



Oct 2019 Ireland

Cool and sunny, wet in the South

The first week of October was mostly unsettled with a series of low-pressure systems moving across the country from the southwest bringing bands of rain or showers, interspersed with dry interludes. One such system, Storm Lorenzo (an ex-hurricane), brought the windiest spell of the month on the 3rd and 4th. The second week continued unsettled with low pressure to the northwest feeding in further bands of rain or showers, interspersed with some pleasant late autumn sunshine in a strong westerly airflow. The winds slackened towards the end of the second week, where slow moving weather fronts, culminated in widespread heavy and prolonged falls of rain on the 13th and 14th. The mixed theme continued for the second half of the month. Low-pressure systems and their associated weather fronts dominated up to the 19th, and again between the 23rd and 26th. Two dry settled periods between the 20th and 22nd and again between the 27th and 29th, where high pressure moved close to or over the country, brought plenty of late autumn sunshine, and some frost at night in places. The final few days of the month saw weather fronts encroaching from the south with more rain.

Rainfall: Wettest in the South

The majority of monthly rainfall totals across the country were below their Long-Term Average (LTA). Percentage of monthly rainfall values ranged from 68% (monthly rainfall total of 91.8 mm) at Markree, Co Sligo to 176% (monthly rainfall total of 191.2 mm) at Roche's Point, Co Cork. Monthly rainfall totals ranged from 73.2 mm (92% of its LTA) at Dublin (Phoenix Park) to 202.4 mm (114% of its LTA) at Valentia Observatory, Co Kerry (*its wettest October since 2009*). The highest daily rainfall total was 56.2 mm at Moore Park, Co Cork on the 14th. The number of rain days ranged from 20 days at Mount Dillon, Co Roscommon to 26 days at both Newport, Co Mayo and Belmullet, Co Mayo. The number of wet days¹ ranged from 13 days at Mount Dillon, Co Roscommon to 24 days at Newport, Co Mayo. The number of very wet days³ ranged from 1 day at a few stations to 8 days at Newport, Co Mayo.

Temperature: Below average everywhere

All mean air temperatures across the country were below their Long-Term Average for the month. Deviations from mean air temperature for the month ranged from -1.4 °C (8.7 °C mean temperature) at Ballyhaise, Co Cavan to -0.3 °C (11.1 °C mean temperature) at Roche's Point, Co Cork. Mean temperatures for the month ranged from 8.4 °C (0.5 °C below its LTA) at Knock Airport, Co Mayo to 11.6 °C (0.4 °C below its LTA) at Sherkin Island, Co Cork. The month's lowest temperatures were recorded on the 28th with the lowest air minimum reported at Markree, Co Sligo with a temperature of -3.4 °C (*its lowest minimum for October since 1993*) and the lowest grass minimum reported at Mount Dillon, Co Roscommon with -8.3 °C. The highest maximum was reported on the 7th at Oak Park, Co Carlow with a temperature of 17.7 °C. More than half of stations reported ground frost. The number of days with ground frost ranged from zero days at Malin Head, Co Donegal to 16 days at Mount Dillon, Co Roscommon. More than half of stations reported air frost. The number of days with air frost ranged from zero days at a few stations to 7 days at Mount Dillon, Co Roscommon.

Sunshine: All stations had above average sunshine

All available sunshine totals were above their Long-Term Average (LTA). Percentage of monthly sunshine values ranged from 108% (monthly sunshine total of 109.5 hours) at Casement Aerodrome, Co Dublin to 130% (the month's highest monthly sunshine total of 123.2 hours) at Cork Airport. Monthly sunshine totals were lowest at Malin Head*, Co Donegal with 92.4 hours (No LTA comparison*). The highest number of daily sunshine hours recorded this month was 9.3 hours at Cork Airport on the 21st. The number of dull days² ranged from 4 days at Belmullet, Co Mayo to 10 days at Shannon Airport, Co Clare.

Wind: Storm force winds reported

Monthly mean wind speeds ranged from 5.7 knots (10.6 km/h) at Mullingar, Co Westmeath to 16.3 knots (30.2 km/h) at Malin Head, Co Donegal. Gales were reported on the 7th and 8th. Strong gales were reported on the 3rd and storm force winds were reported on the 4th during Storm Lorenzo. The number of days with gales ranged from zero days at Dublin (Phoenix Park) to 3 days at both Mace Head, Co Galway and Malin Head, Co Donegal. The number of days with strong gales ranged from zero days at a few stations to 2 days at Mace Head, Co Galway. The number of days with storm force winds was 1 day at Mace Head, Co Galway. Both the month's highest gust and 10-minute mean wind speed were reported at Mace Head, Co Galway. The highest gust was on both the 3rd and 4th with 58 knots (107 km/h) while the month's highest 10-minute mean wind speed was 48 knots (89 km/h) on the 4th.

EXTREME VALUES AT SYNOPTIC STATIONS

Rainfall

Highest total: 202.4 mm (114% of its LTA) at Valentia Observatory, Co Kerry (*its wettest October since 2009*)
Lowest total: 73.2 mm (92% of its LTA) at Dublin (Phoenix Park)
Highest daily rainfall: 56.2 mm at Moore Park, Co Cork on the 14th (50% of its monthly LTA)

Temperature

Highest mean monthly temperature: 11.6°C at Sherkin Island, Co Cork (0.4°C below its LTA)
Lowest mean monthly temperature: 8.4°C at Knock Airport, Co Mayo (0.5°C below its LTA)
Highest Air temperature: 17.7°C at Oak Park, Co Carlow on the 7th
Lowest air temperature: -3.4°C at Markree, Co Sligo on the 28th (*its lowest minimum for October since 1993*)
Lowest grass minimum: -8.3°C at Mount Dillon, Co Roscommon on the 28th

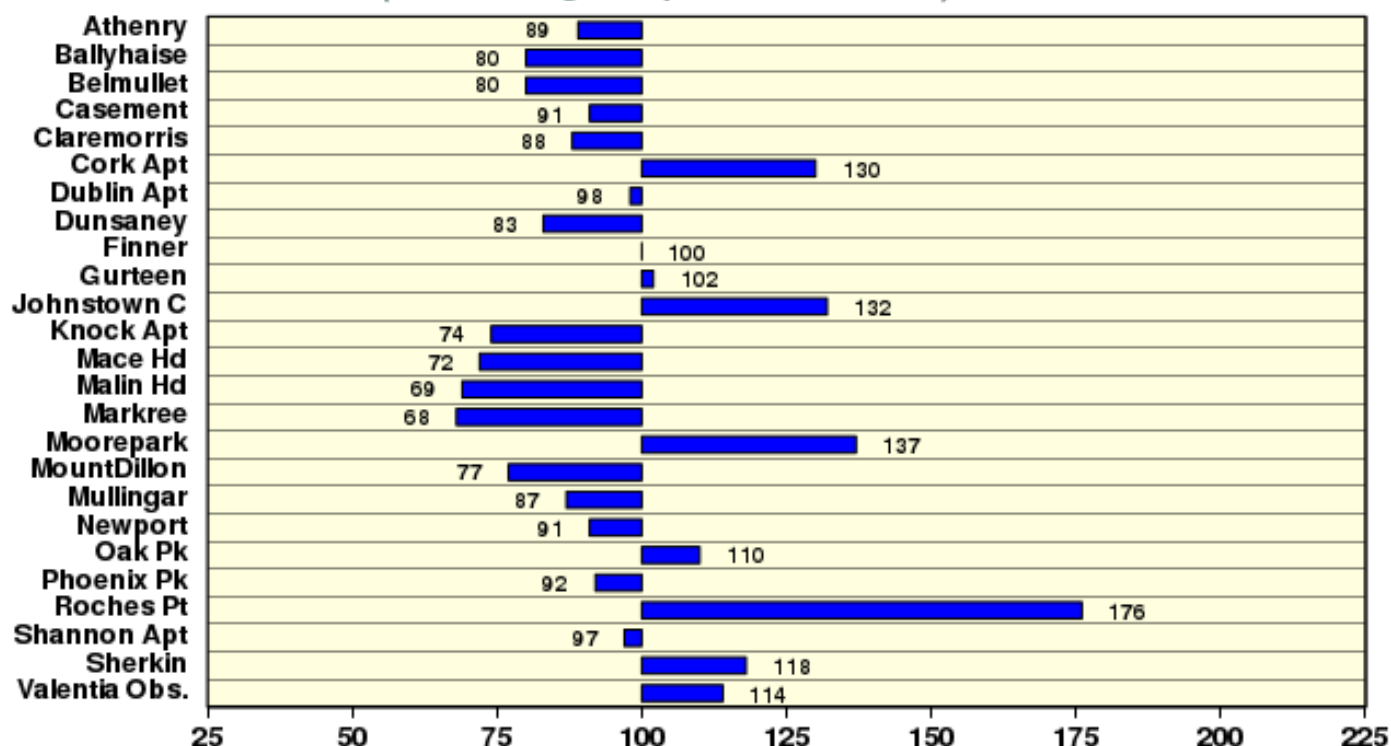
Sunshine

Highest monthly total: 123.2 hrs (daily mean 3.97 hrs/day) at Cork Airport, Co Cork
Lowest monthly total: 92.4 hrs (daily mean 2.98 hrs/day) at Malin Head, Co Donegal
Highest daily sunshine: 9.3 hrs at Cork Airport, Co Cork on the 21st

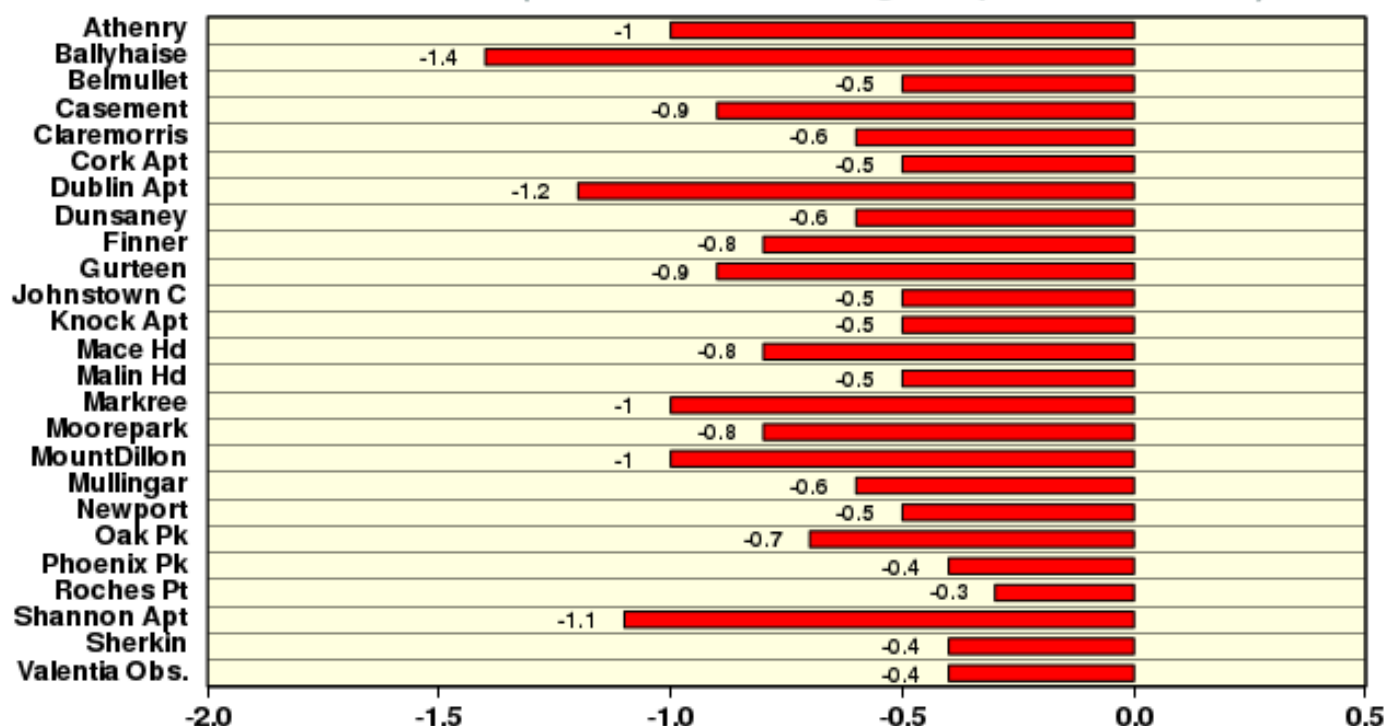
October 2019

Based on Data from 1-31 October 2019 on whole month basis

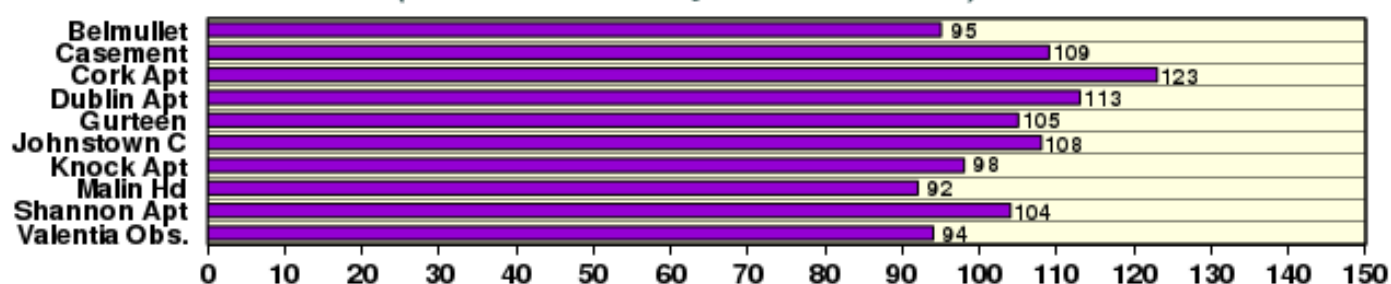
Rainfall (% of average for period 1981-2010) on whole month basis



Temperature (°C) (difference from average for period 1981-2010)



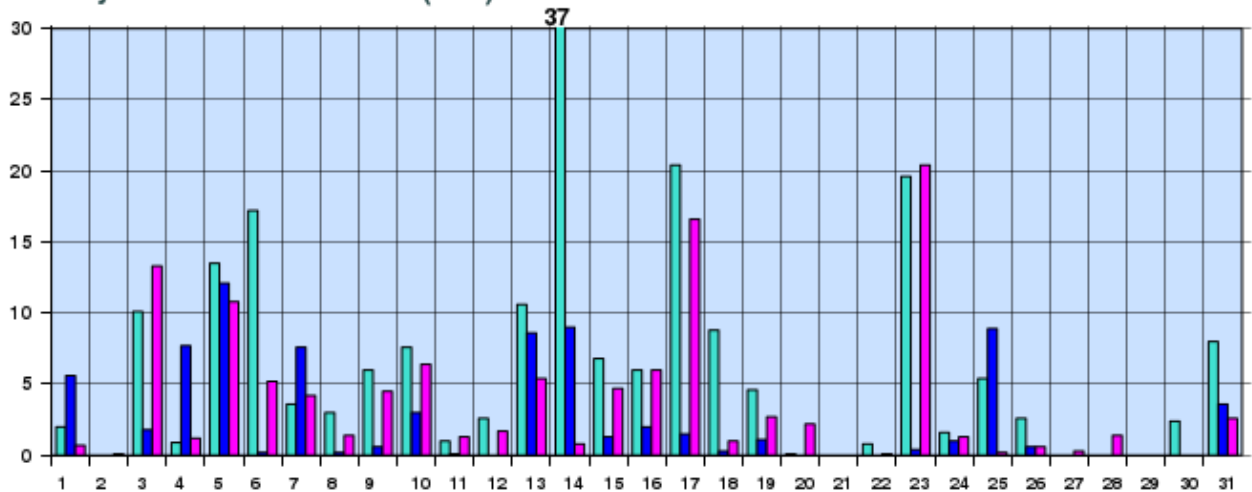
Sunshine (Number of monthly sunshine hours)



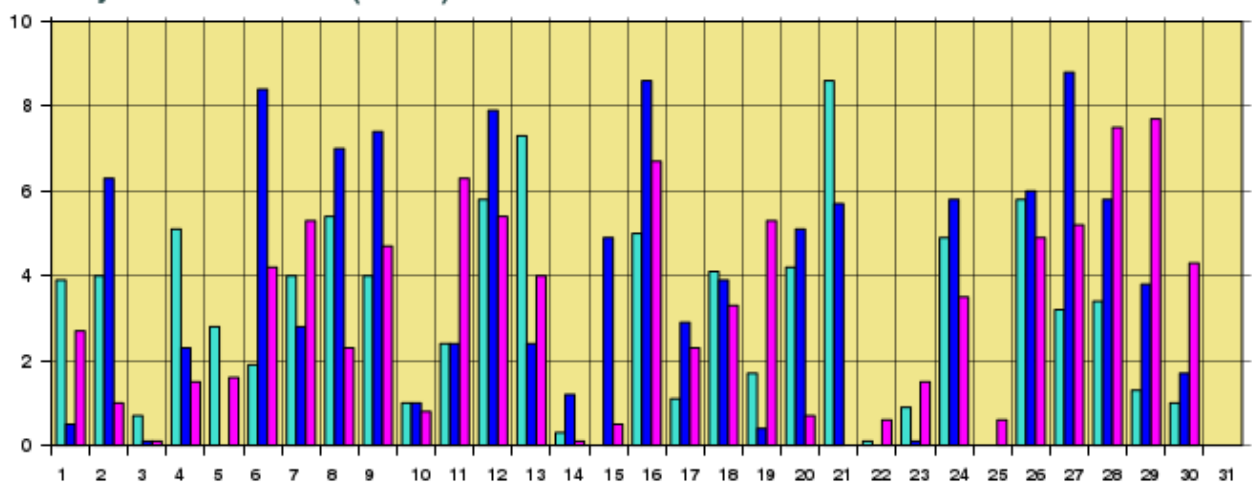
October 2019 Daily Values at selected synoptic stations

Based on data from 1- 31 October 2019 on a pro rata basis

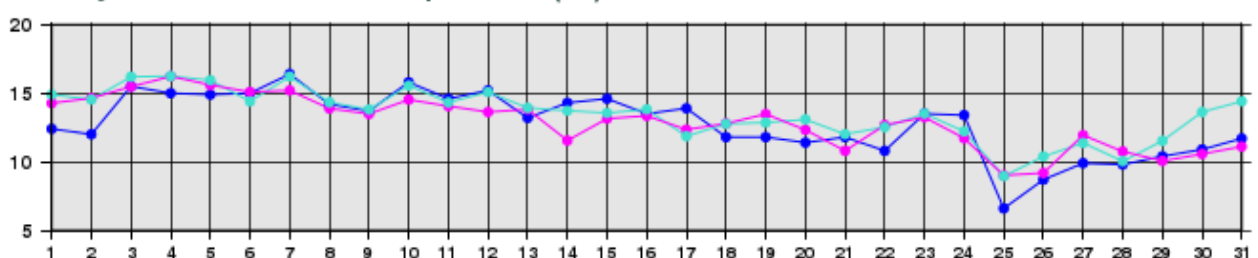
Daily 00-24h rainfall values(mm)



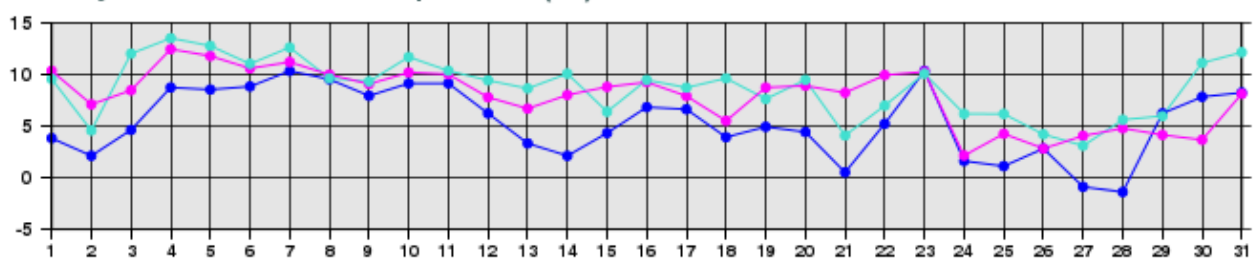
Daily sunshine values(hours)



Daily 00-24h maximum temperature (°C)



Daily 00-24h minimum temperature (°C)



- Valentia Observatory - Dublin Airport - Belmullet

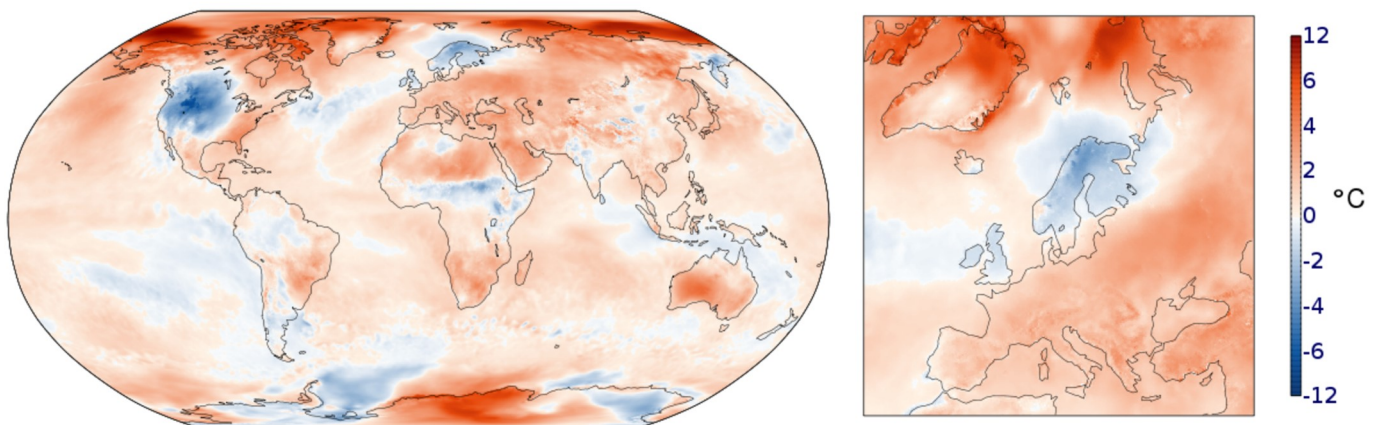
Issued by the Climatology and Observations Division of Met Éireann on Monday November 4th 2019. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. 'Dry spell' is a period of 15 or more consecutive days to none of which is credited 1.0 mm or more of precipitation (i.e. daily tot < 1.0 mm). ¹A wet day is a day with 1.0 mm or more of rainfall. ²A dull day is a day with less than 0.5 hours of sunshine. ³A very wet day is a day with 10.0 mm or more of rainfall. *Sunshine data is from the Autosol Network. LTAs for these sites are currently not used for comparison purposes. For more information, contact Met Éireann at 01-8064200 or e-mail: enq@met.ie

Oct 2019 Global

Surface air temperature: Warmest October on record

Globally, October was 0.69°C warmer than the average October from 1981-2010, making it by a narrow margin the warmest October in this data record. Europe generally saw above-average temperatures, with the exception of most of the north and north-west of the continent. Temperatures were much above average in large parts of the Arctic, while much of western USA and Canada experienced much below average temperatures.

Surface air temperature anomaly for October 2019 relative to 1981-2010

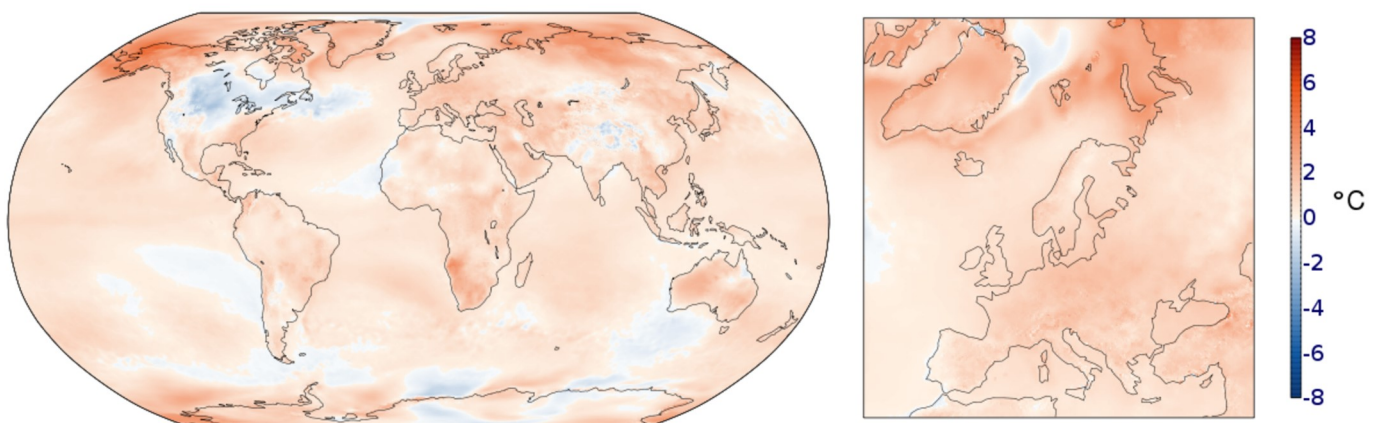


Surface air temperature anomaly for October 2019 relative to the October average for the period 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <https://climate.copernicus.eu/surface-air-temperature-october-2019>

Temperature: The last 12 months - November 2018 to October 2019

Temperatures were above average over virtually all of Europe. Above average over most other areas of land and ocean, especially so over north-eastern China, the Middle East, south-east Asia, Australia, southern Africa and some parts of the Antarctic. Below average over some land and oceanic areas, most notably over the North American prairies.

Surface air temperature anomaly for November 2018 to October 2019 relative to 1981-2010



Surface air temperature anomaly for November 2018 to October 2019 relative to the average for 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <https://climate.copernicus.eu/surface-air-temperature-october-2019>