the species recovery trust

SPECIES HANDBOOK

Heath Lobelia (Lobelia urens)

Ecology, conservation, survey and management



Conservation Status VULNERABLE

- Seven native sites in the UK
- A species with considerable challenges for correct habitat management

Heath Lobelia is a rare member of the *Lobelioideae*, a family of plants which are much more commonly encountered in the tropics. As such, it is a spectacular site in British heathlands and has been the subject of intense conservation work for several decades.

It occupies a niche in damp heathlands and acid grassland that are subject to sporadic heavy disturbance - an environment that would have been common when extensive herds of grazing animals moved freely within the landscape, but is now an almost vanished habitat type.





Description

Erect perennial with stems c.60cm high. Leaves grow to 7cm and are oblong and irregularly toothed. Flowers are erect or spreading, bracts are narrower than leaves, the corolla measures 10-15mm, and it has 2 lipped purplish blue flowers.

Lifecycle

Perennial rhizomatous herb, overwintering in rosettes of leaves producing flower spikes in spring. Flowers are entomophilous (insect-pollinated) but can self-propagate. Each pod produces large quantities of seed. Plants appear to keep flowering into early winter until frosts set in.

It is not known how long individual plants can live for, although this is currently the subject of research.





Habitat

Acid grassland and dwarf shrub heath, rough pastures, and damp, acid, often seasonally waterlogged soils. It is not a true damp heath species, and is often associated with Juncus articulatus, J. conglomeratus, Lotus pedunculatus, Mentha aquatica, Molinia caerulea, Potentilla erecta, Pulicaria dysenterica and Salix cinerea.







Distribution

Only found in southern England, with sites in Cornwall, Devon, Dorset, Hampshire and Sussex.

Globally it extends from Morocco, Madeira and the Azores along the Atlantic coast through Portugal, Spain, France and Belgium.

Status

Vulnerable, meaning it is facing a high risk of endangerment in the wild.



Reasons for decline

Historically, the decline of this species is linked to afforestation and cultivation of sites but more recently a loss of management at several of its remaining sites. This degradation of habitat, combined with the species' natural habit of fluctuating wildly from year to year, makes it vulnerable to localised extinction.

As with so many other rare species it appears to thrive most following periods of relatively high disturbance (cattle grazing or scrub clearance) after which populations tend to decrease as this habitat closes over. It is therefore a species that can thrive in commons-style intense periodic grazing, which is a hard feat to pull off in today's fragmented landscape.

In recent years all of its sites have been taken into conservation management, which has improved the outlook for the species.

Protection under the law

Listed as a species of Principal Importance in England and Wales under the NERC Act 2006 and is a UK Biodiversity Action Plan priority species.





SURVEY

Habitat

The plants appear to favour lightly disturbed soil, or areas where there has been historic disturbance or concentrated grazing. It does not, however, favour bare ground and often occurs within a dense sward. It does require soil which is at least seasonally damp, so any searches should be focussed on damper but not saturated areas of ground.

When to survey

Surveys are ideally carried out from July to September when the plants are in flower.

What to record

- Number of plants (in dense population number of flowering spikes may be more practical, and this can be extrapolated to a plant count)
- Area occupied
- Extent of available habitat and threats from competing vegetation





SURVEY

Vegetative ID

Basal rosettes are relatively easy to spot due to their bright white midrib, reminiscent of pak choi leaves. The margins are serrate, which separates it from Willowherb species. The rosette is formed of many leaves in a tight cluster.

The stem leaves are sessile and obovate-oblong, slightly decurrent and run-in down the stem. They are weakly serrate, which is more pronounced in the rosette.



Heath Lobelia appears to thrive following periods of disturbance, which acts to create small areas of bare ground and trigger dormant seeds.

Past management has shown dramatic increase in population sizes following on from scrub removal and heavier cattle grazing. This habitat can then be maintained using either grazing or cutting, but populations then tend to respond in a highly stochastic fashion, often with unexplained dramatic crops in numbers, which may be weather related.

The best results are therefore likely to be gained from periods of heavy cutting and grazing interspersed with a relaxation of management, although this may only provide part of the solution for maintaining large populations.

OUR WORK

- Annual monitoring of all extant sites
- Co-ordinating the national steering group
- Carrying out habitat management at any sites requiring it

SUCCESS

- National census completed
- In 2018 we succeeded in restoring to species to the New Forest

In recent years our understanding of the ecology of Heath Lobelia has greatly improved, and we now have all its site in conservation management.

However annual monitoring has shown that populations still have a high tendency to fluctuate, so localised site extinctions still remain a threat.



Scrub clearance team at Hinton Admiral The Species Recovery Trust is a charity set up to tackle the loss of some of the rarest species in the UK.

There are over nine hundred native species in the UK that are classed as under threat, with several hundreds more currently widespread but known to be in significant decline. The countryside is now bereft of many species that were a familiar sight a mere generation ago.

A small number of these species are on the absolute brink of existence, poised to become extinct in our lifetimes; our goal is to stop them vanishing.

Our aim is to remove 50 species from the edge of extinction in the UK by the year 2050. In addition we are reconnecting people with wildlife and the natural world through training programmes and awareness raising.



the species recovery trust

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