Autumn analysis 2014

WOODLAND TRUST

"With summer already here, it has been difficult to recollect the latter half of last year! Perhaps because it was mainly mild during autumn and early winter, and this is no longer unusual but becoming the norm."

Sian Atkinson, Senior Advisor, Conservation and External Affairs

Overview

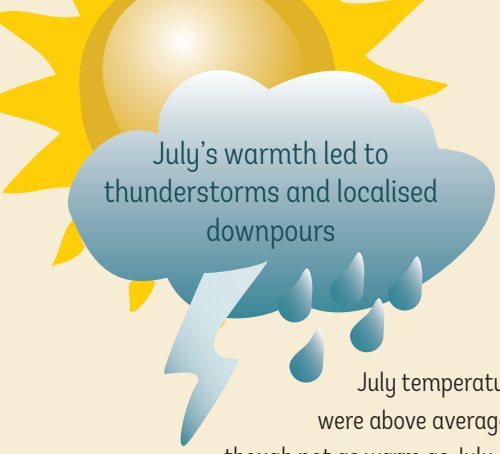
Our predictions of a bumper fruit crop, thanks to plenty of sunshine earlier in the summer, were right, with fruiting scores higher than ever for half the species we record. Leaf tinting and fall was a little earlier than average, perhaps a reflection of the cooler than normal conditions in August but otherwise the warm, mild autumn resulted in events being later than usual.

Weather

To assess how seasonal events are changing from year to year, we have chosen 2007 as a "benchmark" year, because of its closeness in terms of weather to the 30-year average for 1961-90. It is therefore useful to compare the weather in autumn 2014 with the same 30-year average.

In summary, according to Meteorological Office reports, the second half of 2014 saw generally warmer than average temperatures, with the exception of August which was notably cool. Rainfall was very variable, with both August and October wetter than average and September much drier than average.

WTPL/STEPHEN HIGHFIELD/RICHARD BECKER



July temperatures were above average, though not as warm as July 2013, and it was relatively dry, with 83 per cent of average rainfall. The warmth led to thunderstorms and localised downpours at times; the heaviest rain was generally across the south-east and East Anglia.

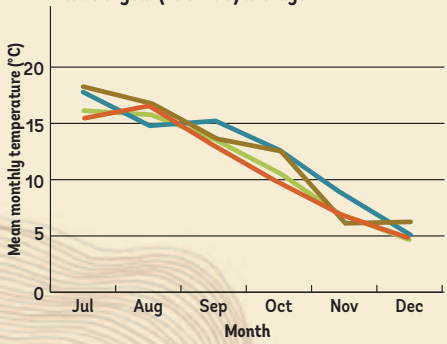
In August, the tail end of hurricane Bertha passing over the UK brought unseasonably wet and windy weather. The month was unsettled with temperatures the coolest since 1993, with early ground frosts in the second half. Rainfall was well above average.

September was dominated by high pressure, bringing plenty of fine and settled early autumn weather, with only a few short interruptions. This meant that rainfall was limited in most regions, and temperatures were generally above average.

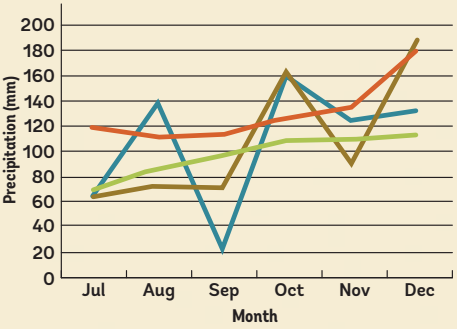
In October the weather became unsettled and wet again, but with winds often from the south which meant temperatures were above average. The generally unsettled and mild theme of October continued through most of November, with only short periods of drier weather.

For much of December the weather was from the west, giving milder, wetter spells, particularly in the north and west, interspersed by drier, brighter days. Although it was unsettled for much of the time, rainfall totals were mostly below average in the south and east and in these areas there was plenty of winter sunshine. Towards the very end of the year, there were some snowfalls in Wales and northern England, followed by clear skies, hard frosts and the lowest UK temperature readings of the calendar year.

Mean Central England Temperature (2012-14) compared with 30-year (1961-90) average



UK monthly precipitation (Jul-Dec) 2012-14 compared with 30-year average for 1961-90



2012 2013 2014 1961-90

Winter migrant birds arrived much later than in 2007 on average, but summer migrants departed earlier.

FIELDFARES: NORTHEASTWILDLIFE.CO.UK

Autumn events

Events relating to leaf tinting and fall were earlier than the benchmark year or about the same, in contrast to 2013, when they were much later. This might reflect the cool conditions in late summer 2014, particularly the cold spell in the second half of August.

Other events were later than average, including the last lawn cut, perhaps because of the mild temperatures in September and later months.

Winter migrant birds arrived much later than in 2007 on average, but summer migrants departed earlier. The timing of arrivals depends on conditions in their summer grounds, such as Scandinavia, so later arrivals could be tied to warmer conditions there. Departures are more likely to be tied to when the birds arrived here in spring, so this could be explained by the warm spring conditions in 2014.

Finally, we predicted in September 2014 that there would be a bumper fruit crop, and records seem to bear this out, with highest ever fruiting scores recorded for half the species on our list – even higher than in 2013, which was memorable for the abundance of fruit. Sunny conditions earlier in summer 2014 may have helped. For tree species, though, whether or not it was a mast year may also have a bearing – note that the fruiting scores for oak were noticeably very low. Recent research also suggests that masting could be associated with synchronised flowering in spring. Years with synchronised flowering across the UK provide plenty of wind pollination opportunities, resulting in more fertilisation and ultimately more acorns. Synchronised years tend to be those with a later mean first flowering date, suggesting that warmer years are associated with smaller acorn crops.

WTPL/MARGARET BARTON

Autumn leaf tinting and fall in 2014:

- First tint on average two days earlier than in 2007, compared to 2013 when it was nine days later
- Full tint was the same as in 2007
- Leaf fall was five days earlier than in 2007, compared with five days later last year
- Trees were bare one day later, compared with nine days later in 2013.

Fruit ripening:

- Tree fruit was ripe at the same time as in 2013, with other fruit ripe two days earlier than in 2007.

Migrant birds:

- Winter arrivals were 12 days later than in 2007
- Summer departures were four days earlier than in 2007.

Other events:

- Ivy first flowering date was two days later than in 2007
- The last lawn cut was on average two days later than in 2007.

Table 1: Average fruiting scores per species from 2001-2014 for the UK as a whole. Highlighted squares are the highest fruiting score recorded in the series since 2001 for each species.

Species	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ash	3.8	3.5	4.1	4.1	3.3	4.0	3.0	3.7	3.2	4.1	3.4	2.9	4.3	3.1
Beech	2.3	3.4	3.2	3.5	3.6	3.5	3.5	2.2	3.6	3.4	4.1	2.2	4.0	4.3
Blackthorn	3.5	3.2	3.6	3.5	3.1	3.6	3.6	2.1	3.5	3.6	3.8	2.3	3.0	3.3
Bramble	3.4	3.8	3.8	4.0	3.9	3.9	3.8	3.6	3.8	3.8	3.6	3.1	4.1	4.2
Dog rose	3.8	3.7	3.8	3.4	3.8	3.8	3.6	3.7	3.6	3.8	3.7	3.3	3.9	3.8
Elder	3.8	3.6	3.7	3.8	3.8	3.8	3.6	3.5	3.7	3.8	3.7	3.1	3.9	3.8
Field maple	3.4	3.2	3.4	3.6	3.6	3.5	3.7	3.1	3.5	3.6	3.8	2.9	3.7	4.1
Hawthorn	3.7	3.8	3.8	4.0	3.9	3.9	3.9	3.8	3.9	4.0	4.1	3.5	3.9	4.2
Hazel	2.2	2.7	2.8	3.0	3.0	3.2	3.4	2.3	3.3	3.3	3.5	2.4	3.1	3.6
Holly	3.3	3.6	3.6	3.7	3.9	3.7	3.6	3.3	3.8	3.8	4.0	2.8	3.7	3.7
Horse chestnut	3.4	3.4	3.4	3.6	3.6	3.5	3.4	2.9	3.2	3.3	3.3	2.3	3.4	3.6
Ivy	4.1	4.0	4.1	4.1	4.1	4.2	4.1	4.0	4.2	4.1	4.2	4.0	4.2	4.3
Oak (pedunculate)	2.8	3.0	3.0	3.3	3.3	3.7	3.1	2.8	3.0	3.3	4.0	1.9	4.1	2.4
Oak (sessile)	2.6	2.9	2.9	3.1	3.2	3.6	3.1	2.9	2.9	3.2	3.8	2.0	4.0	2.5
Rowan	3.8	3.8	3.7	3.9	3.9	3.9	3.8	3.8	4.2	3.9	4.1	3.4	4.3	3.9
Sycamore	3.5	3.4	3.5	3.7	3.5	3.7	3.9	3.1	3.8	3.6	3.8	3.1	4.0	4.2