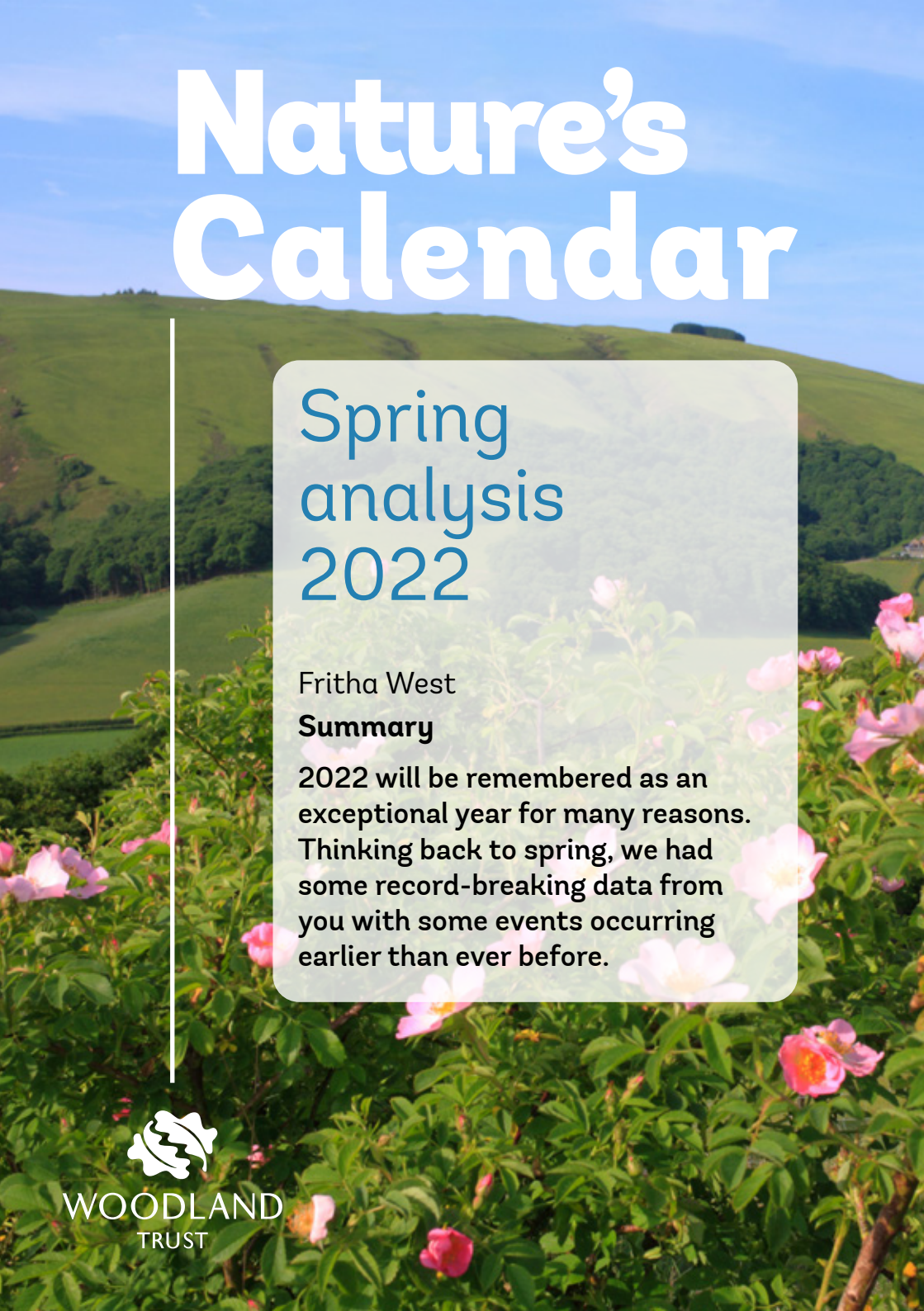


Nature's Calendar

Spring analysis 2022

Fritha West

Summary

2022 will be remembered as an exceptional year for many reasons. Thinking back to spring, we had some record-breaking data from you with some events occurring earlier than ever before.

WOODLAND TRUST

Your spring records showed that 2022 continued the theme of previous years, with warmer temperatures and earlier sightings, including budburst and frogspawn. Using 2001 as the benchmark year*, almost all spring events were earlier than expected.

Temperature

- Average monthly temperatures for January to June were generally lower than 2019 and 2020 but were still above the Central England Temperature** 30 year average (1961 to 90).
- We described Spring 2022 as a 'split spring'. Average temperatures increased monthly, but within this there was a lot of variation. We experienced a very warm but stormy period in February, followed by a sudden cold snap in late March.
- Although 2022 temperatures do not look particularly abnormal compared with previous years, it should be noted that May 2022 was the fifth hottest on record.

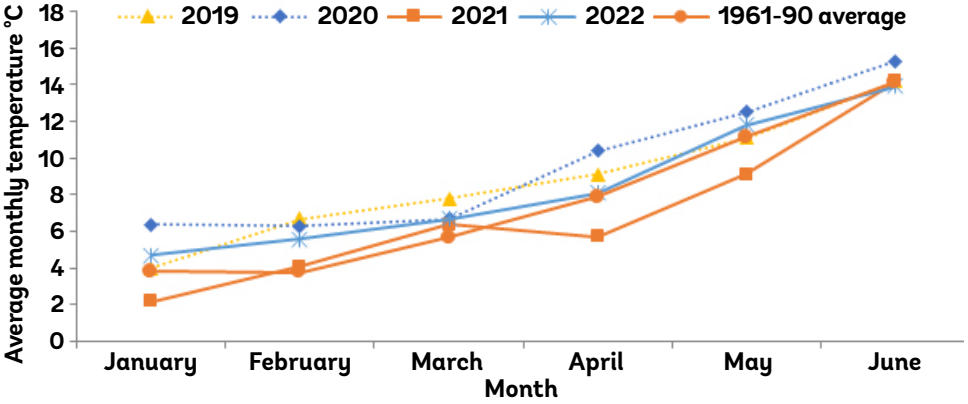


Figure 1: Central England Temperature 2019 to 2022 compared with UK 30-year average (1961-90)

* 2001 is used as a benchmark year because the mean monthly temperatures in spring were similar to the 1961-90 average.

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

Rainfall

- Spring was relatively dry this year. Rainfall peaked in February, but generally remained below the 30-year average.
- Rainfall varied significantly region to region. England had 50.7mm of rain (89% of average), Wales 63.2mm (73% of average), Scotland 118.3mm (133% of average) and Northern Ireland 89mm (120% of average) (Met Office, 2022).
- Storm Eunice hit the UK in February, with strong winds and heavy rain in some parts. A new record for the fastest wind gust was recorded in England, reaching 122mph at the Needles on the Isle of Wight.

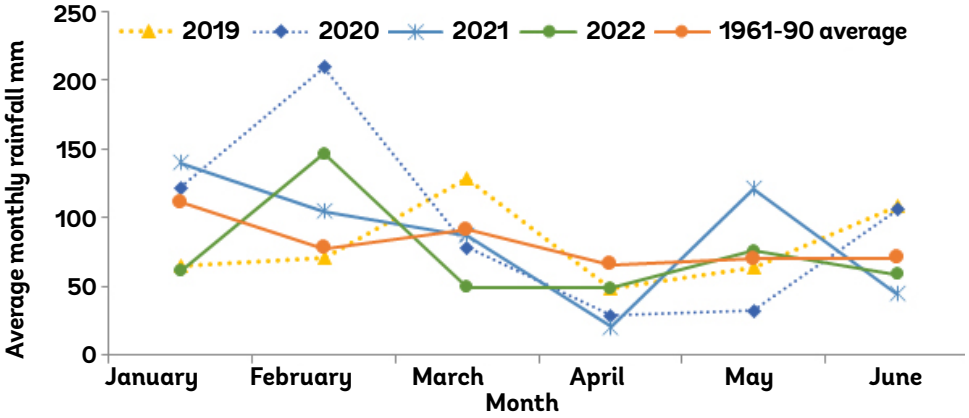


Figure 2: UK rainfall 2019-2022 compared with UK 30-year average (1961-90)

What your spring 2022 records show

Negative numbers represent days earlier and positive numbers represent days later than the benchmark year.				
Event	**2019**	**2020**	**2021**	**2022**
Budburst	-15.9	-17.7	Currently unavailable	-14
First leaf	-16.5	-19.1	Currently unavailable	-15.5
First flowering	-17.9	-20.1	Currently unavailable	-17
Amphibians first recorded	-13.3	-9	Currently unavailable	-16.7
Insects first recorded	-23.2	-16.4	Currently unavailable	-24.4
Birds first recorded	-5.2	-5.1	Currently unavailable	-4.7
Lawn first cut	-21	-18	Currently unavailable	-18

Figure 3: Table of how events compare to last 4 years, compared with the 2001 benchmark

All the comments below refer to the comparison of your records in 2022 to the 2001 benchmark.*
(Due to a cyber-incident at the Woodland Trust we are currently unable to compare with 2021 dates, but this will be possible again soon).

Budburst

- Similar to 2020, budburst dates were early for all species. Across all species, budbursts were two weeks earlier than 2001.
- Sycamore budburst was reported just a week early, whereas elder budburst was seen a full 28 days earlier. Elder is an early budding species and is strongly influenced by mild winters and warm springs.

First leaf

- All shrub and tree species came into leaf earlier than expected this year. Elder often comes out the earliest, and this was the case again this year (26 days earlier). However, European larch was also early (23days earlier), as was hawthorn (20 days earlier).
- Some large broadleaf tree species were not quite as early as shrub species; alder (10 days early), beech (10 days early), and sycamore (8 days early).

European larch WTML

Sycamore budburst Christine Martin/WTML

Elder first leaf Kate Lewthwaite/WTML

* 2001 is used as a benchmark year because the mean monthly temperatures in spring were similar to the 1961-90 average.

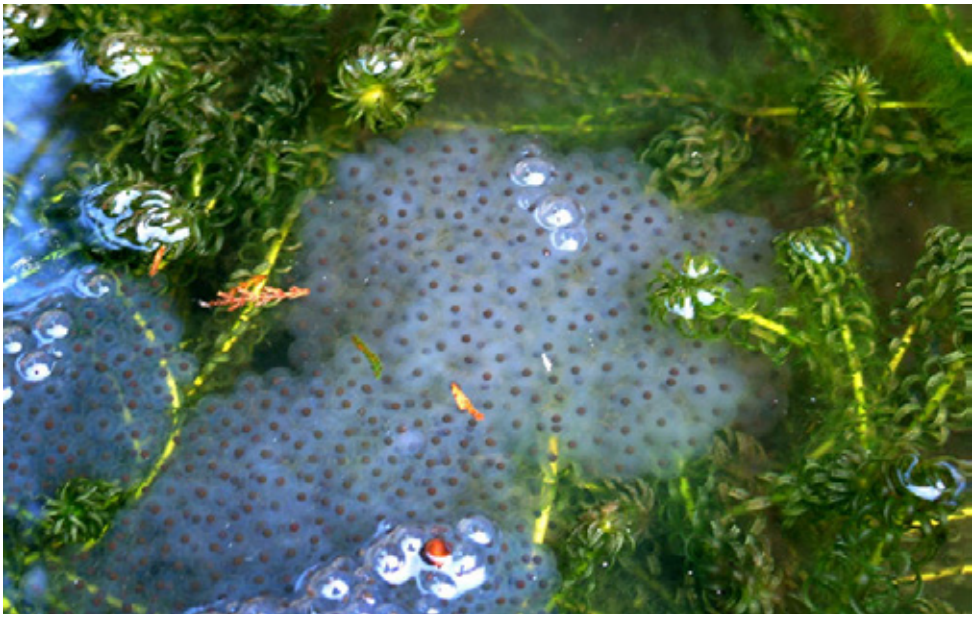
First flowering

- On average, plants came into flower almost 17 days earlier. This is not as early as previous years, but variations between plants were greater. Hazel flowered a full 36 days earlier, but snowdrops appeared only 9 days earlier. Elder flowered just under two weeks early, despite budburst being over a month earlier. This variation may relate to the split spring we had in early 2022, when an early warm period was followed by a sudden cold spell in March.

Male hazel flower Richard Becker/WTML

Amphibians

- Frogspawn and tadpole sightings occurred 11 and 13 days earlier, which is in keeping with sightings from 2020. However, newt first sightings were a full 26 days earlier; – the earliest they have been recorded.



Frogspawn Margaret Barton/WTML

Insects

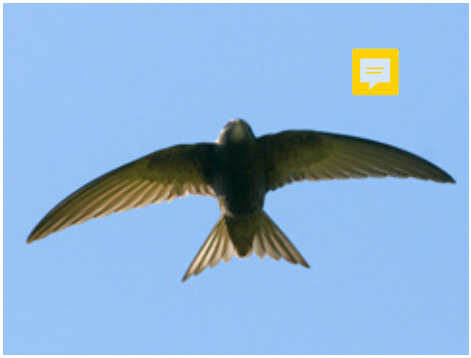
- Insect sightings were on average 24 days earlier, including some of the earliest records in at least the last 20 years. The red-tailed bumblebee, which in previous years has been seen later than the benchmark year, was 2 days early this year, bringing down the average for first insect sightings in 2022. Most other species were several weeks early, with the red admiral appearing an astonishing 41 days earlier.
- The warm period in February may have encouraged many insect species to come out of dormancy early. Some concerns were raised after the cold snap in March, as the split spring effect can have detrimental impacts on active insect species.

Red admiral John Bridges/WTML

Speckled wood Pete Squallstar

Red-tailed bumblebee queen WTML

Blackcap Dave Folker/WTML



Swift David Tipling Photo Library/Alamy Stock Photo

Birds

- Migratory bird arrivals were on average 5 days early, which is in keeping with previous years. In the last 10 years, first sightings for many species have hovered between 4 and 6 days early.
- This year, turtle dove sightings were just over 10 days later and songbirds blackcap, chiffchaff and nightingale were over two weeks early.
- In 2021, swifts and swallows were said to be arriving unexpectedly late, but this year swifts arrived almost exactly on time, 0.4 days before the benchmark. Swallows were seen just 4 days earlier than expected, which is a few days later than 2019 and 2020.

Turtle dove Tony Cox/WTML

Lawn first cut

- Lawn first cut varies a lot from year to year, but this year was in keeping with findings in 2020, at 19 days early. We have found an increasing number of people are now cutting much later in the year to create wildlife-friendly spaces in their garden. If you are joining in with 'No Mow May' we fully support this, but please don't record your delayed lawn cut with Nature's Calendar. You may of course have the chance to record flowering grasses in your lawn instead.

continued support.
We hugely appreciate all the time and effort
you put into recording.
Anyone can sign up and find out more at
naturescalendar.woodlandtrust.org.uk.

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