

Narrow-leaved Helleborine

Cephalanthera longifolia

Narrow-leaved Helleborine, often called Sword-leaved Helleborine, is part of the Orchid (Orchidaceae) family. It grows to 15-40 cm tall and the stem has white sheathing scales below the long, tapering spear-shaped leaves. The upper most leaf is often longer than the flower spike, while the pure-white flowers are often longer than the bract at the bottom of the flower stalk. Flowers are around 2 cm long and open to reveal an orange spot at the base of the lip.

White Helleborine *Cephalanthera damasonium* is very similar but its brownish sheathing scales below the leaves are more elliptical and at an angle of 45° to the stem. The upper leaf does not exceed the length of the flower spike, while the creamy 2-2.5 cm long flowers scarcely open and have a bract that is longer than the flower stalk on the lower florets. The two species are known to grow together.



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Lifecycle

Narrow-leaved Helleborine is a long-lived perennial flowering between May and June. It is a plant of chalk and limestone soils, but may also be rarely found within calcareous sand dunes and slightly acidic soils. It is a slow-growing plant from tough and congested root stock, rather than tubers, and responds slowly to management.

Habitat

It prefers open Beech or Ash-Oak woodland on thin calcareous soils in the south of Britain, where there are permanent patches of light in glades and along open rides. It may also be present on cliffs, gorges and rocky outcrops where the tree canopy is naturally thin and patchy. In the north of Britain it is also associated with Oak woodland on more acid soils, for example in West Scotland.

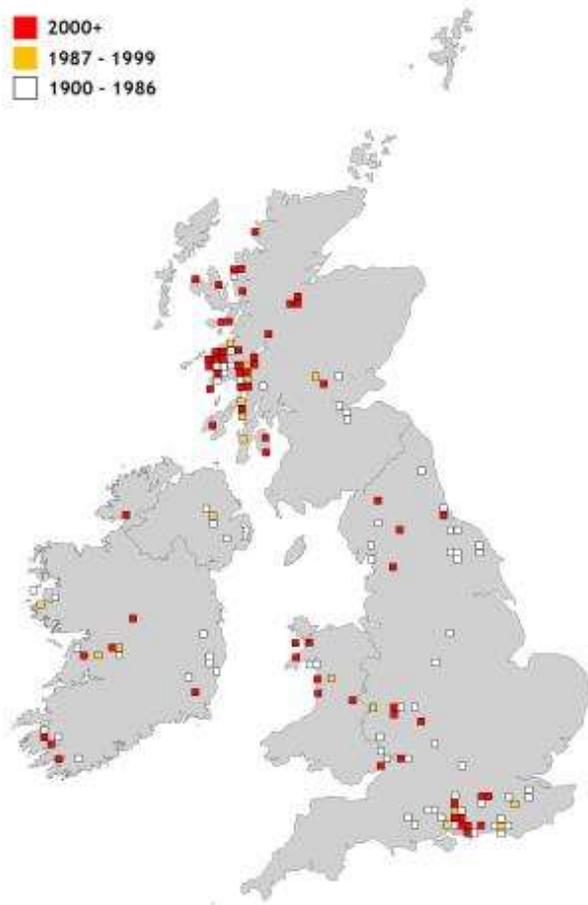
Narrow-leaved Helleborine is often found growing with Bluebell *Hyacinthoides non-scripta*, Sanicle *Sanicula europea* and Common Dog-violet *Viola riviniana*.

Distribution

Populations are often small, with rarely over 100 plants where the species is surviving in the lowlands of England and Wales. Narrow-leaved Helleborine is probably most common on the Hampshire chalk, in and around the East Hampshire Hangers, and the Wyre Forest. There are just two populations that boost over 1000 plants. It has declined substantially over the last thirty years.

GB status and rarity

Vulnerable



Protection under the law

This plant is included as a species “of principal importance for the purpose of conserving biodiversity” under Section 41 (England) of the Natural Environment and Rural Communities Act 2006, Section 2(4) of The Nature Conservation Act (Scotland) 2004 and Section 7 of the Environment (Wales) Act 2016.

It is classified as Vulnerable in the Great Britain Vascular Plant Red List. At a country level it is considered Endangered in the England Vascular Plant Red List and Wales Vascular Plant Red List and Vulnerable in the Scotland List of Priority Species. Narrow-leaved Helleborine is listed in the Irish Vascular Plant Red Book.

Survey method

Surveys are best undertaken between late May and the first half of June when the plant is in flower. Individual basal rosettes and flowering spikes should both be counted. There is a high possibility of missing vegetative plants on sites with steep terrain which can lead to an under-estimate of population size.

Reasons for decline

There are three main causes for decline;

- i) rapid clear-felling of sites leading to lush re-growth of the understory and consequent shading of individual plants;
- ii) lack of woodland management maintaining rides and glades; and
- iii) tree planting, including planting conifers.

Development is another reason for the loss of Narrow-leaved Helleborine populations, with roadside populations being lost to road realignment.

Narrow-leaved Helleborine distribution across Britain and Ireland. The data used to create this map has been provided under license from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society’s online database.

Habitat management for Narrow-leaved Helleborine

Targeted woodland management, such as thinning, coppicing, and maintaining ridges and glades, will provide the open /dappled shade conditions that Narrow-leaved Helleborine requires. At sites where clear-felling has been undertaken, and on road-side verges, mowing outside of the flowering and fruiting season, from mid-August onwards, can reduce coarse vegetation and create space for seed to germinate.

Introduction of a wood meadow mowing regime, combined with careful tree removal, at Hampshire sites has dramatically increased the number of flowering plants. The largest site now numbers around 4000 flowering spikes, and appears to be increasing at about 80 spikes per year. Populations can be self-sustaining requiring no management in habitats that remain open, such as steep banks with thin tree canopies. Low levels of deer browsing can be considered beneficial to keep open conditions, but medium to high levels of deer browsing can reduce populations as plants are eaten.

Narrow-leaved Helleborine favours open areas with 50-75% ground cover. Removal of all trees may well lead to an increase in ground flora, restricting growth. Moderate sun levels leads to greater insect visitation, and therefore higher seed set. Conversely, high sun levels may lead to Narrow-leaved Helleborine burning-out and reduced flowering.

The seed needs to settle onto bare ground for germination, so exposing the mineral soil around existing colonies is essential. This could be undertaken by raking the bulk of leaf litter in suitable dappled shade conditions close-to populations of Narrow-leaved Helleborine . This management would enable the dust-like seed dispersed on the wind to settle into suitable germination conditions.



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