

State of Temperature during 2019 in Mauritius

As per a World Meteorological Organisation (WMO) Press Release dated 15 January 2020, the year 2019 concludes a decade of exceptional global heat. This warming is attributed to the increasing emission of greenhouse gases from human activities. It is stated in this report that on a global scale

“The year 2019 was the second warmest year on record after 2016, according to the World Meteorological Organization’s consolidated analysis of leading international datasets. Average temperatures for the five-year (2015-2019) and ten-year (2010-2019) periods were the highest on record”

For Mauritius Year 2019 may have been the warmest year on record since 1960 (Fig. 2), based on the temperature data recorded at five stations representative of the north, south, east, west and the central plateau. The mean temperature over the island for the Year 2019 was found to be 1.1 °C higher than the 1981-2010 normal. Warmer conditions prevailed particularly over the central part of the island, to the southeast and in some region to the northeast (Fig. 1).

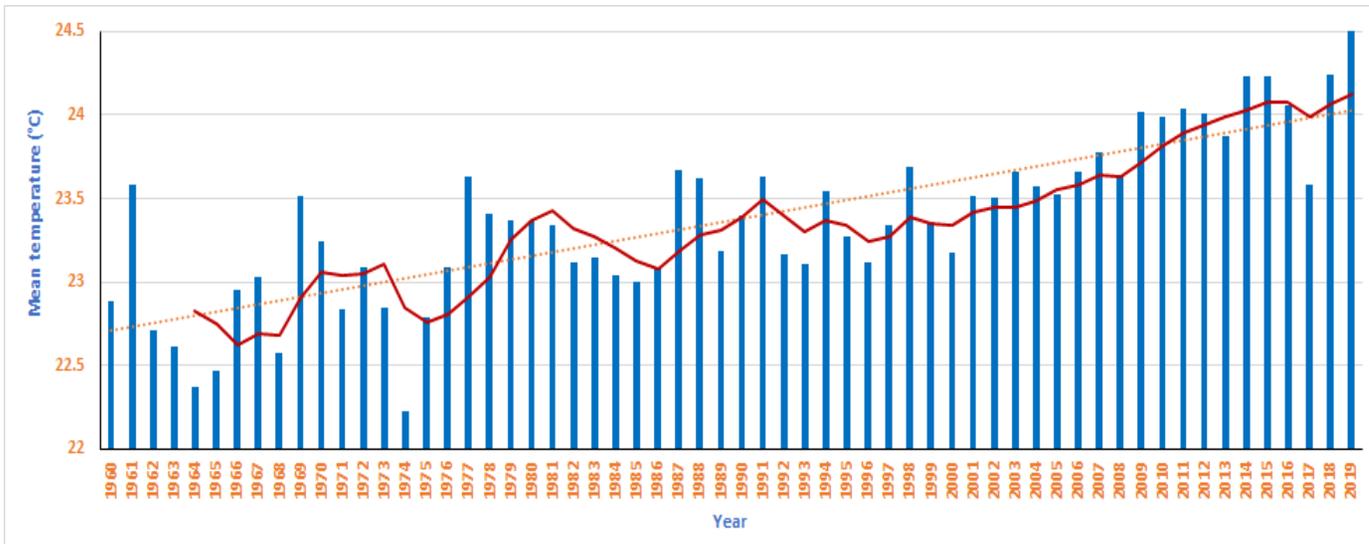


Fig. 2: Mean temperature trend over Mauritius from 1960-2019.

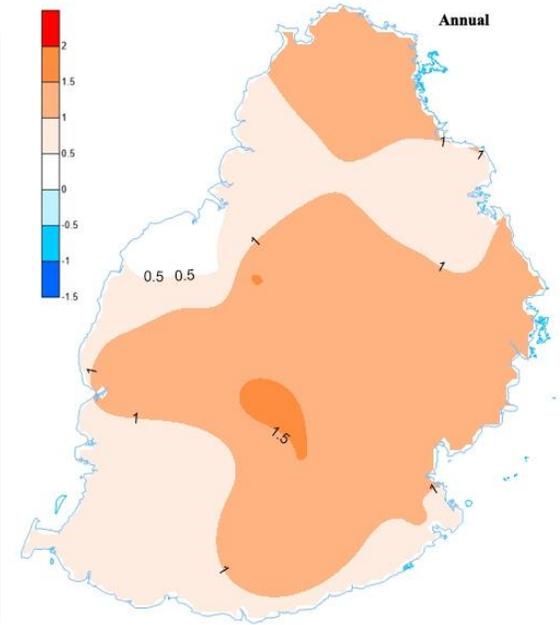
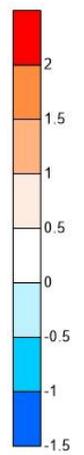
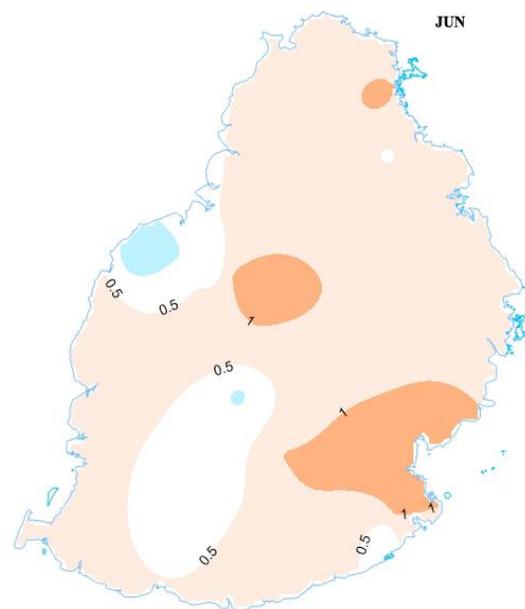
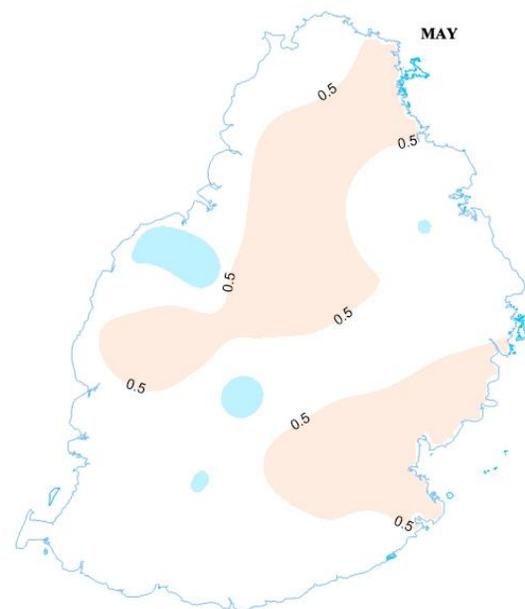
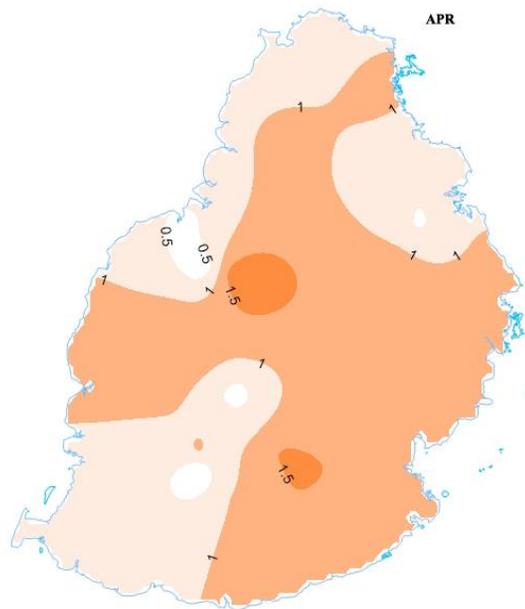
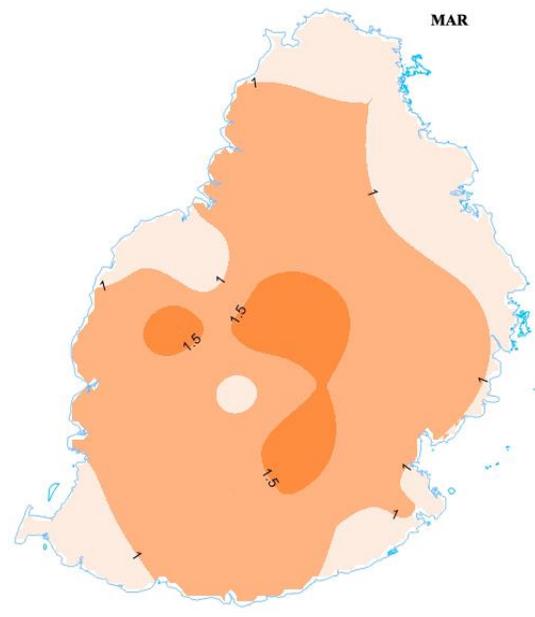
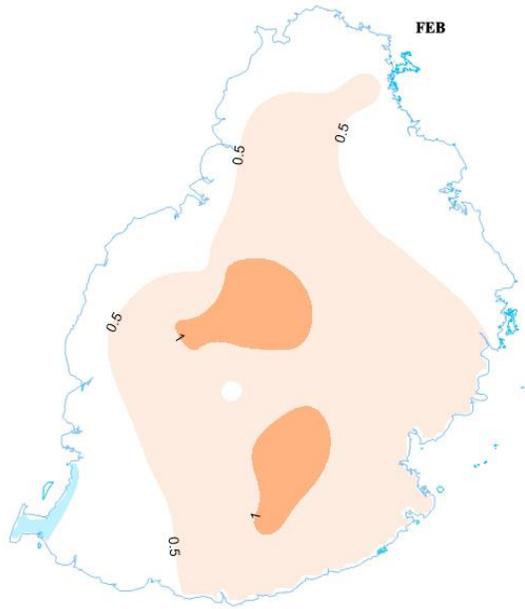
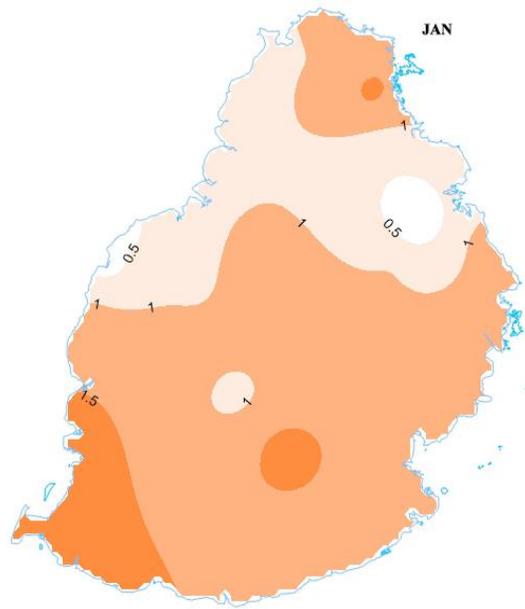


Fig. 1: Spatial mean annual temperature anomaly over Mauritius during 2019.

Mean maximum (day-time) temperature over the island was 1.0 °C above the normal and the minimum (night-time) temperature was 1.2 °C above the normal compared to the long term mean 1981-2010, another year confirming faster warming nights than days.

Most of the month experienced widespread warmer than normal mean temperatures except during the months of February, May, June and September (Fig. 3).



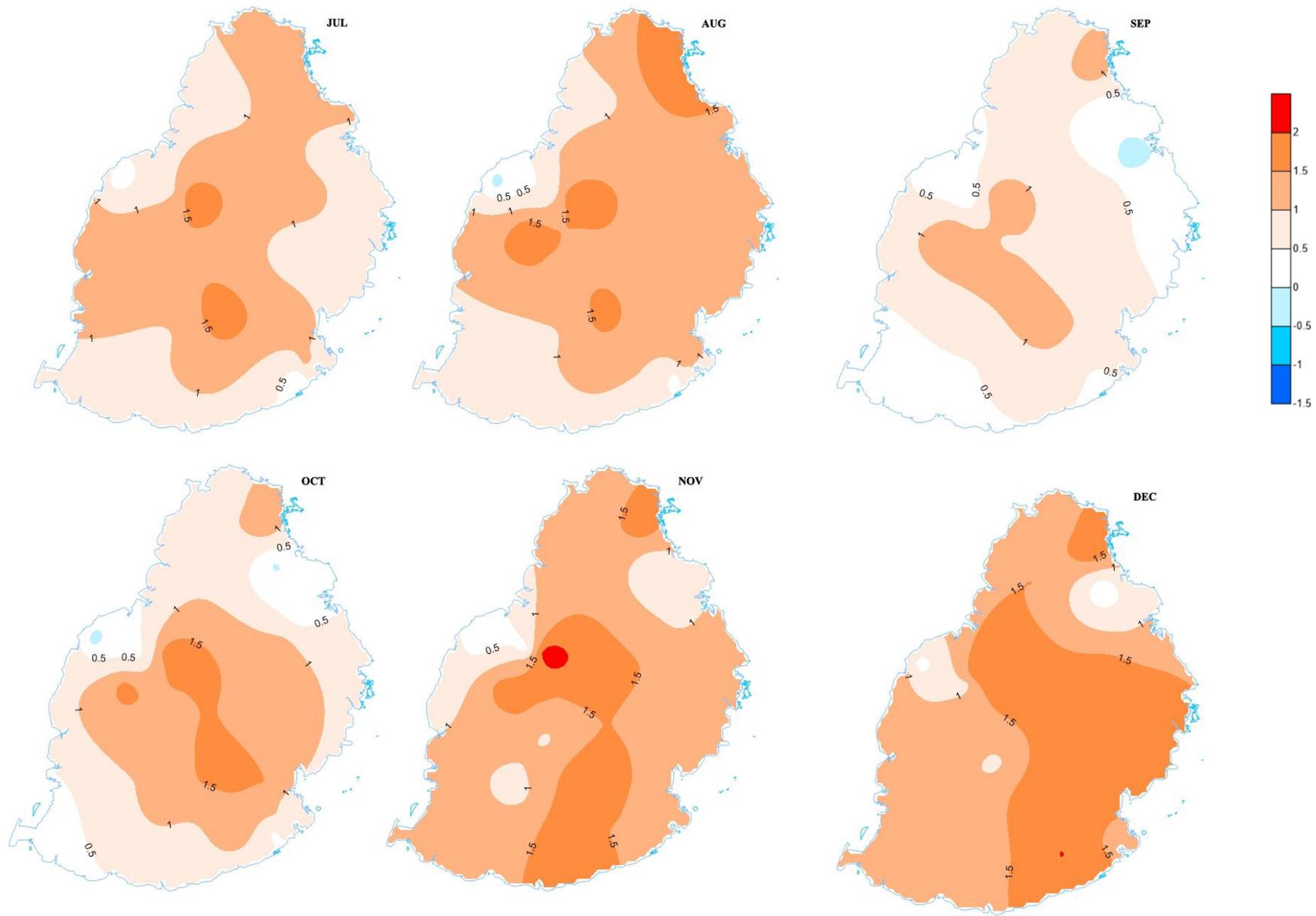
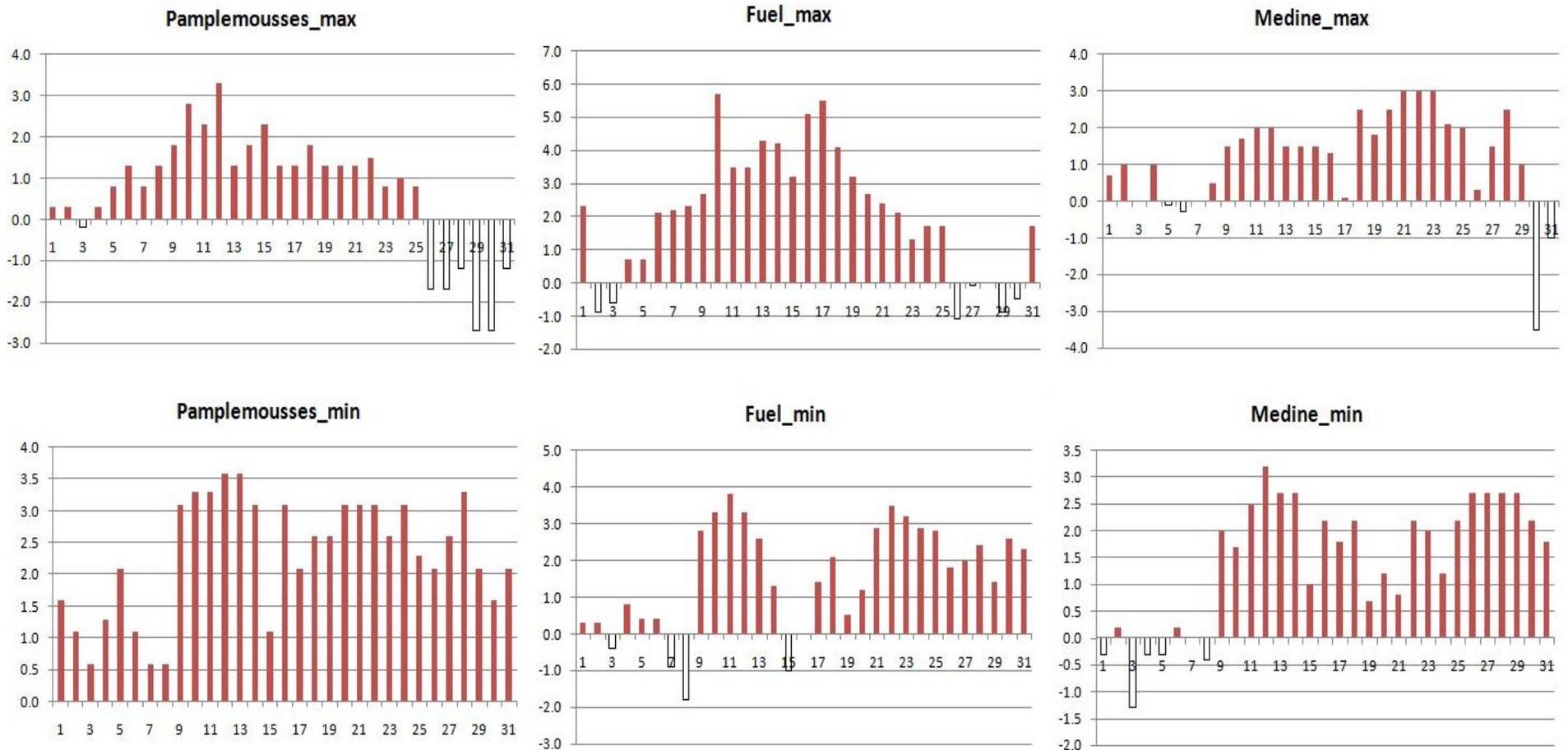


Fig.3: Monthly spatial mean temperature anomaly over Mauritius.

December 2019 was an exceptional month which concluded this warm year. It was the warmest December on record since 1960 with an average temperature over the island exceeding the LTM 1981-2010 normal by 1.5 °C. Maximum temperatures during that month reached as high as 35.5 °C on 10 December at Champ de Mars, Port Louis. The nights were also hot in December 2019 with the mean minimum temperature above normal by 1.8 °C, which is again the highest on record since 1960.

Persistent warm conditions prevailed over the whole as from the second week of the month, both during the day and at night. The temperatures in several locations, both maximum and minimum, were 2°C warmer than normal for over 10 days. Some stations experienced temperatures warmer by 3-4 °C lasting for over a week. In conjunction with the high humidity sultry conditions prevailed over the whole island indicative of a heat wave conditions notably from 09 to 20 December.



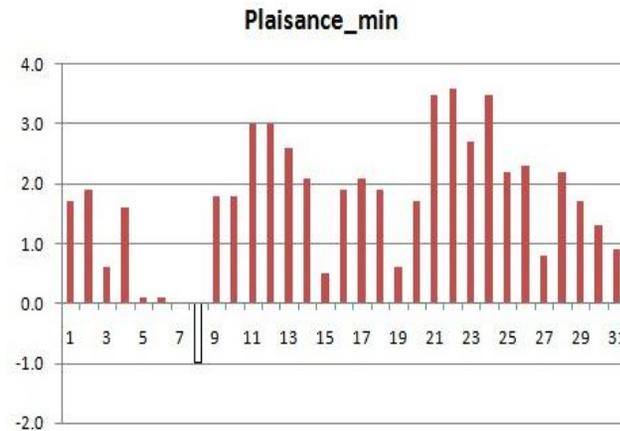
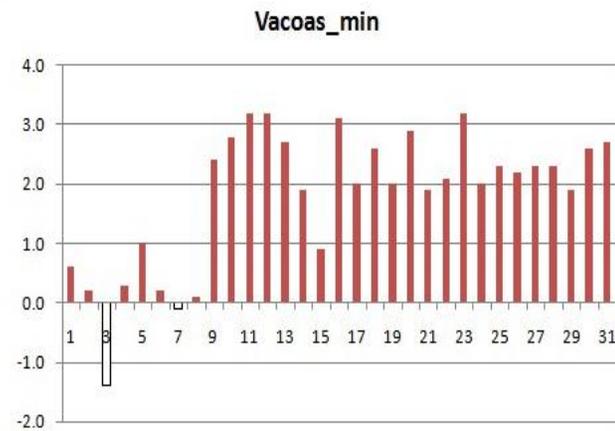
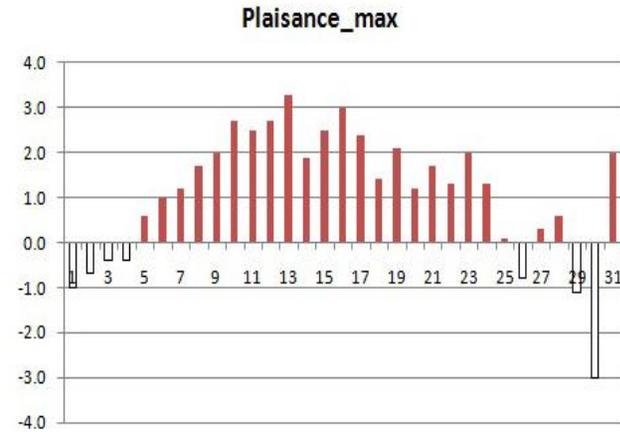
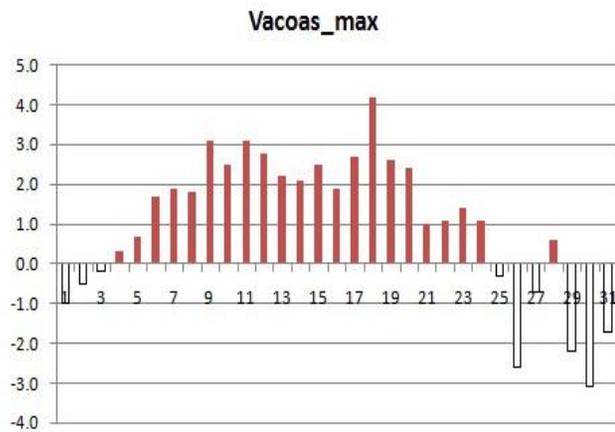


Fig. 4: Daily maximum temperature anomaly at 5 representative stations over Mauritius.

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