

Dartmoor Delivery Plan for Vigur's Eyebright

Description and Importance of the Species

Vigur's Eyebright (*Euphrasia vigursii*) is a rare annual flower which is believed to be endemic to Devon and Cornwall. It is identified by its bright reddish-purple flowers and long glandular hairs on the upper leaves and bracts and is probably a stable hybrid between two closely related species, *Euphrasia anglica* and *E. micrantha*. On the Devon sites, it is thought to be hemi-parasitic on western gorse, taking some nourishment from the plant but also photosynthesizing.

It is included in the priority list of the UK Steering Group Report on Biodiversity, where it is categorised as being of '*global conservation concern*'. It occurs locally in western gorse (*Ulex gallii*)/bristle bent (*Agrostis curtisii*) heathland in Cornwall, but has always been rare in Devon. The population at Lydford High Down (LHD) is thought to constitute one, if not the, largest colony of this species in the world.

Five national actions for this species have recently been sought by Natural England (Nov 2013) due to its status as a NERC Act, Section 41 Species. These include '*At key sites for this species, ensure that appropriate agricultural management for the needs of this species are maintained or restored via mechanisms such as management agreements and agri-environment prescriptions*' and '*Consider and undertake notification of key sites where necessary to prevent species loss and ensure the needs of this species in incorporated into site management prescriptions*'.



Vigur's eyebright, copyright DNPA

Current Status on Dartmoor

There are four known sites for this species in Devon, all on the western fringes of Dartmoor, although one site, Fernworthy Down, lies just outside the National Park boundary. A further site where its status is yet to be clarified, occurs at the top of the Challacombe valley. Extensive searches of old known sites were carried out in 1994 without success. However, the plant was located at LHD in 1995 and further widespread searches in 1998 revealed a few flowers at an additional nearby site - Vale Down. In 2000, very small numbers were also found on Roborough Down. As with all annuals, numbers fluctuate markedly between years. In 2002, it was estimated that 21,000 were present at LHD, but this figure has dropped as low as 97 in 2004 and 1,228 were present in 2005. Since 2008, numbers here appear to have stabilised at between 250 and 350 annually. Numbers recorded at the other sites have always been in single figures.

Issues affecting the Species on Dartmoor

Vigur's eyebright is most numerous on LHD where western gorse occurs at between 20% and 50% ground cover. This means it needs the gorse, but can also be easily swamped by it. It therefore requires a fine mosaic of western gorse and bristle bent grassland. Active management through a combination of grazing, cutting and/or burning is necessary to maintain these conditions. The rapid increase in gorse growth following reduced stocking levels on LHD, appears to have been a major factor in the lower numbers in recent years and is also an issue at the other sites.

Current Initiatives on Dartmoor

1. Annual monitoring of numbers and gorse densities at LHD has taken place since 2002 by a DNPA Ecologist.
2. A number of MSc research projects looking at the ecology of this plant have been carried out in recent years by students from Plymouth University.
3. The local Botanical Society of Britain and Ireland recorder has been checking the 3 sites with lower numbers.
4. Since 2004, swiping of gorse at LHD and Fernworthy Down has been periodically carried out under the ESA/Stewardship management agreements in place for those commons, with the work at the former being specifically targeted to benefit the eyebright. Indications are that this has been successful in stabilising flower numbers following the large decreases from 2002.
5. Swiping has also been undertaken at Vale Down to improve conditions.

Target

- Maintain a viable population on Dartmoor, with an annual count of at least 200 plants at Lydford High Down



Vigur's eyebright growing with western gorse, bristle bent, tormentil and cross-leaved heath, copyright DNPA

Delivery and Monitoring

Habitat management and grazing levels at Lydford High Down – annual liaison in the autumn needed between Natural England, Commoners and DNPA to seek improvements to management.

Develop research at Plymouth University to improve knowledge of ecology and habitat requirements – encourage further MSc student studies following discussion with Dr Paul Ramsey.

Annually monitor numbers at Lydford High Down – DNPA Ecologist to ensure monitoring takes place and circulate findings.

Re-survey Vale Down, Roborough Down and Fernworthy Down and amend management if required – discuss with BSBI recorders.

	Lead	2014	2015	2016	2016	2017
Management needed at LHD discussed between NE/Commoners/DNPA in autumn and works for winter agreed	DNPA/NE	x	x	x	x	x
Annual monitoring of distribution and numbers at LHD	DNPA	x	x	x	x	x
Discuss further research work with Plymouth University	DNPA	x				
Re-survey the 4 Dartmoor sites + Fernworthy Down	BSBI	x				