



the
species
recovery
trust

2022 Progress Report

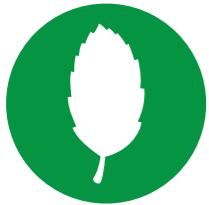
Field Cow-wheat

This project is partly funded by
Natural England and the Walter
Guinness Trust

Summary



In 2022 all British sites for Field Cow-wheat were surveyed and habitat management carried out where necessary



Extensive liaison work was carried out at the Royal Wootton Bassett site in order to protect the plants during a change of ownership



Liaison was carried out with HIWWT to get the go ahead to establish a trial arable site, which was unfortunately turned down by their advisory committee



A study was commenced to look at all the extinct sites in Bedfordshire and Essex with a view to eventually carrying out re-introduction



In Memoriam



This report is dedicated to Naomi Ashton, who for several decades lovingly tended the Wiltshire population of Field Cow-wheat in her garden in Royal Wootton Bassett. Her archive of detailed notes, photographs, correspondence and national reports are now proving invaluable as we take the conservation of this plant forward.



Background

Field Cow-wheat is known from just three sites in the UK, with a single true 'wild' native site at St Lawrence Bank on the Isle of Wight.

Two other former native sites (Brogborough Lakes in Bedfordshire and Royal Wootton Bassett in Wiltshire) exist, but the former has been subject to re-introductions, and at the latter the plants now occur in the garden on a domestic dwelling.

Beyond this, it is found in two introduced sites, Portsdown (Hants) where it has existed for almost two decades and is thriving, and Coombe Bissett (Wiltshire) where it was introduced in 2019.

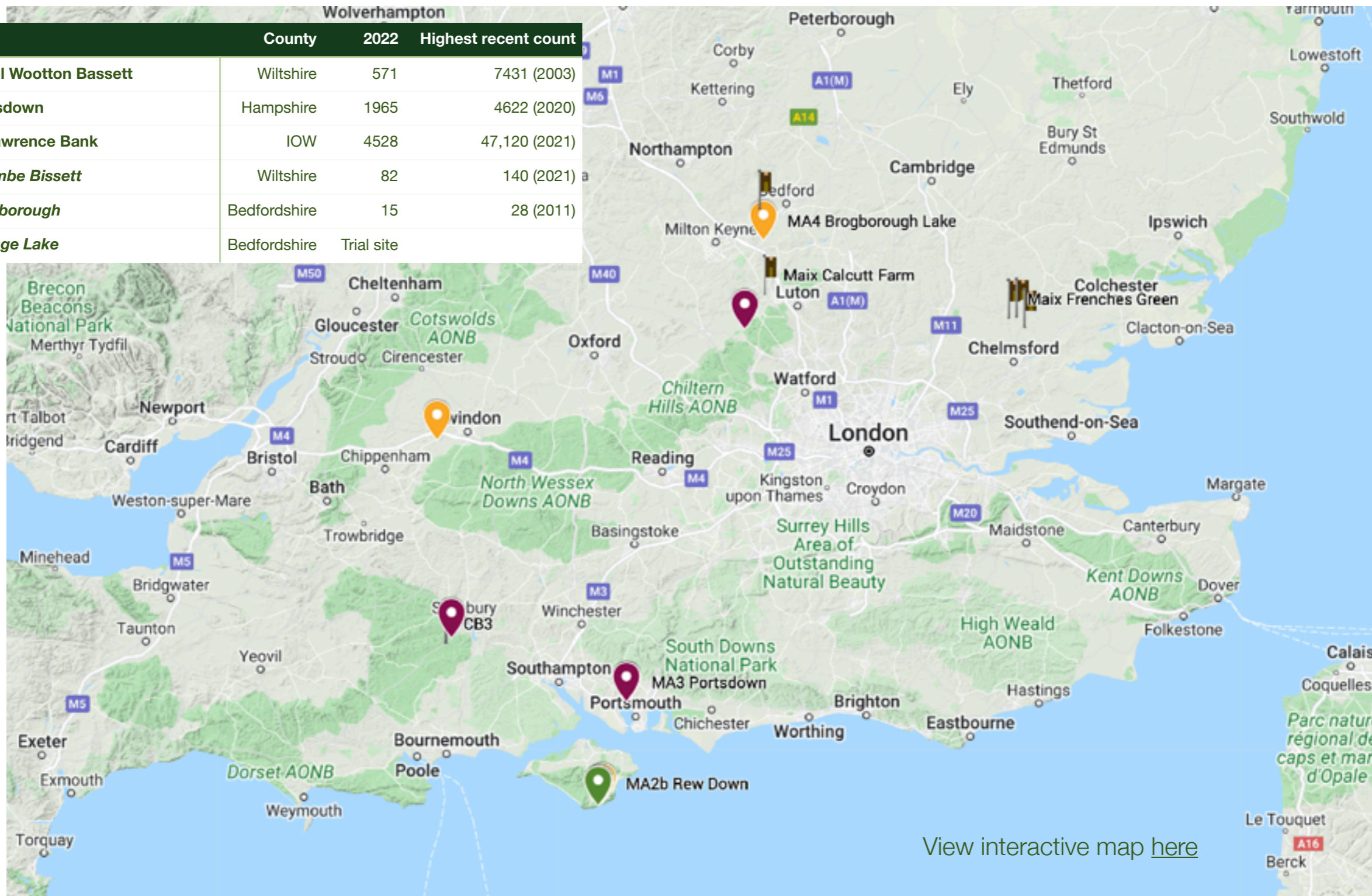
Against this background of rarity, in 2022 it was decided to start investigating options of re-introducing plants into its wider historic range, as well as trialling its behaviour in an arable context.

Full details on the species can be found in the [Species Handbook](#)

Locations and counts

[View interactive map here](#)

Site	County	2022	Highest recent count
Royal Wootton Bassett	Wiltshire	571	7431 (2003)
Portsdown	Hampshire	1965	4622 (2020)
St Lawrence Bank	IOW	4528	47,120 (2021)
Coombe Bissett	Wiltshire	82	140 (2021)
Brogborough	Bedfordshire	15	28 (2011)
College Lake	Bedfordshire	Trial site	



[View interactive map here](#)

Green - native, Orange - former native, Crimson - existing introduction. Flags - extinct sites to be investigated



Royal Wootton Bassett

This site is one of the most remarkable locations for Field Cow-wheat, in a rather suburban front garden in Royal Wootton Bassett. First discovered in 1960, the site has been lovingly tended by Naomi Ashton, who sadly passed away in 2021.

We have been lucky to have been granted temporary care of her archive of records and letters. This gives a detailed insight into her care of the population at Bath Road, but also among the papers there are the old Species Recovery reports, which have thrown some fascinating light on the intentions of conservationists to save the species 25 years ago, and these are now being used to guide our work.

Since Mrs Ashton's passing the flower beds have been less actively managed, and 2022 saw a further drop in the species, probably as a combination of being outcompeted by other plants and the heatwave.

Work here has focused on detailed negotiations with the current owners, the estate agents and the potential purchasers to try and ensure the population is safeguarded. In addition we are earmarking nearby sites to create an additional bulking-up population, should future attempts to conserve the plants at Bath Road fail.





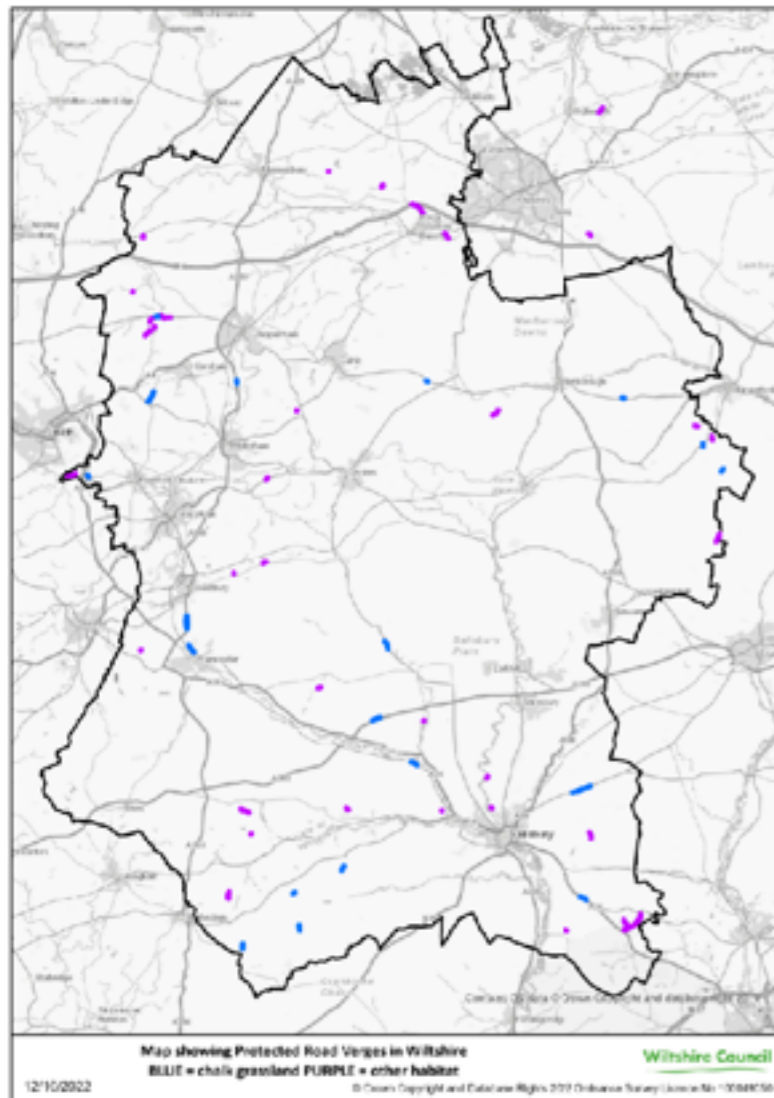
2015

Site becoming overgrown in 2022

Wiltshire - broader sites

Due to concerns about losing the Bath Road garden site, work has accelerated on finding new receptor sites. In anticipation of this the Coombe Bissett site in S. Wiltshire was created in 2019 (see page 13 below), but we are on the look-out for two more sites, with at least one much nearer to the Bath Road site. The current favoured option is a calcareous road verge at the base of Bath Road, and we are hoping to collect seed from the garden site in the summer of 2023 and introduce it to this site. Road verges offer a good opportunity as they support calcareous grassland and are not grazed, two factors influencing success, as seen in recent introductions / trials.

We are also working with the council road verge officer and plan to survey the other calcareous road verges in the county to see what opportunities for translocation exist there.





Portsdown

The population here responded well to clearance carried out in 2020, which had concentrated on maintaining 'islands' of scrubby vegetation. Observations made in 2020-21 seem to reveal that the plants occurring near to larger scrubby vegetation (in particular Dogwood) fair better than ones out in more open sward. Whether this is due to a parasitic relationship between the plants or the denser vegetation providing some shelter in heatwave months is still unclear.

This hypothesis had a good opportunity to be tested when the council carried out a much harder cut north of the fence, removing all scrub (despite our recommendations to leave a mosaic habitat). This area did show a much more marked decline than the scrubby area, and continued monitoring will show more on this pattern. Discussions were held again with the council about leaving this area to revert to a denser sward for a couple of years.

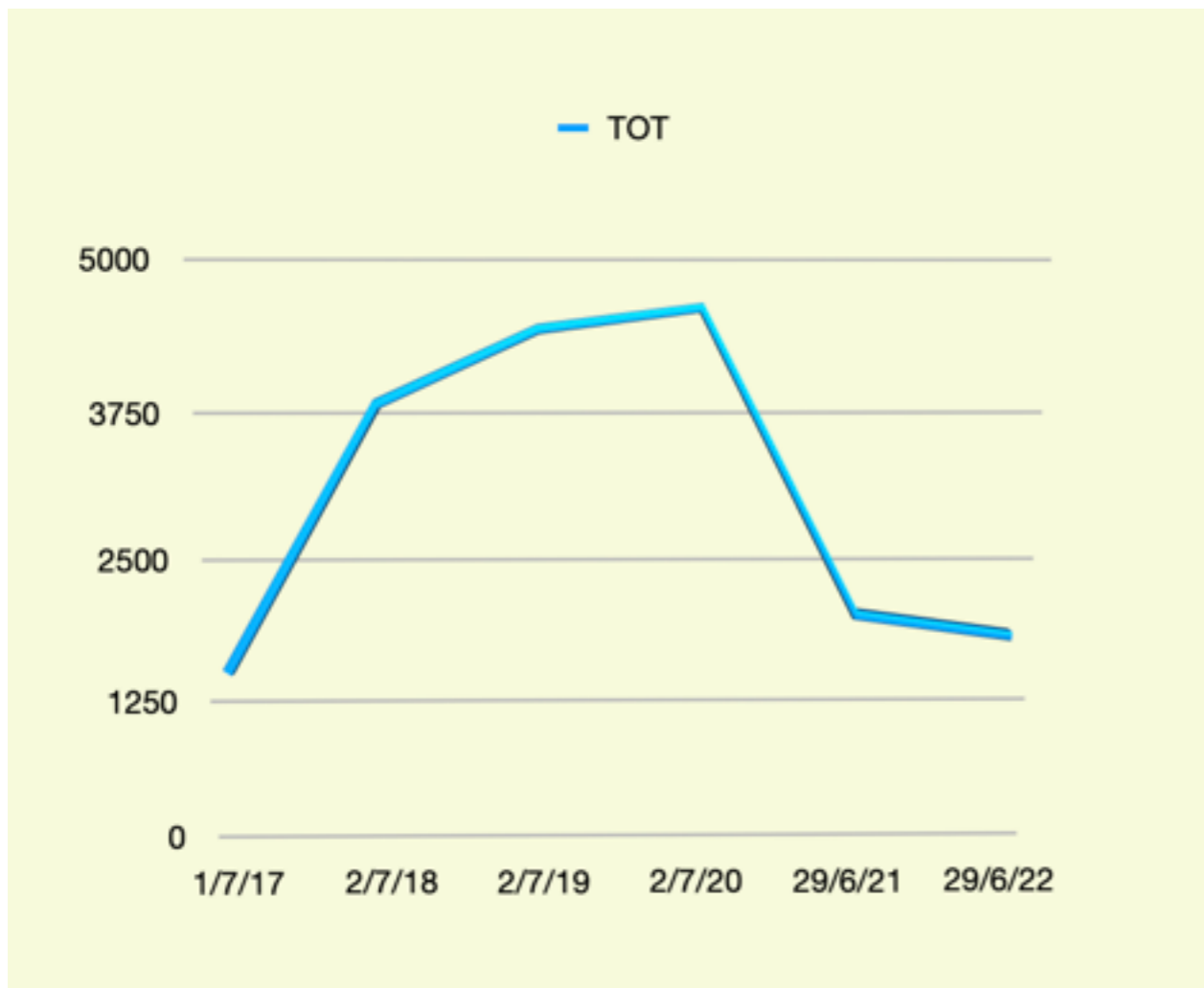
In 2020 we cleared another 2m band of scrub to the east and west, to allow the plants to spread.

The population is still strong (there were 320 plants when we first took the site on) but has been dropping in recent years which is concerning us.

Portsmouth

Portsmouth Cow-wheat Counts-1

	1/7/17	2/7/18	2/7/19	2/7/20	29/6/21	29/6/22
TOT	1676	3872	4457	4622	2146	1965
North of fence	804	1308	1372	448	319	181
South of fence	872	2564	3085	4248	1902	1864





year	site total plants	seedhds
2009	67	
2010	193	
2011	658	
2012	946	
2013	1,437	
2014	1,376	
2015	1,710	
2016	567	404
2017	1,158	1,626
2018	3,570	5,136
2019	12,676	15,155
2020	17,694	17,333
2021	47,120	19,362
2022	4,528	2,426

St Lawrence Bank

As with the other sites St Lawrence was hit hard by the heatwave, with the counts down by 90% from the previous year. In addition to suffering mortality the plants were struggling to compete with vigorous growth from other vegetation (presumably plants with deep roots that gave them an advantage in the heatwave). The site continues to be diligently looked after by the HIWWT and their local volunteer.

Discussions continued over the management of the neighbouring field (which is where we are keen to see plants colonising into), but due to its location it is very hard to get the correct machinery in to manage it as an arable habitat, and thus we are now looking at other possible locations on the island.



Isle of Wight - broader sites

In 2021 discussions were held with HIWWT staff to start an arable trial site at their new headquarters at Little Duxmore - a known arable plant hotspot. Representations were made to the advisory council of the trust who regrettably rejected this plan.

In December we were gifted a historical archive of documents by the estate of the late Mrs Ashton (owner of the Wiltshire site) which revealed that this decision by the Trust was seemingly at odds with their stance in the previous decade, where they had proposed introducing to a whole network of sites across the island.

In 2023 we will continue attempting to build a project with the Trust, and in the meantime will carry out surveys within the historic range in the spring to look at potential receptor sites.



Coombe Bissett

Plants were introduced here in 2019, and in the summers of 2021 and 22, trials were undertaken to investigate the effects of grazing. One of the trial plots was placed in a small enclosure with the other two left out to open grazing. Monitoring during the summer months of both years revealed that the plants cannot co-exist with either sheep or cattle grazing, with over 90% of the unprotected plants lost to grazing.

At the excluded site, 2022 was the first year where no additional seeds were sown, meaning this marked the first wave of natural regeneration. We were pleased that despite the extreme drought conditions (which did result in the mortality of several individual plants), over 120 plants were recorded (in the spring 260 seedlings had been recorded, showing how hard the heatwave was on this site).

The grazing exclusion had led to the development of a relatively thick sward, so the decision was made to brush-cut the area in the winter.





Brogborough

Brogborough remains a challenging site with dense competitive vegetation continuing to out-compete any plants. Fifteen plants were counted in 2022, with Melilot proving to be the main competitor.

The status of this site has been left in some doubt, with plans by local botanists to introduce plants from St Lawrence (licensed by NE). During discussions where we raised our opposition to this, it transpired plants had already been introduced to the site in previous years, so it is likely there is no longer a native population on the site.

College Lakes

Field Cow-wheat has been grown at this site for many years as part of a broader rare arable plants project, run by staff and skilful volunteers from BBOWT.

2022 saw amazing success with plants recorded on both the Hectare and Cornfield plots where there is an established colony year on year. One of the interesting emerging pictures with the trial is that the plants are spread right across the Cornfield and only along the edge of the Hectare. Both are ploughed and harrowed in October each year and there is no obvious explanation for this distribution.

Field Cow-wheat has been sown with various grain crops each year in the trial plots but in recent years observation has shown that it is very happy growing in most of the raised beds and tubs alongside dicots and grasses. There are two beds dedicated to Field Cow-wheat but it also comes up in other beds and in raised tubs which is most likely due to it being transported around the nursery by ants.



Species Re-introductions

In 2021 we started to think about what other options might exist nationally to bring back the species to Bedfordshire and Essex, where once it had thrived.

Analysis of all sites was carried out to produce a shortlist of sites, which were then looked at using aerial imagery. This revealed that many of the sites now sadly exist in an ocean of intensive arable fields, but that some may have pockets of habitat, or suitable habitat nearby. A contract was let to survey the Essex sites, although due to illness this was sadly not completed.

Field visits are scheduled for 2023 to take this further and hopefully commence a re-introduction programme in these counties.

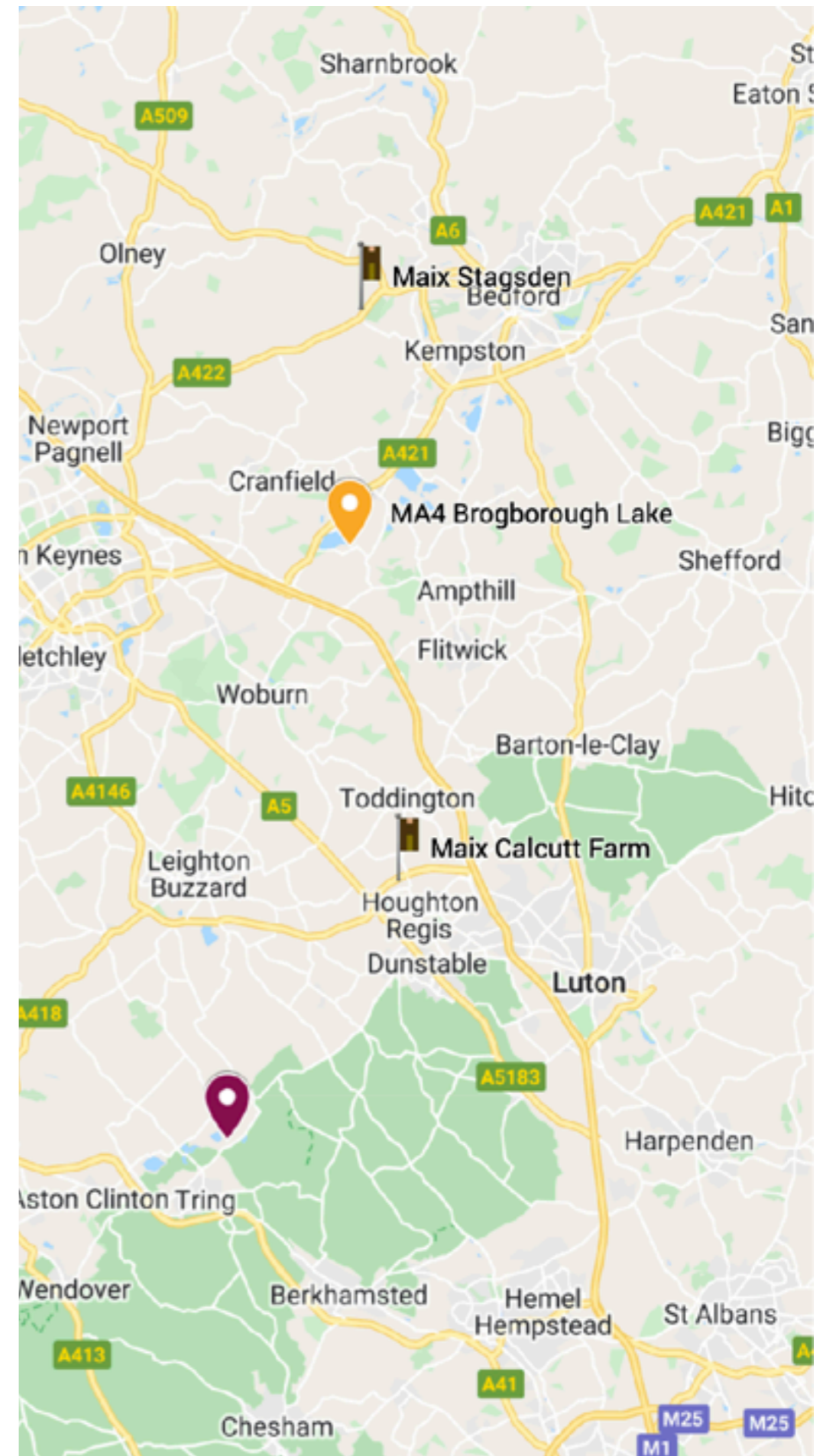
Results of the desk study are outlined below.



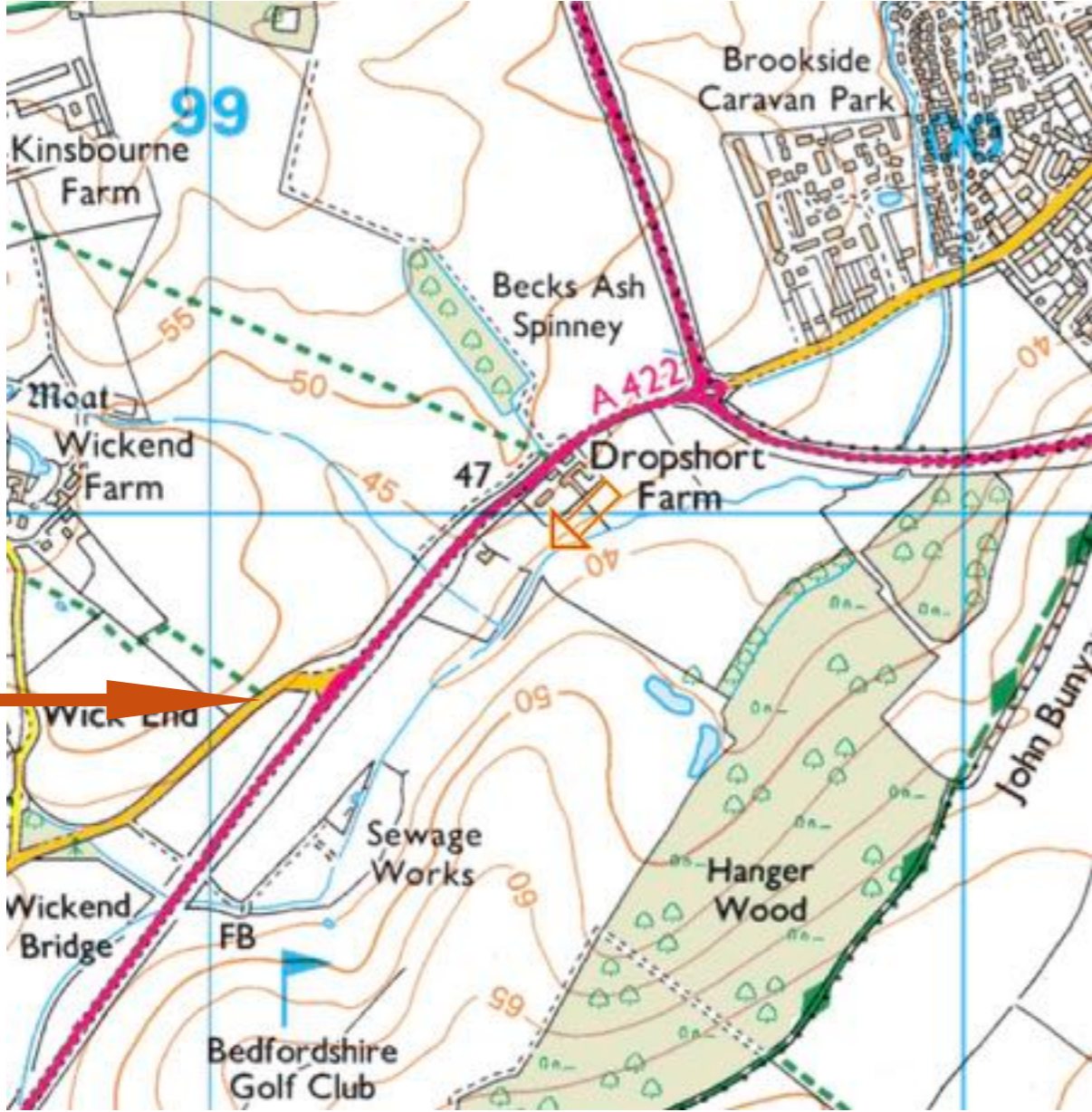
Newspaper article in the Ashton archive, outlining what the NCC's definition of full species recovery was in 1990

Bedfordshire

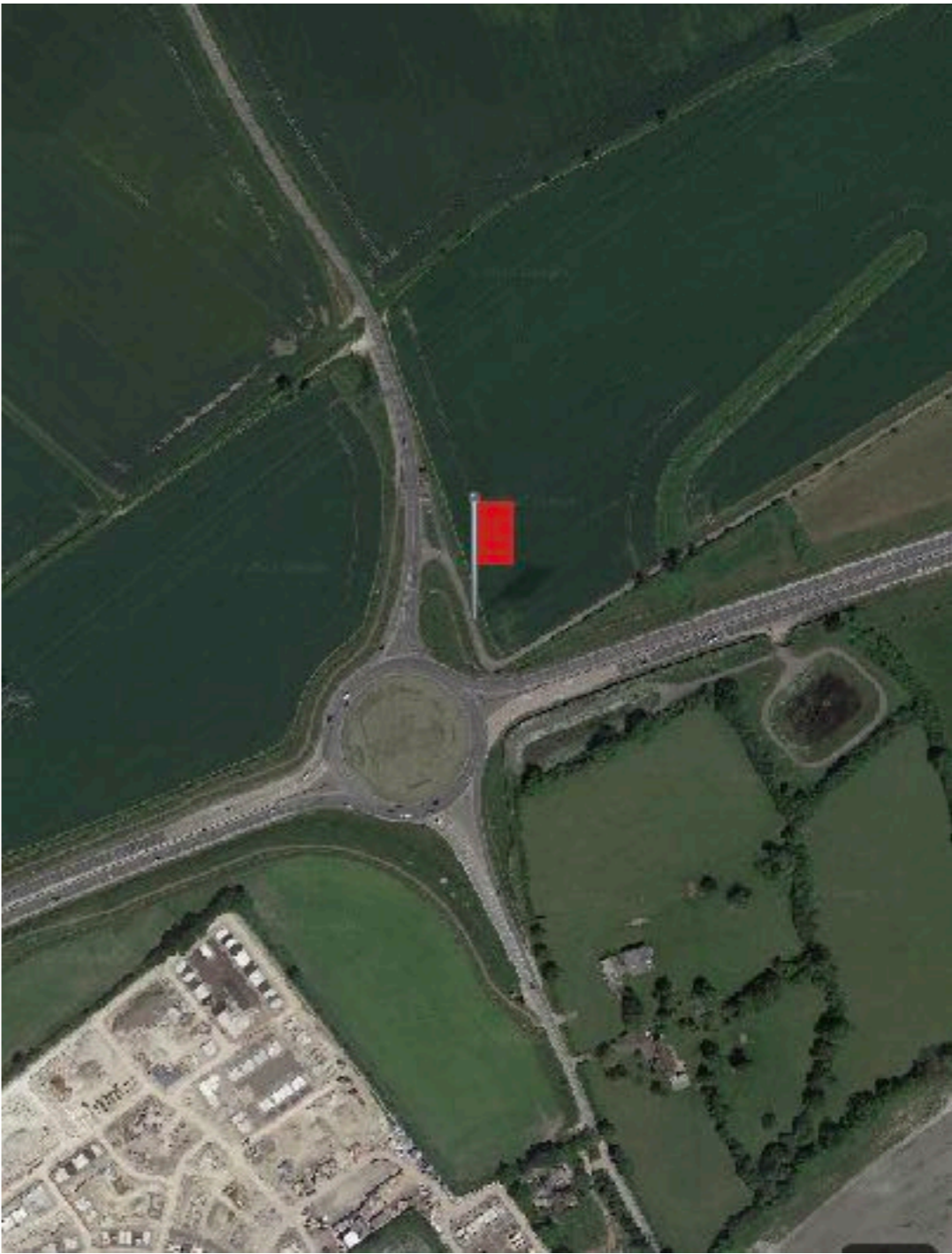
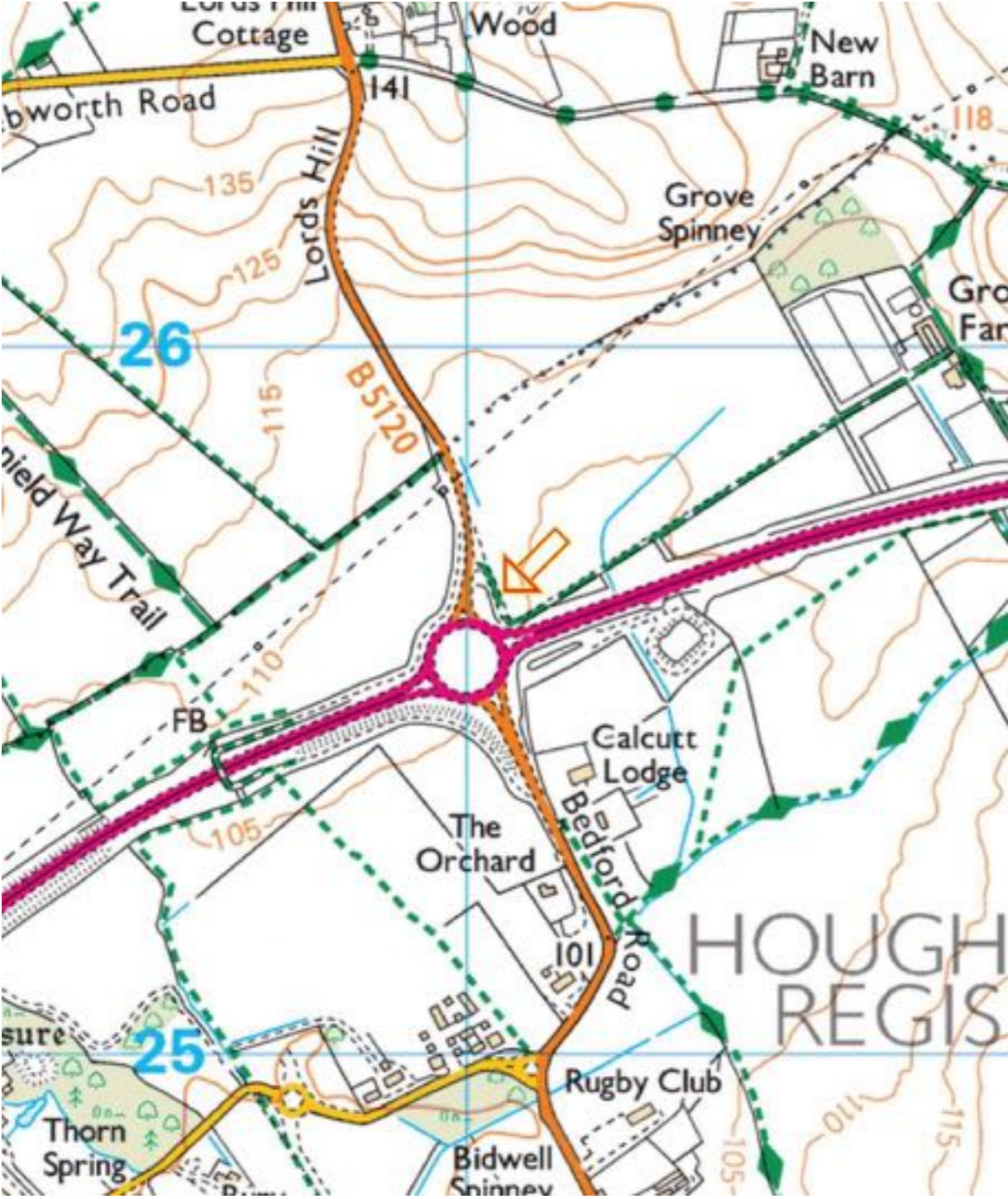
Site	Grid ref	Details	First recorded	Last recorded	Notes
Stagsden; Dropshort Farm	SP994499	In 1978 the Conservation Corps of the Bedfordshire Rural Community Council cleared the site in March in a manner which appeared efficient, but only one plant has appeared.	1937	1982	May have been lost to golf course?
Stagsden; Road Verge	SP990497	A total of 250 plants on the roadside verge opposite Dropshort Farm.	1950	1968	Worth checking road verge which is easily accessed
Brogborough Lake	SP 98300 39400	Currently 4 plants, which were re-introduced after the historic site died out	1974	2021	Bryan Laney leading on this
Calcutt Farm	TL010256	First recorded here in 1946, when it grew in great abundance on the roadside verge, in the margin of the corn and on the field side of the ditch. It diminished in quantity and was last seen in 1962 with one solitary plant in the bank by the field.	1946	1962	Very intensive arable landscape, but worth checking verges
College Lake	SP 93573 14209	Plants thriving in experimental beds		2022	BBOWT leading on this
Galley Hill	TL091268	Field cow wheat by path just south of summit. (Not found when revisited two years later). 6 PLANTS	?	1996	Looks good, and owned by Luton Borough Council



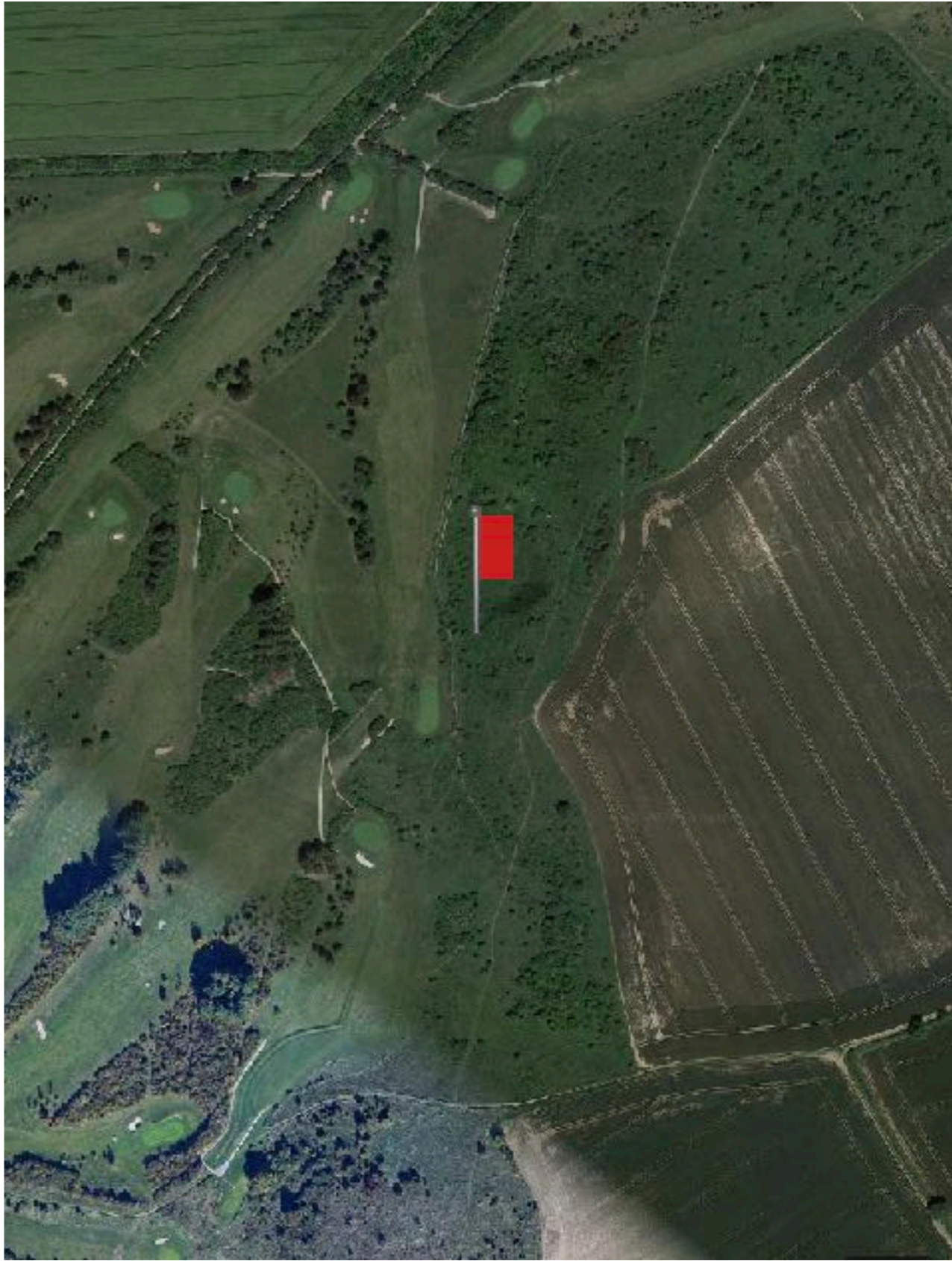
Stagsden: Farm and Road-verge



Calcutt Farm



Galley Hill



Bedfordshire - next steps

- Visit all sites to assess habitat condition and viability for reintroduction
- Try and get access to Dropshort Farm
- Galley Hill potentially looking like best option - good semi-natural habitat and owned by Luton Borough Council

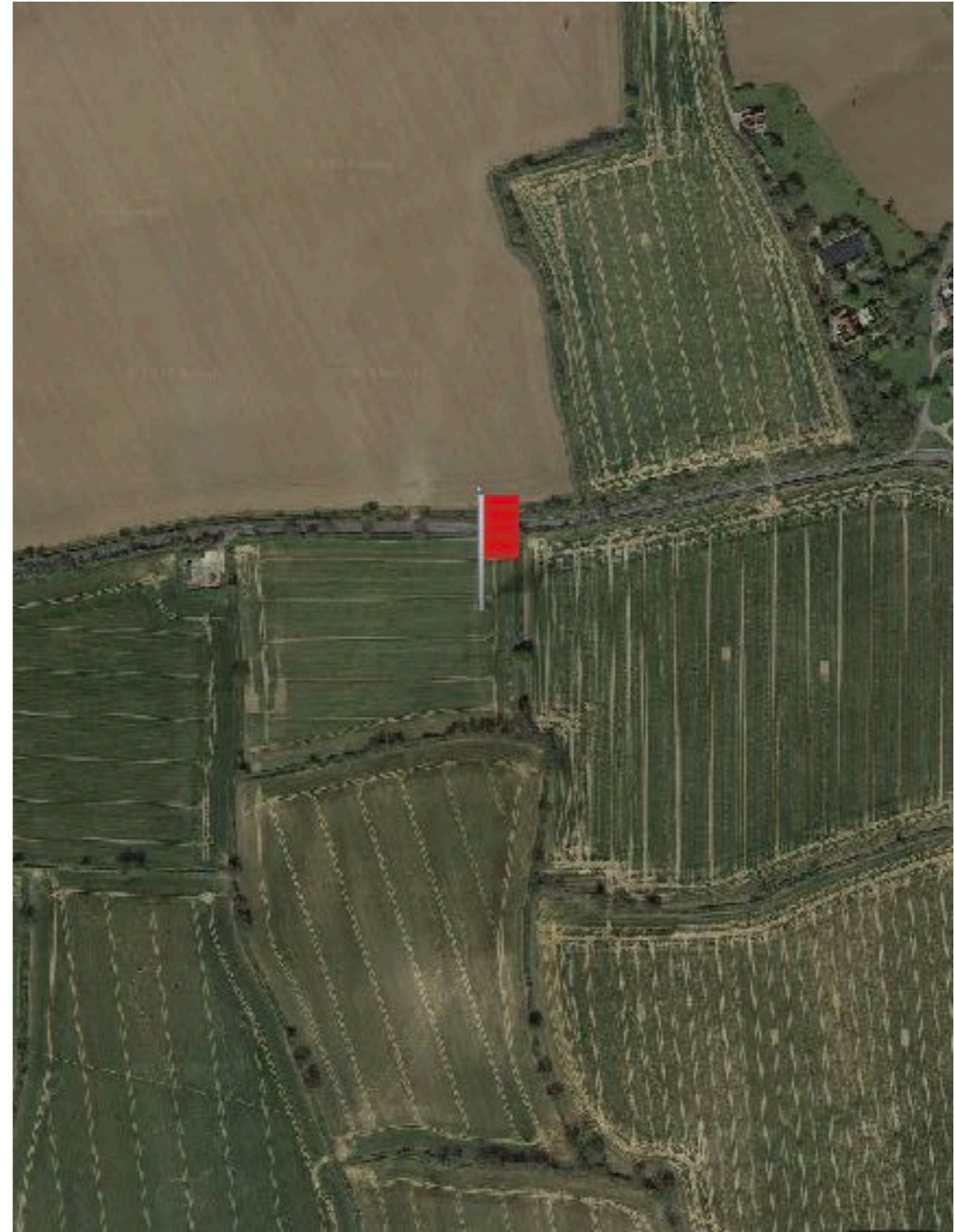
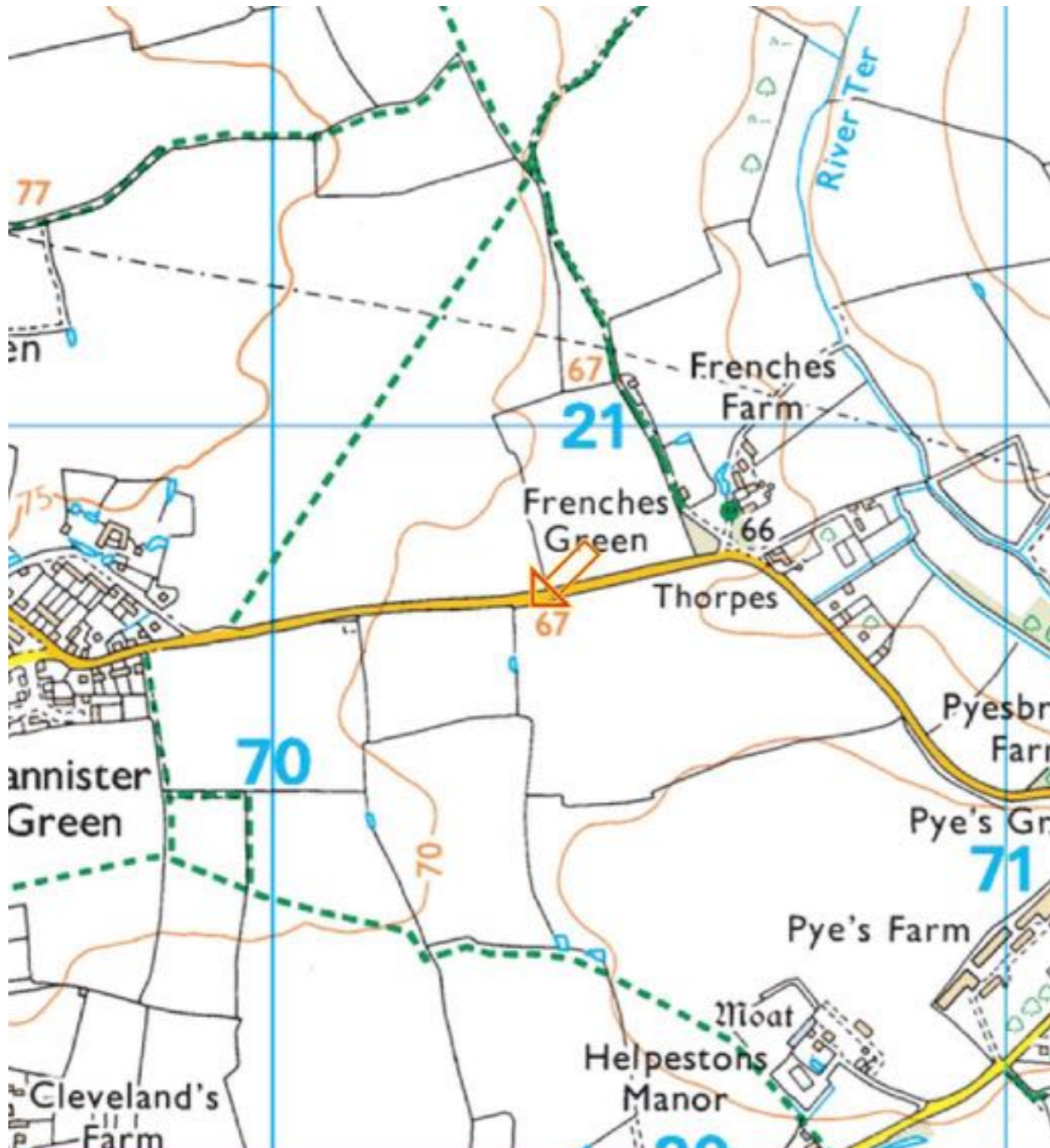
Essex

View interactive map [here](#)

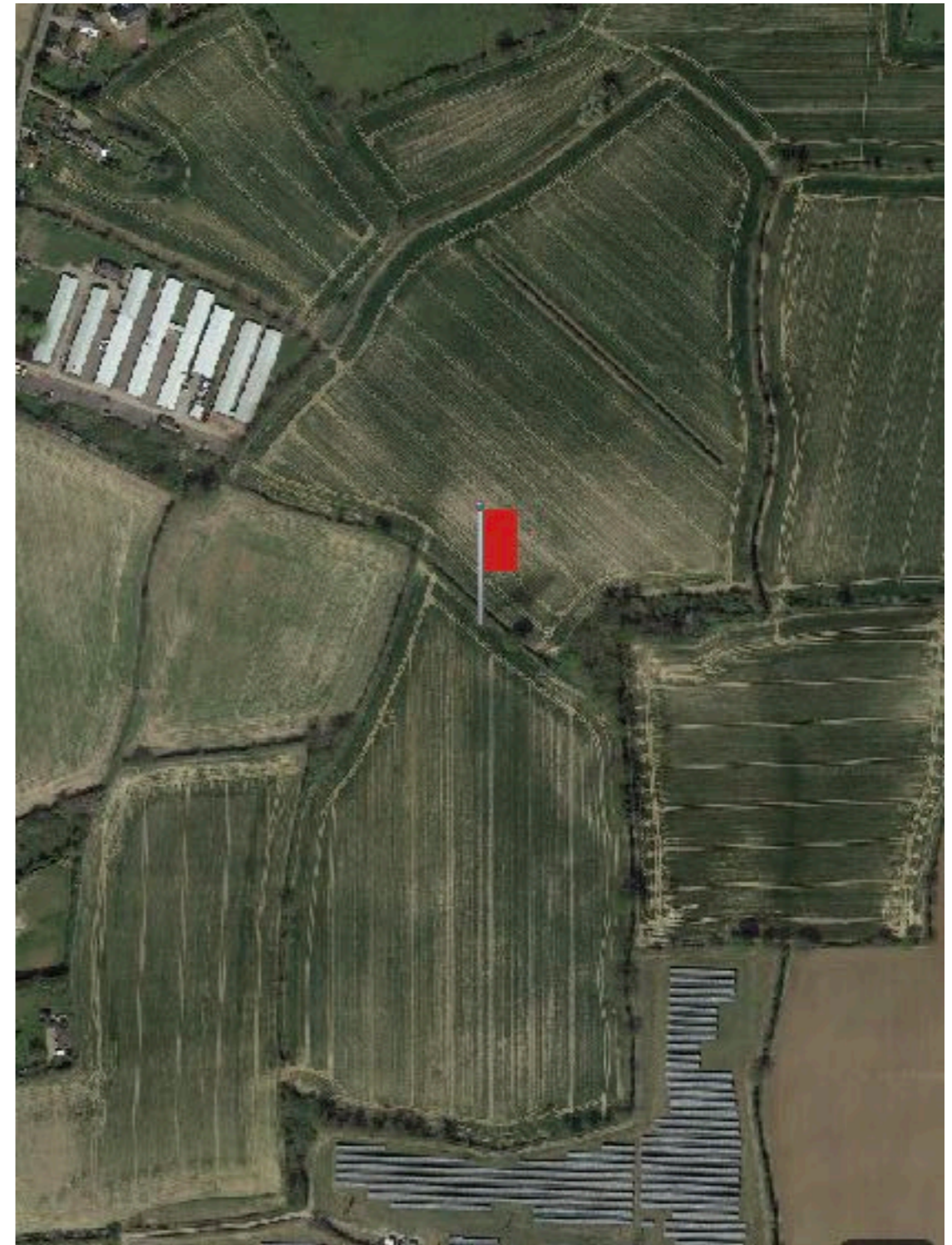
Site	Grid Ref	Details	First recorded	Last recorded	Notes
Frenches Green	TL703207	Abundant and conspicuous in a ditch by the road. Site visited every year since but no plants seen after about 1969.	1966	1969	Now part of intensive arable landscape; low potential
Bartholomew Green	TL72582107	Some 200 plants here when first seen in 1959. The population varied from two to forty plants until 1973, since when none has been seen.	1959	1973	
Ranks Green	TL75061824	In a field border at the foot of a hedge, and later as general arable weed	1972	1987	Very good directions on file note, so worth exploring



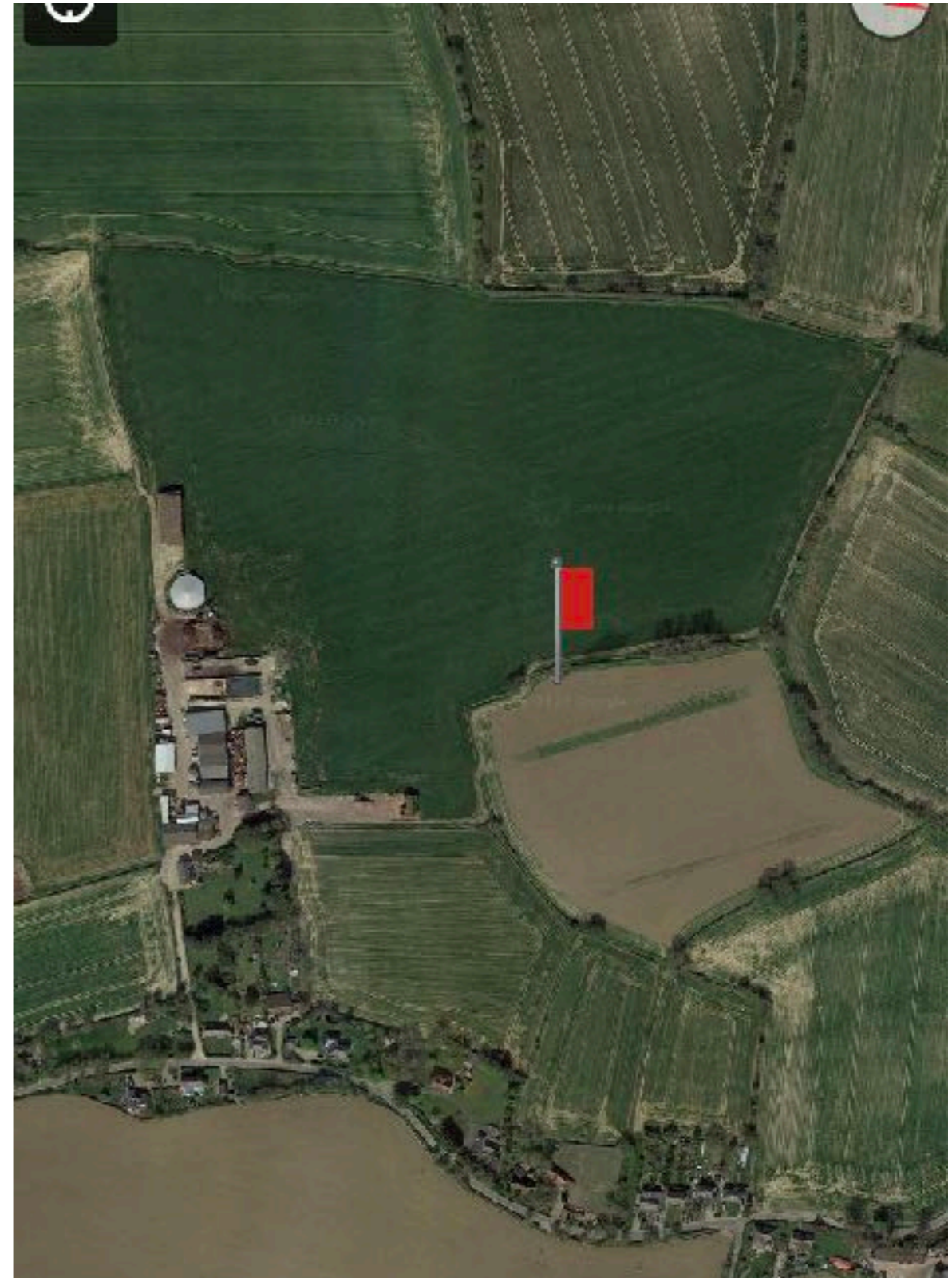
Frenches Green



Bartholomew Green



Ranks Green



Ranks Green (cont)

Essex
 VC19 Mp 167 Field Cow-wheat (*Melampyrum arvense*) - Birnie's Farm, Ranks Green - 3 miles S of Braintree

② ⊗ Night flowering Catchfly (*Silene noctiflora*) - take A131 south from Braintree and at Youngs End turn east towards Ranks Green and in middle of village look for footpath heading north. Night flowering Catchfly (*Silene noctiflora*) in arable headland in first field north of houses with *Kickxia* species QR 751 1/2 180 1/2

① ⊗ Field Cow-wheat (*Melampyrum arvense*) - continue along path in north west direction until obvious track is reached. On track is a dog leg, small quantities of *Melampyrum* occur on north side of track mainly on the ditch bank QR 750 182 (7 plants in 1986)

Essex - next steps

- Visit all sites to assess habitat condition and viability for reintroduction
- None currently looking like they have great potential

Looking forward

Project aims 2020-2030



Prevent a local extinction in Wiltshire, with a combination of working to maintain the RWB site and finding a new site/s in North Wiltshire



Establish a new population in Essex and an additional 'wild' population in Bedfordshire



Re-establish a network of sites in the IOW on arable and downland sites



Maintain habitat management at all sites, to keep populations expanding and learn more about the ecology and requirement of the species



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 small purple bluebells. Several large, moss-covered tree stumps are scattered across the scene, indicating a recent logging operation. Tall, slender trees with fresh green leaves form a canopy in the background, with sunlight filtering through the branches.

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