18 | 14,5 | 19,5 | 24,4 | 0 |  |  |  |
| 5 | 19 | 13,3 | 19,0 | 24,7 | 7 * | * |  |  |
| 5 | 20 | 14,3 | 17,0 | 19,6 | 19,4 * |  | * |  |
| 5 | 21 | 11,6 | 17,1 | 22,5 | 0 |  |  |  |
| 5 | 22 | 10,8 | 18,4 | 26 | 0 |  |  |  |
| 5 | 23 | 11,9 | 21,0 | 30 | 0 |  |  | * |
| 5 | 24 | 12,4 | 19,4 | 26,3 | 0 |  |  |  |
| 5 | 25 | 10,1 | 17,4 | 24,7 | 0 |  |  |  |
| 5 | 26 | 9,6 | 16,3 | 23 | 0 |  |  |  |
| 5 | 27 | 11,4 | 16,1 | 20,7 | 5,4* |  |  |  |
| 5 | 28 | 9,6 | 16,3 | 22,9 | 0 |  |  |  |
| 5 | 29 | 10,1 | 14,8 | 19,5 | 26,6 * |  | * |  |
| 5 | 30 | 10,9 | 15,6 | 20,2 | 5,8 * |  |  |  |
| 5 | 31 | 10,3 | 16,1 | 21,9 | 2 * | * |  |  |
| AVER |  | 11,3 ${ }^{\prime}$ | 17,6 | 24,0 | 69,4 | 8 | 2 | 1 |
| AVER 81-10 |  | 12,9 | 18,6 | 24,3 | 101 | 10,4 |  |  |
| AVER 03-1 |  |  | 18,3 |  |  |  |  |  |

Table 1- Daily summary of weather data available for December 2018. LEGEND: AvTmin: minimum temperature; AvTmed: average temperature: AvTmax: maximum temperature; prec mm: daily precipitation; $\mathrm{RD}=$ rainy days $>1 \mathrm{~mm}$; TS: Thunderstorms; Hd : hot days (with $\mathrm{Tmax} \geq 30^{\circ} \mathrm{C}$ )


Figure 3 - graph of thermo- meteoric daily data

