



Field Cow-wheat at Portsdown

Site Status Report - 2016

The Species Recovery Trust

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**the
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Introduction

This report describes Field Cow-wheat at its only Hampshire site at Portsdown, set against its national conservation status

Species Status

Ecology

Melampyrum arvense, commonly known as Field Cow-wheat (FCW), is an herbaceous flowering plant of the genus *Melampyrum* in the family *Orobanchaceae*. It is easily recognised by its showy purple-yellow spiked inflorescences.

This species is hemiparasitic, commonly feeding on the roots of grasses but also on those of other plants. In the absence of host species it fails to flourish and only small plants will grow. Experimental evidence shows that it appears to be able to parasitise a wide mix of different species.

Conservation

Although an archaeophyte in parts of N. Europe, this conspicuous species was not recorded in Britain until 1724. Originally introduced with crop-seed, it has declined due to improved seed cleaning, agricultural intensification and a lack of disturbance and habitat change at some sites. It was rare by 1930, with roughly 19 sites, and has continued to decline over the last 40 years

It is now confined to just four sites in the UK, and is protected under Schedule 8 of the Wildlife and Countryside Act. It is classified as 'Endangered' on the IUCN Red List, meaning it is facing a **very high risk of extinction in the wild**.

The species appears to favour dry chalky soils, and requires open conditions. However its parasitic nature means that full habitat clearance cannot be carried out, and a range of suitable host plants have to be retained alongside the Cow-wheat.

Of the current four sites in the UK only one, St Lawrence Bank on the Isle of Wight, is considered as a true native site. Both the Brogborough and Portsdown sites are a result of successful translocations, although the former now only contains a handful of plants.



Site Status

FCW was introduced to Portsdown in 1999 as part of efforts to conserve the species nationally. The population numbered several thousand plants in the early 2000's. Although the population has now declined to under 1000 plants it is still possibly the largest population in the country.

The population occurs on both sides of the motorway perimeter fence, with half the population on the HCC owned verge of Skew Road. This is a wide verge and supports an excellent chalk grassland flora in addition to the FCW. This half of the site has been managed by The Species Recovery Trust (with permission from HCC) since 2015. Work has focussed on enlarging the area of suitable habitat for the species by firstly removing larger scrub species, and then carefully reducing the amount of Ivy, which in places has formed a thick mat of the ground. This clearance was firstly carried out in an experimental 1x1m plot, which has considerable success between 2015-16 (pictured below on left).





The other half of the site, within the M27 verge, currently also supports a large population of plants (an exact count has not been possible due to lack of access).

However, this portion of the site is becoming increasingly overgrown with shrubs, mostly Dogwood and Hawthorn, which will eventually threaten the long-term viability of the population here.

Proposed Actions

Scrub clearance on the M27 verge should be carried out. The timing of this is problematic, as the FCW seeds tend to germinate in September, spending the winter as small embedded seedlings (pictured). However, the need to manage the site overall means that some limited disturbance to the seedlings must be accepted, which can be carried out under the Schedule 8 license held by The Species Recovery Trust.

The clearance work must be done under supervision to satisfy the license requirements, and to limit accidental mortality to the plants. The main extent of the plants will be pegged out and where possible scrub removed by working outside this area and pulling material out.

The areas must then be closely monitored to gauge the success of the works and inform any further management.

It is hoped that this work can be used to produce a good level of publicity, for the species as well as the organisations involved.



About Us

The Species Recovery Trust is a charity set up to tackle the loss of some of the rarest species in the UK.

There are over nine hundred native species in the UK that are classed as under threat, with several hundreds more currently widespread but known to be in significant decline. The countryside is now bereft of many species that were a familiar sight a mere generation ago.

A small number of these species are on the absolute brink of existence, poised to become extinct in our lifetimes; our goal is to stop them vanishing.

Our aim is to remove 50 species from the edge of extinction in the UK by the year 2050. In addition we are reconnecting people with wildlife and the natural world through training programmes and awareness raising.



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