

the
species
recovery
trust



2022 Species Report

Heath Lobelia

The 2022 work programme is part
funded through Natural England's
Species Recovery Programme





Partners

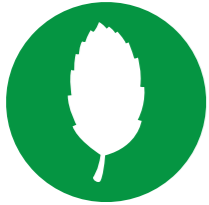
This project is formed of a collaboration between The Species Recovery Trust (Dominic Price, Bex House, Holly Stanworth, Phil Wilson and Ralph Hobbs), Devon Wildlife Trust (Jackie Gage/Nathan Robinson), Cornwall Wildlife Trust (Andy Collins), Dorset Flora Group (Robin Walls), Dorset County Council (Annabel King), Habitat First Group (Phoebe Carter), the Legacy to Landscapes Project (Ruth Worsley & team) and Flimwell Park who collectively make up the Heath Lobelia Steering Group, formed in 2019.

Particular thanks go to Natural England for their financial support of this project.

Summary



Heath Lobelia is found in 7 native sites across southern England.



In 2022 all 7 sites were monitored, and habitat restoration work was carried out at 5 sites. Populations are still fluctuating dramatically at several sites, and it remains a challenging species to conserve.

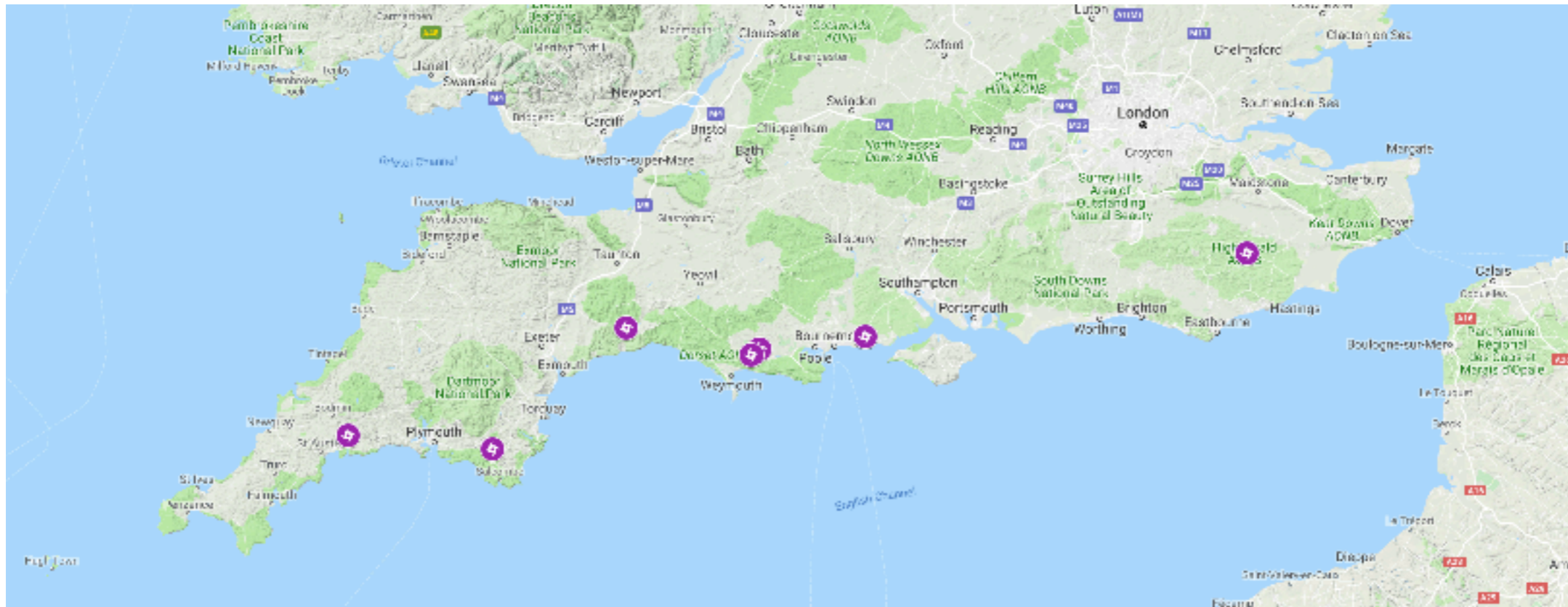


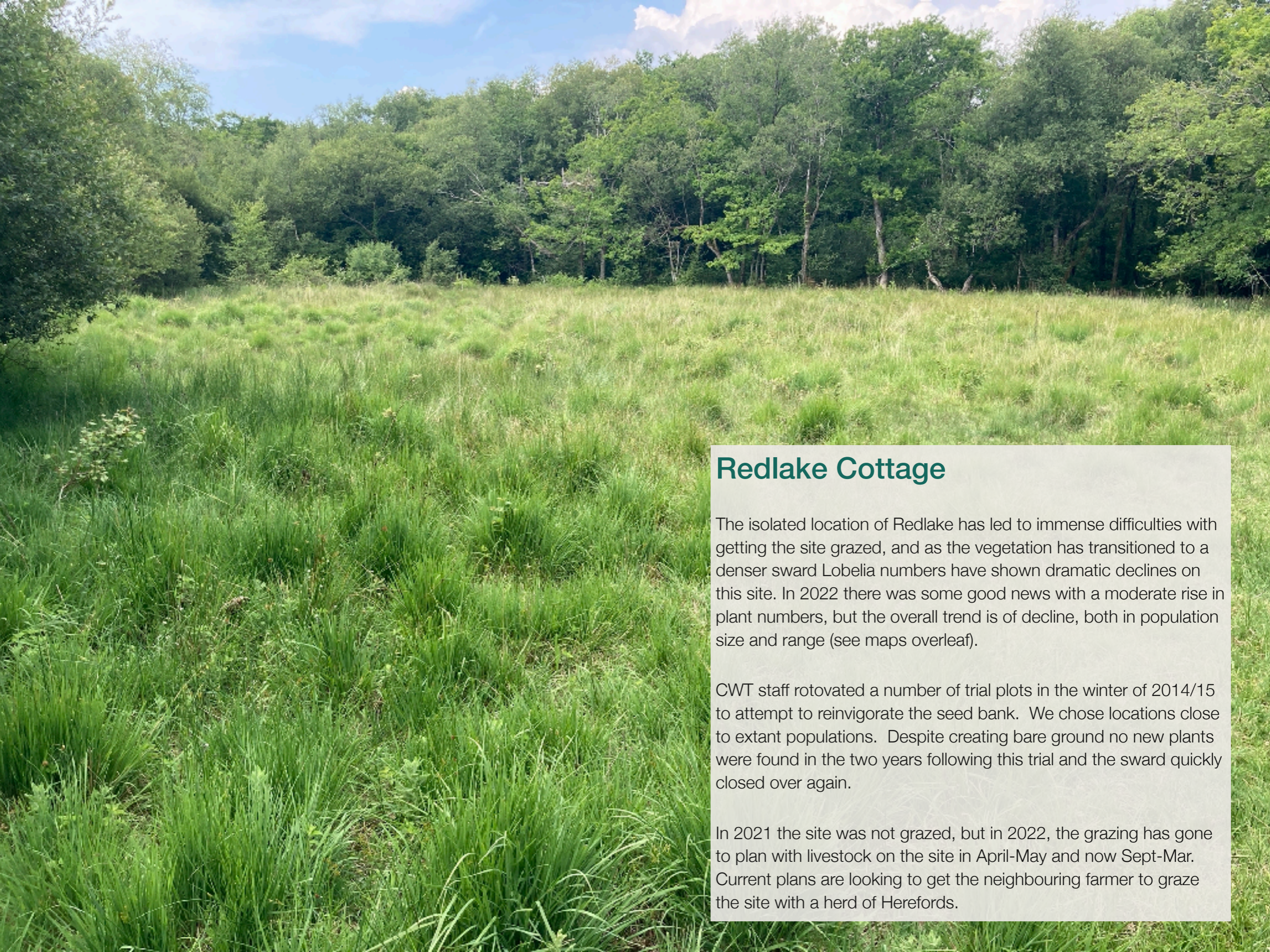
Plants were finally re-introduced to Yarner Woods, bringing the species back there after an absence of over 50 years.



Sites Summary

Site	County	2018	2019	2020	2021	2022	Highest recent count
Redlake Cottage Meadows	Cornwall	22	18	21	4	10	45 (2016)
Ventongimps	Cornwall	?	50	23	13	26	50 (2019)
Andrews Wood (+Stanton)	Devon	1800	2723+22	N/A	538	1565	12500 (2001)
Lobelia Cottage, Kilmington	Devon	120	c. 5	112	75	57	160 (2013)
Kilmington Common	Devon					76	2019 intro
Hurst Heath	Dorset	6	350	85	50	10	2400 (2015)
Silverlake	Dorset	15	37	21	22	31	37 (2019)
Hinton Admiral	Hampshire	14	780	40	200	202	780 (2020)
Hinton Arable	Hampshire	0	0	0	0	23	23 (2022)
Flimwell	Sussex	175	350	540	691	246	691 (2021)





Redlake Cottage

The isolated location of Redlake has led to immense difficulties with getting the site grazed, and as the vegetation has transitioned to a denser sward Lobelia numbers have shown dramatic declines on this site. In 2022 there was some good news with a moderate rise in plant numbers, but the overall trend is of decline, both in population size and range (see maps overleaf).

CWT staff rotovated a number of trial plots in the winter of 2014/15 to attempt to reinvigorate the seed bank. We chose locations close to extant populations. Despite creating bare ground no new plants were found in the two years following this trial and the sward quickly closed over again.

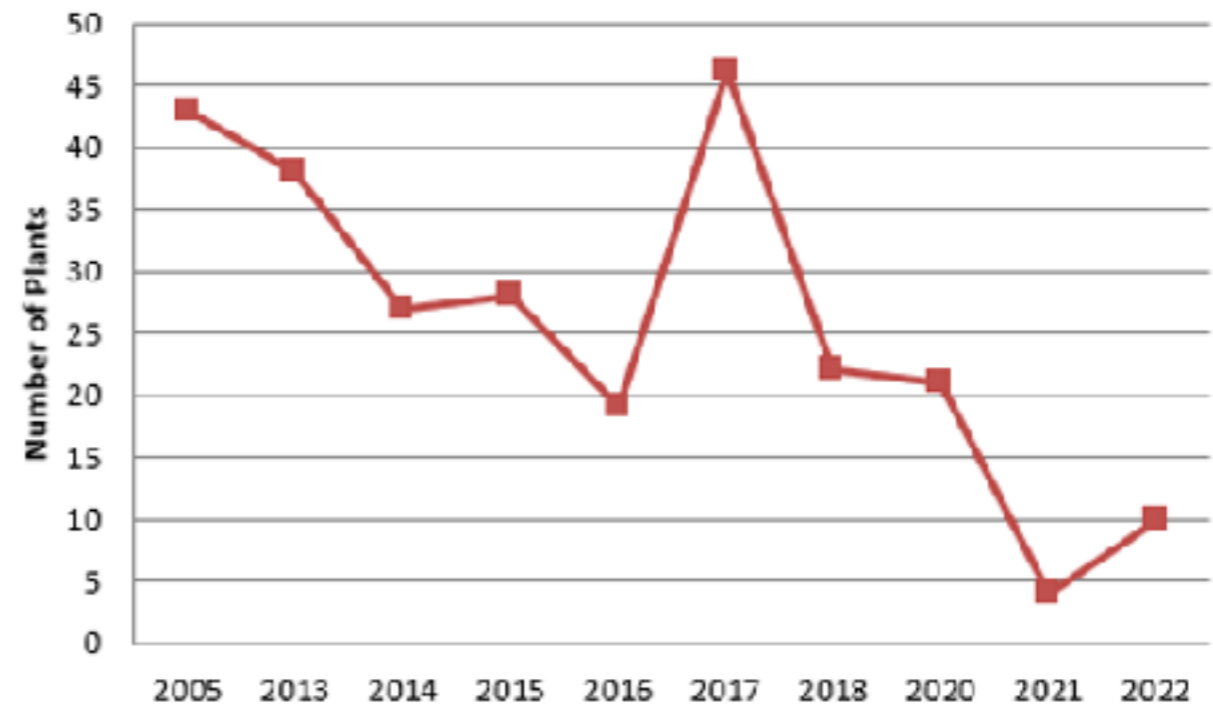
In 2021 the site was not grazed, but in 2022, the grazing has gone to plan with livestock on the site in April-May and now Sept-Mar. Current plans are looking to get the neighbouring farmer to graze the site with a herd of Herefords.

Redlake Cottage (cont.)

In the summer the site was visited by Ian Bennallick, Dave Pearman, Anita Pearman & Tina Nightingale, who advocated for mechanical disturbance to open up areas of the site. This led to some fairly intense discussions between various parties, and early convocation of the steering group. The feeling of SRT staff, which was ratified by members of the steering group was as follows:

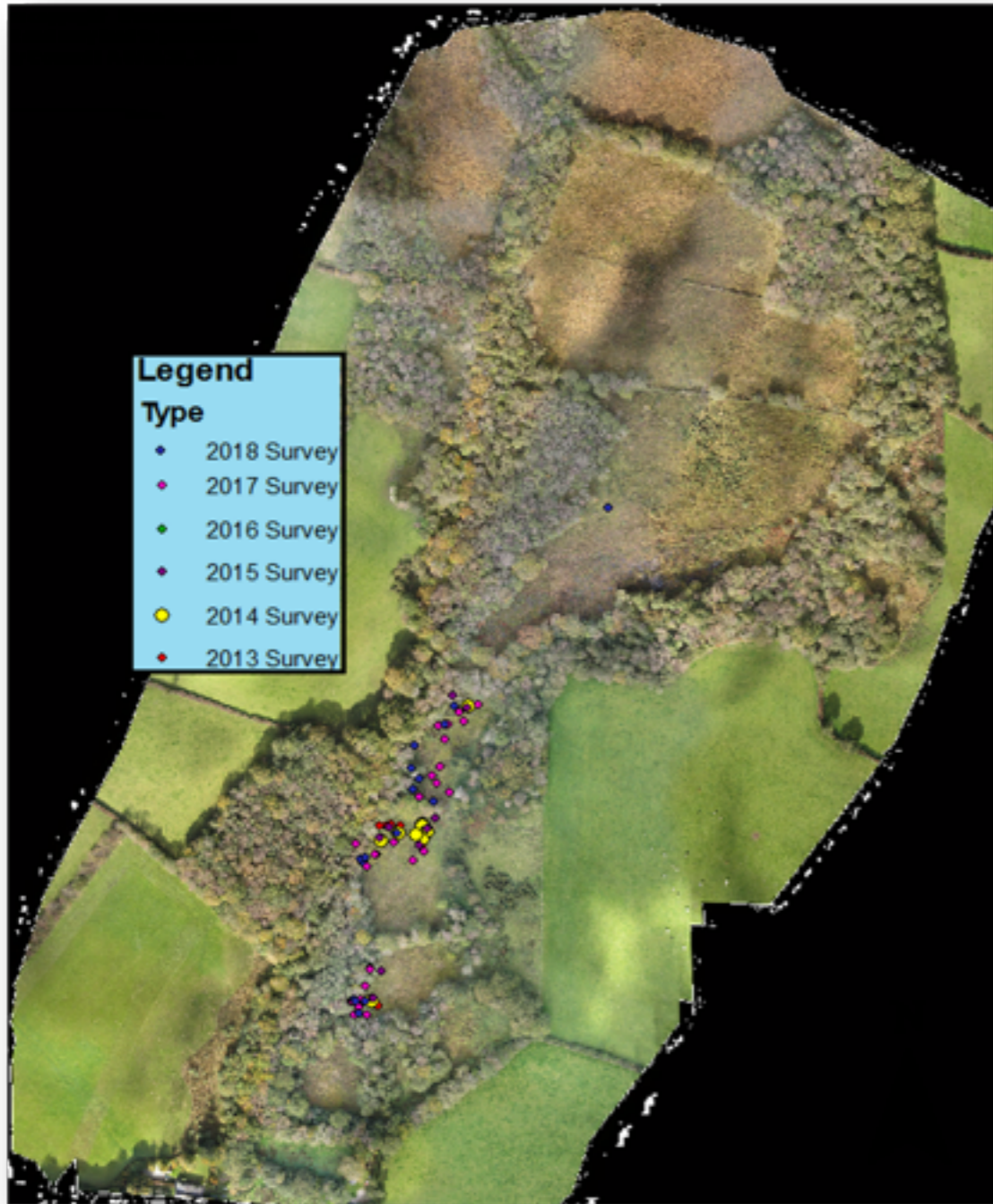
1. Soil stripping does often produce spectacular initial results, but over time the target species tends to be outcompeted by more vigorous species, and the scrapes can end up as a recruitment ground for more aggressive and weedy species;
2. Despite the lack of *Lobelia* at Redlake the site supports a wonderfully diverse damp acidic meadow assemblage and it would be unfortunate to impact on this in the pursuit of a single species;
3. Previous scrapes in 2014/15 did not result in any plants appearing on the scrapes; and
4. Ultimately we believe the fate of the site lies in establishing a suitable grazing regime, and this should remain the primary goal for managing the site.

Lobelia urens Popn. Trends 2005-2018
Redlake Cottage Meadows



Redlake Cottage (cont.)

2013-2018



2020-2022





Ventongimps

Ventongimps Moor is a Nature Reserve of 8.1 hectares. The site is owned freehold by Cornwall Wildlife Trust (CWT), purchased in 1966.

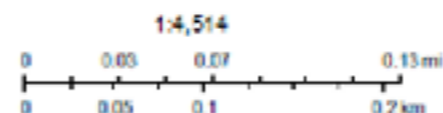
It is a SSSI and one of a network of sites known as the Carrick Heaths SSSI. The key characteristics of these sites are (from the Carrick Heaths citation) 'mosaics of wet and dry heathland vegetation types, characterised by populations of Dorset heath *Erica ciliaris*, a nationally rare plant species and a prime constituent of Southern Atlantic Wet Heath, an internationally important vegetation type'.

The site lies on Devonian Grampound Grits, overlain with alluvial drift. The soil survey describes the soils in the area as Cambic Gley 831a. It lies at 35m elevation AOD. It consists of a mosaic of marshy grassland, mire and mixed scrub, surrounded by willow carr. An area of dry woodland lies on higher ground in the north of the nature reserve.

The primary communities supporting the heath lobelia population have been recorded as; M25 *Molinia caerulea* – *Potentilla erecta* mire and sub communities M25a *Erica tetralix* and M25c *Angelica sylvestris*. The presence of *Lobelia urens* (LU) is not mentioned in the management plan.

17/10/2022, 09:31:10

- Heath Lobelia Recording (2022)
- ◆ Heath Lobelia Recording (2021)
- Cornwall Wildlife Trust Reserves (2022)



Mapbox, Microsoft, Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METANADA, USGS

Ventongimps (cont.)

The population of *Lobelia urens* has not been monitored annually before 2019. It was recorded in 2002 following the site opening up after Foot and Mouth disease. It has been seen incidentally most recently in 2017. The presence of the species is from deliberate introduction from a second site near Redlake that was destroyed in 1966. Seedlings from plants saved were planted at Ventongimps in 1968 by Len Margetts.

Lobelia urens is found in two patches in the sites mid and south western quadrant which is tussocky and wet. It tends to hang onto the side of the tussocks, the areas between the tussocks being regularly trampled by ponies.

The management of the site consists of mechanical scrub clearance (chainsaws) with herbicide stump treatment, occasional burning (swaling) and grazing. The scrub clearance and swaling generally takes place over a 10 year cycle with the site broadly divided into quarters with one quarter receiving attention every 2-3 years. Downy birch (*Betula pubescens*) willow spp and European gorse (*Ulex europaeus*) are the problem species here.

The site is grazed with Dartmoor ponies and Shetland cattle between April-May. They remove rank *Molinia* growth and manage scrub to a degree. Occasionally cattle graze the site, though this is rare.

Over the winter of 2021/22, SRT worked on the two known populations. At the more northerly site we cut down Downy birch, willow spp and European gorse from the area where most health lobelia can be seen. The scrub was piled in the close by woodland area and stumps treated with herbicide. At the more southerly location CWT undertook an extensive area of swaling.

In September 2022 we recorded 9 plants in the cut and treated area and 26 plants in the swale area. In addition we did a thorough search of the reserve and found three more plants north of the swaled area; 2 plants on the next clearing beyond the swaled area and 1 plant on the far edge of the swale clearing.

CWT are hoping to have grazing established through new links with the adjacent land owner, with the grazing expanded into the autumn and early summer, with continued swaling of the gorse.

Andrews Wood

Andrews Wood is situated in South Devon close to the village of Loddiswell and is approximately 34ha. The reserve comprises mostly secondary broadleaved woodland, a small area of ancient woodland, two areas of wet, acid to neutral unimproved grassland with scrub and bracken and three semi-improved fields. The hydrology is varied but generally the soils are damp through to fairly water logged and a series of springs and streams flow through the reserve.

Heath lobelia is found in both the wetter and drier areas of the unimproved grassland, especially alongside the footpaths and pony tracks.

The population here has been counted annually since 1975 and appears to have approximately 6-year peaks. The very high peaks in 2001 and 2009 were likely due to large areas of scrub control and coppicing of the woodland edges the previous winters, which produced large number of small single spiked plants.



Andrews Wood (cont.)

Year	Heath Lobelia Counts - Total Number of Plants								Total number of plants
	Two Andrews' clearing (A8)	two Andrews clearing - angelica field	Dragonfly clearing (C4)	Aspen clearing (C3)	Butterfly clearing (C2)	Bracken clearing (C1)	Top clearing (D)	cuckoo field	
2002	267		503	3611	216	15	1248		5860
2003	202		323	1454	49	15	2032		4075
2004	339		609	2039	135	31	1871		5124
2005	289		278	576	81	2	1284		2510
2006	161		413	659	81	2	1378		2694
2007	1610		573	792	34	27	1452		4488
2008	2792		770	1749	39	98	2286		7734
2009	3041		781	1993	59	104	3850		9828
2010	2189		295	1281	9	29	3589		7392
2011	1248		187	1024	0	71	3638		6168
2012	907		116	1177	3	24	1897		4124
2013	1341		144	2234	6	4	3218	2	6949
2014	847		99	701	0	10	808	0	2475
2015	1706		83	740	2	5	1770		4305
2016	1325	48	24	301	0	1	1990	0	3689
2017	1189	74	23	380	14	0	1596	0	3276
2018	516	21	18	121	0	0	967		1643
2019	890	71	36	227	15	0	1484	0	2723
2020					no count				
2021	393	74	3	47	0	0	538	0	1055
2022	414	132	7	285	2	0	725	0	1565

Andrews Wood (cont.)



Current management

- Rotational winter clearing of bramble/gorse/small saplings and/or coppicing of trees along the woodland edges to create areas of bare ground
- Low intensity grazing with Dartmoor ponies. The fields with Heath Lobelia are usually grazed from September until Christmas and between March and April, when the rushes are growing and are at their most palatable, and for approximately a month during mid-summer.
- Cutting and collecting vegetation around some of the larger clumps of Lobelia in September, just as they are seeding to provide some bare areas. Again, this is not done every year but will depend on the amount of grazing the ponies have done and vegetation density that summer.



Future management

- Move to cattle grazing in the summer months, followed by light winter grazing by ponies.
- Increased management activity within the woodland compartments, creating more open habitat / wood pasture.
- Woodland grazing by cattle in autumn.
- Continued management of successional scrub and scrub control.



Yarner Wood

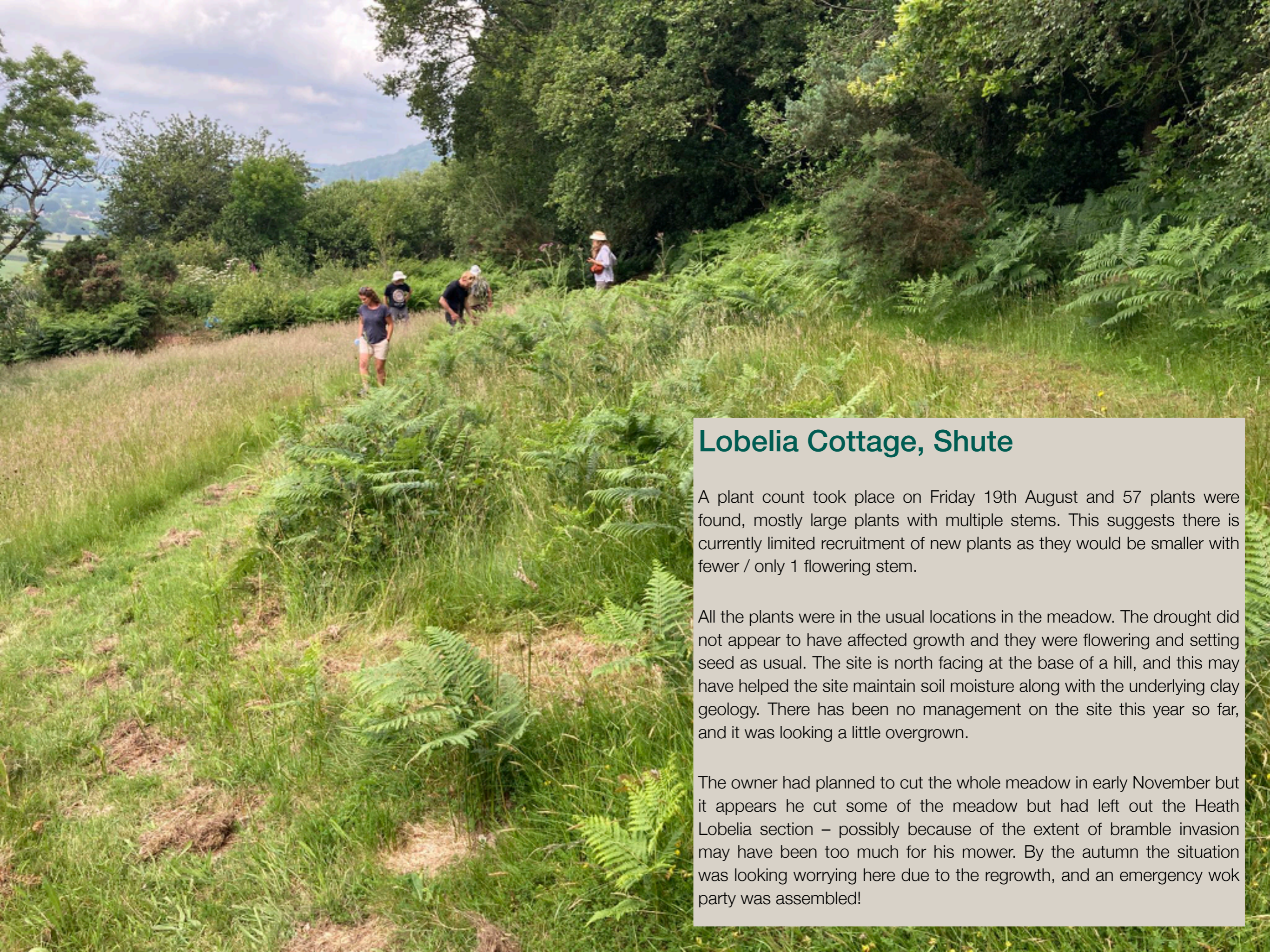
Lobelia was last recorded in Yarner Woods in 1969, and did not respond to attempts to regenerate the seedbank in the 1980s. While the original site is now looking less suitable for Lobelia, a new site offering considerable potential was identified in 2021. After several false starts an initial wave of 21 plants and 500 seeds were introduced to the site in November 2022.

An autumn planting was chosen to give the plants an opportunity to root in before the spring, especially with the recent dramatically adverse weather conditions in the summers.

The new area is pony grazed, creating good areas of bare ground combined with 'refuges' of dense tall vegetation similar to where large plants thrive at Andrews Wood. It also has the fullest hydrologic range possible, from a dry heathery bank, through wet heath down to a mire and a bog pool.

Both the plants and the seeds originated from the Axminster population.





Lobelia Cottage, Shute

A plant count took place on Friday 19th August and 57 plants were found, mostly large plants with multiple stems. This suggests there is currently limited recruitment of new plants as they would be smaller with fewer / only 1 flowering stem.

All the plants were in the usual locations in the meadow. The drought did not appear to have affected growth and they were flowering and setting seed as usual. The site is north facing at the base of a hill, and this may have helped the site maintain soil moisture along with the underlying clay geology. There has been no management on the site this year so far, and it was looking a little overgrown.

The owner had planned to cut the whole meadow in early November but it appears he cut some of the meadow but had left out the Heath Lobelia section – possibly because of the extent of bramble invasion may have been too much for his mower. By the autumn the situation was looking worrying here due to the regrowth, and an emergency work party was assembled!



Lobelia Cottage (cont.)

A pulling task in late November took place as the site is smothered in bramble, bracken and tree seedlings. Five staff and volunteers dug and tugged - thankfully with all the wet weather most bramble roots were obliging. Also, there was a minor willow, birch and oak seedling invasion to deal with too. Our soil 'disturbance' has fortuitously left bare earth patches for dormant HL seeds to hopefully germinate.

Kilmington Common

This is a historic site where plants have been introduced in waves since 2019. Unfortunately, the new plants planted in autumn 2021 may not have survived. Searching for plants was difficult as the meadow has not been cut and grass was very long.

The two trial plot plants planted in 2019 still exist and were flowering well and seeding.

There is likely to be a number of reasons for the failure of 2021 plantings, including:

- competition from vigorous established grasses, in this case mainly *Holcus lanatus* (probably the most significant problem);
- some shade from trees – in particular a vigorous growing oak that is also producing germinating acorns in the vicinity;
- significant amount of leaf litter from trees, which won't help seedling and young plant establishment; and
- nutrient enrichment of the soil primarily from leaves and previous grassland management with grass cuttings being left on the site which continues to favour the vigorous grasses.

The two surviving plants were located on the edge of the small area of heath, away from the more vigorous grasses which may have aided their survival. No seedlings were observed near these two surviving plants on the visit.

There have been discussions about a possible second introduction site at Kilmington Common, to assess if there is a better site for introduction/reintroduction in East Devon to support the small vulnerable population at Lobelia Cottage.

October 2022

The Kilmington Meadow has now been cut and the newly established Kilmington Common Group set up by David and Judith Simpson, two of our Heath Lobelia champions. Last autumn they undertook several rake-off and bramble-pull sessions and have now resumed their Autumn 2022 programme to remove risings and continue with bramble pulls.

The parish council have agreed to remove the oak tree that is casting shade on the heathland section of the Common site, where the plantings are located.

Hurst Heath

Unfortunately, the volunteer work party due to be conducted in February 2022 was unable to go ahead, due to adverse weather and other complications. In addition, a site visit wasn't possible until 21st October when a meeting was held to discuss the options for management in 2023. Alaska have kindly agreed to donate machinery and manpower, and this will be followed up by work by volunteers from Dorset Flora Group, Dorset Wildlife Trust and Dorset Council. If the estate agrees, a few tall pines will be taken down and scrub cut back to open up the patch to the adjacent field. There is the possibility of a grant to help fence the area and this is being investigated with a view to introducing some grazing.

The site fencing that had been put up to protect fruiting plants from deer has failed to stop the loss of seedpods and is now counter-productive. The few plants in flower were outside the fence, and it is proposed to now remove this and clear the bramble and sallow that have been established within it.

The condition of the site was as expected, overwhelmingly *Molinia* dominated with bramble threatening to become dominant. The bracken is well established and has expanded its area; probably due to the dry summer allowing it to spread in the damper areas. This may not last if summers return to more normal weather. In total there are at least ten plants, but probably more obscured by the vegetation. The only flowers were on the secondary growth of three plants where the leader shoot had been eaten. Most capsules had been eaten and the remainder were empty and withered.



Silverlake

In winter 2021 we managed the Heath lobelia cages by cutting back scrub and turning the soil in half of each enclosure.

In 2022 our southern cage was the only one to hold Heath lobelia plants with a total of 28 flower spikes over the course of the year. This cage retains most water over the year and with the very dry summer this may explain why the other cages had no Heath lobelia present.

Interestingly, three flower spikes appeared at the back behind the central cage and were the first 'wild' Heath lobelia at Silverlake to date.

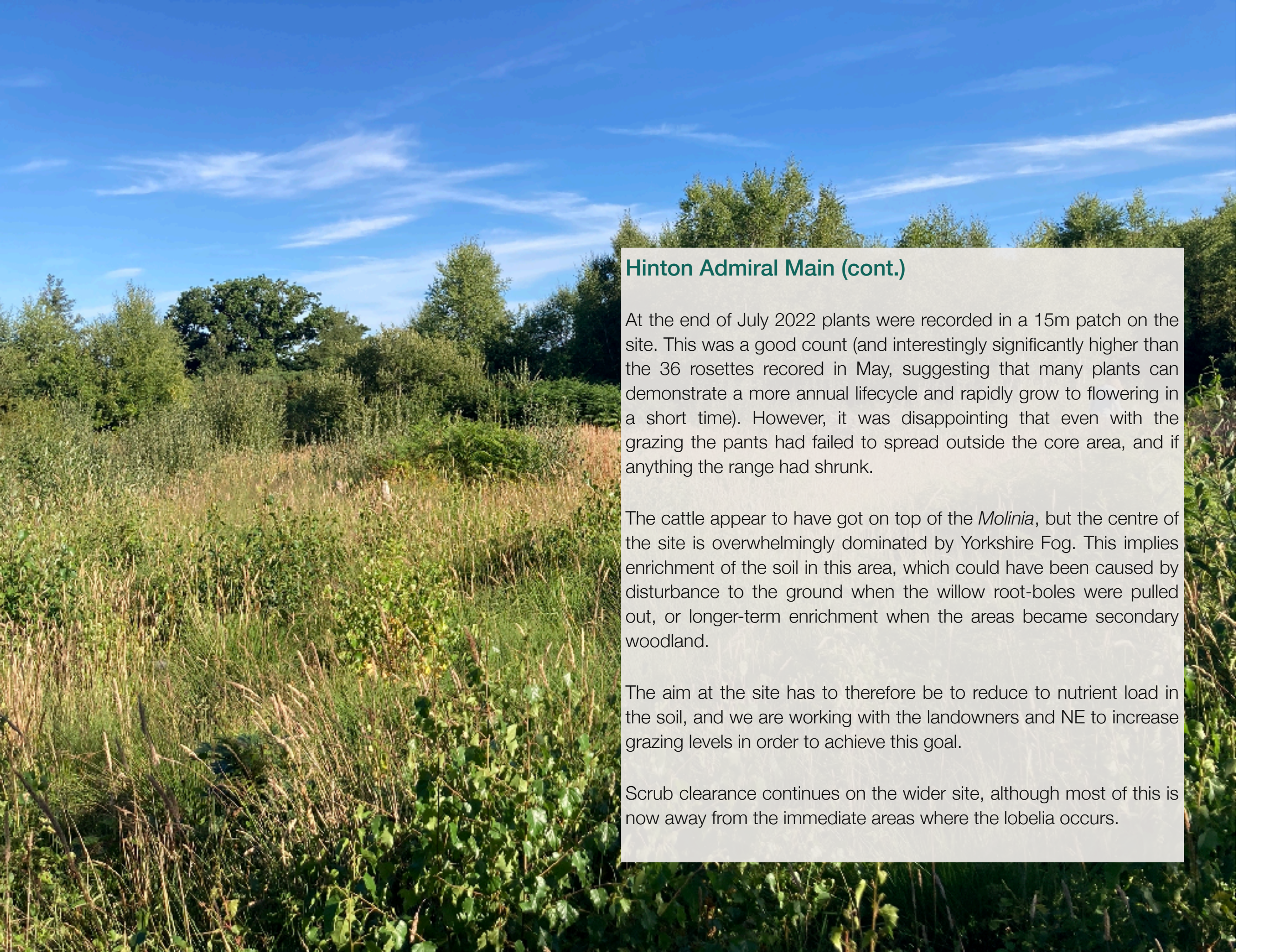


Hinton Admiral Main

The winter of 21-22 was the first for many years that cattle had been back on site, and by March their impact was being clearly seen, with extensive poaching in the central area of the site, and an overall reduction in scrub. In addition three work parties carried out scrub clearance on the site.

In February several rosettes were recorded, all corresponding with bare areas of ground where poaching had occurred. By mid-May, 36 rosettes were recorded on the site.





Hinton Admiral Main (cont.)

At the end of July 2022 plants were recorded in a 15m patch on the site. This was a good count (and interestingly significantly higher than the 36 rosettes recorded in May, suggesting that many plants can demonstrate a more annual lifecycle and rapidly grow to flowering in a short time). However, it was disappointing that even with the grazing the plants had failed to spread outside the core area, and if anything the range had shrunk.

The cattle appear to have got on top of the *Molinia*, but the centre of the site is overwhelmingly dominated by Yorkshire Fog. This implies enrichment of the soil in this area, which could have been caused by disturbance to the ground when the willow root-boles were pulled out, or longer-term enrichment when the areas became secondary woodland.

The aim at the site has to therefore be to reduce to nutrient load in the soil, and we are working with the landowners and NE to increase grazing levels in order to achieve this goal.

Scrub clearance continues on the wider site, although most of this is now away from the immediate areas where the lobelia occurs.

Hinton Admiral Arable

Plants were last recorded here in 2014, but for many years after this the margin was cropped very closely to the field boundary, despite all attempts by us to retain a headland. Eventually the decision was made to take the entire field out of production, and to our delight 22 plants were found in July.

One oddity was the sheer size of the plants; tall, with multiple stems and inflorescences.

Very frustratingly at some point during the year the strip was 'topped', potentially to give access to work on the power lines (the estate had no knowledge of it). We don't know if the plants set seed before this happened.

This site now has a new issue with a lack of ploughing meaning there will be no disturbance. To address this we hand rotovated half of the site in October, and hopefully this will provide information on the role such hand disturbance could play on the population.



Flimwell

Flimwell Park comprises an ancient, semi-natural and planted woodland. As a bird park in the 1990s, the woodland glades and small meadows were awash with purple. However, since its closure, woodland management has ceased and with it the Heath Lobelia population. As a result of Lund funding, dedicated volunteers and works associated with the adjacent development, effective management over the past 5 years has seen the population once again flourish, with more and more sites being found every year.

The main site, a meadow at the northern extreme of the site, has seen numbers increase to 579 in 2021. Unfortunately, much lower numbers were recorded in 2022, considered to have resulted from the extremely hot weather and a late surveying time. The sward has also become quite dense with ruderal herbs beginning to dominate, and so further management options are being explored to combat this.

Approximately 170 flowering plants were found in the meadow, most flowers were going over and suffering in the dry conditions. Excitingly, two new areas with flowering plants were identified where woodland glade creation had been completed 3 years previously. A total of 29 plants were found in these new areas, which is fantastic considering none were found the previous year. A further 2 sites are present in the woodland, both with lower numbers of plants, but this is again considered to be due to the late survey time and the extreme weather conditions. It was also noticed that some of the plants had been grazed off.

Further management in 2022/23 will involve scarification of the meadow area, and continued balsam putting. There are also plans to provide talks the local businesses in the new development, and to create a local volunteer group to monitor and safeguard the population.



Looking forward

Project aims 2020-2030



Ensure all sites are monitored and managed accordingly each year.



Closely monitor Yarner re-intro, and add more plants and seeds over time. Evaluate other extinct sites for re-introduction.



Keep a close eye on Redlake, and consider other options if grazing can not be achieved



Keep coordinating the steering group and disseminating information between sites.



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.



A photograph of a forest floor in spring. The ground is covered with a dense carpet of purple bluebells. Several large, moss-covered tree stumps are scattered across the scene, indicating a recent clear-cut or natural decay. Tall, slender trees with fresh green leaves stand in the background, with sunlight filtering through the canopy.

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