CONSECUTIVE DRY DAYS (CDD)

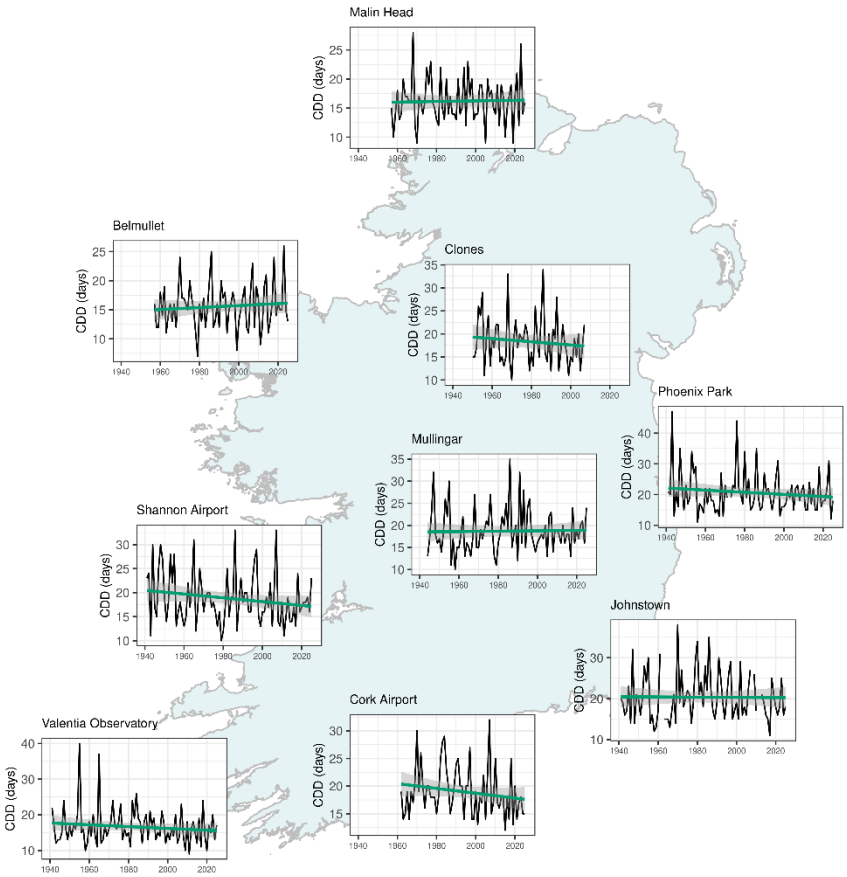
KEY MESSAGE

- There is a lack of a clear trend in the number of consecutive dry days at Irish weather stations.

DEFINITION

- Daily precipitation (R), based on 09UTC - 09UTC observations, are used to calculate this index.
- The **CDD** index is the largest number of consecutive "dry days" (where R < 1mm) during the period of interest (year, season or month).

TRENDS



- There is a lack of significant trends in the **CDD** index at Met Éireann's synoptic weather stations, see figure above and table below.

- This is in agreement with global trends for this index, (Dunn, et al. 2020), and also from local research into data rescue and homogenisation at Met Éireann, (Ryan, et al. 2022).
- The largest value for **CDD** occurred at Oak Park (Carlow) between the 12th of August 1972 and 29th of September in 1972, a period of 49 consecutive days with less than 1mm of rainfall recorded on each day.

Table 1: Mean number of CDD during thirty-year periods at 8 stations.

Station	1961-1990	1991-2020
Belmullet	15.4	15.7
Cork Airport	19.9	18.6
Johnstown	21.5	20.3
Malin Head	16.2	16.3
Mullingar	18.6	18.8
Phoenix Park	20.9	19.5
Shannon Airport	18.6	18.0
Valentia Observatory	17.4	15.6

DATA ACCESS

Data for this index can be downloaded through the webpage below (or the QR code in the header):

- https://www.met.ie/climate/climate-change-indices-etccdi/

For further information contact Met Éireann Climate Enquiries: enquiries@met.ie

REFERENCES

Dunn, Robert JH, Lisa V Alexander, Markus G Donat, Xuebin Zhang, Margot Bador, Nicholas Herold, Tanya and Allan, Rob Lippmann, Enric Aguilar, Abdoul Aziz Barry, and others. 2020. "Development of an updated global land in situ-based data set of temperature and precipitation extremes: HadEX3." *Journal of Geophysical Research: Atmospheres* e2019JD032263. doi:https://doi.org/10.1029/2019JD032263.

Ryan, Ciara, Mary Curley, Séamus Walsh, and Conor Murphy. 2022. "Long-term trends in extreme precipitation indices in Ireland." *International Journal of Climatology* (Wiley Online Library) 42 (7): 4040-4061. doi:10.1002/joc.7475.