



# Summer 2023

## (June, July & August)

### Hot June, wet July, stormy August

Summer 2023 saw the [warmest June](#) on record on land and at sea, the [wettest July](#) on record with 17 stations having over 200% of their Long-Term Average (LTA) monthly rainfall and finished with two named [storms in August](#) that downed trees and caused flash and coastal flooding. The season began very dry with widespread climatological dry periods up to mid-June, before breaking down with eight consecutive days of intense thunderstorm activity. Atlantic westerlies took hold towards the end of June. July saw Atlantic low pressure systems dominating in a mostly westerly or cyclonic airflow. Ireland lay on the cooler northern side of the North Atlantic jet stream for most of the month, which was relatively strong for the time of year. Numerous active weather fronts crossed the country along with periods of intense, sometimes thundery, convective rainfall. August was again dominated by Atlantic low pressure systems. Two named storms, storm Antoni at the beginning of the month, named by the UK Met Office and storm Betty just after mid-month, named by Met Éireann, were the significant weather events of the month. They brought spells of very heavy rain and strong winds causing coastal and flash flooding and brought down numerous trees in the East of the country.

#### Rainfall: Above average everywhere, wettest in July, driest in June

All rainfall totals were above their 1981-2010 Long-Term Average (LTA) for the season. Percentage of seasonal rainfall values ranged from 114% (seasonal rainfall total of 260.7 mm) at Johnstown Castle, Co Wexford to 170% (seasonal rainfall total of 401.6 mm) at Mount Dillon, Co Roscommon. Seasonal rainfall totals ranged from 252.9 mm (132% of its LTA) at Oak Park, Co Carlow to 471.9 mm (153% of its LTA) at Valentia Observatory, Co Kerry. The season's wettest day was also recorded at Valentia Observatory, Co Kerry with 74.0 mm on Friday 18th August (*its highest daily fall in summer since 1986*). The number of rain days ranged from 52 days at Roche's Point, Co Cork to 75 days at both Markree, Co Sligo and Knock Airport, Co Mayo. The number of wet days<sup>1</sup> ranged from 34 days at Johnstown Castle, Co Wexford to 64 days at Athenry, Co Galway. The number of very wet days<sup>3</sup> ranged from 7 days at a few stations to 17 days at Knock Airport, Co Mayo. Dublin Airport, Co Dublin had its wettest summer since 2008 with 318.0 mm (162% of its LTA) and Knock Airport, Co Mayo had its wettest summer since 2012 with 435.2 mm (147% of its LTA). 24 stations had absolute droughts<sup>4</sup> between Monday 15th May and Sunday 11th June lasting between 17 and 26 days, longest in the South and East. Malin Head, Co Donegal had a dry spell<sup>6</sup> between May 21st and June 16th lasting 27 days. Seven stations had partial droughts<sup>5</sup> between Thursday 11th May and Friday 16th June lasting between 29 and 36 days, longest in the South and East.

#### Temperature: Above average everywhere, warmest in the Northwest

All mean air temperatures across the country were above their LTA for the season. Deviations from mean air temperature for the season ranged from 0.5 °C (15.5 °C mean temperature) at Sherkin Island, Co Cork to 1.5 °C (15.8 °C mean temperature) at Belmullet, Co Mayo. Mean temperatures for the season ranged from 14.6 °C (1.3 °C above its LTA) at Knock Airport, Co Mayo (*its warmest summer on record, length 26 years*) to 16.5 °C (0.9 °C above its LTA) at Shannon Airport, Co Clare. The season's highest temperature was reported at Oak Park, Co Carlow on Tuesday 13th June with a temperature of 28.8 °C. Both the season's lowest air and grass minimum temperatures were recorded on Saturday 3rd June at Mount Dillon, Co Roscommon. The lowest air minimum was 2.1 °C while the lowest grass minimum was -3.2 °C. There was no air frost reported this season. Less than half of stations reported ground frost. The number of days with ground frost ranged from zero days at most stations to 6 days at Mount Dillon, Co Roscommon. Along with Knock Airport, Malin Head, Co Donegal also had its warmest summer on record with a mean temperature of 15.1 °C (1.3 °C above its LTA) (*record length 69 years*). Athenry, Co Galway had its warmest summer since 1983 with a mean temperature of 15.7 °C (0.8 °C above its LTA) and both Valentia Observatory, Co Kerry 15.9 °C (1.1 °C above its LTA) and Claremorris, Co Mayo 15.4 °C (1.2 °C above its LTA) had their warmest summer since 1995. Three stations had their highest minimum temperature for summer on record and 14 stations had their highest mean minimum temperature for summer on record.

#### Sunshine: Above average, sunniest in the North

All available sunshine totals were above their LTA for the season. Percentage of seasonal sunshine values ranged from 112% (seasonal sunshine total of 518.7 hours) at Casement Aerodrome, Co Dublin to 113% (seasonal sunshine total of 495.2 hours) at Shannon Airport, Co Clare. Seasonal sunshine totals ranged from 410.5 hours (No LTA comparison\*) at Valentia Observatory, Co Kerry to 527.8 hours (No LTA comparison\*) at Malin Head, Co Donegal. The highest number of daily sunshine hours recorded this season was 16.0 hours at Malin Head, Co Donegal on Friday 9th and Thursday 15th June. The number of dull days<sup>2</sup> ranged from 4 days at Casement Aerodrome, Co Dublin to 18 days at Valentia Observatory, Co Kerry.

#### Wind: Strong gales reported in August during storm Antoni and gales during storm Betty

Seasonal mean wind speeds ranged from 5.3 knots (9.8 km/h) at Ballyhaise, Co Cavan to 13.7 knots (25.4 km/h) at Mace Head, Co Galway. Gales were reported on Saturday 8th July. Gales were reported on Friday 18th and Saturday 19th during storm Betty with up to strong gale winds reported on Saturday 5th during storm Antoni. The number of days with gales ranged from zero days at most stations to 2 days at Malin Head, Co Donegal. The number of days with up to strong gales ranged from zero at most stations to 1 day at Roche's Point, Co Cork. Both the season's highest gust and 10-minute mean wind speed was reported at Roche's Point, Co Cork on Saturday 5th August during storm Antoni. The highest gust was 55 knots (102 km/h) while the season's highest 10-minute mean wind speed was 43 knots (80 km/h). During storm Betty, Dunsany, Co Meath had its highest gust for August on record with 40 knots (74 km/h) late on Friday 18th (record length 17 years) and Dublin Airport, Co Dublin had its highest gust for August since 1988 with 47 knots (87 km/h) early on Saturday 19th.

### EXTREME VALUES FOR SUMMER AT SYNOPTIC STATIONS

#### Rainfall

Highest seasonal total: 471.9 mm at Valentia Observatory, Co Kerry (153% of its LTA)  
Lowest seasonal total: 252.9 mm at Oak Park, Co Carlow (132% of its LTA)  
Highest daily rainfall: : 74.0 mm at Valentia Observatory, Co Kerry (64% of its monthly LTA) on Fri 18th Aug (*its highest daily fall in summer since 1986*)

#### Temperature

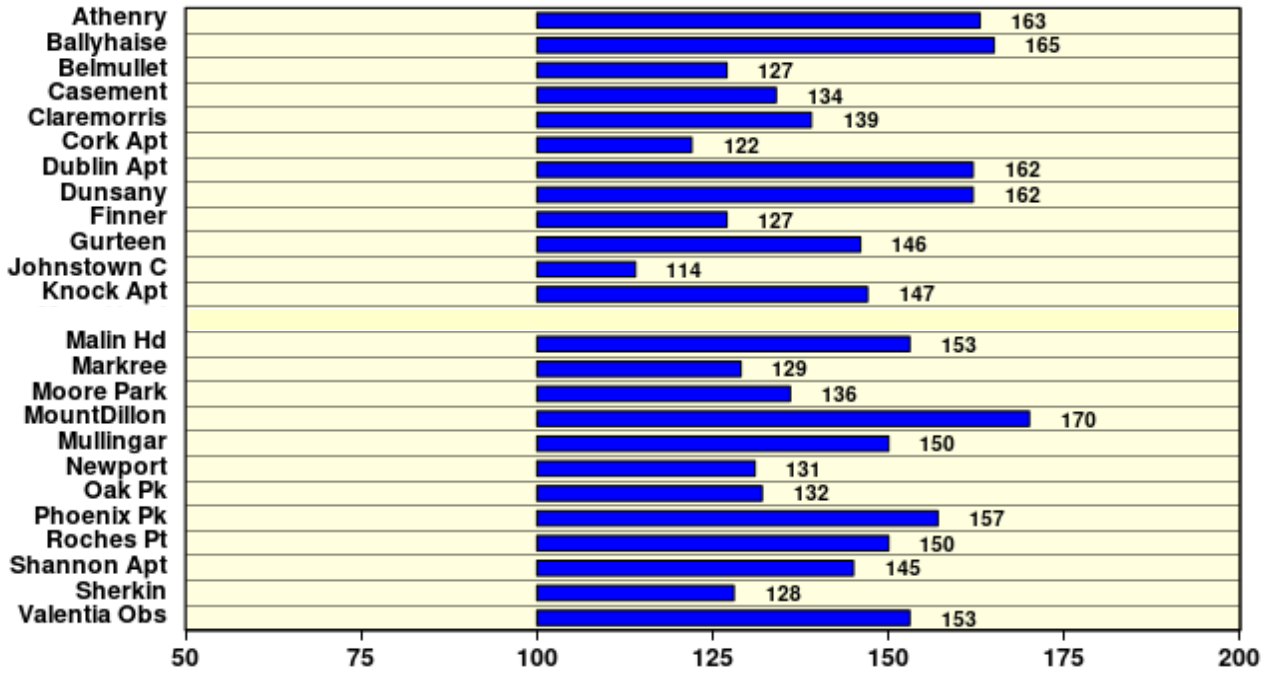
Highest mean seasonal temperature: 16.5°C at Shannon Airport, Co Clare (0.9°C above its LTA)  
Lowest mean seasonal temperature: 14.6°C at Knock Airport, Co Mayo (1.3 above its LTA) (*its warmest summer on record, length 26 years*)  
Highest air temperature for the season: 28.8°C at Oak Park, Co Carlow (10.5°C above its monthly LTA) on Tue 13th Jun  
Lowest air temperature for the season: 2.1°C at Mount Dillon, Co Roscommon (6.8°C below its monthly LTA) on Sat 3rd Jun  
Lowest grass minimum for the season: -3.2°C at Mount Dillon, Co Roscommon on Sat 3rd Jun

#### Sunshine

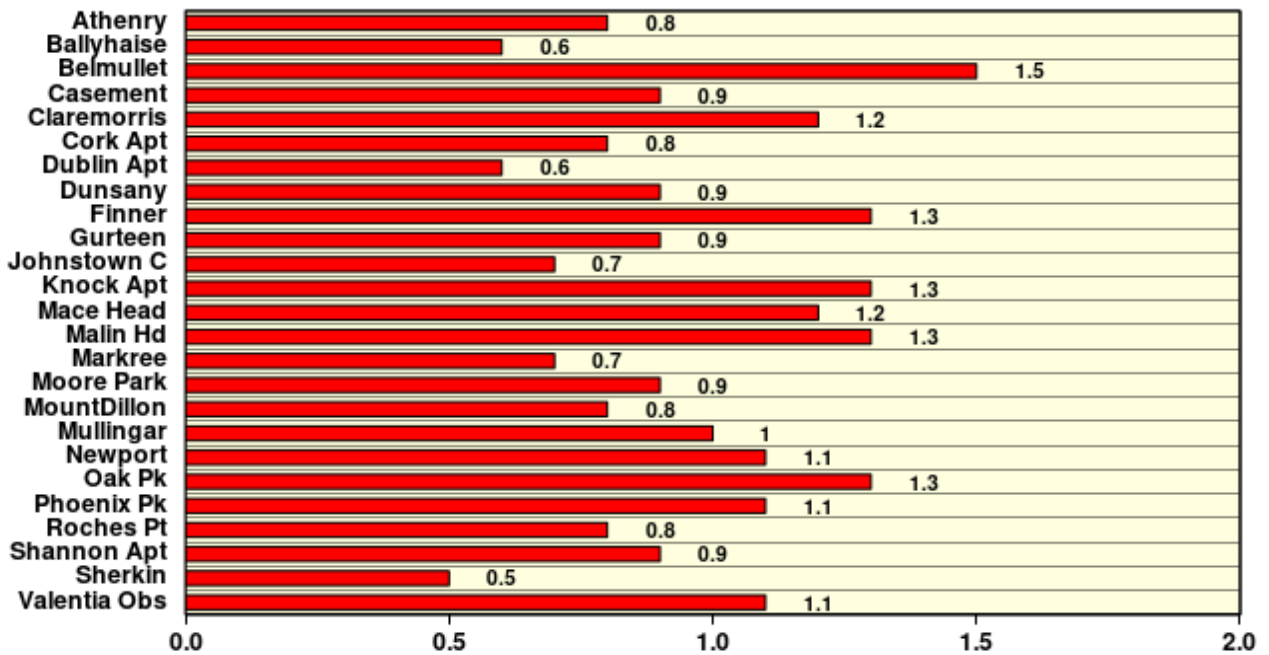
Highest seasonal total: 527.8 hrs (daily mean 5.74 hrs/day) at Malin Head, Co Donegal  
Lowest seasonal total: 419.4 hrs (daily mean 4.56 hrs/day) at Gurteen, Co Tipperary  
Highest daily sunshine for the season: 16.0 hours at Malin Head, Co Donegal on Fri 9th and Thu 15th Jun

Summer 2023

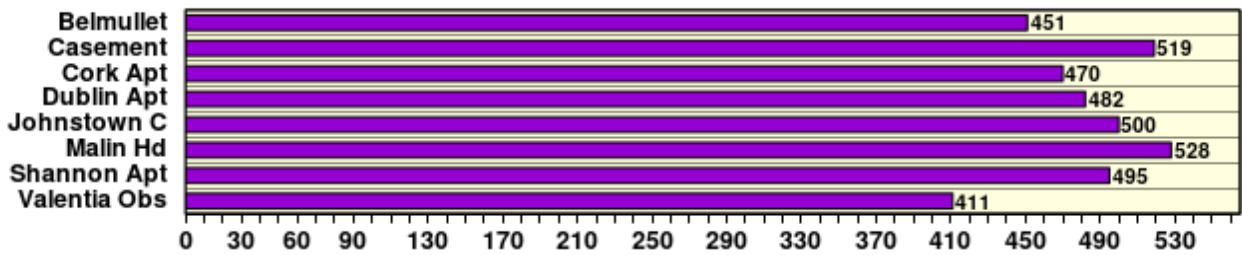
**Rainfall** (*% of average for period 1981-2010*) on whole season basis



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



**Sunshine** (*Number of seasonal sunshine hours*)



Issued by the Climatology and Observations Division of Met Éireann on Tuesday 5th September 2023. 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. 1 A wet day is a day with 1.0 mm or more of rainfall. 2 A dull day is a day with less than 0.5 hours of sunshine. 3 A very wet day is a day with 10.0 mm or more of rainfall. 4 An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. 5 A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. 6 A 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). 7 A heatwave occurs where there are 5 consecutive days or more with maximum temperature over 25°C (that is, a daily maximum screen air temperature > 25°C). \*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