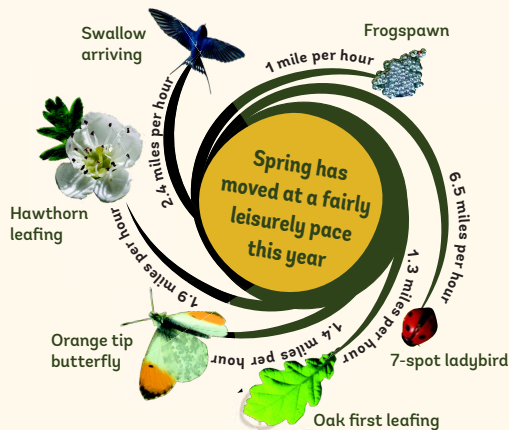


Is spring getting faster?

We're used to the idea that spring is getting earlier and Nature's Calendar data is helping to substantiate this. But is it also moving faster? In spring last year we teamed up with BBC Springwatch on the Big Spring Watch campaign to find out the speed of spring as it swept across the country.

We asked people to look out for some key spring events. More than 20,000 records from different parts of the country were analysed by Professor Tim Sparks from Coventry University, revealing that the average speed of the passage of spring this year was 1.9mph, taking nearly three weeks to cover the length of the UK from south to north. An average of 1.2mph was recorded using data between 1891 and 1947 and 1.8mph using data recorded between 1998 and 2014.

For individual events (first appearance or occurrence), the speed of travel from south to north in 2015 was as follows:



Some of the events are probably more reliable than others in determining the speed of progress of spring, but comparison with previous years does suggest that spring is moving faster than in the past, which could have repercussions for wildlife.

Recording

We received 87,107 records in total for spring 2015, a big increase on around 48,000 in 2014 and just over 50,000 in 2013. This is a fantastic result and largely thanks to promotion of the project through our partnership with Springwatch. We hope that many people who were encouraged to record for the first time will continue to add their data in years to come. The power of our data lies in both its long history, and the sheer number of records we receive. This makes it a useful resource for scientists all over the world who are trying to understand nature's response to long term climate trends and provide information to help develop conservation strategies and thinking.

Please keep your records coming in, and see if you can persuade a friend or two to join you by referring them to our website naturescalendar.org.uk

Spring phenology analysis 2015



Analysis of the data shows that most 2015 events were recorded, on average, earlier than in the benchmark year of 2001, with most records sitting somewhere between the cold spring in 2013 and the warmer than average 2014.

Sian Atkinson, Senior Advisor, Conservation and External Affairs

Overview

After a benign and mild winter, spring 2015 was unexceptional – not quite as warm as 2014, and certainly not as cold as 2013. Temperatures in spring 2015 were near the benchmark year of 2001, chosen because of its closeness to the 30 year (1961-90) average. Most of our spring events were recorded on average earlier than in 2013 but later than in 2014, though many were still recorded somewhat earlier than in the benchmark year itself.

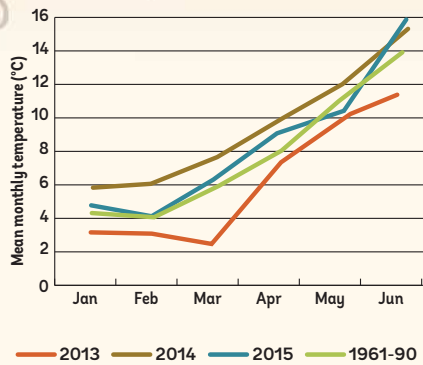
Weather

January was mild to begin with, turning colder in the second half, with some rainy and stormy weather in the north. In the first half of February, high pressure brought dry, settled weather, but mid-month this turned to more unsettled conditions, with March then bringing a mix of typical early spring weather including snow and ice in some areas, strong gales in others.

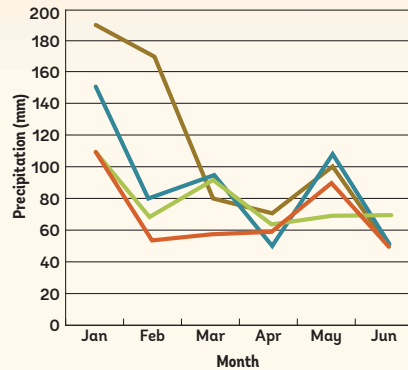


April was a little drier and warmer than the 30-year average but May was cooler and, as in 2013 and 2014, considerably wetter than the 30-year average. The first half of May in particular was cool and wet, with snow in the Scottish Highlands, some very strong winds in southern England, and heavy bands of rain in other areas.

Mean central England temperature (2013-15) compared with 1961-90 average



UK monthly precipitation 2013-15 compared with 1961-90 average



Phenological data

Phenological event	Days difference from 2001 (average)		
	2013	2014	2015
Migrant birds first seen	0	-6	-5
Birds' feeding behaviour	2	-12	-5
Insects first seen	3	-19	-12
Frogspawn first seen	5	-6	2
Budburst (trees)	3	-14	-5
First leafing (trees)	3	-14	-6
Flowering (plants and trees)	4	-16	-7
Lawn first cut	3	-12	-3

Table 1: Days difference from 2001 for collated and averaged records for 2013, 2014, and 2015 (negative figures indicate earlier than in 2001, positive ones are later than in 2001)

Analysis of the data collected by Nature's Calendar recorders shows that most 2015 events were recorded on average earlier than in the benchmark year of 2001, with

most records sitting somewhere between the averages for 2013 (which was a cold, late spring) and 2014 (which was warmer than average). (See Table 1 above).

Migrant birds were first seen on average five days earlier than average, not too different from 2014, with breeding behaviour observed on average five days earlier than in the benchmark year of 2001.

Insects were recorded 12 days earlier than in the benchmark year of 2001, but frogspawn was recorded two days later.

Trees and flowering plants flowered on average seven days early, with budburst for trees on average five days early and first leafing six days early.

Figure 1 (below) shows how first leafing advanced more in some tree species than others in 2015 compared with 2001, with pedunculate oak leafing on average 12 days earlier, ash 10 days and beech nine days earlier, compared with sycamore and hawthorn on average leafing only two days earlier. This demonstrates that species may respond in different ways to fluctuations and changes in climate.

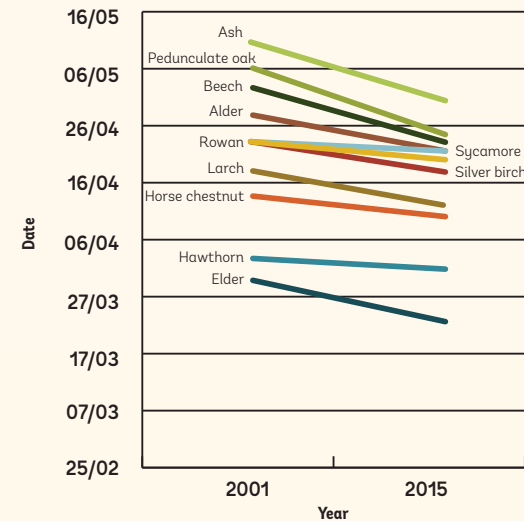


Figure 1: Advance in first leafing dates in 2015 compared with 2001

