Thousands of citizen scientists find hundreds of wild flowers blooming in midwinter

Thousands of citizen scientists took part in the Botanical Society of Britain & Ireland's[1] fourteenth New Year Plant Hunt[2] to find wild or naturalised plants flowering in midwinter. Their observations are providing us with robust evidence of how our wild plants are responding to a rapidly changing climate, and the implications this may have for all our wildlife.

Here's a summary of what the plant hunters found:

- 647 different plant species in bloom, the third highest total in the history of the Hunt.
- 25,000 individual plant records – a record number.
- The three most frequently recorded species were Daisy, Dandelion and Groundsel.
- Almost half (48%) of the species in bloom were flowering later than expected vs around a quarter flowering earlier than expected.
- Just over half (52%) of the species in bloom were native to Britain and Ireland.

Dr Kevin Walker, BSBI Head of Science, said "New Year Plant Hunt results show how our weather is changing, impacting flowering times and other wildlife that depend on our wild plants. Climate change is the chief suspect, but to be certain we'll need more data, collected by our dedicated citizen scientists, at other times of the year. We are therefore looking to extend the project across the whole year, to gain a better understanding of the full impact of changing weather patterns."

As in previous years, coastal locations, which are less subject to late frosts, yielded longer lists[3], as did southern vs northern locations. 97 species were recorded in Swanage, Dorset, compared to single observations of Gorse blooming in frosty Scottish glens. The most northerly species in flower was Heather, spotted on a cliff edge on Mainland Shetland, a mere 400 miles short of the Arctic Circle.

Daisy was the most frequently recorded plant, with 1,499 observations ranging from Guernsey and Cornwall to Westray in the Orkney Islands. Urban areas also tended to have more non-native species in flower than rural areas, as there are more sheltered and disturbed places with warm microclimates where alien plants can thrive: the 'heat-island' effect.

Surprising finds[4] included Little-Robin, a wild Geranium species whose stronghold is in Cornwall, which was found blooming in downtown Peterborough; Northern Dead-nettle was flowering at a completely new location near Inverness; Annual Buttonweed, a rare non-native plant, was blooming in North Lincolnshire – only the second record for the county; Bur Chervil, typically an eastern species, was found in flower in Cornwall; Early Virgin's-bower, a garden plant which had "jumped the garden fence" and self-seeded onto a wall in Hull, was flowering very early indeed – at New Year! – and this was also the most northerly naturalised (rather than planted) record of this species in Britain.

Julia Hanmer, BSBI Chief Executive Officer, said: "All these findings are helping us track the effect of changing weather patterns and climate change on our wild plants, offering us a glimpse into how this affects the other wildlife - birds, bees, butterflies, and pollinators - that rely on them. The New Year Plant Hunt project builds on the BSBI's Plant Atlas 2020[5], which gives a comprehensive, up-to-date picture of the distribution, conservation status and flowering times of all of the British and Irish flora"

Prof Paul Ashton[6], BSBI President, said "The New Year Plant Hunt provides a marvellous example of the collective power of the individual to collect meaningful data. Such opportunities are integral to the Botanical Society of Britain and Ireland, where anyone with an interest in wild plants is welcome and can develop their skills further via our training (including grants), research and outreach programmes".

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Notes:

1. The Botanical Society of Britain & Ireland (BSBI) is the leading society promoting the study, understanding and enjoyment of wild plants in Britain and Ireland. Founded in 1836, the Society is now one of the world's largest contributors of biological records, many collected by our volunteer members, both amateur and professional botanists, who benefit from our research, training and outreach programmes: www.bsbi.org

2. The 2025 New Year Plant Hunt ran from Sunday 29th December 2024 to Wednesday 1st January 2025: www.bsbi.org/new-year-plant-hunt

3. The New Year Plant Hunt Results website displays longest lists, most frequently recorded plants, and an interactive map showing which plants were recorded where; zoom in and click on the markers to view individual lists: nyph.bsbi.org/results.php

4. A fuller report on the 2025 results is available here: https://bsbi.org/download/45290 and analyses of previous year's results are available from the New Year Plant Hunt archive: bsbi.org/new-year-plant-hunt-archive
5. The Plant Atlas 2020 website provides information about 3,495 flowering plants recorded across Britain and Ireland, including flowering times and conservation status; there are also photo galleries from which images can be downloaded: https://plantatlas2020.org/

6. BSBI President Paul Ashton is available for interview about the New Year Plant Hunt on 23rd January – please contact Louise Marsh to arrange a timeslot.
