

Monthly precipitation dataset

Period of record

Monthly, annual and seasonal precipitation totals are available from January 1868 to date; estimates have been made to cover minor periods of missing data. Earlier records (back to 1843) exist for the site, but have been found to be less reliable and consequently have not been used. A variety of raingauge types, heights and exposures have been used over the years, but over this period of record all have been exposed on or close to the lawn area in front of the observatory building. Full details of the gauges used and their exposures, as far as they are known, are set out in Appendix 4 in *Durham Weather and Climate since 1841*. Since October 1999 the record has been from a 0.2 mm tipping bucket raingauge, logged hourly by the automatic weather station in the same location.

Units

All values are in millimetres, to a precision of one decimal place. Records were originally noted in inches until June 1915, and between January 1960 and December 1970, and these have been converted to millimetres to a precision of one decimal place during dataset preparation. Where manual records were made, ‘trace’ entries have been set to zero for the purpose of daily and monthly totals.

Content

Monthly precipitation totals are the sum of daily values available within the month. There are occasional estimates where there are known errors or minor gaps in the record; full details are given in Appendix 4 in *Durham Weather and Climate since 1841*. Seasonal totals are the sum of all daily values within each three-month period, where winter consists of December, January and February (DJF, dated by the January year), spring is March, April and May (MAM), and so forth. Calendar year totals represent the sum of all daily precipitation totals within 12 months January to December.

Note that these records of monthly precipitation may differ slightly from previously published data, owing to the inclusion of minor corrections from time-to-time. Full details on the source and derivation of the records, raingauge exposures, times of observations etc are given in *Durham Weather and Climate since 1841*.

Record format

Excel (xlsx) record format: monthly precipitation totals in millimetres are set out for each month, season and calendar year, starting in 1868. Missing data are shown blank (empty cells).

If you use this dataset in any publication or published work, please include the following citation:

Burt, Stephen and Burt, Tim, 2022. *Durham Weather and Climate since 1841*. Oxford University Press, 580 pp.

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