

Back from the Brink – Species summary

Fly Orchid

BftB project: IPO4 Limestone’s Living Legacies

Project lead organisation: Butterfly Conservation

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Partner organisation for species: Plantlife

Species name – common & scientific	<p style="text-align: center;">Fly Orchid <i>Ophrys insectivera</i></p>
Photograph	<div style="text-align: center;">  <p>© Alex Hyde / Back from the Brink</p> </div>
Taxon group	<p style="text-align: center;">Family Orchidaceae</p>
Conservation status	<p>A species “of principal importance for the purpose of conserving biodiversity” under Section 41 (England) of the Natural Environment and Rural Communities Act 2006 Of “principal importance” under Section 7 of the Environment (Wales) Act 2016.</p> <p>Vulnerable: Great Britain Vascular Plant Red List and the England Vascular Plant Red List</p>
UK distribution	<p>Dramatic declines before 1930 (especially in East Anglia) have continued, but at a reduced rate. Centres of population in chalk and limestone landscapes: North Downs, South Downs, Salisbury Plain, Yorkshire Wolds and Chilterns, Cotswolds, Peak District and Cumbria.</p>

Habitat associations	Habitats that are undergoing ecological succession from open habitats to woodland. Usually chalk and limestone soils in a variety of vegetation types from dappled woodland floors, open calcareous grassland, to flushes and fens, it has also been recorded in grasslands, quarries, spoil heaps, piles of railway ballast and on unstable coastal cliffs. Fly orchids benefit in the short-term from intermittent disturbance but are vulnerable in the medium-term to the decline in traditional management practices that historically maintained the open conditions.
BftB work carried out:	
Survey & Monitoring	<p>Surveys were undertaken at the following sites following Plantlife guidance in 2019: Charlton Kings Common Painswick Beacon Swift's Hill Plus three additional privately owned sites</p> <p>2020 surveys: Charlton Kings Common Painswick Beacon Sheepscombe Swift's Hill Cranham Common Snow's Farm Juniper Hill Plus one additional privately owned site</p> <p>2021 surveys: Charlton Kings Common</p>
Sites habitat management works	<p>Habitat management work has taken place on four sites to benefit Fly Orchid:</p> <p>Scrub and bramble removal carried out by volunteers in 2017 and 2018 at Sheepscombe Common.</p> <p>Scrub removal and electric fence installed by volunteers at Juniper Hill in 2020 to enable the reintroduction of sheep grazing.</p> <p>Cattle handling system installed in 2018 to enable Painswick Beacon Conservation Group to continue cattle grazing at Painswick Beacon.</p> <p>The installation of a new water trough at Swift's Hill to allow for an increased number of livestock will help benefit Fly Orchid through more extensive grazing.</p>
Technical advice provision	<p>Site advice visit to Painswick Beacon with the landowner and Painswick Beacon Conservation Group to discuss management of several target species including Fly Orchid.</p> <p>Site advice visits with Natural England to Sheepscombe Common, Juniper Hill and Cranham Common to look at grassland management for all target species including Fly Orchid.</p> <p>A new privately owned site came to the project's attention in 2021. Site advice visit with landowner discussed the need for scrub clearance, strimming of tall ruderals and targeted conservation grazing - including</p>

	<p>prescriptions for longer swards (where there is some overlap with the habitat requirements of Duke of Burgundy). The possibility of entering into stewardship was also discussed.</p> <p>A new Fly Orchid factsheet was also produced with Plantlife.</p>
<p>Links made with other taxa / conservation work?</p>	<p>Paddock grazing at Painswick Beacon has also allowed management for Duke of Burgundy, Purple Milk-vetch, Rugged Oil Beetle and Large Blue.</p> <p>Sheep grazing at Juniper Hill is also benefiting Duke of Burgundy, Rugged Oil Beetle and Juniper.</p> <p>The species successional habitat requirements link it to Duke of Burgundy and to some extent Adder. Landscape networks identified for the Duke of Burgundy may also create opportunities for Fly Orchid.</p>
<p>Wider engagement & advocacy activities?</p>	<p>Fly Orchid Identification and Survey training workshop led by Plantlife in 2019 with a total of 9 people attending.</p>
<p>BftB results obtained:</p>	
<p>Recorded Distribution (in BftB focal areas)</p>	<p>Pre 2000, data provided by the Botanical Society of Britain and Ireland (BSBI) shows a wider distribution of Fly Orchids in the Cotswolds, with ad hoc records of single plants in the wider countryside (Figure 1). Post 2000 the species is recorded more intensively from a smaller number of wildlife sites (Figure 2). BftB has not been able to confirm extant populations at three surveys sites however has been able to build on the significance of a newly recorded population.</p> <p>Surveys following Plantlife guidance were undertaken at 10 sites in 2019, 2020 and 2021 – results shown in Table 1 below.</p> <p>A dense group of plants under trees are consistently recorded by a volunteer at Charlton Kings Common (24 plants in 2019 & 39 in 2021, 22 from the main area), where otherwise on other sites the plants have a scattered distribution.</p> <p>In 2020 drought conditions are believed to have burnt the flowers off at some sites, possibly why three site surveys returned negative results.</p> <p>In 2021 BftB followed up a new record of 70 plants from a woodland glade and ride in a small area of a privately owned site near Withington, mapping 100 flowering spikes across a wider area of the site supported by Cotswold's Glorious Grasslands volunteers.</p>
<p>Recorded Abundance of species populations</p>	<p>As per Table 1. Charlton Kings Common and a second newly discovered site identified as sites with significant populations.</p>
<p>Species Recovery Curve progress made</p>	<p>Species recovery curve moved from 1 to 5: Site visits with Plantlife identified the causes of rarity/decline at a number of sites and advice was given to the landowners/managers on remedial action required.</p>

Recommendations for future work:-

Fly Orchid area at Painswick Beacon to be strimmed and raked in autumn/winter.
Encourage landowners with Fly Orchids on their land to use rotational management to create a mosaic of thin grassland under an open scrub or grassland canopy, particularly along woodland edges.

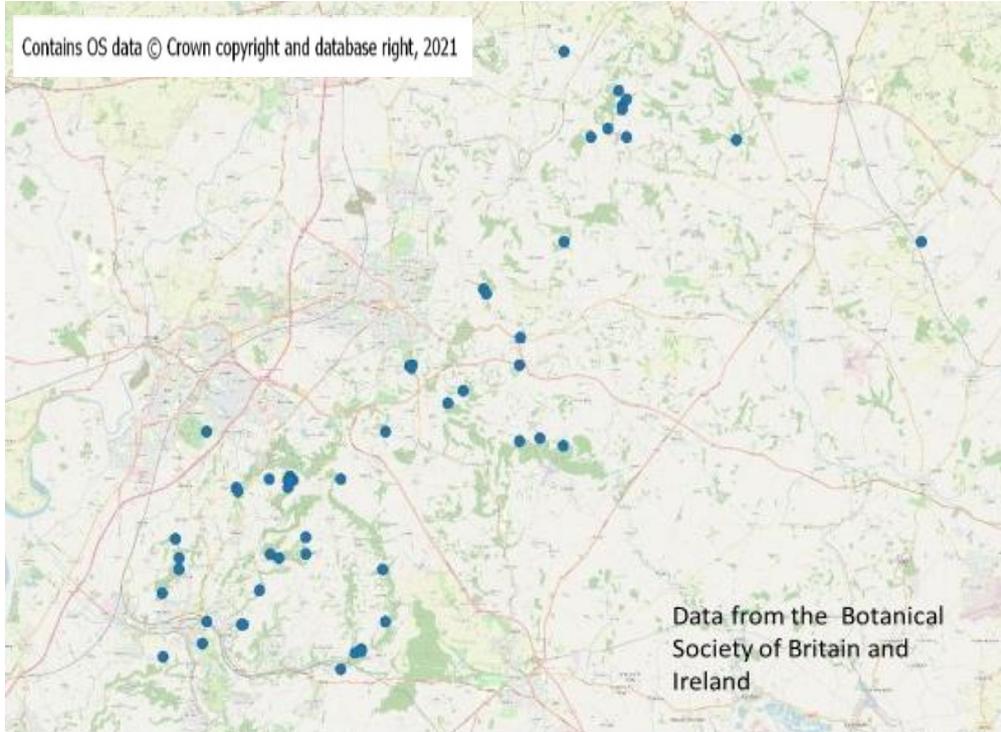


Figure 1. Fly Orchid distribution in the Cotswolds before 2000, showing a greater dispersion of locations across the Cotswolds.

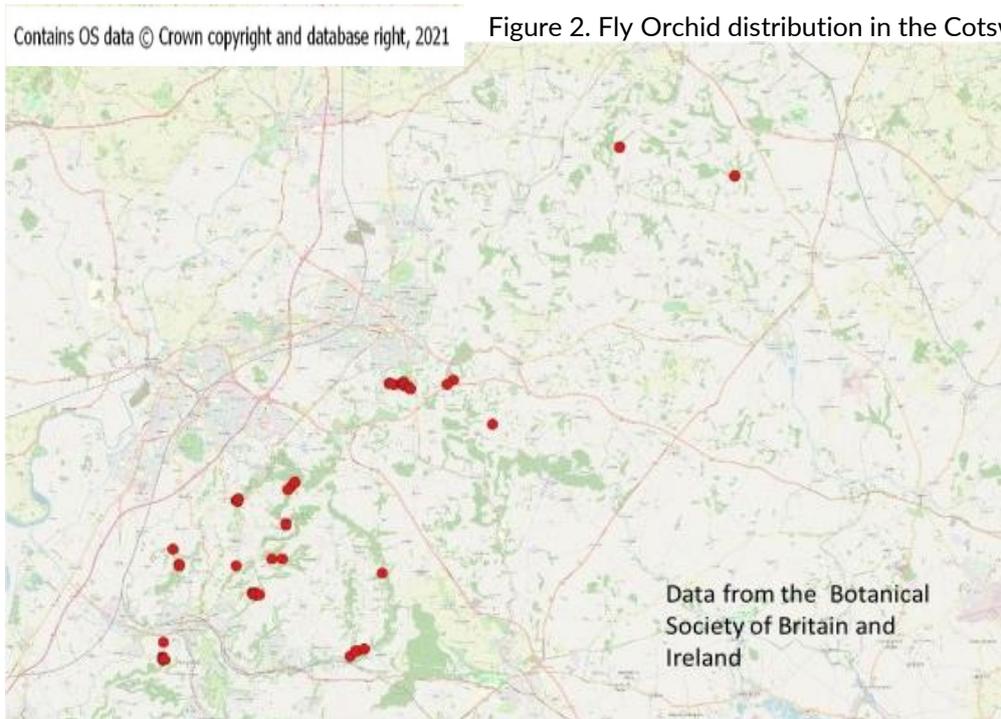


Figure 2. Fly Orchid distribution in the Cotswolds post 2000

shows a contraction from the wider countryside. As biological recording is often opportunistic and negative survey data is not available, all wider landscape records pre 2000 may not have been lost.

Table 1. Back from the Brink Fly Orchid Survey results

Site name	Fly Orchid plant counts 2019	Fly Orchid plant counts 2020	Fly Orchid plant counts 2021
Charlton Kings Common	24		39
Cranham Common		Negative	
Juniper Hill		Negative	
Private site no.1	Negative		
Painswick Beacon	13	13	
Sheepscombe Common	4	19	
Private site no.2	70*		100
Snow's Farm	Negative	Negative	
Private site no.3	3		
Swift's Hill		1	

*Independent record made by a local naturalist