



The Conservation of Field Gentian

Report to Alice McCosh trust

Summary

In 2018 The Alice McCosh trust contributed a sum of £1000 towards our project examining the status the Field Gentian in the New Forest and Pembrokeshire Coast National Parks.



The project has allowed us to collect detailed ecological information from both areas, as well as an updated picture of how the populations fluctuate from year to year. Work was focussed on two areas – the Pembrokeshire coast and New Forest, both of which are unusual in still supporting a cluster of meta-populations,

The New Forest project received a massive setback, when the heatwave of the summer of 2018 killed off every single population, an event never seen in living memory. One of the larger populations did then produce a small handful of plants at the end of September, and we are monitoring these closely to see whether they are able to set seed in the remaining days of Autumn.

The heatwave had similar effects on several of the Pembrokeshire populations, although a handful of sites were not badly affected.

The funding of this project has allowed detailed monitoring of these sites to take place, and as tragic as the impacts of the heatwave are, without this funding we may have completely missed this localised extinction event. What this catastrophic event now allows us is a chance to monitor the recovery of these sites, and ascertain what survival mechanisms, such as seed banks and enforced dormancy, the plants possess.

We are hugely grateful to the trustees of the Alice McCosh Trust for contributing to this project and increasing our understanding and ability to save this endangered and iconic plant.



NEW FOREST

The project has led to the following observations in the New Forest:

1. Field Gentian plants ideally favour very short sward grasslands with limited amount of competing vegetation.
2. However, in these habitats they become much more prone to
 - a. Drought
 - b. Trampling
 - c. Deterioration due to cattle dunging as well as dog waste

During these events plants tend to shelter in neighbouring vegetation, especially under the cover of Bracken and Gorse.

As Bracken matures at a similar time to Gentian it was observed that the seed pods of these sheltered plants were smaller and ripened later, which in turn could have an effect on seed set.

During the heatwave on 2018 no plants managed to survive in the open sward habitat, leading to the temporary loss of populations that in previous years had numbers in the thousands. Extended survey works eventually located some plants deep amongst the scrub, which we believe had germinated two months late what the rains that eventually fell. Many of these plants however failed to flower and set seed, and this has proven a catastrophic year for the species. Just what impact this will have on its long-term survival remains to be seen.

What this information has done has led us to modify our management advice to other sites, and stress the importance of creating a mosaic of micro-habitats in the areas where the plants grow. This will become increasingly more important as climate change leads to an increase in extreme weather events.

PEMBROKESHIRE

The picture gained here was slightly different, and we now have up to date survey data for all of these, all of which has been submitted to local records centres.

Many of the habitat here are maintained by constant onshore winds, cropping the vegetation and preventing the development of a tall sward that could outcompete Field Gentian plants. At the same time these coastal breezes bring in a small amount of moisture and maintain lower temperatures, so the impacts of the heatwave were felt less strongly here in the data we collected. It may prove the case that the populations here become more of a stronghold as sites inland start to be lost, and we will keep a close eye on this.

Much of the population data collected here as part of this project will need to be fed into longer-term monitoring to decide the true status of these sites.