

## Lady's-slipper Orchid (*Cypripedium calceolus*)



*Slipper Orchid*

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This is a showy and attractive orchid up to 30 cm tall. The stem arises from an underground rhizome and carries three or four leaves and most usually one flower. These are up to 6 cm across, and appear in May/June. The flower comprises a central yellow slipper-shaped lip surrounded by five maroon petals.

The yellow lip attracts small bees, which once inside the 'slipper' cannot escape except through narrow openings at the flower's centre. As the insect escapes the flower is pollinated. The flower also passes on pollen of its own to the bee to transfer to the next lady's-slipper orchid it visits. The plant takes in excess of ten years to grow to maturity.

This orchid has never been widespread in the UK being confined mainly to limestone areas in northern England. It was the target of collectors in the nineteenth century and consequently has become extremely rare in the UK. Only a few plants have survived in garden conditions

and only one definite natural site is known in the country. This is a heavily guarded and secret location in Yorkshire.

The first written record of the plant in England (from 1640) was from Helks Wood near Ingleton, but by 1796 it had been cleared from this site by collectors<sup>(1)</sup>. Accounts from around this time state that bunches of slipper-orchids were sold from stalls at Settle market. By the end of the 1880s the plant was already very rare throughout its former range<sup>(1)</sup>.

**Main Habitat(s):** Scrub, woodland and grassland on limestone.

### **National status**

The species is listed as 'critically endangered' in the British Red Data Book 1 Vascular Plants<sup>(2)</sup> and it is listed on Annexes IIb and IVb of the EU Habitats Directive and Appendix II of the Berne Convention. It is protected under Schedule 8 of the Wildlife and Countryside Act (as amended).

### **Regional status**

In the past, the plant was recorded from a number of sites in Cumbria. The six 10 km squares in the Red Data Book<sup>(2)</sup> are all pre 1970.

### **Local status**

A single plant occurs in Lancashire which was first reported in the literature in the early 1970's,<sup>(3)</sup> Local botanists had been aware of the plant's existence at this location since at least the 1930s (Sivell, Pers comm.). However, there are conflicting views regarding its status. Whether it is native or planted, of British or European origin cannot currently be determined with certainty. However, as this species is protected at a European level, the Lancashire plant should be treated as native and protected accordingly. Because of its endangered status and the threat from collectors, the location of the plant must be treated with strict confidentiality.

Literature and herbarium searches have been undertaken in the past<sup>(4)</sup> but no definite records have been found other than a number of very old records that simply quote Lancashire as the location.

### **Current factors affecting the species**

The following factors are thought to pose possible threats to the survival of the species at its Lancashire site:

- Damage or loss as a result of human actions such as collection or up-rooting and soil compaction by photographers;
- Damage/predation from grazing animals, including slugs, snails voles and rabbits;
- Lack of natural regeneration by seed.

### **Current Action / Mechanisms**

At the national level, there has been a Species Recovery Programme devoted to this plant co-ordinated by English Nature since 1992. This Programme has concentrated on protecting native plants in the wild and in gardens and propagating seedlings to re-stock sites. A 'Cypripedium Committee' has been established to advise on research and conservation measures relating to this species.

The existing location is within a Site of Special Scientific Interest.

### Objectives, targets and proposed actions for lady's-slipper orchid in Lancashire

<b>Broad Objective:</b>	<b>A. Maintain the species at its existing site.</b>			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. Continue to monitor the status of the Lancashire plant.	1. Monitor each year during flowering season. (High)	Cyp Com, EN, land-owner	O	RM
2. Protect the Lancashire plant from damage / predation.	1. Take measures to protect the plant particularly during its flowering season (High)	Cyp com, EN, land-owner	S	SS, LM
3. Seek to increase the existing population in Lancashire through natural regeneration.	1. Implement management recommendations of the Cypripedium Committee to enhance natural regeneration. (High)	EN, Cyp Com, LCC, land-owner	S	SS,LM
<b>Broad Objective:</b>	<b>B. Establish viable populations of plants of native stock at suitable and appropriate site/s within the county</b>			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type
1. By 2004 increase the number of sites supporting this plant through implementation of the Species Recovery Programme	1. Approach landowners of suitable sites to investigate possibilities of establishing new populations. (Medium)	Cyp Com LCC, BHSP, Land-owners.	M	A, LM
	2. By 2004 undertake, at (an) appropriate site(s), the introduction of the species. (Medium)	Cyp Com, LCC, Land-owners.	O	A, LM
<b>Broad Objective:</b>	<b>C. Promote the lady's-slipper orchid as a flagship species in the Lancashire BAP (Note: The location of sites for the plant should be treated as strictly confidential)</b>			
Operational Objective	Action Required (Priority)	Partners	Time-scale	Type

1. Produce material aimed at the general public that explains the importance of the slipper-orchid.	1. Include information about the orchid in newsletters, and leaflets.	WT, LCC, Cyp Com	O	PR
2. Aim to provide a location for the public to view the plant in a wild location.	1. Provide access to a species recovery site where people can view the plant on special open days when the plant is in bloom.	LCC, Cyp.Com	L	PR

**Related Action Plans:**

- Calcareous grassland HAP
- Limestone Pavement HAP
- Woodland HAP

**References & additional reading:**

1. Summerhayes, V.S. (1951) Wild Orchids of Britain. Collins New Naturalist series.
2. Wigginton M.J. (1999). British Red Data Books 1 Vascular Plants, 3<sup>rd</sup> Edition, Joint Nature Conservation Committee.
3. Lancashire Wildlife Trust (1975) Lapwing No. 5, October 1975 , LWT.
4. Greenwood, E. F. (2000) Pers. Comm.

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