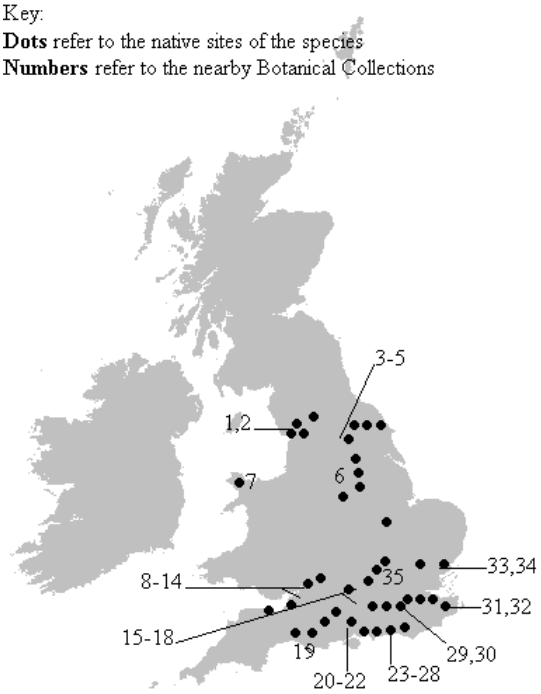
Ophrys insectifera L.

Fly Orchid



Starting references

Family

Orchidaceae

IUCN category (2001)

Vulnerable

Habit

Shade-tolerant tuberous herb.

Habitat

On chalk and limestone soils in open deciduous woodland and scrub; also grassland, chalk-pits, limestone pavement, disused railways, spoil heaps and, rarely, unstable coastal cliffs. In Anglesey, it is found only in open calcareous flushes and fens. 0-390m.

Reasons for decline

Scrub encroachment, the closing of woodland canopies, woodland clearance and drainage of fens.

Distribution in wild

Country	Locality & Vice County	Sites ($10km^2$ occurences)	Population (plants)
Wales	Anglesey	3	
England	Westmorland	8	
	NE Yorks	5	
	W Yorks	4	
	Derbyshire	1	
	Nottinghamshire	3	
	Warwickshire	1	
	Bedfordshire	1	
	Northamptonshire	3	
	Suffolk	2	
	Buckinghamshire	5	
	Hertfordshire	4	
	Glos.	8	
	Somerset	3	
	Wiltshire	11	
	Dorset	5	
	Hants.	12	
	Sussex	8	
	Kent	11	
	Surrey	6	

Ex situ Collections

Gardens close to the region of distribution of the species

1 Sizergh Castle (NT)
2 Holehird Gardens
3 RHS Harlow Carr
4 Harewood House
5 Yorkshire Museum & Gardens
6 Sheffield Botanical Gardens
7 Treborth Botanic Garden

8 Batsford Arboretum
9 Hidcote Manor Garden (NT)
10 Highgrove House
11 Westonbirt National Arboretum
12 Bristol Zoo Gardens
13 University of Bristol Botanic Garden
14 Wildwalk at Bristol
15 University of Oxford Botanic Garden
16 The Harris Garden
17 Windsor Gardens
18 Cliveden (NT)
19 Abbotsbury Subtropical Garden
20 Longstock Park Gardens
21 Mottisfont Abbey Garden (NT)
22 Sir Harold Hillier Garden
23 West Dean Gardens
24 High Beeches Gardens
25 Nymans Garden
26 Borde Hill Garden
27 Newhaven Botanic Garden
28 Sheffield Park
29 RBG Kew
30 RHS Wisley
31 Sissinghurst Castle (NT)
32 Bedgebury National Pinetum
33 Mark Hall Arboretum
34 RHS Hyde Hall
35 University of Hertfordshire

Gardens with specialisation on family Orchidaceae

B'ham Botanical Gardens & Glasshouses, Westbourne
Bristol Zoo Gardens
City of Liverpool Botanic Gardens
Glasgow Botanic Gardens
RHS Wisley
RNH Kew
University of Oxford Botanic Garden

Potential to grow the species in *ex situ* Collections

From Plants For A Future

- Propagation

Seed - surface sow, preferably as soon as it is ripe, in the greenhouse and do not allow the compost to dry out. The seed of this species is extremely simple, it has a minute embryo surrounded by a single layer of protective cells. It contains very little food reserves and depends upon a symbiotic relationship with a species of soil-dwelling fungus. The fungal hyphae invade the seed and enter the cells of the embryo. The orchid soon begins to digest the fungal tissue and this acts as a food supply for the plant until it is able to obtain nutrients from decaying material in the soil. It is best to use some of the soil that is growing around established plants in order to introduce the fungus, or to sow the seed around a plant of the same species and allow the seedlings to grow on until they are large enough to move. This species only rarely forms new offsets and so division is seldom feasible, the following methods can be tried, however. Division of the tubers as the flowers fade. This species produces a new tuber towards the end of its growing season. If this is removed from the plant as its flowers are fading, the shock to the plant can stimulate new tubers to be formed. The tuber should be treated as being dormant, whilst the remaining plant should be encouraged to continue in growth in order to give it time to produce new tubers. Division can also be carried out when the plant has a fully developed rosette of leaves but before it comes into flower. The entire new growth is removed from the old tuber from which it has arisen and is potted up, the cut being made towards the bottom of the stem but leaving one or two roots still attached to the old tuber. This can often be done

without digging up the plant. The old tuber should develop one or two new growths, whilst the new rosette should continue in growth and flower normally.

- Cultivation

Plants can be grown in a lawn, but the lawn must not be cut until the plants have set seed. Orchids are, in general, shallow-rooting plants of well-drained low-fertility soils. Their symbiotic relationship with a fungus in the soil allows them to obtain sufficient nutrients and be able to compete successfully with other plants. They are very sensitive to the addition of fertilizers or fungicides since these can harm the symbiotic fungus and thus kill the orchid. This symbiotic relationship makes them very difficult to cultivate, though they will sometimes appear uninvited in a garden and will then thrive. Transplanting can damage the relationship and plants might also thrive for a few years and then disappear, suggesting that they might be short-lived perennials. The flowers resemble a female insect and also emit a scent similar to female pheremones, they are pollinated by a male insect of that species attempting to copulate with the flower. Plants are rather sparingly visited by bees and flies, setting seed only if visited. Tubers should be planted out whilst they are dormant, this is probably best done in the autumn. They should be planted at least 5cm below soil level.

Conservation information

Linkages to BAPs

Designated LBAP Areas are listed on http://www.searchnbn.net

Habitat Management

Protected sites with records for *O. insectifera* are listed on http://www.searchnbn.net

Conservation programmes

Unknown

Web References

- NBN Gateway database: http://www.searchnbn.net
- Plants For A Future Database: http://www.pfaf.org/database/plants.php?Ophrys+insectifera