



**Botanical Society
of Britain & Ireland**



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New GB Red List for vascular plants published today

A new GB Red List for vascular plants(1) has just been published(2), providing a comprehensive revision of the previous (2005) List. Red Lists use internationally recognised criteria(3) to assess threat status, and are crucial in providing the evidence which underpins nature conservation and helps prioritise future action.

Of the 1,720 species evaluated for the new List, 434 species (i.e. 26%) were assessed as threatened (Critically Endangered, Endangered or Vulnerable) and a further 140 as Near Threatened. The new List is based on around 50 million plant records collected by thousands of volunteer members and supporters of the Botanical Society of Britain and Ireland (BSBI)(4). Their records, collected between 1930 and 2019, fed into three national plant distribution atlases(5), the most recent of which was published in 2023(6). The 1,720 species evaluated for the new Red List are all either native plants(7) or archaeophytes (species which were introduced to Britain and Ireland before AD1500).

Dr Pete Stroh, BSBI Scientific Officer and lead author of the new List, said: "This latest revision of the GB Red List again paints a stark picture of the state of our wild flora. Although a few of our rarest species, such as Fen Orchid(8), have a potentially brighter future thanks to the targeted efforts of conservation organisations, and some, for example Bee Orchid(9) and Pyramidal Orchid(10), are more common than they once were, many plants once widespread in our countryside have continued to decline to the point where they are now assessed as threatened."

Those threatened plants include:

- wild flowers that are positive indicators of unimproved, species-rich habitats, such as Common Milkwort(11), Common Restharrow(12) and Betony(13);
- species of wetlands and waterbodies, for example Marsh-marigold(14) and Shining Pondweed(15);
- plants of arable fields, such as Venus's-looking-glass(16) and Rough Poppy(17)
- arctic-alpine plants such as Alpine Gentian(18).

Pete said "These declines are linked to many factors, including the intensification of agricultural management, or conversely long-term neglect; development pressures; eutrophication and pollution. All these factors are most prevalent in lowland areas but many wild flowers of upland areas are also at risk, most notably our arctic-alpine species, with some declines linked to the symptoms of climate change".

The new Red List was produced by the BSBI and UK Centre for Ecology & Hydrology(19), with funding from Natural England(20) and supported by a working group (the Species Status Assessment Group) with representation from a range of independent experts and interested organisations, including the BSBI, Natural England, Natural Resources Wales(21), NatureScot(22), the Biological Records Centre (within the UK Centre for Ecology & Hydrology), the Natural History Museum(23), Plantlife International(24), Royal Botanic Garden Edinburgh(25), and the Royal Botanic Gardens, Kew(26).

Prof Paul Ashton, BSBI President, said "Although the situation seems bleak, the good news is that there are still many areas where our wild plants continue to flourish, and we now have the evidence to better understand which species are being lost, why this is happening and what needs to be done to assist recovery. Our wild flora has countless benefits for individuals, for communities and for the economy, and the increasingly urgent task now is for the Government to act on the evidence presented in this Red List, and to fully engage with conserving and restoring our wild flora".

Dr Kevin Walker, BSBI Head of Science said "Thanks to the millions of plant records collected by thousands of BSBI volunteers for our national distribution atlases, and the trends derived from those landmark publications, this new Red List provides a state of the art assessment of the level of threats faced by our wild flora. Its conclusion, however, is stark. Around a third of our flora is threatened and will continue to be, unless we tackle the main drivers head-on through reductions in damaging land management practices, pollution and climate change".

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Editors' notes

1. The term 'vascular plants' covers all seed-bearing plants (flowering plants as well as conifers) and pteridophytes (ferns and fern allies).
2. The complete GB Red List will be published on 5 November 2025 as a special issue of *British & Irish Botany*.
3. Assessments of threat were undertaken using the latest International Union for Conservation of Nature (IUCN) Guidelines and Criteria.
4. The Botanical Society of Britain and Ireland (BSBI) is the leading charitable organisation promoting the enjoyment, study and conservation of wild plants in Britain and Ireland. We aim to build a diverse community of skilled and enthused botanists; to provide data and science to help address biodiversity loss and climate change; and to disseminate information to drive a passion for plants. We provide opportunities for involvement through a range of participation projects, surveys, events, training opportunities and the production of books and other resources. Our Distribution Database currently holds over 60 million plant records, making it one of the world's largest biological recording databases: <https://bsbi.org>
5. BSBI has published three plant distribution atlases, in 1962, 2002 and 2023: <https://bsbi.org/plant-atlas-2020>
6. The BSBI/UKCEH online Plant Atlas, launched in March 2023, features interactive distribution maps, text and graphics displaying the phenology, altitudinal range, and time-series trends for 3,495 plant species recorded across Britain and Ireland since the 1950s. This is the best way to find out if a species is declining or increasing – and why: <https://bsbi.org/plant-atlas-2020>
7. Definitions of terms such as native and archaeophyte are available at: <https://bsbi.org/definitions-wild-native-or-alien>

8. More about Fen Orchid: <https://plantatlas2020.org/atlas/2cd4p9h.1dm> GBRL25 status: Near Threatened
9. More about Bee Orchid: <https://plantatlas2020.org/atlas/2cd4p9h.5fd> GBRL25 status: Least Concern
10. More about Pyramidal Orchid: <https://plantatlas2020.org/atlas/2cd4p9h.v6z> GBRL25 status: Least Concern
11. More about Common Milkwort: <https://plantatlas2020.org/atlas/2cd4p9h.93r> GBRL25 status: Vulnerable
12. More about Common Restharrow: <https://plantatlas2020.org/atlas/2cd4p9h.vpb> GBRL25 status: Vulnerable
13. More about Betony: <https://plantatlas2020.org/atlas/2cd4p9h.6yb1xg> GBRL25 status: Vulnerable
14. More about Marsh-marigold: <https://plantatlas2020.org/atlas/2cd4p9h.f36> GBRL25 status: Vulnerable
15. More about Shining Pondweed: <https://plantatlas2020.org/atlas/2cd4p9h.1mg> GBRL25 status: Vulnerable
16. More about Venus's-looking-glass: <https://plantatlas2020.org/atlas/2cd4p9h.c6f> GBRL25 status: Endangered
17. More about Rough Poppy: <https://plantatlas2020.org/atlas/2cd4p9h.v9z7w9> GBRL25 status: Vulnerable
18. More about Alpine Gentian: <https://plantatlas2020.org/atlas/2cd4p9h.vv3> GBRL25 status: Endangered
19. The UK Centre for Ecology & Hydrology (UKCEH) is a leading independent research institute dedicated to understanding and transforming how we interact with the natural world. With over 600 researchers, we tackle the urgent environmental challenges of our time, such as climate change, pollution, and biodiversity loss.
20. Natural England is the UK Government's adviser for the natural environment in England, helping to protect and restore the natural world:
<https://www.gov.uk/government/organisations/natural-england/about>
21. Natural Resources Wales is working to ensure Wales can survive and thrive in the face of nature, climate, and pollution emergencies. They advise and regulate industry, and work with partners to improve the quality of our waters, the air we breathe, and the land and special places we manage sustainably. We are always ready—24/7—to respond to flooding, pollution incidents, and other environmental emergencies, keeping people and wildlife safe. Every decision we make is based on solid evidence, the expertise of our colleagues, and the passion of the communities we serve.
22. NatureScot is Scotland's nature agency. We work to enhance our natural environment in Scotland and inspire everyone to care more about it. Our priority is a nature-rich future for Scotland and an effective response to the climate emergency. For more information, visit our website at www.nature.scot.
23. The Natural History Museum is a world-leading scientific research centre and one of the world's most visited museums. Our mission is to create advocates for the planet – people who act for nature. Our 400 scientists are finding solutions to the planetary emergency - from reversing biodiversity loss to resourcing the green economy. We are seeking an additional £150 million to transform our South Kensington building: placing our groundbreaking research at its heart, revitalising four existing galleries, opening two new magnificent galleries and delighting 1 million more visitors a year with the wonders of the natural world.
24. Plantlife is the global charity working to enhance, protect, restore and celebrate the wild plants and fungi that are essential to all life on earth. With two in five plant species at risk of extinction, biodiversity loss is now the fastest it's ever been and

Plantlife's work has never been more vital. Plantlife is leading recovery work of threatened plant species and has spearheaded efforts to save Fen Orchid, caring for the remaining plants and restoring former sites to suitable condition. Plantlife champions and accelerates conservation action, working at the heart of a global network of individuals and organisations, to influence and inspire landowners and land managers, public and private bodies, governments and local communities. As time begins to run out, Plantlife's position as the global voice for wild plants and fungi will help to bring lasting and positive change to our natural world – for everyone's sake.

25. The Royal Botanic Garden Edinburgh (RBGE) is a leading international research organisation delivering knowledge, education and plant conservation action around the world. In Scotland its four Gardens at Edinburgh, Benmore, Dawyck and Logan attract a million visitors each year. It operates as a Non-Departmental Public Body established under the National Heritage (Scotland) Act 1985, principally funded by the Scottish Government. It is also a registered charity, managed by a Board of Trustees appointed by Ministers. Its mission is "To explore, conserve and explain the world of plants." Learn more: www.rbge.org.uk
26. Kew Science is the driving force behind RBG Kew's mission to understand and protect plants and fungi, for the well-being of people and the future of all life on Earth. Over 600 Kew science staff work with partners in more than 100 countries worldwide to halt biodiversity loss, uncover secrets of the natural world, and to conserve and restore the extraordinary diversity of plants and fungi. Kew's *Science Strategy 2021–2025* lays out five scientific priorities to aid these goals: research into the protection of biodiversity through Ecosystem Stewardship, understanding the variety and evolution of traits in plants and fungi through Trait Diversity and Function; digitising and sharing tools to analyse Kew's scientific collections through Digital Revolution; using new technologies to speed up the naming and characterisation of plants and fungi through Accelerated Taxonomy; and cultivating new scientific and commercial partnerships in the UK and globally through Enhanced Partnerships. One of Kew's greatest international collaborations is the Millennium Seed Bank Partnership, which has to date stored more than 2.4 billion seeds of over 40,000 wild species of plants across the globe. In 2023, Kew scientists estimated in the *State of the World's Plants and Fungi* report that 3 in 4 undescribed plants globally are already likely threatened with extinction.
27. For more information about the GB Red List, please email lead author Pete Stroh peter.stroh@bsbi.org, BSBI President Prof Paul Ashton Ashtonp@edgehill.ac.uk or contact BSBI Comms Officer, Louise Marsh, email: louise.marsh@bsbi.org tel.: 07725862957.
28. Hi-res images of some of the threatened plant species can be found here: https://www.dropbox.com/scl/fo/ombd8q7xc6xoj269232br/AC_BUJirtLkTRJxcYkjz2vQ?rlkey=n0zkan5n0vqref1rd8yr4ixpf&st=jr9wsm1c&dl=0