

Liparis loeselii



Status

Annexes II(b) and IV(b) of the EC Habitats Directive, Schedule 4 of the Conservation (Natural Habitats, etc.) Regulations 1994.

Schedule 8, Wildlife & Countryside Act (1981).

IUCN Threat category: Endangered (2005).

UK Biodiversity Action Plan Priority species.

Taxonomy

Magnoliopsida: Orchidaceae

Scientific name:

Liparis loeselii (L.) Rich.,

Synonymy: *Ophrys loeselii* L.

Common names:

Fen Orchid, Gefell-lys y Fignen

Liparis loeselii is a distinctive member of the Orchid family (Orchidaceae), and is the only representative in Britain of the genus, which is composed of about 250 species mostly distributed in temperate and tropical regions.

Liparis in Europe usually has two basal tubers (mother and daughter) side by side, two leaves, the labellum (or main lip) of the flower turned upwards, downwards or in intermediate directions, and no spur.

There are two varieties of *L. loeselii* in Britain, which are easily distinguished by leaf shape and habitat (Rose 1997):

Var. *loeselii*: Leaves oblong-elliptic (Figure 2a); up to 12 flowers. Fens and reed swamp, mainly East Anglia.

Var. *ovata* Ridd. ex Godfrey: Leaves ovate to broadly elliptical (Figure 2b); up to 6(-10) flowers. Dune slacks, mainly western Britain.

Kay & John (1995) found no genetic variation in the small number of samples studied.

Distribution & Ecology

This rare species is recorded from both sides of the Bristol Channel and East Anglia. In East Anglia it occurs in base-rich, wet, low-fertility, herbaceous fen (Wheeler *et al.* 1998), old peat cuttings, and rarely in reed beds. In South Wales and North Devon it grows in young dune-slacks (Jones 1998).



Figure 1. Illustration of key features (from J. E. Smith & J. Sowerby (1852). *English Botany*. London)

It declined markedly in both areas due to habitat loss, drainage, scrub invasion, cessation of peat cutting, and stabilisation of dunes.

Identification & Field survey

Liparis loeselii is a distinctive species unlikely to be confused with any other British species. Bog orchids *Hammarbya paludosa* are superficially similar, but are much smaller with 3-5 leaves all less than 1 cm long, and the leaf margins are fringed by tiny bulbils.

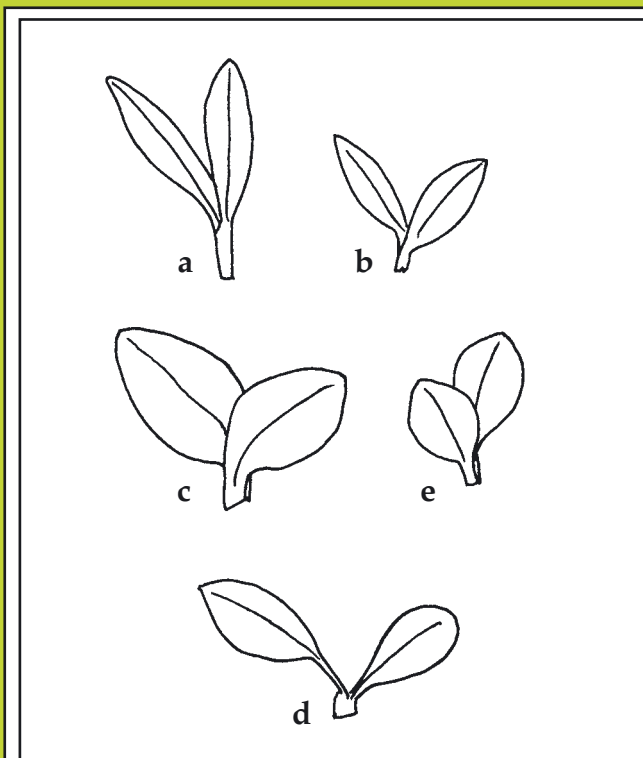


Figure 2. Leaf shapes of *Liparis* (a, b) var. *loeselii* (c-e) var. *ovata*.

Field surveys are best carried out after the *Liparis* plants emerge (usually mid-June to mid-July in East Anglia), but some plants may be lost to mollusc grazing relatively quickly. The bright yellowish-green colour of *Liparis* often makes it stand out in short, open, dune slacks, but plants may also occur hidden under vegetation (Jones 1998).

As a UK Biodiversity 'short list' species it is of high interest, and full details should be recorded of all populations. However, detailed population monitoring is required to investigate what is happening to populations as they often show marked turnover and flux (Wheeler *et al.* 1998).

Key characters

Plant to c. 15(-20) cm tall, yellowish-green, with two basal tubers (mother and daughter) side by side. Leaves two, to c. 8 cm long, in a sub-opposite pair. Inflorescence slender. Flowers yellowish-green, labellum usually directed upwards.

References

- Jones, P. S. (1998). Aspects of the population biology of *Liparis loeselii* (L.) Rich. var. *ovata* Ridd. ex Godfery (Orchidaceae) in the dune slacks of South Wales, UK. *Botanical Journal of the Linnean Society* **126**: 123-139.
- Kay, Q. O. N. & John, R. F. (1995). *The conservation of scarce and declining plant species in lowland Wales: Population genetics, demographic ecology and recommendations for future conservation of 32 species of lowland grassland and related habitats*. Countryside Council for Wales Science Report No. 110. March 1995.
- Preston, C.D., Pearman, D. A. & Dines, T. D. eds. (2002). *New Atlas of the British & Irish flora*. Oxford University Press, Oxford.
- Rose, F. (1997). *Liparis loeselii* (L.) Rich., in Rich, T. C. G. & Jermy, A. C. (1998). *Plant Crib 1998*. p. 379. BSBI, London.
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Additional photographs are available on the ARKive website (<http://www.arkive.org/species>).