## Monthly Summary of Weather at Oxford for July 2019

### Mean air temperature (°C)
- **Mean**: 18.9
- **Difference from long period mean**: 2.3

### Absolute maximum air temperature (°C)
- **Highest**: 36.5 (25<sup>th</sup>)
- **Difference from long period mean**: 8.3

### Lowest maximum air temperature (°C)
- **Lowest**: 18.5 (27<sup>th</sup>)
- **Difference from long period mean**: 2.5

### Mean maximum air temperature (°C)
- **Mean**: 24.4
- **Difference from long period mean**: 2.5

### Absolute minimum air temperature (°C)
- **Lowest**: 9.1 (4<sup>th</sup>)
- **Difference from long period mean**: 1.4

### Mean minimum air temperature (°C)
- **Mean**: 13.7
- **Difference from long period mean**: 1.4

### Absolute minimum grass temperature (°C)
- **Lowest**: 5.5 (3<sup>rd</sup>)
- **Difference from long period mean**: 1.6

### Mean minimum grass temperature (°C)
- **Mean**: 11.6
- **Difference from long period mean**: 1.6

### Absolute minimum concrete temperature (°C)
- **Lowest**: 72.0
- **Difference from long period mean**: 1.6

### Mean minimum concrete temperature (°C)
- **Mean**: 72.0
- **Difference from long period mean**: 1.6

### Mean soil temperature at 30 cm (°C)
- **Mean**: 20.0
- **Difference from long period mean**: 1.6

### Mean soil temperature at 100 cm (°C)
- **Mean**: 17.8

### Highest daily rainfall (mm)
- **Highest**: 14.7 (19<sup>th</sup>)

### Total rainfall (mm)
- **Total**: 42.9
- **Difference from long period mean**: -16.5

### Total bright sunshine (hours)
- **Total**: 221.1
- **Difference from long period mean**: 26.6

### Mean daily bright sunshine (hours)
- **Mean**: 7.2

### Mean wind speed (knots)
- **Mean**: 4.8
- **Difference from long period mean**: -3.1

### No. of rain days (0.2 mm or more rainfall)
- **Total**: 8.0
- **Difference from long period mean**: -4.5

### No. of wet days (1.0 mm or more rainfall)
- **Total**: 5.0

### No. of days with minimum temperature less than 0°C
- **Total**: 0.0

### No. of days with ground temperature less than 0°C
- **Total**: 0.0

### No. of days with fog at 0900 GMT
- **Total**: 0.0

### No. of days with snow lying at 0900 GMT
- **Total**: 0.0

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**Bold** denotes anomalies in excess of one standard deviation above/below the long-term mean for July.

**Bold underlines** denote anomalies in excess of two standard deviations above/below the long-term mean for July.

### Notes

The main story of July 2019 was a maximum temperature of 36.5 on the 25<sup>th</sup>, which is the highest temperature reading in over 200 years of daily observations at the RMS. Occurring during a brief but intense heat wave, this event received considerable media interest and data from the station was used in a rapid attribution study available from [https://www.worldweatherattribution.org/](https://www.worldweatherattribution.org/). Although the heat was not as persistent as July 2018 (11 days over 25 degrees, compared with 26 days last July), mean, maximum and minimum air temperatures all exceeded long-term means. High temperatures did not translate to an anomalously sunny month, nor did rain totals fall far short of the average for July. Please note that concrete minimum temperatures have been excluded from this analysis due to a high incidence of missing values (bubbles in the thermometer alcohol).

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**Radcliffe Meteorological Observer**