

Spring analysis 2016



by Judith Garforth, Citizen Science Administrator

Overview

Spring 2016 came early during a mild December that saw a record breaking average temperature. Most spring species and events were recorded earlier than during the benchmark year of 2001*.

We found that average records for some events were a whole month earlier than during the benchmark year. These included hazel first flowering, elder budburst and song thrush first singing.

*Chosen because the mean monthly temperatures during spring were similar to the 1961-90 averages.







Weather

Temperature: a warm beginning and end

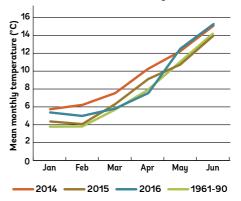
The spring-like weather began as early as December 2015, which had a mean monthly temperature of 9.7 °C. This was the highest mean temperature for December since the Central England Temperature dataset began in 1659**. It broke the previous December high of 8.1 °C in 1974.

In January, February, May and June, the mean monthly temperatures were between 1-2 °C warmer than the corresponding 1961-90 averages. May and June were particularly warm with temperatures being the highest since 2008 and 2006 respectively. In contrast, temperatures for March and April were pretty normal, not straying far from the 1961-90 averages.

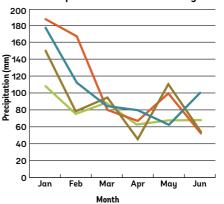
Rainfall: rise and fall

Monthly rainfall totals in January, February, April and June were between 18 and 70 mm greater than the 1961-90 averages. In contrast, March and May rainfall totals were 2mm and 4mm less respectively than the 1961-90 averages.

Mean Central England Temperature during 2014-2016, compared with 1961-90 average



UK monthly precipitation 2014-16 compared with 1961-90 average



What your spring 2016 records show

We've compared temperature and rainfall to a 30 year average, but we can't yet calculate a 30 year average for your records, because Nature's Calendar spring recording didn't begin until 2000. Instead we've compared this year's phenology data to the benchmark year of 2001.

This spring your average recording dates for most species and events were generally earlier than during the benchmark year. The only exceptions bucking the trend this year were red-tailed bumblebee first recorded, which was nine days later, and rowan first leaf, which was one day later.

^{**}The Central England Temperature dataset is a record from a roughly triangular area of the UK, enclosed by Bristol, Lancashire and London.

Average recording dates during 2016, 2015 and 2014 compared to the 2001 benchmark year. Negative numbers represent days earlier and positive numbers represent days later than the benchmark year.

Event	Number of days earlier or later than the 2001 benchmark year		
	2014	2015	2016
Budburst	-13.7	-4.9	-9.5
First leaf	-13.9	-5.8	-8.7
First flowering	-15.9	-7.3	-11.9
Amphibians first recorded	-8.0	0.7	-6.0
Insects first recorded	-19.1	-11.8	-5.7
Birds first recorded	-6.2	-5.1	-5.7
Lawn first cut	-12.0	-3.0	-16.0

Budburst and first leaf

The average budburst date for each tree and shrub species in 2016 was earlier than the benchmark year. Elder budburst was recorded particularly early, a month earlier than during the benchmark year. The first records of elder budburst were received during the first two weeks of December 2015!

Other trees notable for early budburst were hawthorn and pedunculate oak, which were recorded between two and three weeks earlier. Budburst dates for all other species were two days to a week earlier. The overall average budburst date in 2016 (for all species) was 9.5 days earlier than during the benchmark year. This is earlier than in 2015 but not as early as in 2014.

Following early budburst, first leaf was also early. Average first leaf dates for elder, hawthorn and pedunculate oak were 24, 26 and 13 days earlier than during the benchmark year. Average first leaf dates for all other species were between two days and a week earlier than during the benchmark year.

First flowering

First flowering dates this year were between two to 31 days earlier than the benchmark year. Average first flowering dates for hazel, lesser celandine and blackthorn were 31, 27 and 26 days earlier respectively. These species were recorded flowering in December, most likely due to the warm temperatures.

Bluebell and hawthorn average first flowering dates were also particularly early, 21 and 14 days earlier than the benchmark year respectively. Hawthorn was recorded flowering in early January and bluebells were recorded flowering in early February.



3LACKTHORN: CHRISTINE MARTIN

Lawn first cut

Lawn cutting was affected by the mild temperatures too. The average lawn first cut date in 2016 was 16 days earlier than during the benchmark year, and 27 records were submitted for lawn cut all winter.

Birds

The overall average migratory bird first recorded date in 2016 (averaged for all species) was 5.7 days earlier than the benchmark year, and was also similar to the overall average in 2014 and in 2015.

Keep sending us your records

During spring 2016 we received the lowest number of records in the past ten years. Just 44,293 records this year compared with 88,591 in 2015 and 48,602 in 2014.

The most recorded species and events were bluebell first flowering (1,514 records), snowdrop first flowering (1,423 records), lesser celandine first flowering (1199 records), and swallow first recorded (1,049 records).

The least recorded species and events were turtle dove first recorded (34 records) and nightingale first recorded (48 records). These are both Red List species of conservation concern.

Please keep sending us your records. They contribute to a powerful dataset that helps scientists to understand nature's response to changes in the environment.





Why not see if you can persuade a friend or family member to record too? Ask them to register as a recorder at naturescalendar.org.uk.



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