Cypripedium calceolus L.

Lady's Slipper Orchid

Starting references

Family

Orchidaceae

IUCN category (2001)

Critically Endangered

Habit

Rhizomatous herb (perennial).

Habitat

Well-drained calcareous soils, in herb-rich grassland.

Reasons for decline

Uprooting, picking and trampling. Habitat destruction due to increased grazing pressure.

Distribution in wild

Country	Locality & Vice County	Sites ($10km^2$ occurences)	Population (plants)
England	Mid-W. Yorkshire	1	1 clump

Ex situ Collections

Gardens close to the region of distribution of the species

1 RHS Harlow Carr
2 Harewood
3 Yorkshire Museum & Gardens
4 City of Leeds Botanic Garden
5 Sheffield Botanical Gardens
6 Firs Botanical Grounds
7 Fletcher Moss Botanical Gardens
8 University of Manchester Botanical & Exp. Grounds

Gardens with specialisation on genus *Cypripedium*

Spinners, Hants.

Potential to grow the species in *ex situ* Collections

By 1996, plants derived from micro-propagation.

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.
Division with care in early spring, the plants resent disturbance. Remove part of the original rootball with the soil intact.
Division is best carried out towards the end of the growing season, since food reserves are fairly evenly distributed through the rhizome. Small divisions of a lead and two buds, or divisions from the back (older) part of the rhizome without any developed buds, establish quickly using this method. Replant immediately in situ.

- Cultivation

Succeeds in shade or full sun so long as there is adequate moisture. Grows well in a woodland garden. Plants are best grown on a north or north-west aspect in order to slow down early growth. Requires a humus rich soil with plenty of moisture in the growing season[42], it also succeeds in chalky soils[200]. Must not be planted too deeply. A very ornamental plant it is long-lived when once established, though it is very difficult to establish a plant. The flowers have a soft, rose-like perfume. Plants are growing very well at the Savill Gardens in Windsor.
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.

Conservation information

Cypripedium calceolus is protected under Schedule 8 of the Wildlife and Countryside Act, 1981

Linkages to BAPs

A Species Action Plan has been produced for *C. calceolus*, lead partners are:
Margaret Ramsey, Royal Botanic Garden, Kew
Ian Taylor, Cypripedium Committee Tel:01539 792800

The following LBAPs are working on the species:
Lancashire's BAP
Nature in the Dales - a local BAP for the Yorkshire Dales National Park

Habitat Management

The original clone in Yorkshire is protected by a cage throughout the year.

Conservation programmes

On-going recovery programme by English Nature's Species Recovery programme & RBG, Kew includes re-establishment of plants from *ex situ* propagation and introduction of the plant to additional sites.

Web References

- UK Species Action Plan: http://www.ukbap.org.uk/UKPlans.aspx?ID=255
- Plants For A Future database: http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Cypripedium+calceolus+parviflorum