

Soil moisture on 31 August 2021 (see back page for explanatory comments).

Notes on period to 31 August 2021

At the end of August soil moisture is generally normal or below normal for the time of year.

Provisional data indicate that in August precipitation was variable across the UK with some regions receiving less than 50% of the long-term average (e.g. central England), and other regions receiving above average rainfall (e.g. Northern Ireland and southern Scotland). All regions received little to no rain in the last ten days of the month.

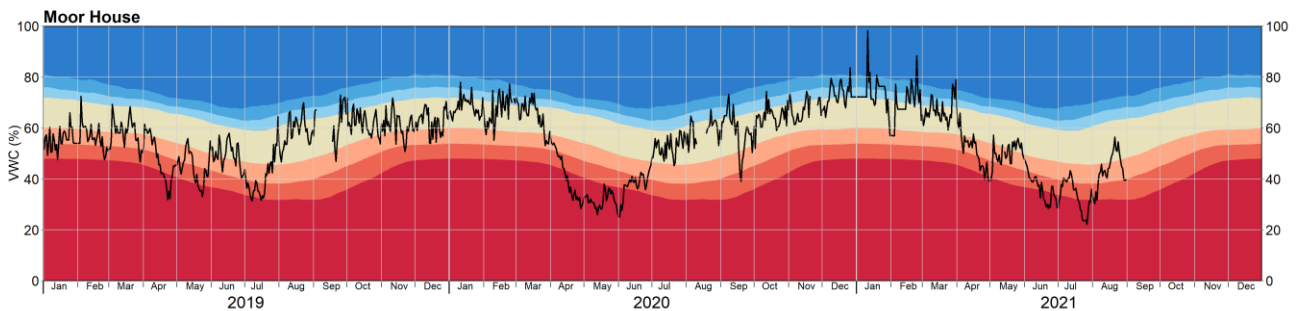
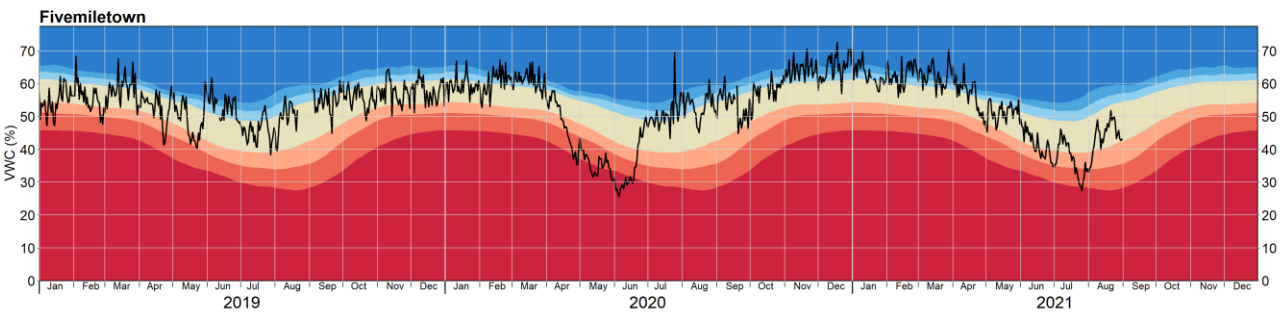
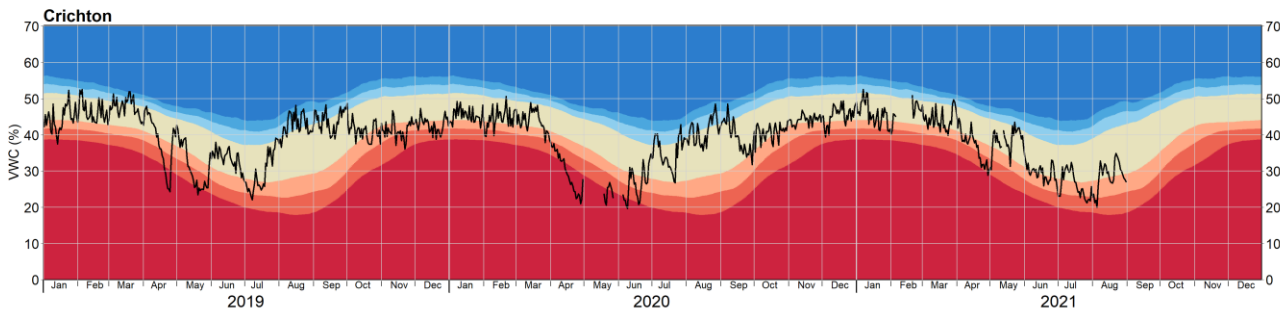
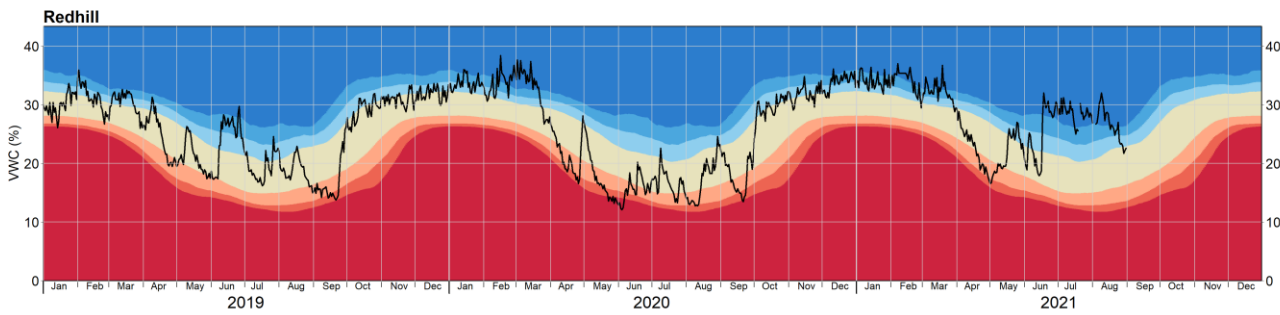
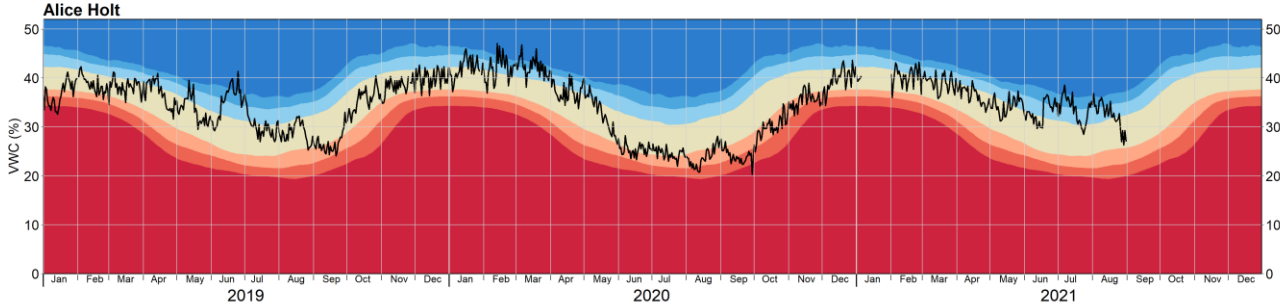
At the end of July soil moisture at many sites in the south-east was above normal for the time of year. With August being relatively dry in these areas, soil moisture at many sites returned to normal levels for the time of year (e.g. Alice Holt and Redhill).

At sites in the north-west of the UK where soils were generally drier than usual at the end of July, August rainfall has led to an increase in soil moisture, however levels remain lower than, or close to, normal for the time of year (e.g. Crichton, Fivemiletown and Moor House).

For other sites scattered across the UK, where soil moisture was close to normal at the end of July, a dry end to August has resulted in soil moisture either returning to normal levels for the time of year (e.g. Balruddery and Henfaes), or becoming drier than expected for the time of year (e.g. Moreton Morrell, Riseholme and The Lizard).

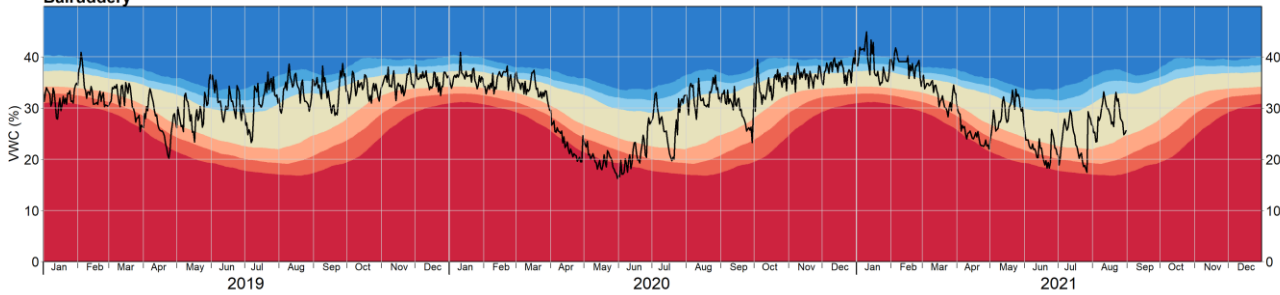
Network News

- Technical issues at Glenwherry and Sourhope.
- Issues resolved at Hadlow, Hartwood Home Farm, Hollin Hill, Redhill and Wimpole.

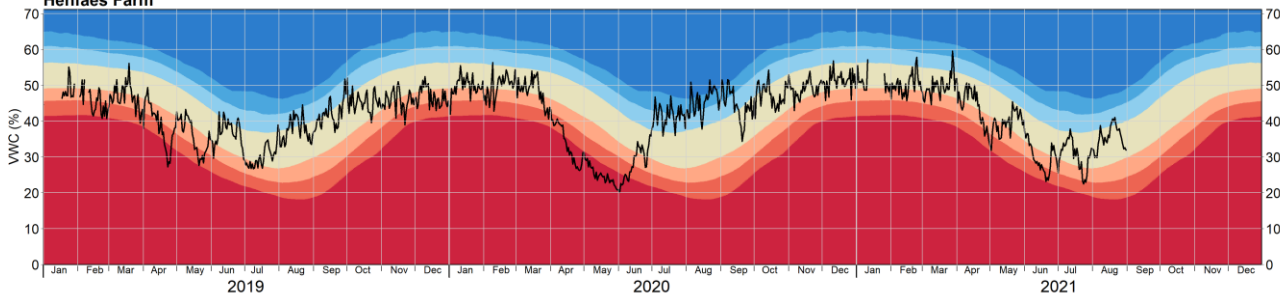




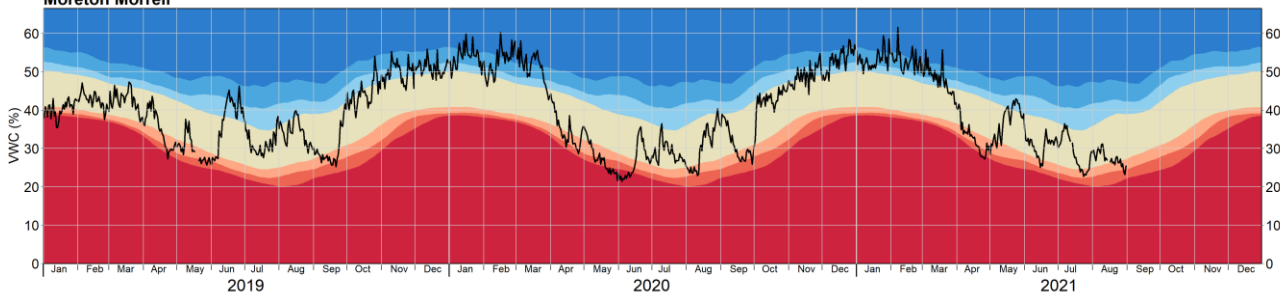
Balruddery



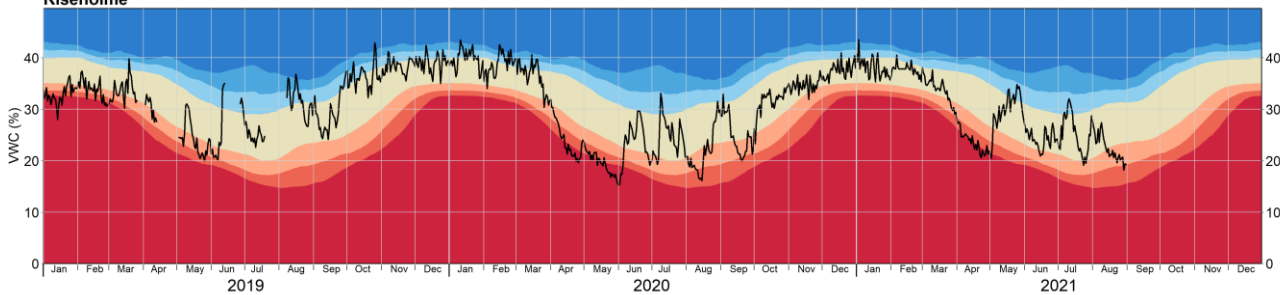
Henfaes Farm



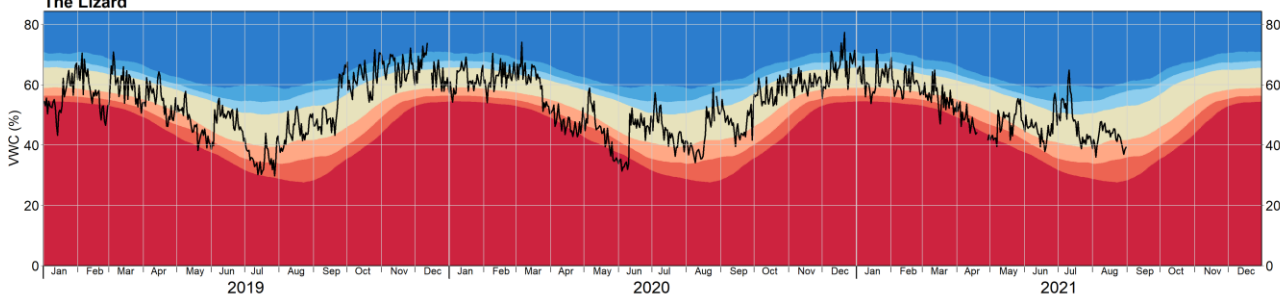
Moreton Morrell

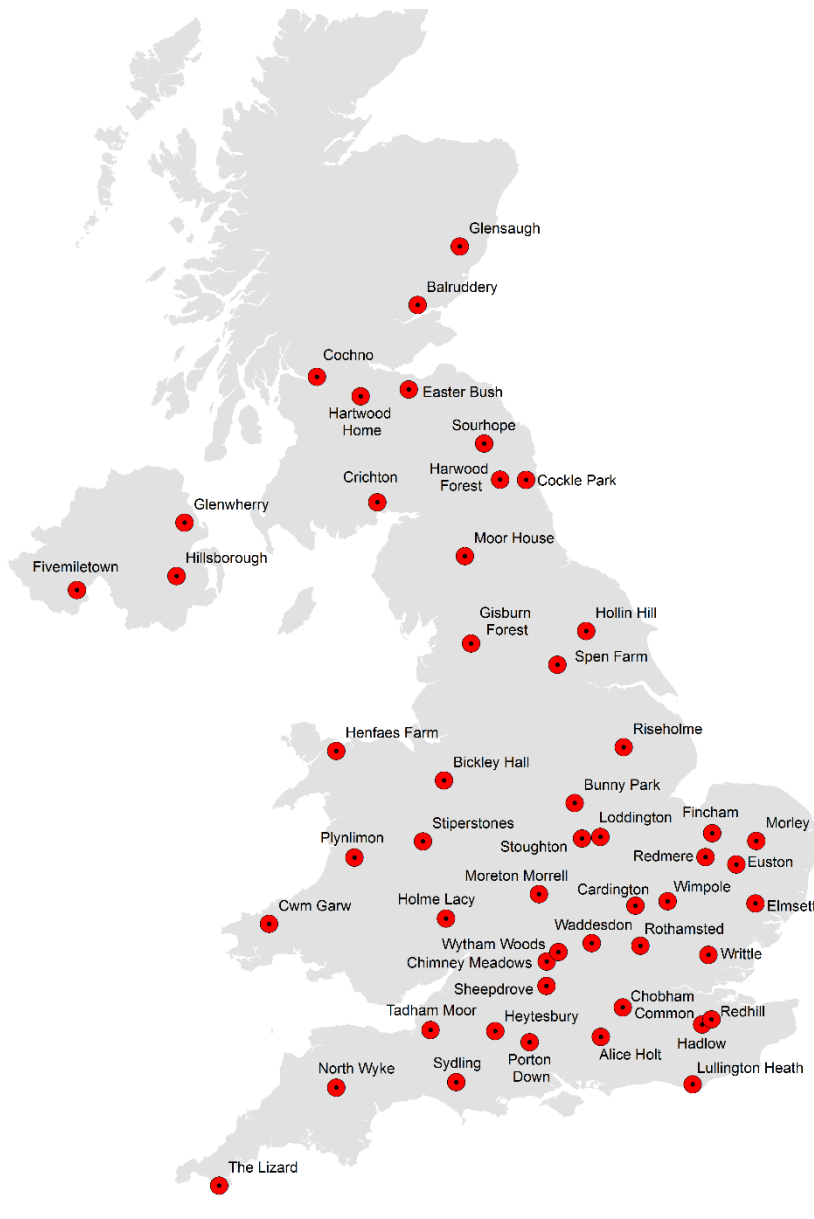


Riseholme



The Lizard





About the maps on page 1: The maps show daily mean soil moisture on the last day of the month. Colours indicate wetness as in the legends.

The map on the left shows wetness as the volumetric water content (VWC) of the soil which is constrained by soil type, i.e. some soils are able to hold more water than others as indicated by the shape of the symbol.

The map on the right presents soil wetness adjusted for site specific characteristics, i.e. taking account of the possible range of soil wetness at each site. Field capacity (FC) is a key point in this range. When soil moisture is below FC soil moisture is said to be in deficit, i.e. there is a (positive) soil moisture deficit (SMD).

Grey shaded areas on these two maps represent principal aquifers.

About the graphs on pages 2 and 3: The black line shows VWC. The coloured bands indicate how VWC compares to historical variability for the site and time of year.

- exceptionally dry
- notably dry
- drier than normal
- normal
- wetter than normal
- notably wet
- exceptionally wet

About soil moisture: Soil moisture varies in the short term (hours to days) with rainfall and as water drains through the soil. Longer term variation is driven by the seasonal difference between rainfall and evaporation. Thus soil moisture decreases in the summer when evaporation exceeds rainfall but increases when this is reversed. In most winters under UK conditions, soil moisture reaches a relatively constant value, field capacity; additional rainfall either cannot enter the already saturated soil and flows across the land surface as overland flow, or infiltrates but drains quickly through the soil. Differences in soil type and weather patterns cause variations in soil moisture between sites including when the soil returns to field capacity in autumn/winter and when soil moisture decreases in the spring/summer.

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