

**Byers Gill Solar
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6.4.6.3 Environmental Statement Appendix 6.3 Breeding Bird Survey Report

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Byers Gill Solar

Breeding Bird Survey Report

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RSK
biocensus
EXPERTS IN ECOLOGY

EXECUTIVE SUMMARY

1. RSK Biocensus was commissioned by Arup (the client) to carry out breeding bird surveys on behalf of RWE (the Applicant). This report has been prepared to accompany Chapter 6 of the Environmental Statement (ES) (Document Reference 6.2.6).
2. This report presents the results of surveys for breeding birds undertaken by Avian Ecology Ltd at multiple land parcels in Darlington and Stockton-on-Tees in County Durham between April and July 2022 inclusive. These surveys were carried out to inform an assessment of the breeding bird assemblage in connection with the Proposed Development to be constructed within the study area. The study area is dominated by agricultural land and hedgerows with scattered areas of broadleaved woodland.
3. The six field survey visits of the Order Limits and adjacent land undertaken in 2022 recorded a combined total of 66 species, of which 41 are considered to be priority species. Thirty-one priority species were assessed as confirmed to be or potentially breeding on site. Based on the species recorded, the breeding bird assemblage within the study area is assessed as being of up to county level importance.
4. Ground-nesting birds including curlew, lapwing, and skylark were recorded as breeding or potentially breeding within the study area. Mature hedgerows were also used by a range of species including tree sparrow and yellowhammer. Based on the numbers of these species recorded, populations of skylark, tree sparrow and yellowhammer were assessed as being of up to county level importance, whilst populations of grey partridge, lapwing, curlew, and reed bunting were assessed as being of up to district level importance. No species were present in numbers of international or national importance.
5. Considering the suitability of the study area for breeding birds, a detailed impact assessment has been undertaken in ES Chapter 6 Biodiversity (Document Reference 6.2.6).

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1.0 INTRODUCTION

1.1 Purpose of this report

- 1.1.1 RSK Biocensus was commissioned by Arup (the client) to carry out breeding bird surveys on behalf of RWE (the Applicant). This report has been prepared to accompany Chapter 6 of the Environmental Statement (ES) (Document Reference 6.2.6).
- 1.1.2 This report presents the results of surveys for breeding birds undertaken by Avian Ecology Ltd at multiple land parcels in Darlington and Stockton-on-Tees in County Durham between April and July 2022 inclusive. These surveys were carried out to inform an assessment of the breeding bird assemblage in connection with Byers Gill Solar development to be constructed within the Order Limits (hereafter referred to as the 'Proposed Development'). The assessment and interpretation of the survey results has been undertaken by RSK Biocensus using the field data provided by Avian.
- 1.1.3 The following terminology is used throughout this report:
- the Proposed Development – outlined by the red line boundary including all infrastructure, cables and Panel Areas as shown in Figure 6.3.1.
 - study area – the land within the application boundary where field surveys were carried out as shown in Figures 6.3.2 to 6.3.5.
 - Order Limits – the land area within the application boundary outlined by the red line boundary including all infrastructure, cables and Panel Areas as shown in Figure 6.3.1.

1.2 Ecological context

- 1.2.1 The Order Limits and study area layouts are indicated by Figure 6.3.1. The study area comprised of land consisting of numerous parcels between Darlington and Stockton-on-Tees in County Durham. The study area is dominated by agricultural land and hedgerows with scattered areas of broadleaved woodland. There are two standing waterbodies within the study area and several streams. The proposed cable route runs along minor road networks (often lined by hedgerows) and rural residential areas.

1.3 Project background

- 1.3.1 The Proposed Development consists of a solar farm capable of generating over 50 MW Alternating Current (AC) of electricity with co-located Battery Energy Storage Systems (BESS), located between Darlington and Stockton-on-Tees in north-east England. The Proposed Development comprises six solar photovoltaic (PV) panel areas (Panel Areas A-F). The solar PV panels would be mounted on a metal frame in groups, fixed in position and aligned in east-west rows with panels facing south. An on-site substation would be located within Panel Area C.

- 1.3.2 The Proposed Development includes up to 32.5 km of 33 kilovolt (kV) underground cabling between the Panel Areas and the on-site substation, as well as approximately 10 km of 132 kV underground cable to connect the Proposed Development to the grid connection at the existing Norton substation (located to the north-west of Stockton-on-Tees) with both on-road and off-road options. A range of supporting infrastructure is required for the Proposed Development, comprising BESS; transformers and inverters for managing the electricity produced; storage containers to hold this equipment; and security measures such as fencing, CCTV and lighting. The Proposed Development includes environmental mitigation and enhancement measures to avoid or reduce adverse impacts on the surrounding environment and nearby communities.
- 1.3.3 The majority of the Proposed Development's planning boundary (the 'Order Limits') is located within the administrative boundary of Darlington Borough Council, with a section of the cable route situated within the administrative boundary of Stockton-on-Tees Council. A very small section of the Order Limits is within the administrative boundary of Durham County Council.
- 1.3.4 A full description of the Proposed Development and a detailed description of the design and environmental mitigation is provided in ES Chapter 2 The Proposed Development (Document Reference 6.2.2).

1.4 Structure of this report

- 1.4.1 This report is structured as follows:
- Section 2 presents legislation and guidance relevant to breeding birds;
 - Section 3 describes the methods adopted for the collection and interpretation of breeding bird data;
 - Section 4 presents the results of the desk study and field surveys;
 - Section 5 evaluates the results of the desk study and field surveys and assesses the importance of the breeding bird populations recorded; and
 - Section 6 summarises the findings of the breeding bird survey report.

2.0 LEGISLATION AND GUIDANCE

2.1 Overview

2.1.1 Relevant legislation and guidance relating to breeding birds is summarised below. This legislation and guidance have been used to inform the evaluation of the conservation status of the species recorded during the desk study and field surveys, when assessing the importance of the breeding bird populations present, and when evaluating the potential implications of these breeding bird populations for the Proposed Development.

2.2 Legislation

European Commission Birds Directive (2009/147/EC)

2.2.1 Certain UK bird species (including some wintering species) are protected at an international level under the European Commission (EC) Directive on the Conservation of Wild Birds 2009 (2009/147/EC). These species are afforded enhanced legal protection and European Union member states have a responsibility to maintain populations of these species. This Directive is transposed into English law through the Conservation of Habitats and Species Regulations 2017 (as amended)¹.

2.2.2 Species listed on Annex 1 of the Directive are those for which the UK Government is required to take special conservation measures (including the designation of land as Special Protection Areas (SPAs)) to conserve populations of these species throughout their distributions. These sites form part of the Natura 2000 network of core sites that are protected for rare and threatened species.

2.2.3 Bird species listed on Annex 1 of the Directive are those which are deemed to be:

- in danger of extinction;
- vulnerable to specific changes to their habitats;
- considered rare due to their small population sizes and/or restricted local distributions; and
- in need of particular attention due to the specific nature of their habitat requirements.

Wildlife and Countryside Act 1981 (as amended)

2.2.4 Wild birds are protected in the UK under Section 1 of the Wildlife and Countryside Act (WCA) 1981 (as amended). This protection was extended by the Countryside Rights of Way (CRoW) Act 2000. Under this legislation it is an offence to:

- kill, injure or take any wild bird;

¹ As such, the requirements of the EC Birds Directive (2009/147/EC) apply despite the UK no longer being a member state of the European Union.

- take, damage or destroy the nest of any wild bird while that nest is in use or being built; and
- take or destroy an egg of any wild bird.

2.2.5 In addition, certain species are listed on Schedule 1 of the WCA and receive special protection under Sections 1(4) and 1(5), which confer penalties where the above-mentioned offences are committed, in addition to making it an offence to:

- disturb any such bird whilst building its nest or whilst it is in or near a nest containing eggs or dependent young; and
- disturb the dependent young of such a bird.

Natural Environment and Rural Communities Act 2006

2.2.6 The Natural Environment and Rural Communities (NERC) Act 2006 requires local and governmental authorities and departments to have regard to the conservation of biodiversity and a range of measures associated with public rights of way and other rural affairs.

2.2.7 Forty-nine bird species are listed as being Species of Principal Importance for conservation in England under Section 41 (S41) of the NERC Act 2006, and as such they are a material consideration during the planning process. These Species of Principal Importance are those identified as requiring action under the UK Biodiversity Action Plan (UKBAP), which continue to be regarded as species of conservation priority under the UK Post-2010 Biodiversity Framework (which succeeded the UKBAP in July 2012).

2.3 Guidance

National Planning Policy Framework

2.3.1 The National Planning Policy Framework (NPPF, 2019) sets out the government's planning policies for England and how these are expected to be applied. This includes requirements for the contribution to and enhancement of the natural environment, including habitats and biodiversity. The NPPF specifies the obligations that local authorities and the UK government have regarding statutory designated sites and protected species under UK and international legislation and how these are to be delivered in the planning system.

Birds of Conservation Concern

2.3.2 The Birds of Conservation Concern (BoCC) Red, Amber and Green lists categorise the UK's regularly occurring bird species according to their level of conservation concern (Stanbury *et al.*, 2021). Although these listings confer no legal protection, they are useful in guiding conservation action for individual species when birds may be affected by plans or projects.

Red list species

2.3.3 These are species of high conservation concern, including:

- species that are globally threatened according to the International Union for the Conservation of Nature (IUCN) criteria;
- species with a historical breeding decline that have not shown a substantial recent recovery;
- species that have shown a severe breeding decline over the last 25 years or longer term;
- species that have shown a severe breeding range decline over the last 25 years or longer term; and
- species whose non-breeding populations have declined over the last 25 years or longer term.

Amber list species

2.3.4 These are species of medium conservation concern, including:

- species of European Conservation Concern;
- species whose populations have declined historically but which have made a substantial recent recovery;
- species whose breeding populations have declined moderately over the last 25 years or longer term;
- species that have shown a moderate breeding range decline over the last 25 years or longer term;
- species whose non-breeding populations have declined moderately over the last 25 years or longer term; and
- rare breeders or non-breeding rarity species with internationally important or localised populations.

Green list species

2.3.5 Green list species fulfil none of the criteria detailed above. As such, they have stable or increasing populations and are not currently of conservation concern.

2.3.6 Non-native species such as Canada goose (*Branta canadensis*) are not afforded Red, Amber or Green list status.

Durham Priority Species

- 2.3.7 The Durham Biodiversity Partnership details specific priority bird species of conservation within the county². These Species Action Plans aim to raise awareness of biodiversity issues and provide a mechanism through which conservation targets for these species can be delivered within the county.
- 2.3.8 SAPs are provided either for single species or for species found within the habitat for which the action plan has been written. The following SAPs are potentially relevant to the habitats present within and adjacent to the study area:
- barn owl (*Tyto alba*);
 - farmland birds (including linnet (*Linaria cannabina*), tree sparrow (*Passer montanus*), skylark (*Alauda arvensis*), reed bunting (*Emberiza schoeniclus*), yellow wagtail (*Motacilla flava*), lapwing (*Vanellus vanellus*), curlew (*Numenius arquata*), snipe (*Gallinago gallinago*), cuckoo (*Cuculus canorus*), grasshopper warbler (*Locustella naevia*), grey partridge (*Perdix perdix*), kestrel (*Falco tinnunculus*), mistle thrush (*Turdus viscivorus*), swallow (*Hirundo rustica*) and yellowhammer (*Emberiza citrinella*);
 - urban and garden wildlife (including house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), song thrush (*Turdus philomelos*), house martin (*Delichon urbicum*) and swift (*Apus apus*));
 - ponds, lakes and reservoirs (including black-necked grebe (*Podiceps nigricollis*), little ringed plover (*Charadrius dubius*) and pochard (*Aythya ferina*));
 - rivers and streams (including grey wagtail (*Motacilla cinerea*)); and
 - woodland and scrub (including spotted flycatcher (*Muscicapa striata*), marsh tit (*Poecile palustris*), lesser redpoll (*Acanthis cabaret*), willow warbler (*Phylloscopus trochilus*) and woodcock (*Scolopax rusticola*)).

² Further information is available at: <https://neenp.org.uk/natural-environment/biodiversity-priorities/> [accessed 03/01/2023].

3.0 METHODS

3.1 Desk study

3.1.1 To provide supplementary data on breeding bird species known to be present in the vicinity of the study area, a data search report was obtained from the Environmental Records Information Centre Northeast. The BDS was undertaken on 17 March 2022.

3.2 Field surveys

3.2.1 The field surveys for breeding birds were undertaken between April and July 2022 inclusive in accordance with the *Bird Survey Guidelines for Assessing Ecological Impacts* (BSG) (Bird Survey and Assessment Steering Group, 2022). These comprised a series of six survey visits with each visit carried out over a period of five or six days due to the size of the study area.

3.2.2 Avian have indicated that a suitably experienced ornithologist walked a pre-determined transect route throughout the study area, recording all bird species encountered (either visually or through their vocalisations) onto field maps using standard BTO species codes and behaviour notation (Marchant, 1983).

3.2.3 The locations and behaviour of priority species were recorded on field maps. Priority species included:

- EC Birds Directive (2009/147/EC) Annex 1 species;
- Wildlife and Countryside Act 1981 (as amended) Schedule 1 species;
- NERC Act 2006 S41 Species of Principal Importance;
- BoCC Red and Amber list species; and
- Durham BAP Priority species.

3.2.4 BoCC Green list species were not mapped or counted, but their presence during each visit was recorded.

3.2.5 In accordance with the BSG, five survey visits were undertaken at dawn, whilst one visit was undertaken at dusk to increase the likelihood of recording species that are more active at dusk (e.g., owls). Surveys were undertaken in suitable weather conditions, avoiding extreme temperatures, heavy rain, snow, or fog during which bird activity may be atypical and/or surveying may be impractical. The dates, timings, and weather conditions for the six survey visits are listed in Table 1.

Table 1 Survey dates and weather conditions

Survey visit	Date	Timing	Weather conditions
1	18/04/2022	05:55-11:15	Overcast (6/8 cloud), south westerly wind (BF3), 13°C, no rain
	19/04/2022	05:50-10:55	Light cloud (2/8), north-westerly breeze (BF2), 13°C, no rain
	20/04/2022	05:50-10:30	Overcast (8/8), northerly breeze (BF1), 12°C, no rain
	21/04/2022	05:55-10:30	Light cloud (3/8), north-easterly breeze (BF2), 12°C, no rain
	22/04/2022	05:50-10:15	Overcast (7/8), north-easterly breeze (BF1-3), 11°C, no rain
2	09/05/2022	05:15-09:25	Overcast (7/8), southerly breeze (BF3), 12°C, no rain
	10/05/2022	05:10-09:05	4/8 cloud, south-westerly wind (BF3), 12°C, no rain
	11/05/2022	05:10-09:20	Overcast (6/8), south-westerly wind (BF3), 11°C, early rain shower
	12/05/2022	05:05-09:00	Light cloud (3/8), south westerly wind (BF2), 9°C, no rain
	13/05/2022	05:15-09:25	Overcast (8/8), south westerly wind (BF3), 10°C, no rain
	16/05/2022	05:15-08:45	Overcast (8/8), easterly breeze (BF2), 11°C, showers
3	23/05/2022	04:45-09:55	Cloud (5/8), south-westerly wind (BF1), 11°C, no rain
	24/05/2022	04:50-09:35	Overcast (7/8), westerly wind (BF2), 10°C, no rain
	25/05/2022	04:50-09:35	Overcast (8/8), south-westerly wind (BF3), 11°C, no rain
	26/05/2022	04:50-09:15	Cloudy (5/8), westerly wind (BF4), 12°C, no rain
	27/05/2022	04:50-09:10	No cloud (0/8), westerly wind (BF4), 12°C, no rain
4	13/06/2022	04:55-09:30	Cloudy (5/8), westerly wind (BF3), 9°C, no rain
	14/06/2022	04:50-09:45	Overcast (7/8), south-westerly wind (BF2), 9°C, no rain
	15/06/2022	04:55-09:35	Cloudy (6/8), south-westerly wind ((BF2), 9°C, no rain
	16/06/2022	04:45-08:55	Light cloud (2/8), westerly wind (BF2), 10°C, no rain
	17/06/2022	04:55-08:50	Overcast (7/8), south-westerly wind (BF2), 15°C, no rain
	20/06/2022	04:45-08:05	No weather details provided
5	04/07/2022	04:55-09:35	Cloudy (6/8), westerly wind (BF3), 13°C, no rain
	05/07/2022	05:05-08:45	Cloudy (5/8), westerly wind (BF3), 12°C, no rain
	06/07/2022	05:00-08:45	Overcast (8/8), 13°C, light rain
	07/07/2022	04:55-09:10	Cloudy (6/8), 14°C, no rain
	08/07/2022	05:00-08:55	Light cloud (2/8), 17°C, no rain
	11/07/2022	05:05-08:20	Light cloud (1/8), south-westerly wind (BF2), 17°C, no rain
6 (evening survey)	05/07/2022	20:00-22:50	Cloudy (6/8), westerly wind (BF2), no rain
	08/07/2022	19:50-22:45	Overcast (7/8), westerly wind (BF3), no rain
	09/07/2022	19:55-22:55	Light cloud (3/8), south-westerly wind (BF2), no rain
	10/07/2022	20:05-22:50	Light cloud (2/8), south-easterly wind (BF1), no rain
	11/07/2022	20:05-22:45	Overcast (7/8), south-westerly wind (BF2), 22°C, no rain
	12/07/2022	19:55-23:00	Cloudy (6/8), south-westerly wind (BF2), no rain

3.3 Interpretation of survey results

Assessment of breeding status

- 3.3.1 The results from the six survey visits were used to assess the breeding statuses of the bird species recorded within the study area, in accordance with the criteria presented in Gilbert *et al.* (1998)³ and taking into consideration understanding of the breeding ecology of the species in question. These criteria are based on the principal that many species are territorial during the breeding season and, as such, observation of certain behaviours (e.g., singing, displaying, aggressive interactions) can be used to infer breeding or likely breeding by a given species.
- 3.3.2 Breeding by a particular species within the study area can be assessed as being Confirmed if:
- a nest or used nest was found;
 - a nest with young was seen or heard;
 - recently fledged young were seen or heard;
 - adults were seen entering or leaving a nest site, or an adult was seen incubating; or
 - a territory was positively identified as a result of the number and type of observations recorded.
- 3.3.3 Breeding by a particular species within the study area can be assessed as being Probable if:
- nest-building was observed;
 - a bird was seen visiting a probable nest site on a single occasion;
 - agitated behaviour or alarm calls were observed in or near suitable nesting habitat;
 - a pair was seen in suitable nesting habitat during the breeding season;
 - courtship and/or display were seen; or
 - a male was heard singing in the same location on two or more occasions.
- 3.3.4 Breeding by a particular species within the study area can be assessed as being Possible if:
- birds were seen in or near suitable nesting habitat during the breeding season; or
 - a male was heard singing on one occasion during the breeding season.
- 3.3.5 Species not observed exhibiting the behaviours above are assessed as Non-breeding.

³ As summarised at: <https://www.bto.org/our-science/projects/birdatlas/methods/breeding-evidence> [accessed 30/08/2022].

- 3.3.6 An assessment of the breeding status of green list species recorded within the study area was not made.

Conservation status

- 3.3.7 The assessment of the importance of the breeding bird populations recorded took into consideration the conservation statuses of the species recorded. Species afforded special statutory protection or included on lists of species of conservation interest were evaluated. These priority species included:

- EC Birds Directive (2009/147/EC) Annex 1 species;
- Wildlife and Countryside Act 1981 (as amended) Schedule 1 species;
- NERC Act 2006 S41 Species of Principal Importance;
- BoCC Red and Amber list species; and
- Durham BAP Priority species.

Species abundance

- 3.3.8 The importance of the breeding bird populations recorded was assessed in the context of the sizes of those populations relative to international, national and regional population estimates for the species in question. National 1% population thresholds (i.e. the size at which a population is assessed as being of national importance, as it comprises over 1% of the national population for a given species) were calculated from the national population estimates detailed in *APEP 4 Population estimates of birds in Great Britain and the United Kingdom* (Woodward *et al.*, 2020). International 1% population thresholds (i.e. the size at which a population is assessed as being of international importance, as it comprises over 1% of the international population for a given species) were obtained from Wetlands International⁴.
- 3.3.9 Assessment of county, district or local importance was based on professional judgement and in reference to county population data detailed within *Birds in Durham* Editions 2016 to 2020 (Durham Bird Club, 2017-2021).

Species diversity

- 3.3.10 The importance of the breeding bird assemblage recorded within the study area was assessed according to its level of species diversity, in reference to the criteria described by Fuller (1980) indicated in Table 2. For the purposes of this assessment, RSK have adapted the Fuller (1980) criteria to follow CIEEM guidelines by introducing a district level as described in Table 2.

⁴ As detailed by Wetlands International. Available at: [Waterbird Population Estimates \(wetlands.org\)](https://www.wetlands.org/) (accessed 12/08/22).

Table 2 Breeding bird assemblage importance criteria (Fuller 1980) and adapted criteria

Breeding bird assemblage importance category	Number of breeding bird species recorded	
	Fuller (198) criteria	Adapted criteria
National	More than 85	More than 85
Regional	70-84	70-84
County	50-69	50-69
District	-	25-49
Local	25-49	Fewer than 25

- 3.3.11 It should be recognised that breeding birds have undergone widespread decline since these criteria were devised. As such, the qualifying number of species for a given importance category proposed by Fuller (1980) is now considered to be relatively high. This disparity is taken into account when assessing the importance of the breeding bird assemblage recorded within the study area.
- 3.3.12 Assessment of county or district importance was based on professional judgement and in reference to county population data detailed within *Birds in Durham* Editions 2016 to 2020 (Durham Bird Club, 2017-2021).

3.4 Limitations

- 3.4.1 A map outlining the Order Limits was provided by RWE prior to the start of bird surveys in 2022. This was used to define the extent of the study area for breeding bird surveys for the purposed of this assessment and EIA. A number of amendments were subsequently made to the Order Limits boundary with some additional areas added and some areas no longer within the application boundary. The Order Limits and study area are shown in Figure 6.3.1.
- 3.4.2 The evening survey visit carried out in July did not cover the entire study area. It was considered that certain areas would not be safe to access in darkness or lowering light levels due to hazards such as barbed wire fences and ditches. However, surveyors were able to cover most of the study area, so it is not considered that this is a significant limitation to the overall survey effort.
- 3.4.3 The evening visit was carried out at the same time of year as the fifth visit. Species recorded during the morning visit were not recorded during the evening visit to avoid duplication.
- 3.4.4 The cable route was followed on foot and by slowly driving along lanes and stopping at intervals. Some sections of the route behind large hedgerows or next to housing on private land could not be surveyed from the road.

- 3.4.5 Whilst desk study data are useful in providing supplementary ecological information for a study area, it should be acknowledged that these data are dependent on the submission of records to the relevant organisations (e.g., the BTO). As such, a lack of records for a particular species does not necessarily mean that the species is absent from the study area. Similarly, records of a particular species do not necessarily mean that the species is still present within the study area.
- 3.4.6 It should be noted that ecological features (e.g., bird populations) are transient, and that the distributions of habitats and species may be subject to change. As such, in line with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance, the ecological survey data presented in this report are considered valid for at least two years (CIEEM, 2019), after which if any significant changes have occurred to the habitats present then it may be necessary for further field surveys to be undertaken.

3.5 **Quality assurance**

- 3.5.1 Avian indicate that these surveys and reporting were undertaken by ornithologists who are experienced in conducting ornithology work in relevant habitats. The assessment and interpretation has been undertaken by experienced RSK Biocensus ornithologists.

4.0 RESULTS

4.1 Desk study

- 4.1.1 The data search from Environmental Records Information Centre Northeast returned 933 records of 70 species from within 2 km of the study area between 1992 and 2021. No details on their breeding statuses or the time of year in which they were recorded were provided. Species recorded included specially protected and priority species potentially breeding within or near to the study area. Relevant species identified within the data search included barn owl, curlew, grey partridge, hobby (*Falco subbuteo*), lapwing, kingfisher (*Alcedo atthis*), skylark and tree sparrow.
- 4.1.2 The nearest European site, Teesmouth and Cleveland Coast is a special protection area (SPA), Ramsar Site, and proposed Ramsar site which are of international importance and are 5.4 km (SPA & proposed Ramsar) and 7.2 km (Ramsar) from the Order Limits. Regarding breeding birds, this site is designated for its internationally important population of little tern (*Sternula albifrons*) (JNCC, 2006; JNCC, 2008). Due to its location and the habitats present, the site of the Proposed Development is unsuitable for breeding little tern. As such, there are no internationally designated sites with relevant ornithological features in a breeding context.
- 4.1.3 Four Sites of Special Scientific Interest (SSSI) were identified within 2 km of the study area boundary, including Whitton Bridge Pasture SSSI immediately adjacent to the study area. None of these nationally designated sites are designated on account of breeding bird interest features.

4.2 Field surveys

- 4.2.1 A total of 66 bird species were recorded during the field surveys of the study area between April and July 2022 inclusive, of which 41 are priority species. The peak counts and breeding statuses of these priority species are summarised in Table 3, in reference to the assessment criteria described in Section 3.3, with descriptions provided where necessary.
- 4.2.2 The locations of priority species recorded during the 2022 surveys are shown in Figures 6.3.2 – 6.3.5, Appendix A. Species have been included on figures according to their highest level of designation i.e. species which are included under both Section 41 (S41) of the NERC Act 2006 and the BoCC RedList would be included on Figure 6.3.3 – Section 41 species only.
- 4.2.3 Full breeding bird survey data from April to July 2022 inclusive are provided in Appendix B.

Table 3 Summary of species recorded during the 2022 surveys

Species		Peak count	Breeding status	Description
Common name	Scientific name			
Greylag goose	<i>Anser anser</i>	42	Non-breeding	Pairs and flocks were seen flying over the study area – likely to be nesting on nearby wetlands outside the study area.
Shelduck	<i>Tadorna tadorna</i>	4	Non-breeding	Two pairs were recorded flying over the study area.
Mallard	<i>Anas platyrhynchos</i>	16	Probable	Three pairs were observed at or near streams close to Panel Area D: Great Stainton and Panel Area E: West of Bishopton during visit 1. All others recorded were observed flying over the study area.
Grey partridge	<i>Perdix perdix</i>	13	Probable	Singing and calling males were observed during visits 1-5.
Oystercatcher	<i>Haematopus ostralegus</i>	1	Non-breeding	An individual flew over the study area during visits 3 and 4. None were observed breeding within the study area.
Lapwing	<i>Vanellus vanellus</i>	10	Confirmed	One territorial/displaying pair was found near Panel Area D: Great Stainton in visits 1 and 2. At least five pairs were on territory in set-aside in Panel Area F: North of Bishopton in visit 1, and two were recorded there in visit 2.
Little ringed plover	<i>Charadrius dubius</i>	1	Non-breeding	One flew north within Panel Area D: Great Stainton during visit 1 – no suitable breeding habitat was present within the study area.

Species		Peak count	Breeding status	Description
Common name	Scientific name			
Curlew	<i>Numenius arquata</i>	13	Confirmed	Two territories were found in likely breeding habitat. Further territorial birds were noted just out of the study area near Pitfield Farm. A flock of 12 flew over the study area in visit 1.
Black-headed gull	<i>Chroicocephalus ridibundus</i>		Non-breeding	Recorded commuting over the study area – no suitable breeding habitat within the study area.
Common gull	<i>Larus canus</i>	70	Non-breeding	A flock of 70 was recorded feeding in the north of the study area during visit 1. They were not recorded during subsequent visits.
Lesser black-backed gull	<i>Larus fuscus</i>	8	Non-breeding	Small numbers were recorded flying over the study area during the first three visits.
Herring gull	<i>Larus argentatus</i>	47	Non-breeding	Observed feeding in fields around Panel Area D: Great Stainton or flying over the study area. No suitable breeding habitat present within the study area.
Stock dove	<i>Columba oenas</i>	18	Probable	Seen at six locations, four of which were likely breeding sites, plus a flock of 11 feeding in set-aside areas in visit 1.
Woodpigeon	<i>Columba palumbus</i>	155	Probable	Common throughout the study area, with 1-2 birds frequently seen in breeding habitat in woodland and hedgerow, and small flocks were feeding in arable fields. Larger numbers recorded in visits 1-3.

Species		Peak count	Breeding status	Description
Common name	Scientific name			
Cuckoo	<i>Cuculus canorus</i>	1	Possible	One recorded flying over the study area in visit 3, though not recorded on subsequent visits. Suitable habitat present within the study area.
Tawny owl	<i>Strix aluco</i>	2	Possible	Two recorded calling from woodland near Panel Area D: Great Stainton during visit 6.
Kestrel	<i>Falco tinnunculus</i>	1	Possible	One perched in peripheral hedgerow close to West Newbiggin, outside of the Order Limits.
Rook	<i>Corvus frugilegus</i>	54	Possible	Flocks seen flying over and feeding within the study area. No rookeries recorded, though suitable breeding habitat present.
Willow tit	<i>Poecile montana</i>	2	Possible	Two were observed flying along a hedgerow in Panel Area F: North of Bishopton.
Skylark	<i>Alauda arvensis</i>	31	Probable	19 singing males were regularly recorded within study area, split between crop fields, pasture and set-aside.
House martin	<i>Delichon urbicum</i>	5	Probable	Recorded at a farm in Panel Area F: North of Bishopton in suitable breeding habitat.
Willow warbler	<i>Phylloscopus trochilus</i>	16	Probable	16 singing males recorded, all in mature hedgerow or peripheral woodland.
Whitethroat	<i>Sylvia communis</i>	35	Probable	Numerous males recorded singing in suitable breeding habitat.

Species		Peak count	Breeding status	Description
Common name	Scientific name			
Grasshopper warbler	<i>Locustella naevia</i>	3	Probable	Three singing birds on territory, all in low hedgerow.
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	4	Probable	Males recorded singing in suitable habitat.
Wren	<i>Troglodytes troglodytes</i>	80	Confirmed	Common in mature hedgerow and woodland throughout the study area.
Starling	<i>Sturnus vulgaris</i>	3	Non-breeding	No breeding birds were found but were observed flying over the study area from likely adjacent breeding sites.
Fieldfare	<i>Turdus pilaris</i>	2	Non-breeding	Single birds seen at two locations in visit 1 were likely to be departing wintering migrants.
Song thrush	<i>Turdus philomelos</i>	11	Probable	Numerous singing males recorded in suitable breeding habitat.
Mistle thrush	<i>Turdus viscivorus</i>	10	Possible	One heard calling in suitable habitat on one occasion in visit 2. Ten seen flying over the study area in visit 4.
Dunnock	<i>Prunella modularis</i>	23	Probable	Recorded throughout suitable breeding habitat within the study area during visits 1-5.
House sparrow	<i>Passer domesticus</i>	28	Probable	Found at one location in Panel Area F: North of Bishopton, in farmyard on the edge of the study area.
Tree sparrow	<i>Passer montanus</i>	21	Confirmed	Present in mature hedgerows, with 12 likely breeding pairs recorded.

Species		Peak count	Breeding status	Description
Common name	Scientific name			
Yellow wagtail	<i>Motacilla flava</i>	5	Probable	Seen in suitable breeding habitat during visits 1, 3, and 4.
Grey wagtail	<i>Motacilla cinerea</i>	1	Probable	Seen in suitable breeding habitat on two occasions.
Meadow pipit	<i>Anthus pratensis</i>	4	Probable	Observed in suitable breeding habitat on two occasions.
Bullfinch	<i>Pyrrhula pyrrhula</i>	3	Possible	Observed in suitable breeding habitat on one occasion.
Greenfinch	<i>Chloris chloris</i>	5	Probable	Males recorded singing in suitable habitat on multiple occasions.
Linnet	<i>Linaria cannabina</i>	51	Confirmed	Recorded in suitable breeding habitat in visits 1-5.
Yellowhammer	<i>Emberiza citrinella</i>	49	Confirmed	Seen at a total of 19 locations comprising suitable breeding habitat, with numerous singing males recorded.
Reed bunting	<i>Emberiza schoeniclus</i>	6	Probable	Pairs located in suitable breeding habitat along damp ditches and streams.

4.2.5 In summary, in reference to the criteria described in Section 3.3, the breeding status of the following six priority species was identified as Confirmed: lapwing, curlew, wren, tree sparrow, linnet and yellowhammer.

4.2.6 The breeding status of the following seventeen priority species was identified as Probable: mallard, grey partridge, stock dove, woodpigeon, skylark, house martin, willow warbler, whitethroat, grasshopper warbler, sedge warbler, song thrush, dunnock, house sparrow, grey wagtail, meadow pipit, greenfinch and reed bunting.

4.2.7 The breeding status of the following eight priority species was identified as Possible: cuckoo, tawny owl, kestrel, rook, willow tit, mistle thrush, yellow wagtail and bullfinch.

4.2.8 The breeding status of the following ten priority species was identified as Non-breeding: greylag goose, shelduck, oystercatcher, little ringed plover, black-headed gull, common gull, lesser black-backed gull, herring gull, starling, and fieldfare.

4.2.9 In addition to the priority species recorded above, 26 Green listed species were recorded, as indicated in Appendix B.

5.0 EVALUATION

5.1 Overview

5.1.1 The assessment of the importance of the breeding bird populations recorded within the study area during the field surveys undertaken between April and July 2022 inclusive is provided below, taking into consideration:

- the conservation statuses of the species recorded (i.e., their inclusion on the legislation and guidance described in Section 2 of this report);
- the sizes of the populations of the species recorded (i.e., species abundance);
- the overall diversity of the breeding bird assemblage (i.e. species diversity); and
- the spatial patterns of breeding bird usage of the study area, including any areas of particular importance to breeding bird populations.

5.2 Conservation status

5.2.1 Of the 66 species recorded during the 2022 field surveys for breeding birds, 41 are included on the legislation and guidance described in Section 2 of this report (as indicated in Table 4). Thirty-one were confirmed or considered likely to be breeding within the site.

5.2.2 In summary, the 41 priority species recorded breeding or potentially breeding included the following:

- no EC Birds Directive Annex 1 species;
- one WCA Schedule 1 species –little ringed plover;
- 16 NERC S41 Species of Principal Importance;
- 17 BoCC Red list species;
- 22 BoCC Amber list species; and
- 23 Durham BAP Priority species.

Table 4 Specially protected and notable species recorded during the 2022 surveys

Species	Conservation status category					
	Annex 1	Schedule 1	S41	Red	Amber	BAP
Greylag goose	-	-	-	-	✓	-
Shelduck	-	-	-	-	✓	✓
Mallard	-	-	-	-	✓	-

Species	Conservation status category					
	Annex 1	Schedule 1	S41	Red	Amber	BAP
Grey partridge	-	-	-	-	✓	✓
Oystercatcher	-	-	-	-	✓	-
Lapwing	-	-	✓	✓	-	✓
Little ringed plover	-	✓	-	-	-	✓
Curlew	-	-	✓	✓	-	✓
Black-headed gull	-	-	-	-	✓	-
Common gull	-	-	-	-	✓	-
Herring gull	-	-	✓	✓	-	-
Stock dove	-	-	-	-	✓	-
Woodpigeon	-	-	-	-	✓	-
Cuckoo	-	-	✓	✓	-	✓
Tawny owl	-	-	-	-	✓	-
Kestrel	-	-	-	-	✓	✓
Rook	-	-	-	-	✓	-
Willow tit	-	-	✓	✓	-	✓
Skylark	-	-	-	✓	-	✓
Swallow	-	-	-	-	-	✓
House martin	-	-	-	✓	-	✓
Willow warbler	-	-	-	-	✓	✓
Whitethroat	-	-	-	-	✓	-
Grasshopper warbler	-	-	✓	✓	-	✓
Sedge warbler	-	-	-	-	✓	-

Species	Conservation status category					
	Annex 1	Schedule 1	S41	Red	Amber	BAP
Wren	-	-	-	-	✓	-
Starling	-	-	✓	✓	-	✓
Fieldfare	-	-	✓	✓	-	-
Song thrush	-	-	✓	-	✓	✓
Mistle thrush	-	-	-	✓	-	✓
Dunnock	-	-	✓	-	✓	-
House sparrow	-	-	✓	✓	-	✓
Tree sparrow	-	-	✓	✓	-	✓
Yellow wagtail	-	-	✓	✓	-	✓
Grey wagtail	-	-	-	-	✓	✓
Meadow pipit	-	-	-	-	✓	-
Bullfinch	-	-	✓	-	✓	-
Greenfinch	-	-	-	✓	-	-
Linnet	-	-	-	✓	-	✓
Yellowhammer	-	-	✓	✓	-	✓
Reed bunting	-	-	✓	-	✓	✓

5.3 Species abundance

- 5.3.1 Based on the peak counts and the number of territories recorded for the species encountered during the 2022 field surveys, no species are assessed as being present in numbers of international or national importance.
- 5.3.2 In reference to *Birds in Durham* Editions 2016 to 2020 and based on professional judgement, the following species are assessed as having been present in numbers of potential county and district level importance, as detailed in Table 5.

Table 5 Evaluation of breeding bird population importance at a county and district level

Species	Peak count	Importance level	Justification
Grey partridge	13	District	Common but declining resident in Durham, with breeding evidence recorded widely in 2019, and young birds reported from three sites in 2020.
Lapwing	10	District	Very common breeder in Durham, with widespread breeding recorded in suitable habitat in 2019 and 2020.
Curlew	13	District	Very common resident in Durham, passage and winter visitor, with widespread breeding recorded in suitable habitat in 2019 and 2020.
Skylark	31	County	Abundant but locally declining resident in Durham, with widespread records during the breeding season in 2019 and 2020.
Tree sparrow	21	County	Common but sparsely distributed resident in Durham, with breeding recorded at various locations in 2020 and counts of up to 150 birds at any one site.
Yellowhammer	49	County	Common and widespread resident in Durham, with many breeding records in 2019 but relatively few in 2020.
Reed bunting	6	District	Common but local resident in Durham, with singing males recorded from various locations in 2019 and 2020.

5.4 Species diversity

5.4.1 Thirty-one priority species have been identified as breeding or potentially breeding within the study area. Using the adapted breeding bird assemblage importance criteria described in Section 3.3.10, this equates to a breeding bird assemblage of level

importance. Considering this, and the presence of a further 26 green listed species, many of which were potentially breeding within the study area, the breeding bird assemblage recorded is considered to be of up to county level importance.

5.5 Site usage by breeding birds

Ground-nesting species

- 5.5.1 Curlew were observed calling and displaying during the second, fourth, and fifth survey visits in fields to the east of West Newbiggin, outside of the Order Limits. Twelve curlew were recorded flying over one of these fields, but were not recorded in those numbers during the remainder of the survey visits. A curlew was also recorded calling in a field in Pael Area D: Great Stainton during the first survey visit but was not observed in this area on subsequent visits. The surveyor noted that territorial curlew were also present close to Pitfield Farm, outside of the Order Limits.
- 5.5.2 Lapwing were recorded during the first and second survey visits. Activity was centered on fields around Downland Farm, in Panel Area F: North of Bishopton. At least five pairs were recorded on territory in set-aside in this area in April. Two pairs were recorded there in May. An individual was also observed calling in land at Panel Area D: Great Stainton. Two lapwing were recorded in separate fields to the northwest of West Newbiggin, outside of the Order Limits, in May.
- 5.5.3 Singing grey partridge were recorded during the first survey visit in fields in Panel Area F: North of Bishopton.
- 5.5.4 Skylark were recorded throughout the study area. Approximately 20 pairs were present in fields around Panel Area A: Brafferton, Panel Area D: Great Stainton, Panel area F: North of Bishopton, and West Newbiggin (outside of Order Limits).

Other species

- 5.5.5 Mature hedgerows, particularly the less frequently flailed hedgerows, were the primary habitat used by breeding birds within the study area. Approximately twelve pairs of tree sparrow were recorded in mature hedgerows through the study area. This habitat was also used by willow warbler, whitethroat, grasshopper warbler, wren, dunnock, bullfinch, and yellowhammer. A kestrel was seen perched within a hedgerow near West Newbiggin in April.
- 5.5.6 The study area boundary did not encompass the small woodlands and copses, though birds observed on the edges of the woodlands were recorded. Buzzard, stock dove, woodpigeon, willow warbler, wren, and song thrush are also likely breeding species recorded on the edges of woodlands and copses around the study area. Two tawny owls were heard calling in woodland in Panel Area D: Great Stainton during the evening visit in July.
- 5.5.7 There were few field ditches, although small becks extended through the study area. Relatively low numbers of reed bunting were recorded throughout the survey period in

suitable habitat next to these becks. Pairs of mallard were also recorded during the first survey visit.

- 5.5.8 Farmyards and gardens were used by flocks of house sparrow and house martin, particularly in Panel Area E: West of Bishopton and Panel Area F: North of Bishopton.
- 5.5.9 Habitats within the study area were generally of relatively low suitability for foraging barn owl. Barn owl was not recorded during the surveys, though the surveyor reported anecdotal evidence of one flying though a farm at Panel Area D: Great Stainton. The preliminary ecological appraisal surveys carried out by RSK, recorded owl pellets and feathers along some of the hedgerows within the study area (ES Appendix 6.1 Preliminary Ecological Appraisal Report (Document Reference 6.4.6.1)).
- 5.5.10 Flocks of gulls were recorded foraging within the study area and within adjacent fields early in the survey period. Flocks were regularly recorded commuting northwest over the study area, flying in the direction of a nearby landfill. No suitable breeding habitat for gulls was present within the study area.

6.0 CONCLUSIONS

- 6.1.1 The field surveys undertaken in April to July 2022 inclusive to inform the Proposed Development recorded an array of breeding species, including up to 31 priority confirmed or likely breeding species in reference to the legislation and conservation status criteria described in Section 2. Based on the species recorded, the breeding bird assemblage is assessed as being of up to county level importance. Regarding populations of individual species, the following species were recorded in numbers assessed as being of up to county level importance:
- skylark;
 - tree sparrow; and
 - yellowhammer.
- 6.1.2 A further four species were potentially present in numbers of district level importance: grey partridge, lapwing, curlew, and reed bunting. No species were present in numbers of international or national importance.
- 6.1.3 Pairs of ground-nesting birds including curlew, lapwing, and skylark were observed displaying breeding behavior such as singing or displaying within arable fields. Mature hedgerows, particularly the less frequently flailed hedgerows, were important various breeding birds such as tree sparrow, yellowhammer, and grasshopper warbler.
- 6.1.4 The Proposed Development has the potential to adversely affect breeding birds within and adjacent to the study area through, disturbance of nesting birds and the loss or alteration of suitable habitat, both during its construction and operation.
- 6.1.5 Considering the suitability of the study area and adjacent land for breeding birds, a detailed impact assessment has been undertaken in ES Chapter 6 Biodiversity (Document Reference 6.2.6) to determine the potential impacts of the Proposed Development on breeding birds. The impact assessment will identify the requirement for mitigation and enhancement measures.

REFERENCES

- Bird Survey and Assessment Steering Group. (2022) *Bird Survey Guidelines for assessing ecological impacts*, v.0.1.6. [Available at: [Bird Survey Guidelines | for ecological impact assessment](#) – accessed 30/08/2022].
- BRE. (2014) *Biodiversity Guidance Advice for Solar Developments*. Eds G E Parker and L Greene. [Available at: <https://www.bre.co.uk/filelibrary/pdf/Brochures/NSC-Biodiversity-Guidance.pdf> - accessed 30/08/2022].
- CIEEM. (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.1 – Updated September 2019. [Available at: [ECIA-Guidelines-Sept-2019.pdf \(cieem.net\)](#) – accessed 30/08/2022].
- CIEEM. (2019) *Advice Note on the lifespan of ecological surveys and reports*. [Available at: [Advice-Note.pdf \(cieem.net\)](#) – accessed 30/08/2022].
- The Conservation of Habitats and Species Regulations 2017 (as amended). London: HMSO.
- Council of the European Communities. (2009) *Directive 2009/147/EC of the European Parliament and of the Council of 20 November 2009 on the conservation of wild birds (codified version)*. Official Journal of the European Communities, 20 (2009), 7-25.
- Davies, S.R., Sayer, C.D., Greaves, H., Siriwardena, G.M. & Axmacher, J.C. (2016) *A new role for pond management in farmland bird conservation*. Agriculture, Ecosystems & Environment, 233, pp.179-191. [Available at: https://www.norfolkfwag.co.uk/wp-content/uploads/2016/11/Sarah_Davies_ponds_birds-min.pdf – accessed 30/08/2022].
- Durham Bird Club. (2017-2021) *Birds in Durham*. Editions 2016, 2017, 2018, 2019 and 2020.
- Fuller, R. J. (1980) *A method for assessing the ornithological interest of sites for conservation*. Biological Conservation, 17(3), 229-239.
- Gilbert, G., Gibbons, D. W., & Evans, J. (1998) *Bird Monitoring Methods: a manual of techniques for key UK species*. RSPB.
- JNCC. (2006) *Teesmouth and Cleveland Coast Standard Natura 2000 Data Form*. JNCC, Version 1.1, 05/05/2006. [Available at: <http://publications.naturalengland.org.uk/publication/3209362> – accessed 29/07/2022].
- JNCC. (2008) *Teesmouth and Cleveland Coast Ramsar Information Sheet: UK11068*. JNCC, Version 3.0, 13/06/2008. [Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11068.pdf> – accessed 29/07/2022].
- Marchant, J.H. (1983) *BTO Common Birds Census instructions*. BTO, Tring.
- National Planning Policy Framework. (2019) London: HMSO.
- Natural Environment and Rural Communities Act (2006). [Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> - accessed 30/08/2022].

The Protection of Badgers Act 1992. London: HMSO. [Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents> – accessed 30/08/2022].

RSK (2024) ES Appendix 6.1 Preliminary Ecological Appraisal Report (Document Reference 6.4.6.1).

RSPB. (2010) *Wild birds and the law, England, and Wales*. RSPB.

Shawyer, C.R. (2011) *Barn owl *Tyto alba* survey methodology and techniques for use in ecological assessment: developing best practice in survey and reporting*. IEEM, Winchester, 8(8.2), pp.8-3.

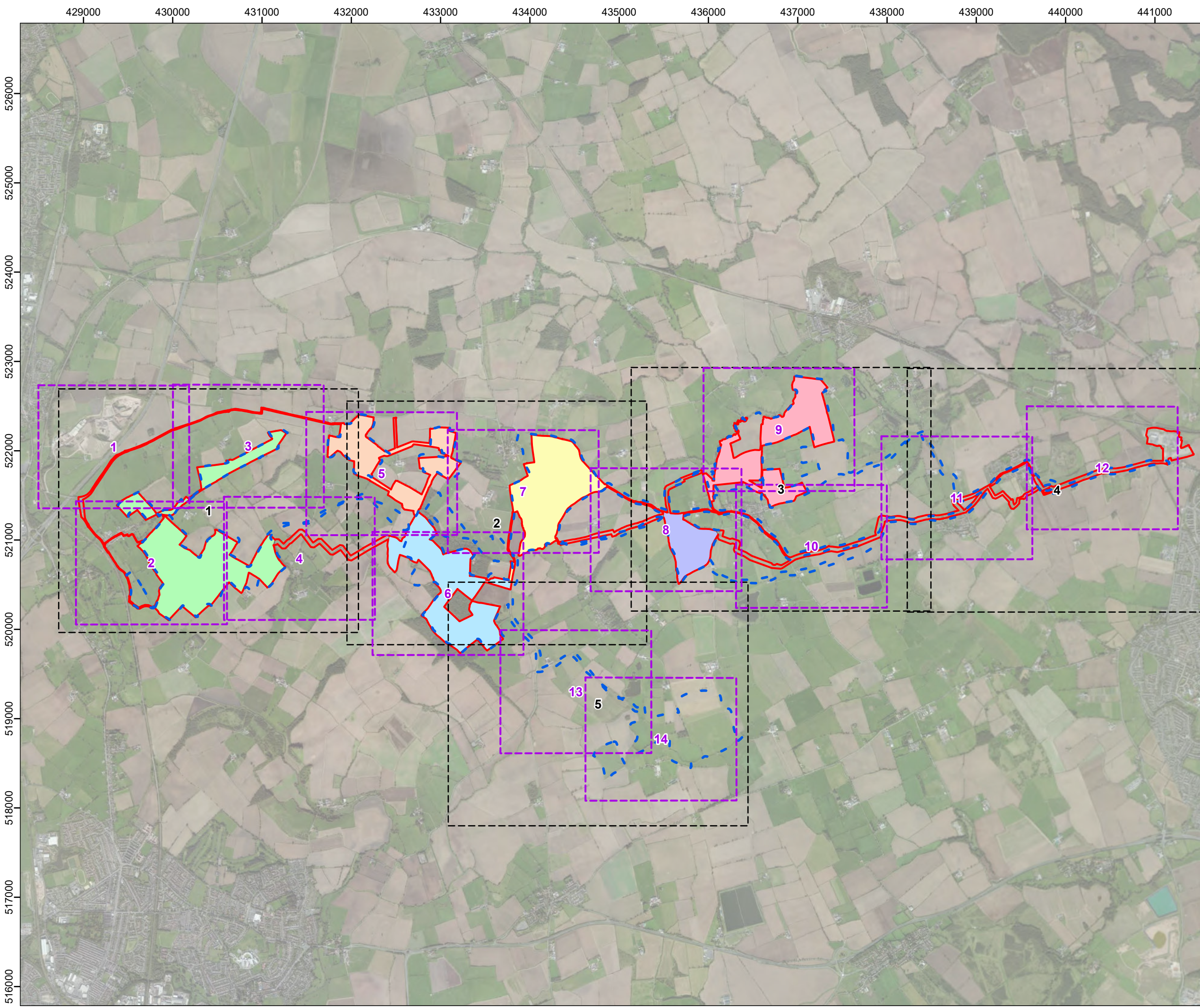
Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021) *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. *British Birds* 114: 723-747. [Available at: <https://bou.org.uk/blog-birds-of-conservation-concern-5/> – accessed 30/08/2022].

Wildlife and Countryside Act 1981 (as amended). London: HMSO.

Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, S. & Noble, D. (2020) *APEP 4 Population estimates of birds in Great Britain and the United Kingdom*. *British Birds*: 113, BTO. [Available at: <https://www.bto.org/our-science/publications/peer-reviewed-papers/apep-4-population-estimates-birds-great-britain-and> – accessed 30/08/2022].

APPENDIX A – FIGURES

Figure 6.3.1 Site layout



- Legend:**
- Order Limits
 - Study Area
 - Map Views at 1:10,000
 - Map Views at 1:5,000
- Panel Area**
- Panel Area A: Brafferton
 - Panel Area B: Hauxley Farm
 - Panel Area C: Byers Gill Wood
 - Panel Area D: Great Stainton
 - Panel Area E: West of Bischopton
 - Panel Area F: North of Bischopton



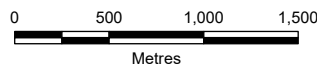
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Byers Gill Solar Farm




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biocensus
EXPERTS IN ECOLOGY

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Site Overview

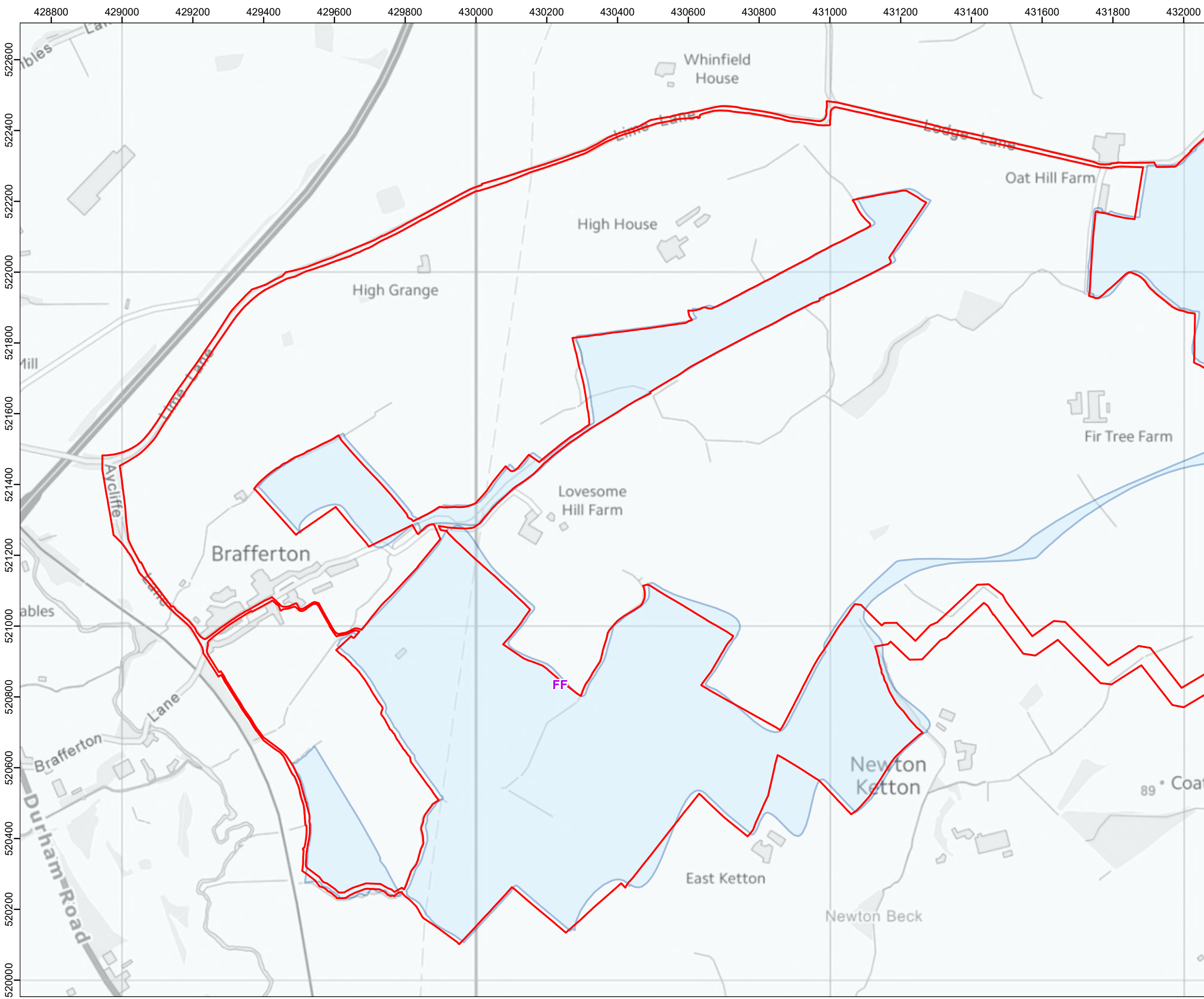


SCALE: 1:40,000 @ A3



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Figure 6.3.2 Annex 1 and Schedule 1 species



- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - Activity
 - Calling
 - Flight Direction

Code	Scientific name	Common name
FF	<i>Turdus pilaris</i>	Fieldfare
LP	<i>Charadrius dubius</i>	Little Ringed Plover

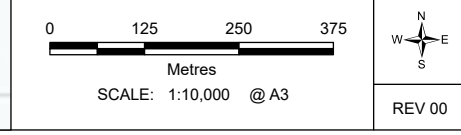


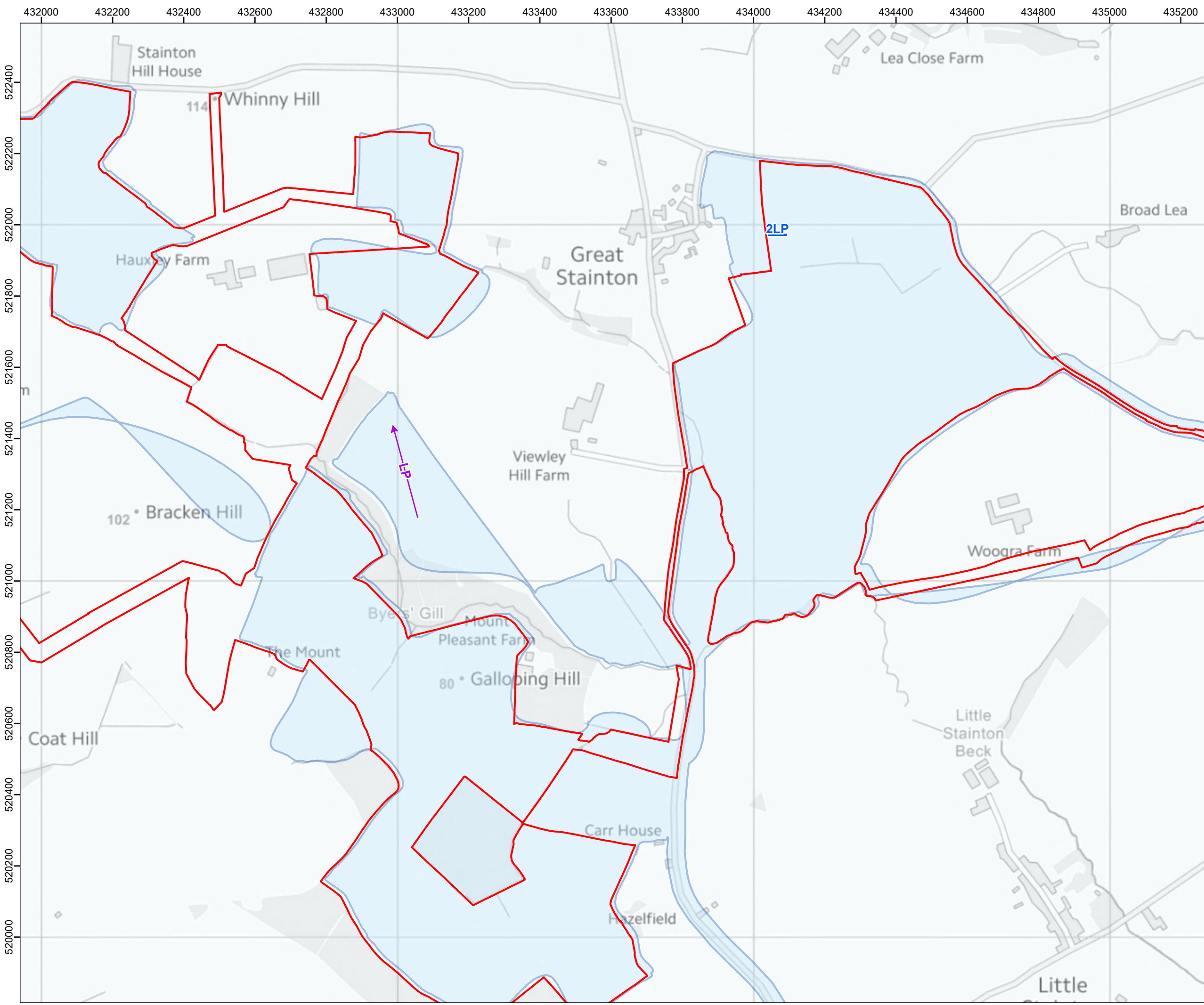
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Byers Gill Solar Farm



TITLE: Figure 6.3.2:
Breeding Bird Survey Results
Annex 1 and Schedule 1 Species
Page 1 of 5





- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - Activity
 - Calling
 - Flight Direction

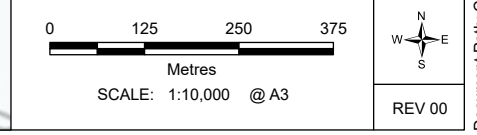
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LP	<i>Charadrius dubius</i>	Little Ringed Plover

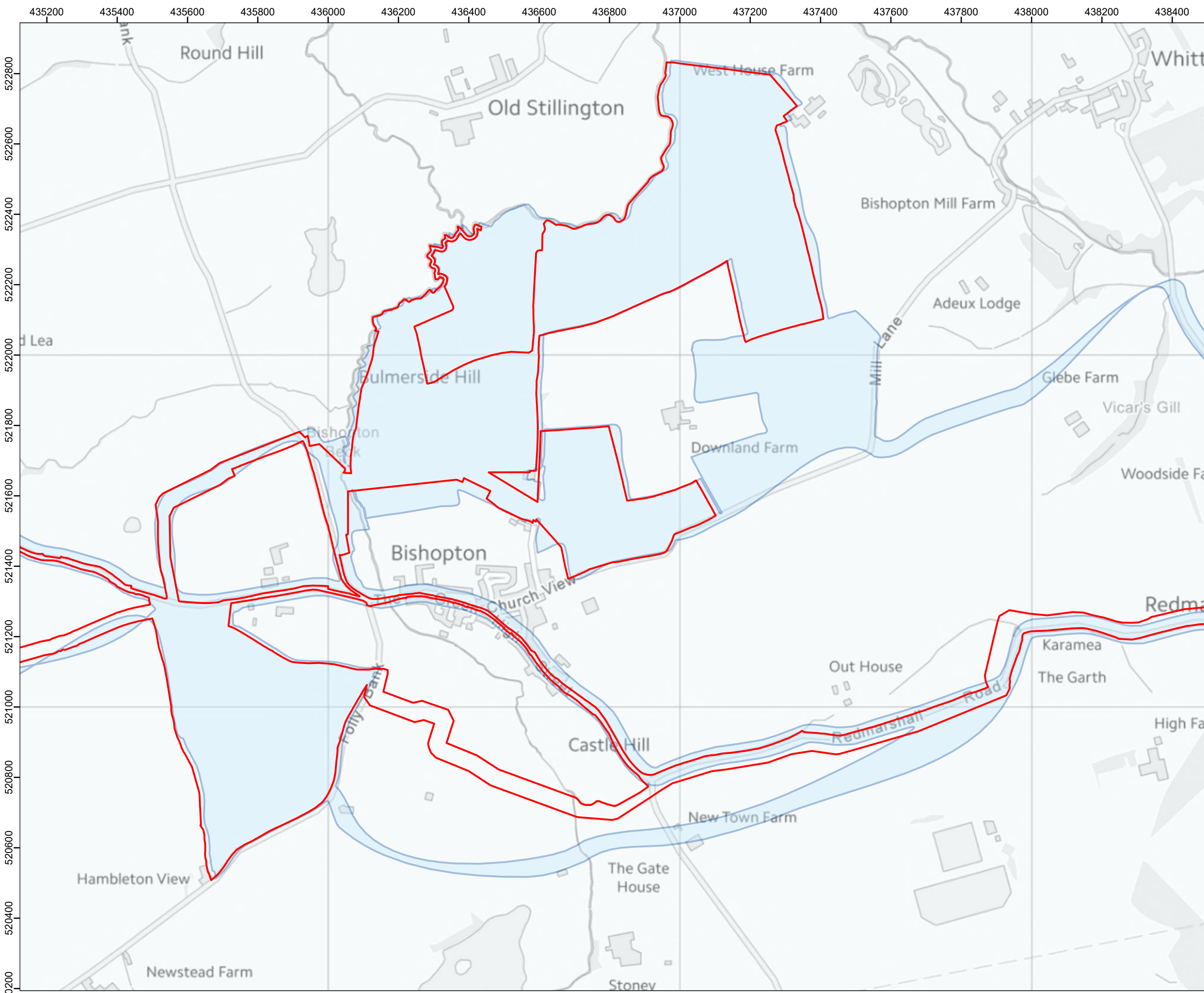


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Byers Gill Solar Farm

TITLE: Figure 6.3.2:
Breeding Bird Survey Results
Annex 1 and Schedule 1 Species
Page 2 of 5





- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - Activity
 - Calling
 - Flight Direction

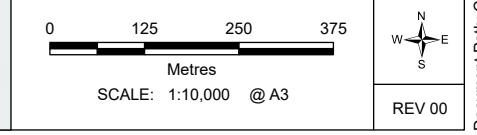
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LP	<i>Charadrius dubius</i>	Little Ringed Plover

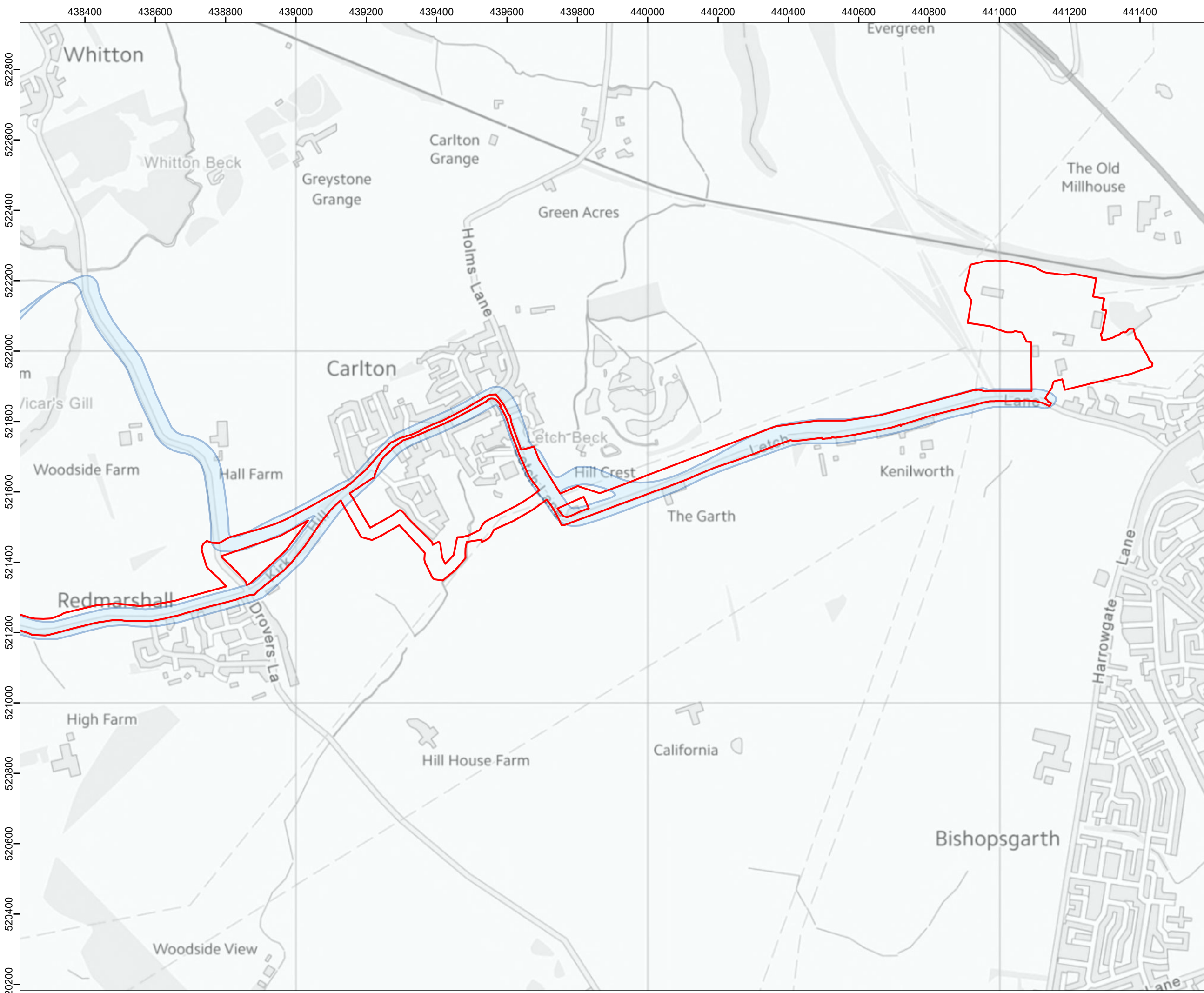


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Byers Gill Solar Farm

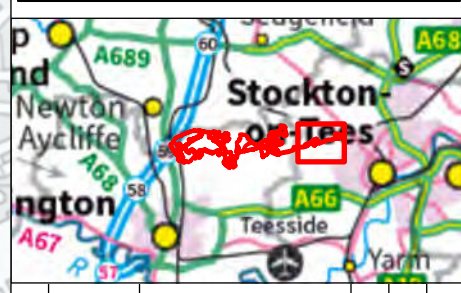
TITLE: Figure 6.3.2:
Breeding Bird Survey Results
Annex 1 and Schedule 1 Species
Page 3 of 5





- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - Activity
 - Calling
 - Flight Direction

Code	Scientific name	Common name
FF	<i>Turdus pilaris</i>	Fieldfare
LP	<i>Charadrius dubius</i>	Little Ringed Plover



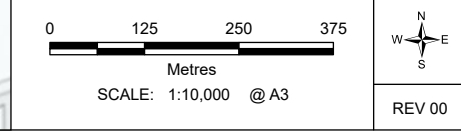
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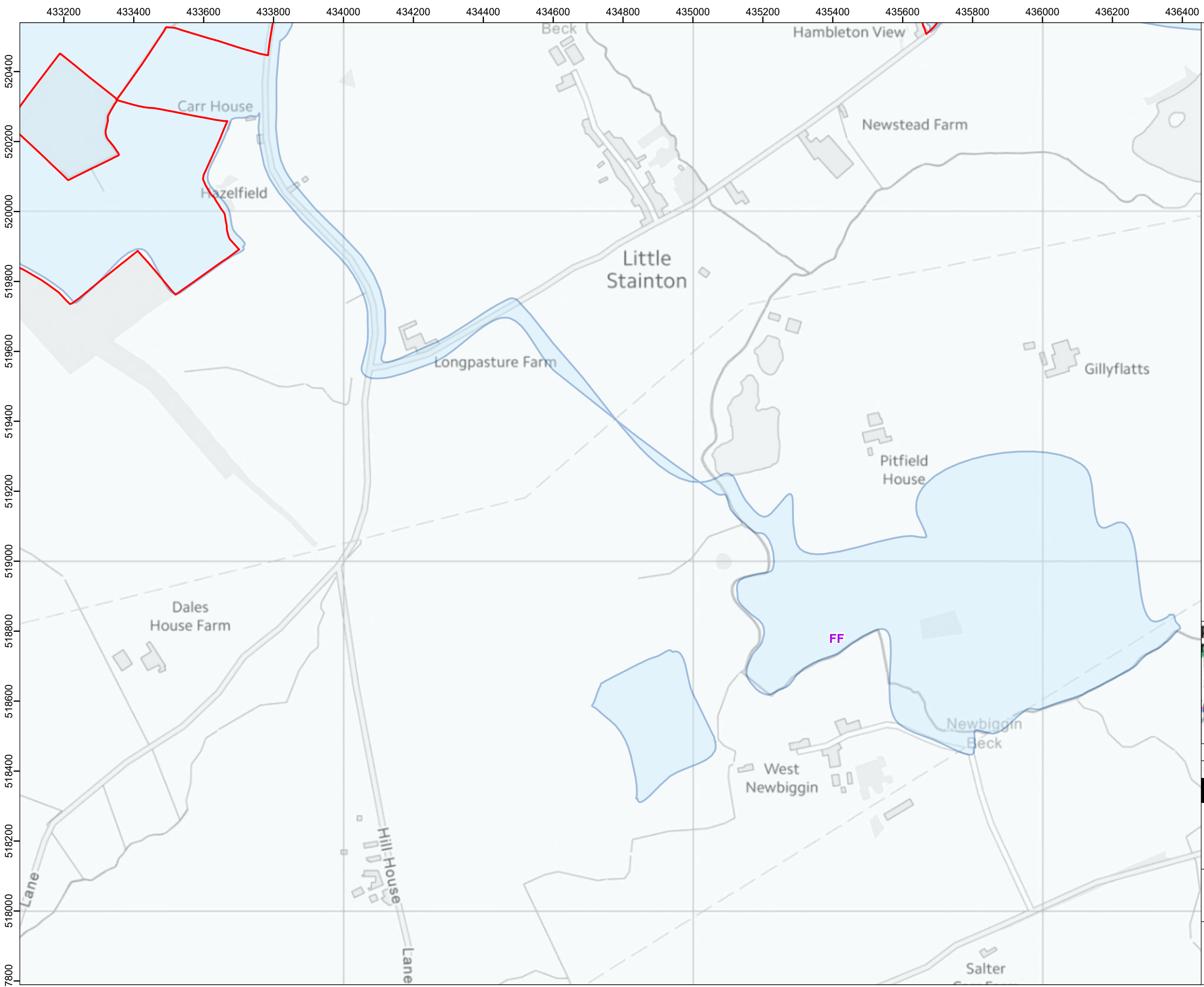
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TITLE: Figure 6.3.2:
Breeding Bird Survey Results
Annex 1 and Schedule 1 Species
Page 4 of 5





- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - Activity
 - Calling
 - Flight Direction

Code	Scientific name	Common name
FF	<i>Turdus pilaris</i>	Fieldfare
LP	<i>Charadrius dubius</i>	Little Ringed Plover



Rev	Date	Description	Drn	Chk	App
00	03/11/2023	2483386	RG	SP	LP

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TITLE: Figure 6.3.2:
Breeding Bird Survey Results
Annex 1 and Schedule 1 Species
Page 5 of 5

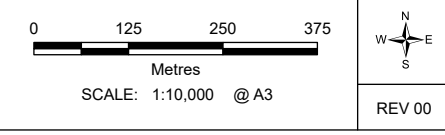
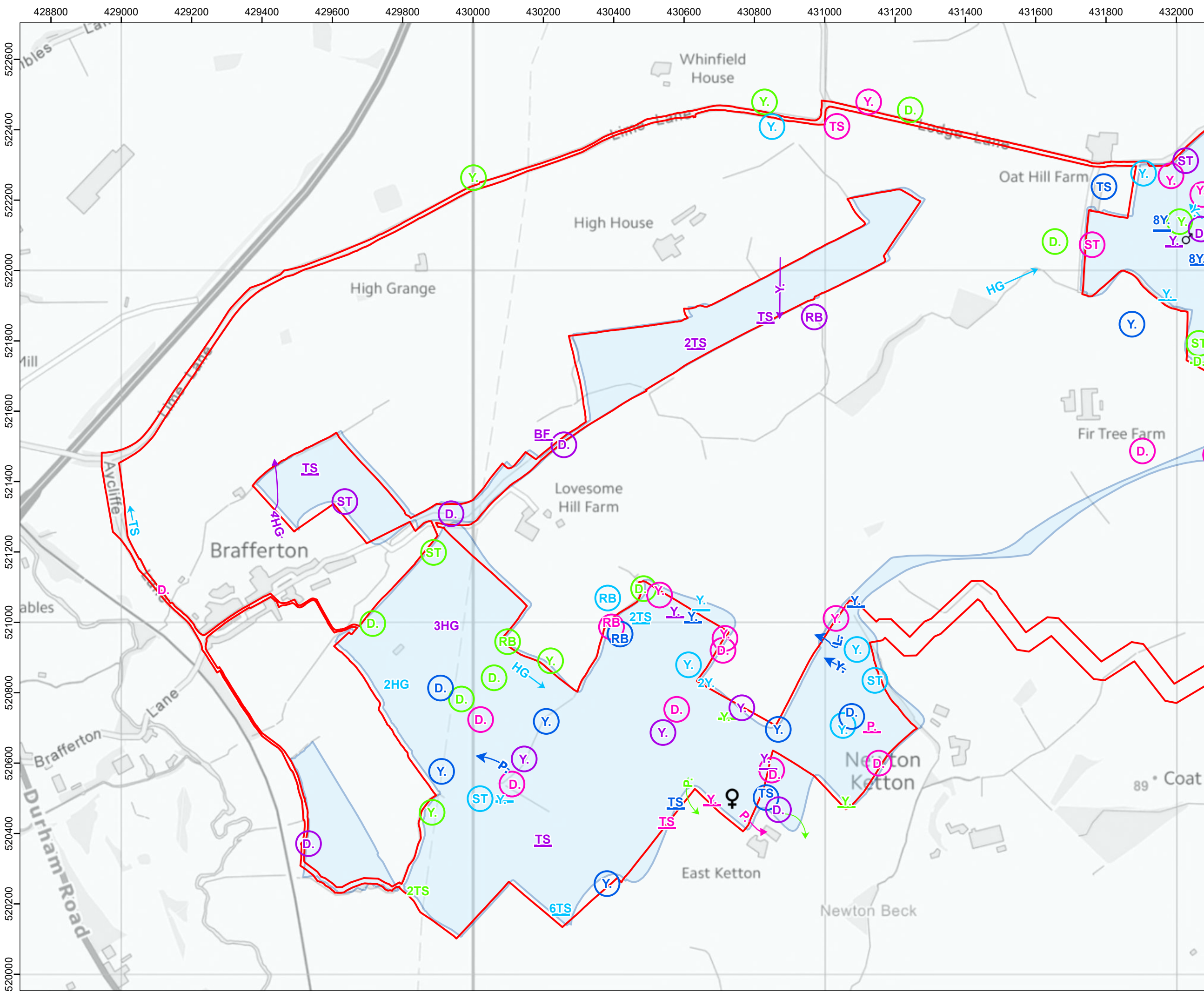


Figure 6.3.3 Section 41 species



Legend:

- Order Limits (Red outline)
- Study Area (Blue outline)

Visit

- April (Purple line)
- May 9th (Blue line)
- May 29th (Cyan line)
- June (Pink line)
- July (Green line)

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call (Double line)
- Calling (Single line)
- Singing (Circle)
- Flight Direction (Arrow)

Code	Scientific name	Common name
BF	<i>Pyrrhula pyrrhula</i>	Bullfinch
CK	<i>Cuculus canorus</i>	Cuckoo
CU	<i>Numenius arquata</i>	Curlew
D.	<i>Prunella modularis</i>	Dunnock
GH	<i>Locustella naevia</i>	Grasshopper Warbler
HG	<i>Larus argentatus</i>	Herring Gull
HS	<i>Passer domesticus</i>	House Sparrow
L.	<i>Vanellus vanellus</i>	Lapwing
P.	<i>Perdix perdix</i>	Grey Partridge
RB	<i>Emberiza schoeniclus</i>	Reed Bunting
SG	<i>Sturnus vulgaris</i>	Starling
ST	<i>Turdus philomelos</i>	Song Thrush
TS	<i>Passer montanus</i>	Tree Sparrow
WT	<i>Poecile montanus</i>	Willow Tit
Y.	<i>Emberiza citrinella</i>	Yellowhammer
YW	<i>Motacilla flava</i>	Yellow Wagtail

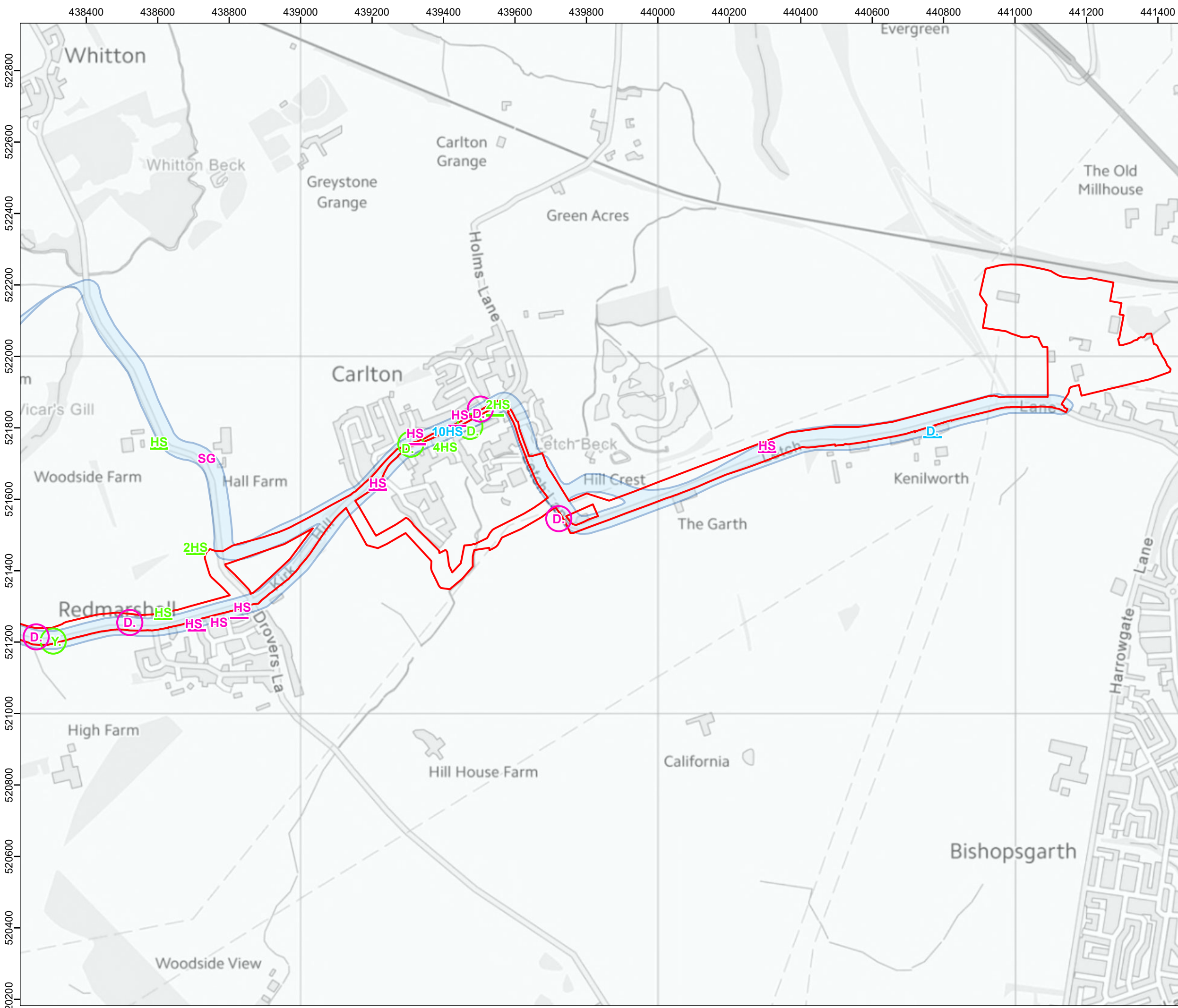


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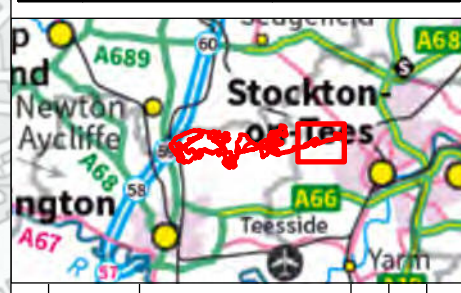
TITLE: Figure 6.3.3:
Breeding Bird Survey Results
Section 41 Species
Page 1 of 5

REV 00



- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - May 29th
 - June
 - July
 - Sex
 - ♂ Male
 - ♀ Female
 - Activity
 - Alarm Call
 - Calling
 - Singing
 - Flight Direction

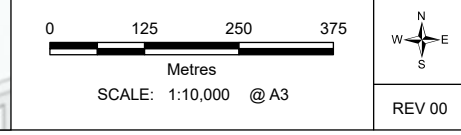
Code	Scientific name	Common name
BF	<i>Pyrrhula pyrrhula</i>	Bullfinch
CK	<i>Cuculus canorus</i>	Cuckoo
CU	<i>Numenius arquata</i>	Curlew
D.	<i>Prunella modularis</i>	Dunnock
GH	<i>Locustella naevia</i>	Grasshopper Warbler
HG	<i>Larus argentatus</i>	Herring Gull
HS	<i>Passer domesticus</i>	House Sparrow
L.	<i>Vanellus vanellus</i>	Lapwing
P.	<i>Perdix perdix</i>	Grey Partridge
RB	<i>Emberiza schoeniclus</i>	Reed Bunting
SG	<i>Sturnus vulgaris</i>	Starling
ST	<i>Turdus philomelos</i>	Song Thrush
TS	<i>Passer montanus</i>	Tree Sparrow
WT	<i>Poecile montanus</i>	Willow Tit
Y.	<i>Emberiza citrinella</i>	Yellowhammer
YW	<i>Motacilla flava</i>	Yellow Wagtail

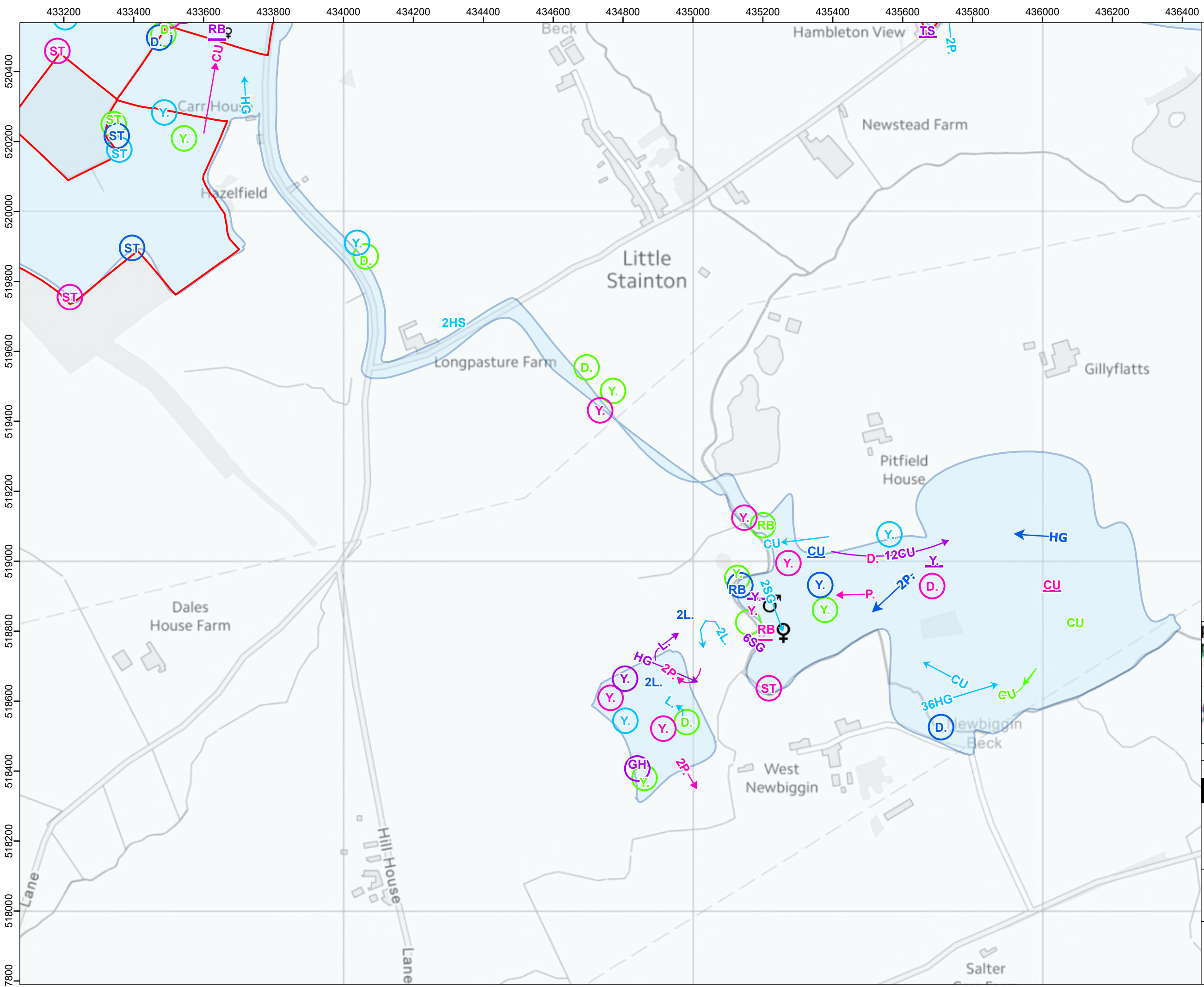


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00	03/11/2023	2483386	RG	SP	LP

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TITLE: Figure 6.3.3:
Breeding Bird Survey Results
Section 41 Species
Page 4 of 5





Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
BF	<i>Pyrrhula pyrrhula</i>	Bullfinch
CK	<i>Cuculus canorus</i>	Cuckoo
CU	<i>Numenius arquata</i>	Curlew
D.	<i>Prunella modularis</i>	Dunnock
GH	<i>Locustella naevia</i>	Grasshopper Warbler
HG	<i>Larus argentatus</i>	Herring Gull
HS	<i>Passer domesticus</i>	House Sparrow
L.	<i>Vanellus vanellus</i>	Lapwing
P.	<i>Perdix perdix</i>	Grey Partridge
RB	<i>Emberiza schoeniclus</i>	Reed Bunting
SG	<i>Sturnus vulgaris</i>	Starling
ST	<i>Turdus philomelos</i>	Song Thrush
TS	<i>Passer montanus</i>	Tree Sparrow
WT	<i>Poecile montanus</i>	Willow Tit
Y.	<i>Emberiza citrinella</i>	Yellowhammer
YW	<i>Motacilla flava</i>	Yellow Wagtail



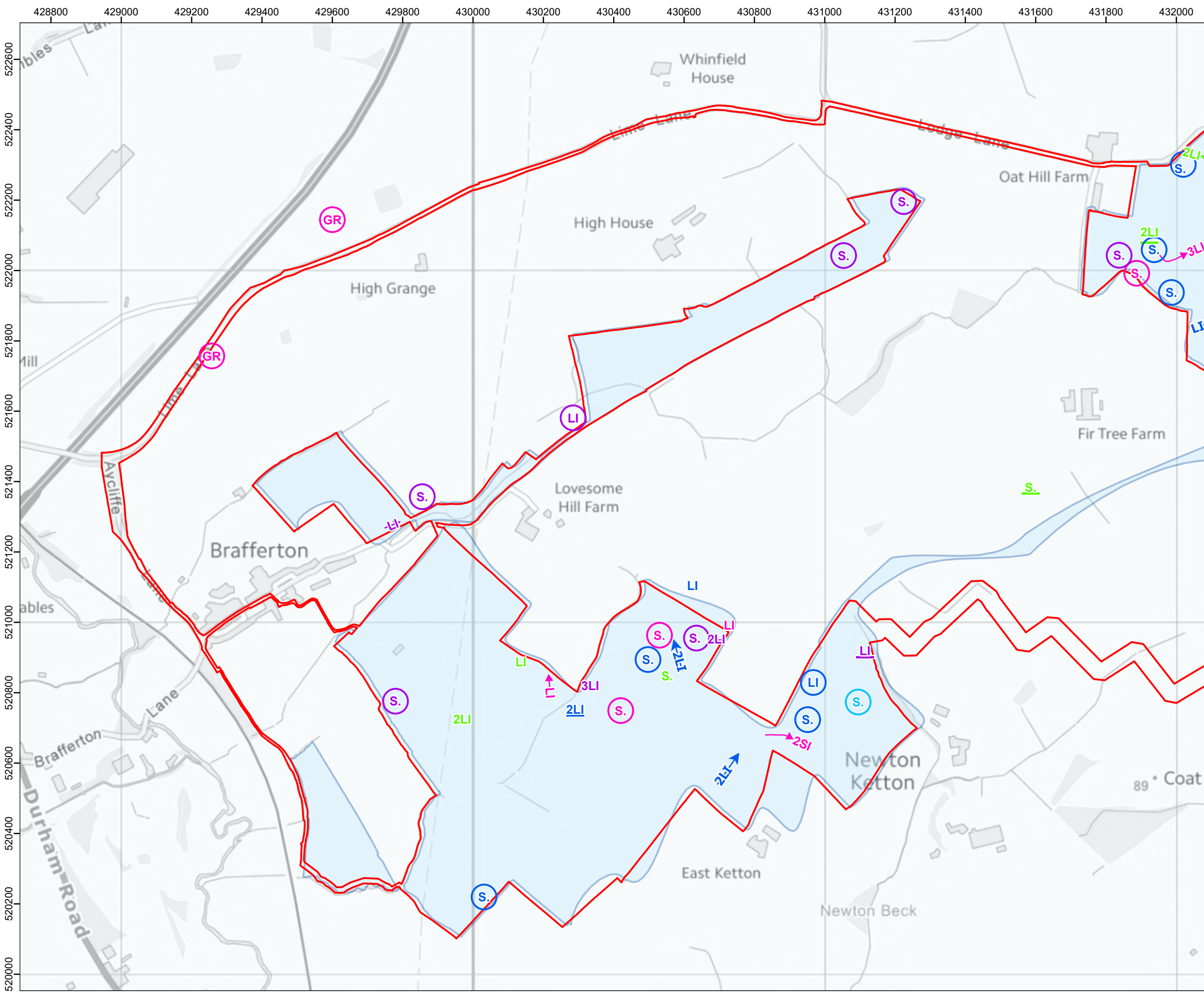
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Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 6.3.3:
Breeding Bird Survey Results
Section 41 Species
Page 5 of 5

Figure 6.3.4 BoCC Red list species



Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
GR	<i>Carduelis chloris</i>	Greenfinch
HM	<i>Delichon urbica</i>	House Martin
LI	<i>Carduelis cannabina</i>	Linnets
M.	<i>Turdus viscivorus</i>	Mistle Thrush
RP	<i>Charadrius hiaticula</i>	Ringed Plover
S.	<i>Alauda arvensis</i>	Skylark
SI	<i>Apus apus</i>	Swift



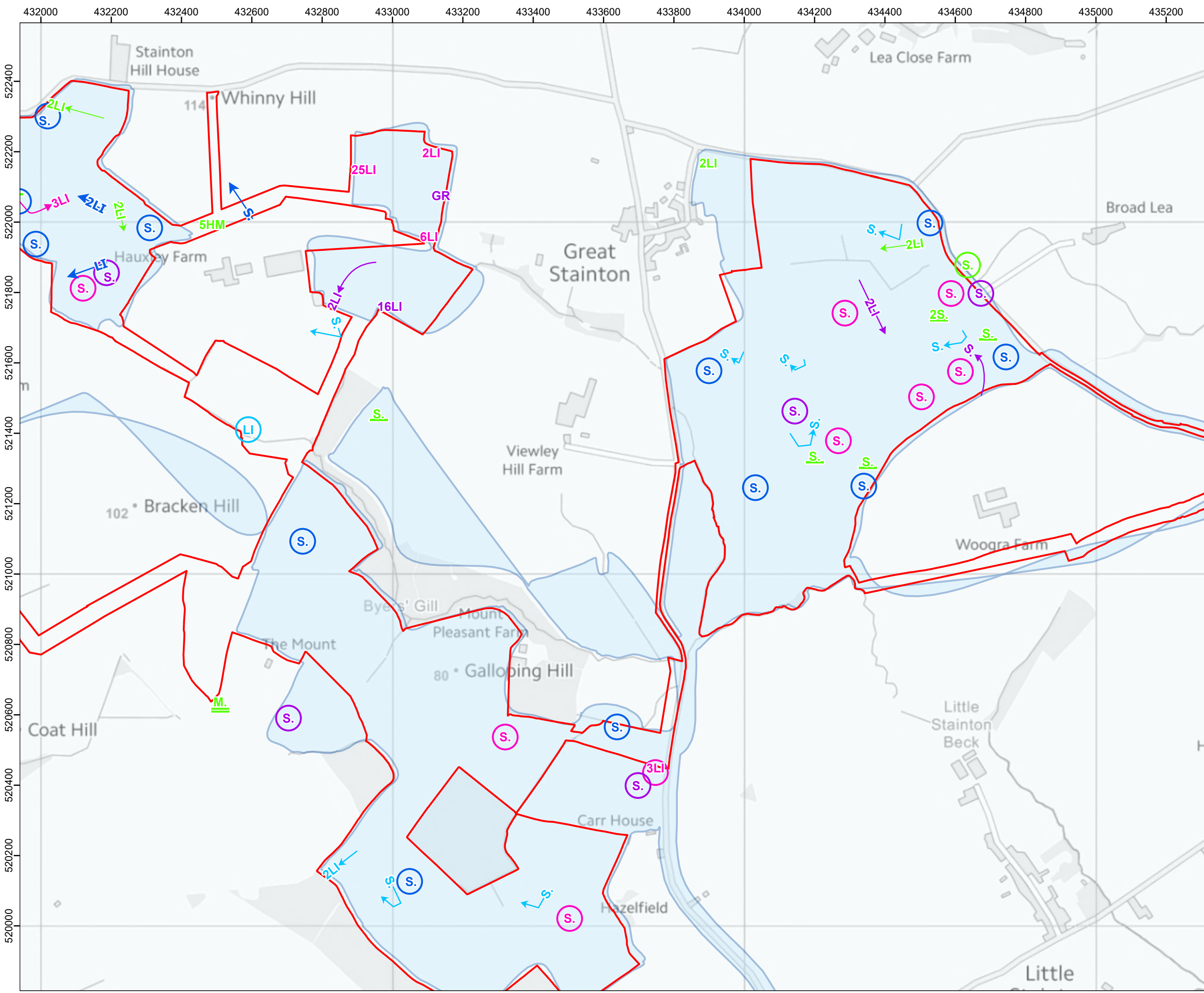
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TITLE: Figure 6.3.4:
Breeding Bird Survey Results
Red List Species
Page 1 of 5

0 125 250 375
Metres
SCALE: 1:10,000 @ A3

REV 00



Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
GR	<i>Carduelis chloris</i>	Greenfinch
HM	<i>Delichon urbica</i>	House Martin
LI	<i>Carduelis cannabina</i>	Linnets
M.	<i>Turdus viscivorus</i>	Mistle Thrush
RP	<i>Charadrius hiaticula</i>	Ringed Plover
S.	<i>Alauda arvensis</i>	Skylark
SI	<i>Apus apus</i>	Swift



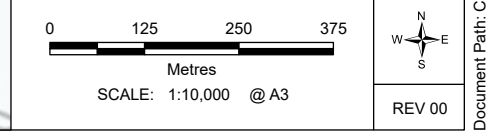
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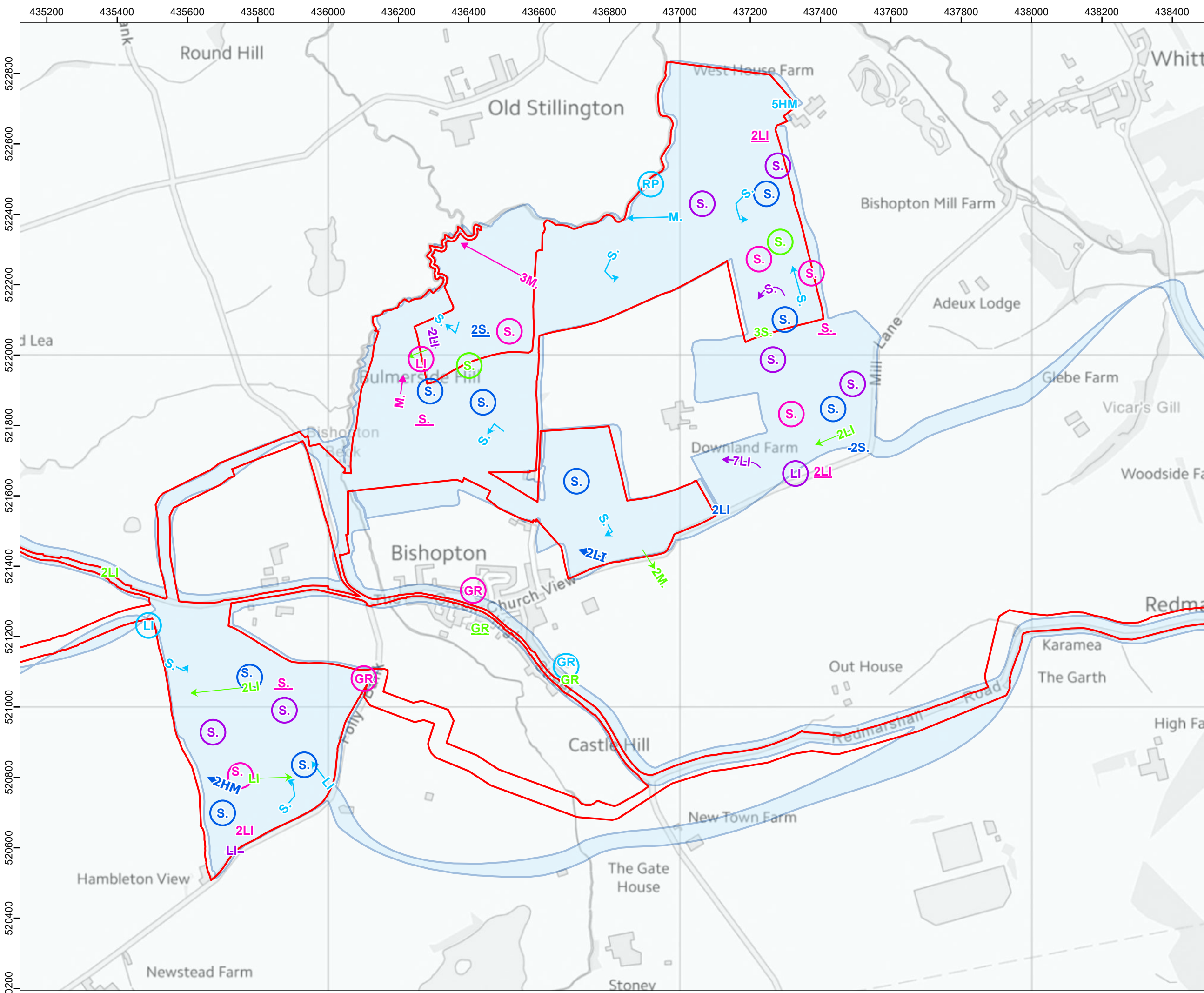
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TITLE: Figure 6.3.4:
Breeding Bird Survey Results
Red List Species
Page 2 of 5





Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

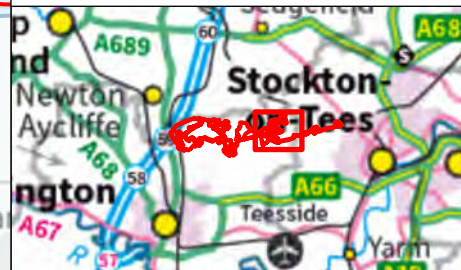
Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
GR	<i>Carduelis chloris</i>	Greenfinch
HM	<i>Delichon urbica</i>	House Martin
LI	<i>Carduelis cannabina</i>	Linnets
M.	<i>Turdus viscivorus</i>	Mistle Thrush
RP	<i>Charadrius hiaticula</i>	Ringed Plover
S.	<i>Alauda arvensis</i>	Skylark
SI	<i>Apus apus</i>	Swift



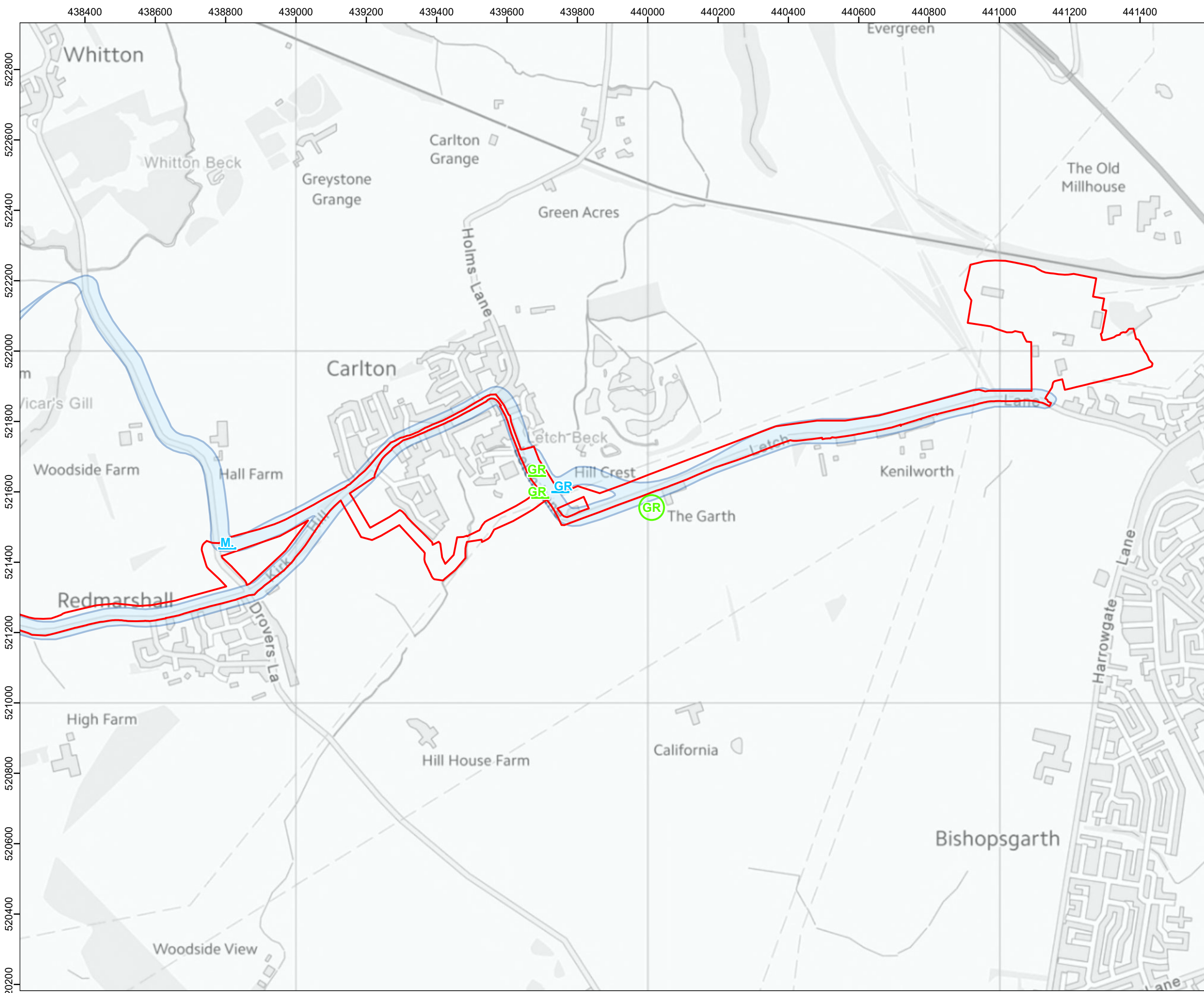
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TITLE: Figure 6.3.4:
Breeding Bird Survey Results
Red List Species
Page 3 of 5

0 125 250 375
Metres
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REV 00



Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

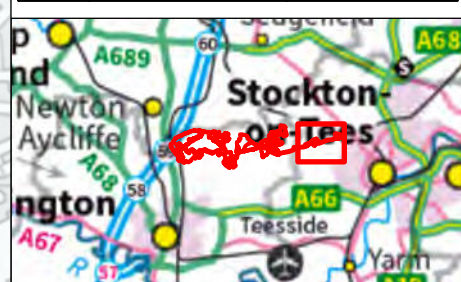
Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
GR	<i>Carduelis chloris</i>	Greenfinch
HM	<i>Delichon urbica</i>	House Martin
LI	<i>Carduelis cannabina</i>	Linnets
M.	<i>Turdus viscivorus</i>	Mistle Thrush
RP	<i>Charadrius hiaticula</i>	Ringed Plover
S.	<i>Alauda arvensis</i>	Skylark
SI	<i>Apus apus</i>	Swift



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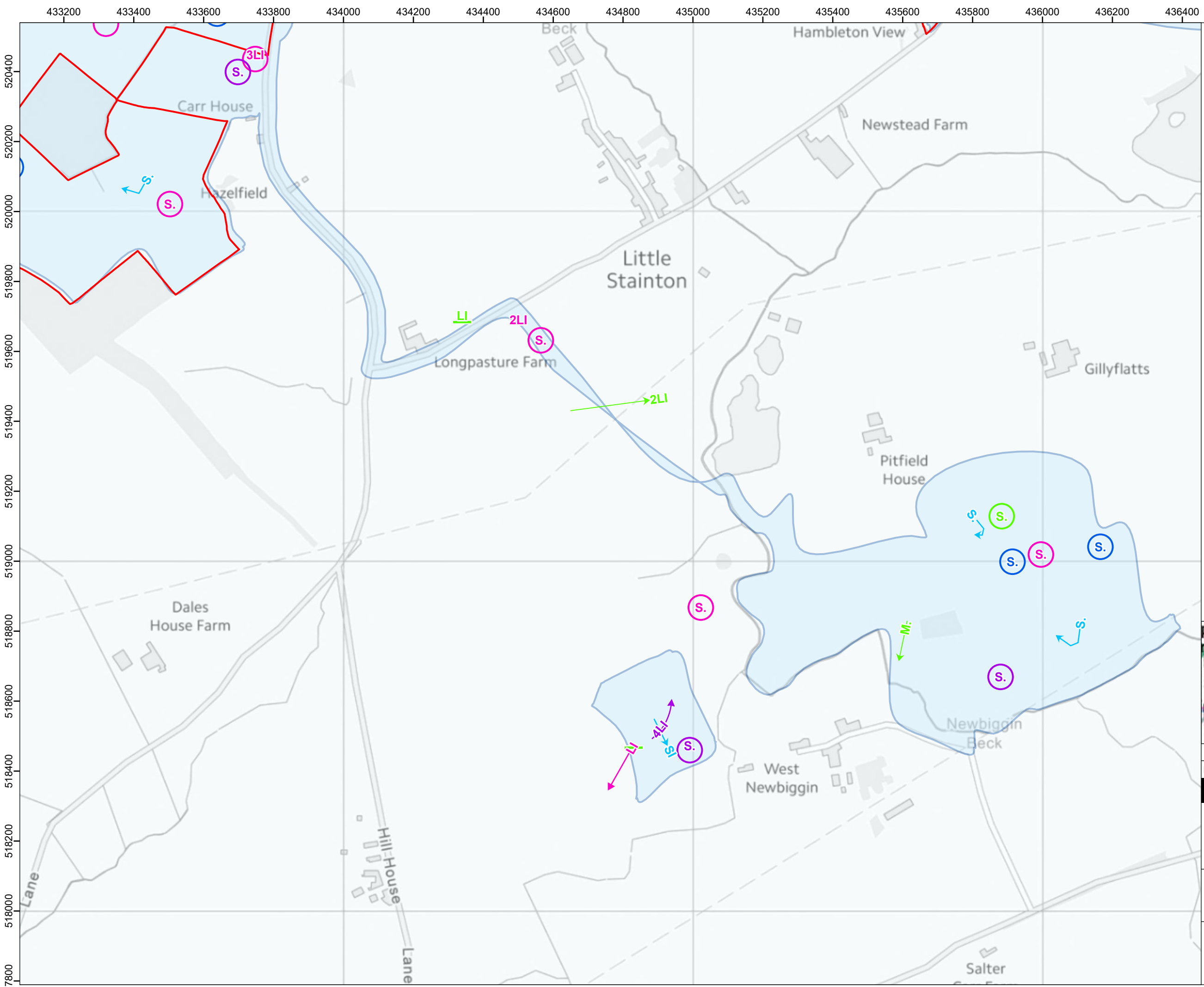
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TITLE: Figure 6.3.4:
Breeding Bird Survey Results
Red List Species
Page 4 of 5

0 125 250 375
Metres
SCALE: 1:10,000 @ A3

REV 00



Legend:

- Order Limits
- Study Area
- Visit
- April
- May 9th
- May 29th
- June
- July
- Sex
- ♂ Male
- ♀ Female
- Activity
- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
GR	<i>Carduelis chloris</i>	Greenfinch
HM	<i>Delichon urbica</i>	House Martin
LI	<i>Carduelis cannabina</i>	Linnet
M.	<i>Turdus viscivorus</i>	Mistle Thrush
RP	<i>Charadrius hiaticula</i>	Ringed Plover
S.	<i>Alauda arvensis</i>	Skylark
SI	<i>Apus apus</i>	Swift



Rev	Date	Description	Drn	Chk	App
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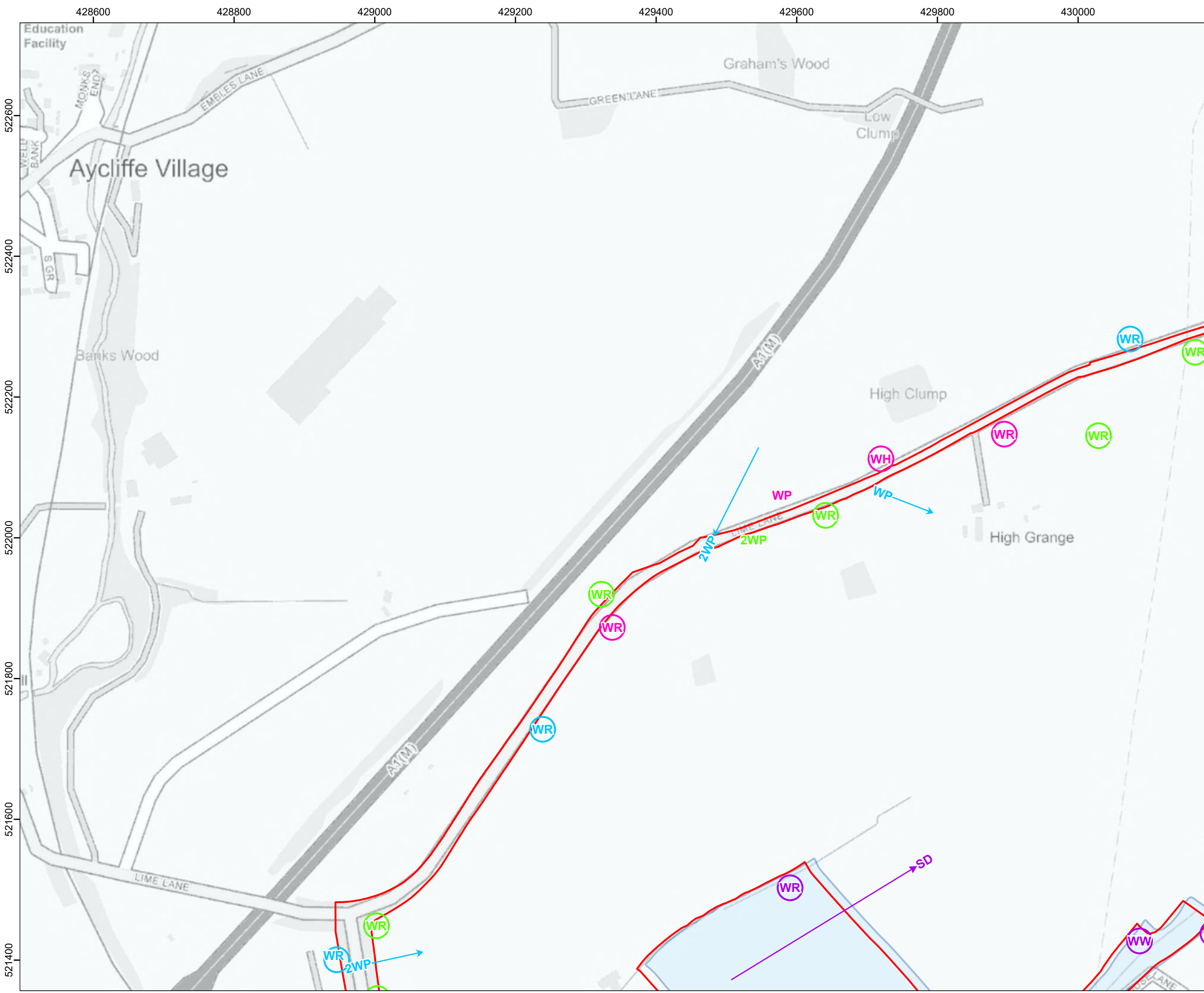


TITLE: Figure 6.3.4:
Breeding Bird Survey Results
Red List Species
Page 5 of 5

0 125 250 375
Metres
SCALE: 1:10,000 @ A3

REV 00

Figure 6.3.5 BoCC Amber list species



Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
BH	<i>Larus ridibundus</i>	Black-headed Gull
CM	<i>Larus canus</i>	Common Gull
GJ	<i>Anser anser</i>	Greylag Goose
GL	<i>Motacilla cinerea</i>	Grey Wagtail
K.	<i>Falco tinnunculus</i>	Kestrel
LB	<i>Larus fuscus</i>	Lesser Black-backed Gull
MA	<i>Anas platyrhynchos</i>	Mallard
MP	<i>Anthus pratensis</i>	Meadow Pipit
OC	<i>Haematopus ostralegus</i>	Oystercatcher
PW	<i>Motacilla alba</i>	Pied Wagtail
RO	<i>Corvus frugilegus</i>	Rook
SD	<i>Columba oenas</i>	Stock Dove
SH	<i>Accipiter nisus</i>	Sparrowhawk
SU	<i>Tadorna tadorna</i>	Shelduck
SW	<i>Acrocephalus schoenobaenus</i>	Sedge Warbler
WH	<i>Sylvia communis</i>	Common Whitethroat
WP	<i>Columba palumbus</i>	Woodpigeon
WR	<i>Troglodytes troglodytes</i>	Wren
WW	<i>Phylloscopus trochilus</i>	Willow Warbler
WH	<i>Sylvia communis</i>	Whitethroat



00	03/11/2023	2483386	RG	SP	LP
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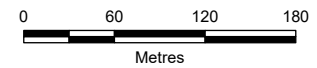
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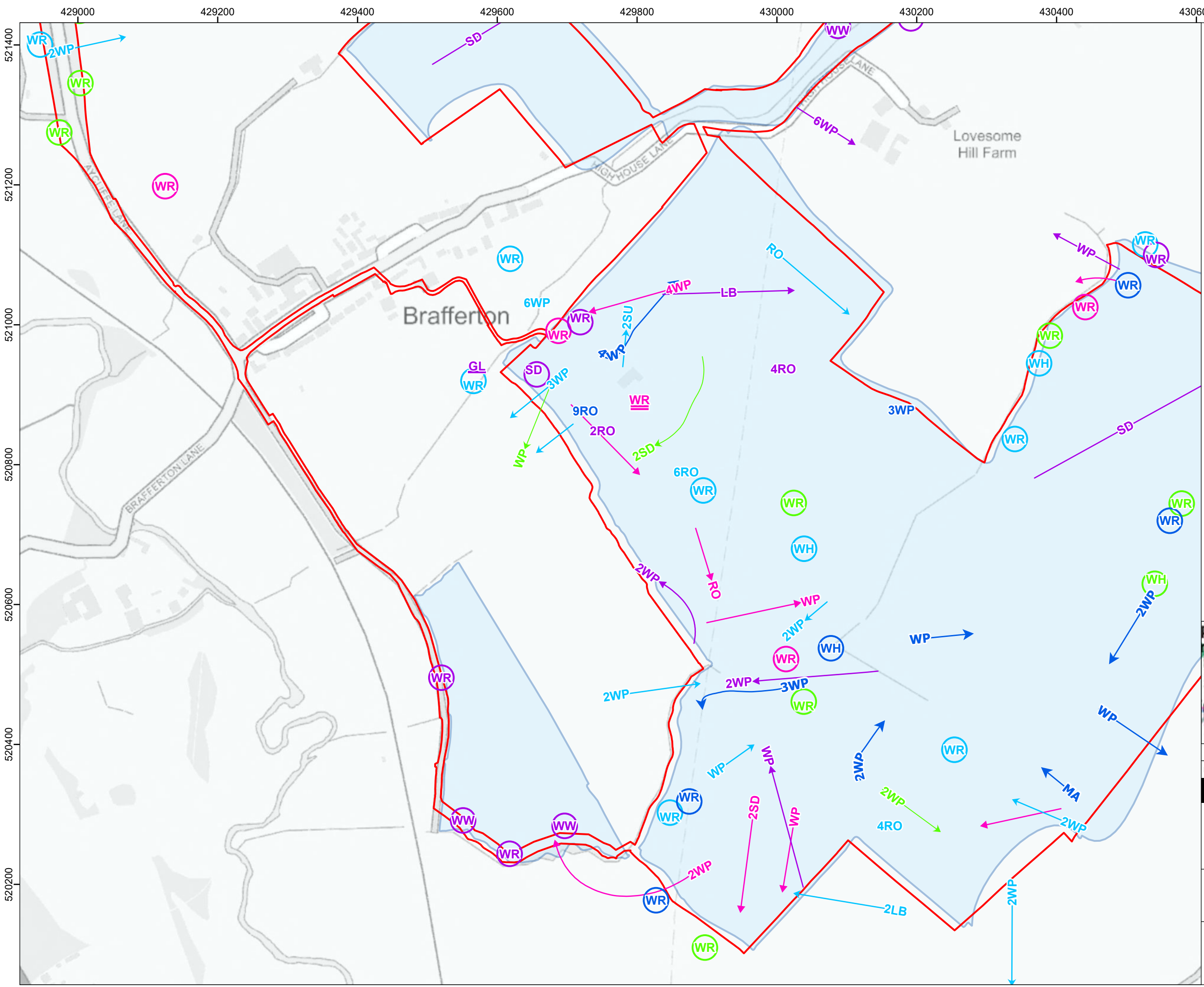
TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
Page 1 of 14



SCALE: 1:5,000 @ A3



REV 00



Legend:

- Order Limits
- Study Area
- Visit
 - April
 - May 9th
 - May 29th
 - June
 - July
- Sex
 - ♂ Male
 - ♀ Female
- Activity
 - Alarm Call
 - Calling
 - Singing
 - Flight Direction

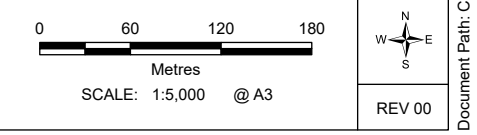
Code	Scientific name	Common name
BH	Larus ridibundus	Black-headed Gull
CM	Larus canus	Common Gull
GJ	Anser anser	Greylag Goose
GL	Motacilla cinerea	Grey Wagtail
K.	Falco tinnunculus	Kestrel
LB	Larus fuscus	Lesser Black-backed Gull
MA	Anas platyrhynchos	Mallard
MP	Anthus pratensis	Meadow Pipit
OC	Haematopus ostralegus	Oystercatcher
PW	Motacilla alba	Pied Wagtail
RO	Corvus frugilegus	Rook
SD	Columba oenas	Stock Dove
SH	Accipiter nisus	Sparrowhawk
SU	Tadorna tadorna	Shelduck
SW	Acrocephalus schoenobaenus	Sedge Warbler
WH	Sylvia communis	Common Whitethroat
WP	Columba palumbus	Woodpigeon
WR	Troglodytes troglodytes	Wren
WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat

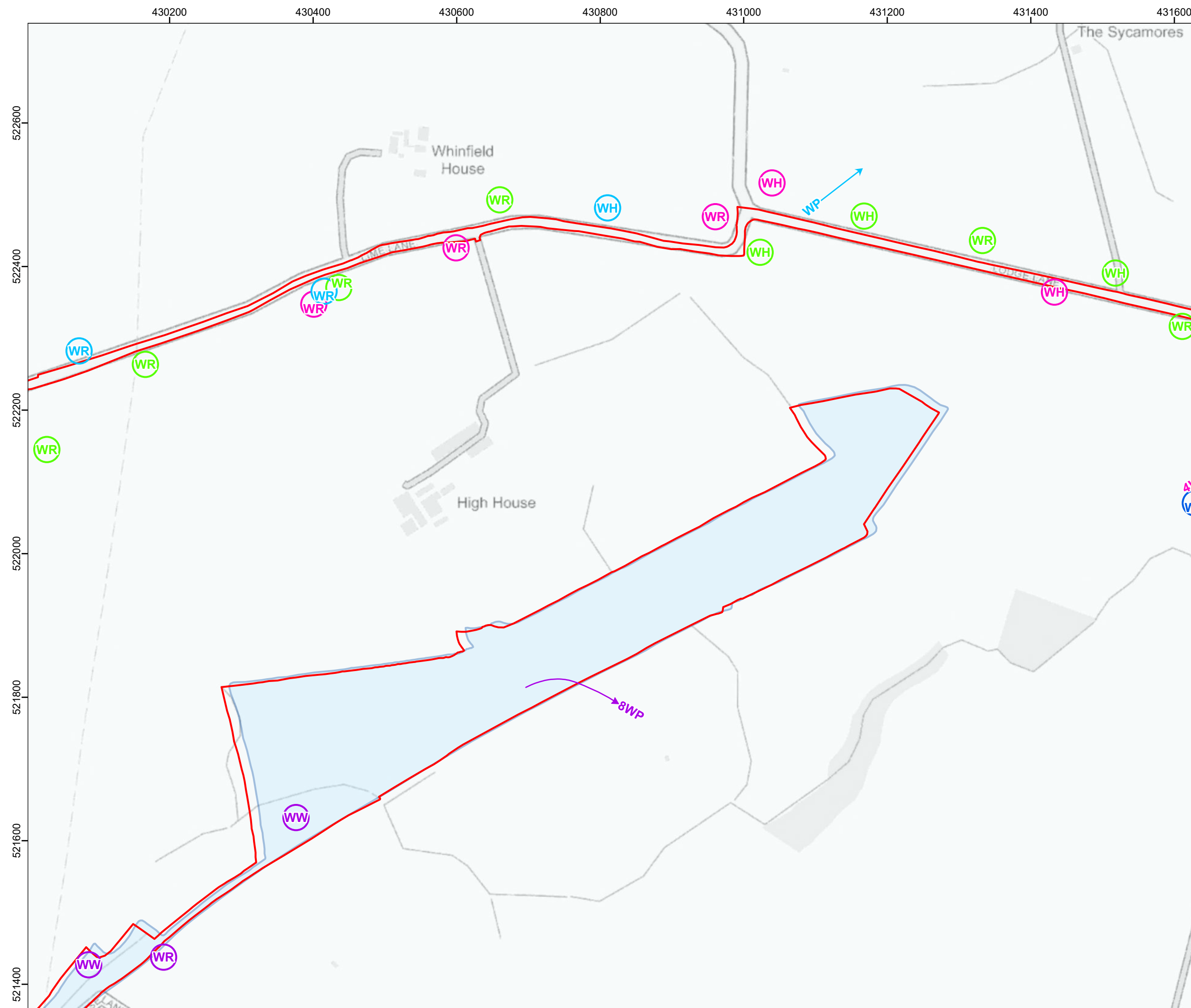


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Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
Page 2 of 14





- Legend:**
- Order Limits
 - Study Area
 - Visit
 - April
 - May 9th
 - May 29th
 - June
 - July
 - Sex
 - ♂ Male
 - ♀ Female
 - Activity
 - Alarm Call
 - Calling
 - Singing
 - Flight Direction

Code	Scientific name	Common name
BH	Larus ridibundus	Black-headed Gull
CM	Larus canus	Common Gull
GJ	Anser anser	Greylag Goose
GL	Motacilla cinerea	Grey Wagtail
K.	Falco tinnunculus	Kestrel
LB	Larus fuscus	Lesser Black-backed Gull
MA	Anas platyrhynchos	Mallard
MP	Anthus pratensis	Meadow Pipit
OC	Haematopus ostralegus	Oystercatcher
PW	Motacilla alba	Pied Wagtail
RO	Corvus frugilegus	Rook
SD	Columba oenas	Stock Dove
SH	Accipiter nisus	Sparrowhawk
SU	Tadorna tadorna	Shelduck
SW	Acrocephalus schoenobaenus	Sedge Warbler
WH	Sylvia communis	Common Whitethroat
WP	Columba palumbus	Woodpigeon
WR	Troglodytes troglodytes	Wren
WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat



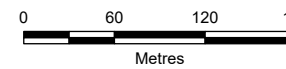
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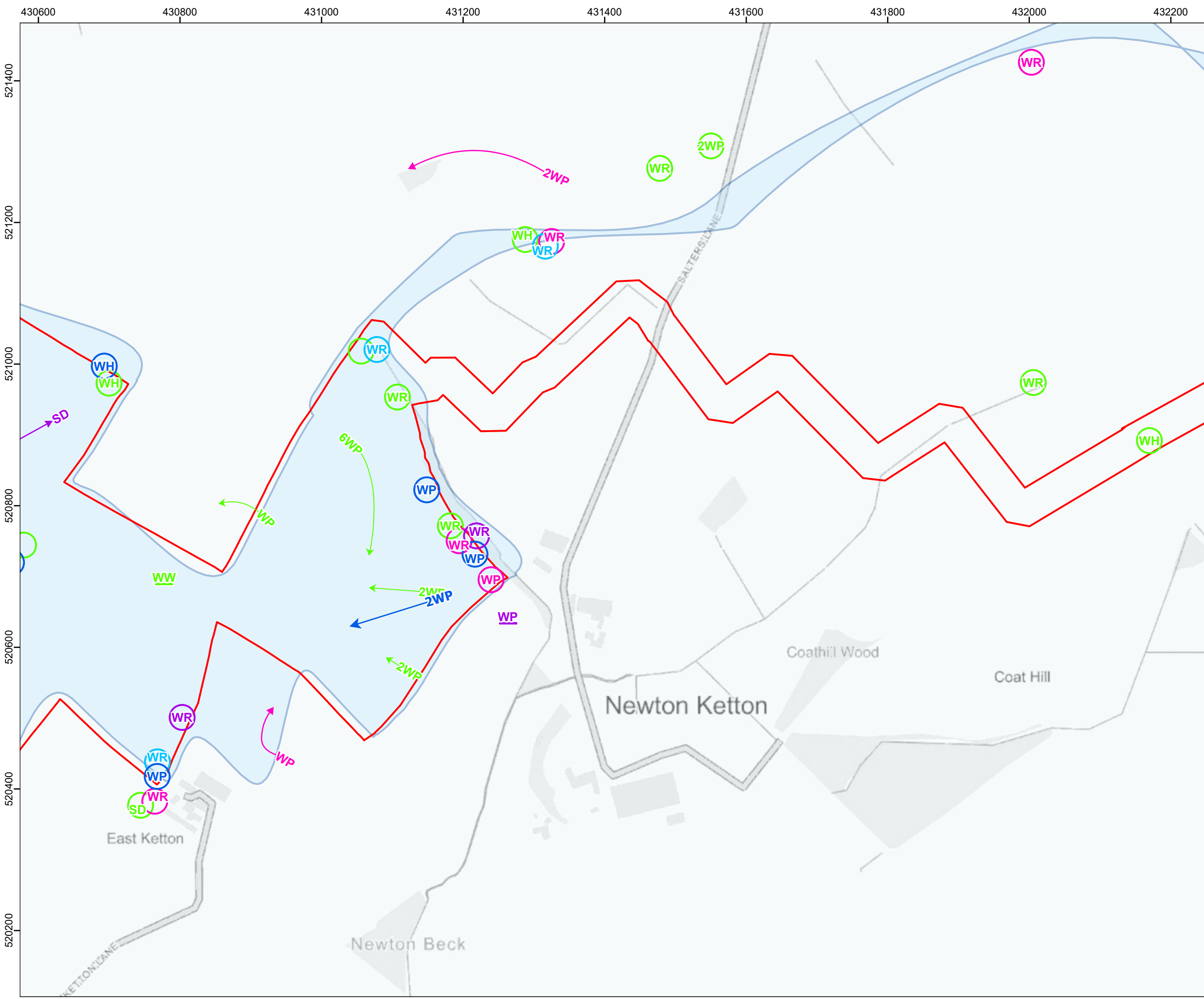
TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
Page 3 of 14



SCALE: 1:5,000 @ A3



REV 00



Legend:

- Order Limits (Red outline)
- Study Area (Light blue fill)

Visit

- April (Purple line)
- May 9th (Blue line)
- May 29th (Cyan line)
- June (Magenta line)
- July (Green line)

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call (Double line)
- Calling (Single line)
- Singing (Circle)
- Flight Direction (Arrow)

Code	Scientific name	Common name
BH	Larus ridibundus	Black-headed Gull
CM	Larus canus	Common Gull
GJ	Anser anser	Greylag Goose
GL	Motacilla cinerea	Grey Wagtail
K.	Falco tinnunculus	Kestrel
LB	Larus fuscus	Lesser Black-backed Gull
MA	Anas platyrhynchos	Mallard
MP	Anthus pratensis	Meadow Pipit
OC	Haematopus ostralegus	Oystercatcher
PW	Motacilla alba	Pied Wagtail
RO	Corvus frugilegus	Rook
SD	Columba oenas	Stock Dove
SH	Accipiter nisus	Sparrowhawk
SU	Tadorna tadorna	Shelduck
SW	Acrocephalus schoenobaenus	Sedge Warbler
WH	Sylvia communis	Common Whitethroat
WP	Columba palumbus	Woodpigeon
WR	Troglodytes troglodytes	Wren
WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat

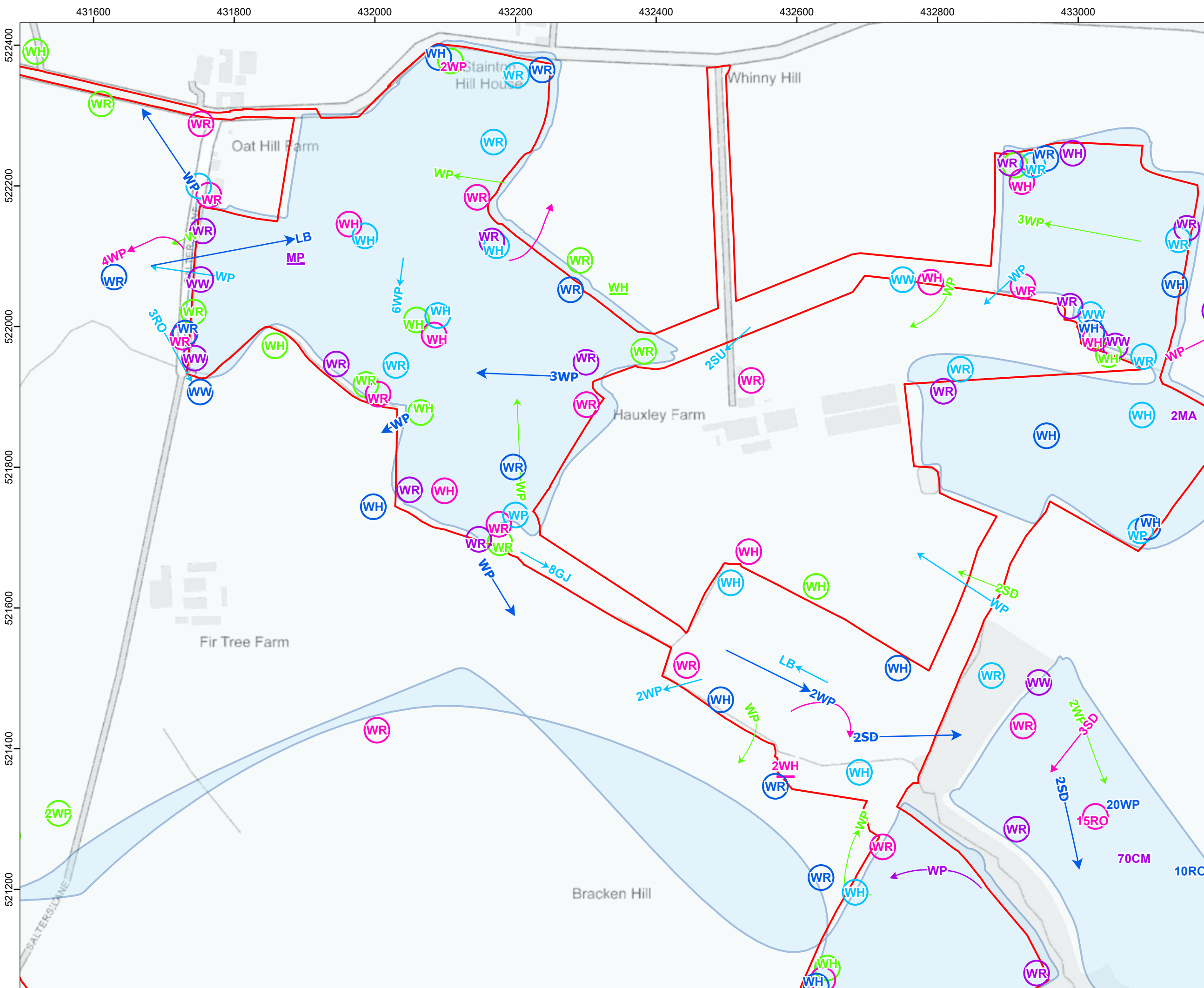


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Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
Page 4 of 14

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Legend:

- Order Limits
- Study Area
- Visit
- April
- May 9th
- May 29th
- June
- July
- Sex
- ♂ Male
- ♀ Female
- Activity
- = Alarm Call
- Calling
- Singing
- Flight Direction

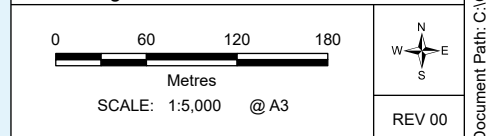
Code	Scientific name	Common name
BH	<i>Larus ridibundus</i>	Black-headed Gull
CM	<i>Larus canus</i>	Common Gull
GJ	<i>Anser anser</i>	Greylag Goose
GL	<i>Motacilla cinerea</i>	Grey Wagtail
K.	<i>Falco tinnunculus</i>	Kestrel
LB	<i>Larus fuscus</i>	Lesser Black-backed Gull
MA	<i>Anas platyrhynchos</i>	Mallard
MP	<i>Anthus pratensis</i>	Meadow Pipit
OC	<i>Haematopus ostralegus</i>	Oystercatcher
PW	<i>Motacilla alba</i>	Pied Wagtail
RO	<i>Corvus frugilegus</i>	Rook
SD	<i>Columba oenas</i>	Stock Dove
SH	<i>Accipiter nisus</i>	Sparrowhawk
SU	<i>Tadorna tadorna</i>	Shelduck
SW	<i>Acrocephalus schoenobaenus</i>	Sedge Warbler
WH	<i>Sylvia communis</i>	Common Whitethroat
WP	<i>Columba palumbus</i>	Woodpigeon
WR	<i>Troglodytes troglodytes</i>	Wren
WW	<i>Phylloscopus trochilus</i>	Willow Warbler
WH	<i>Sylvia communis</i>	Whitethroat



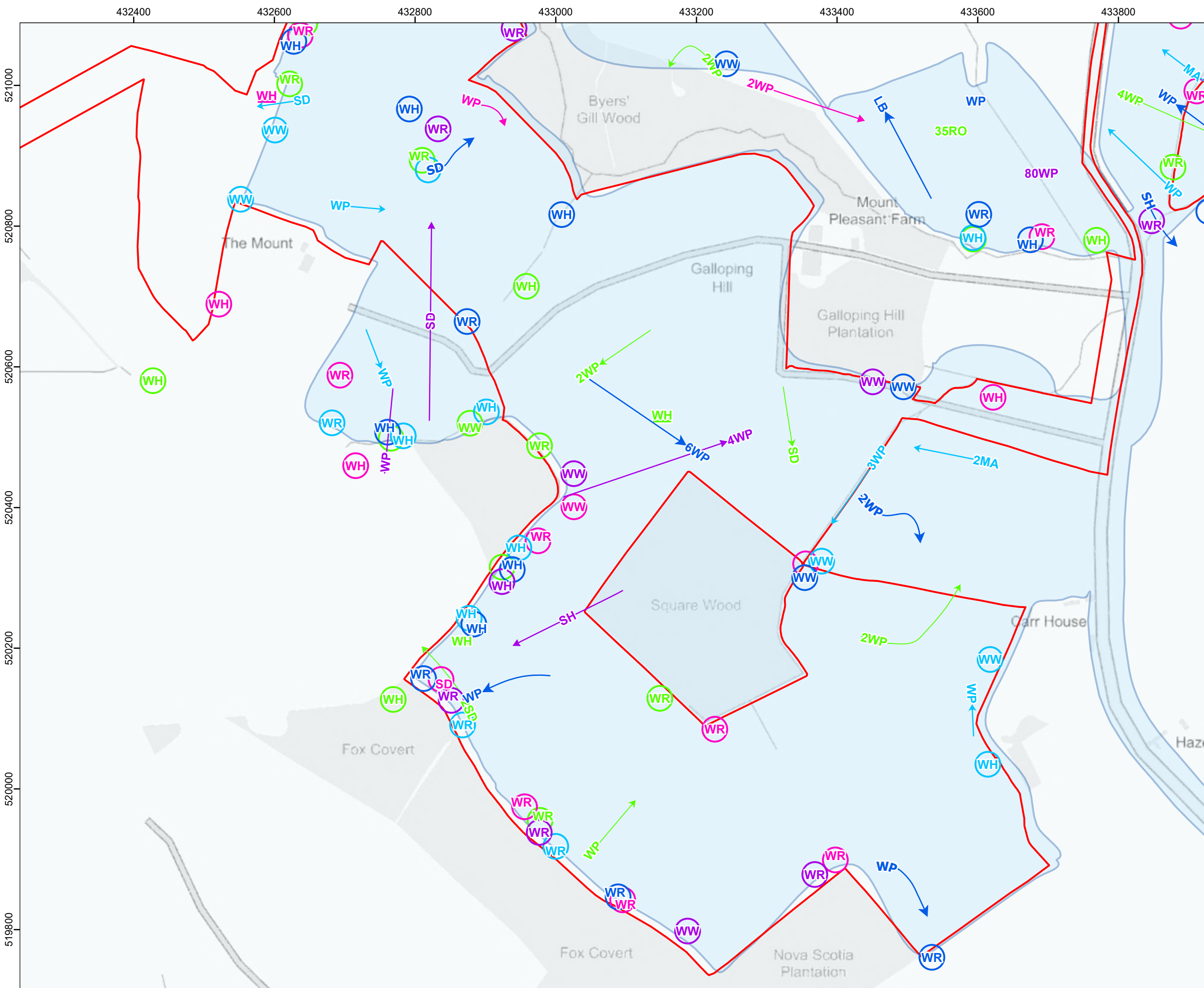
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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
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Legend:

- Order Limits (Red line)
- Study Area (Blue line)

Visit

- April (Purple arrow)
- May 9th (Blue arrow)
- May 29th (Light blue arrow)
- June (Pink arrow)
- July (Green arrow)

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call (Thick black line)
- Calling (Thin black line)
- Singing (Circle)
- Flight Direction (Arrow)

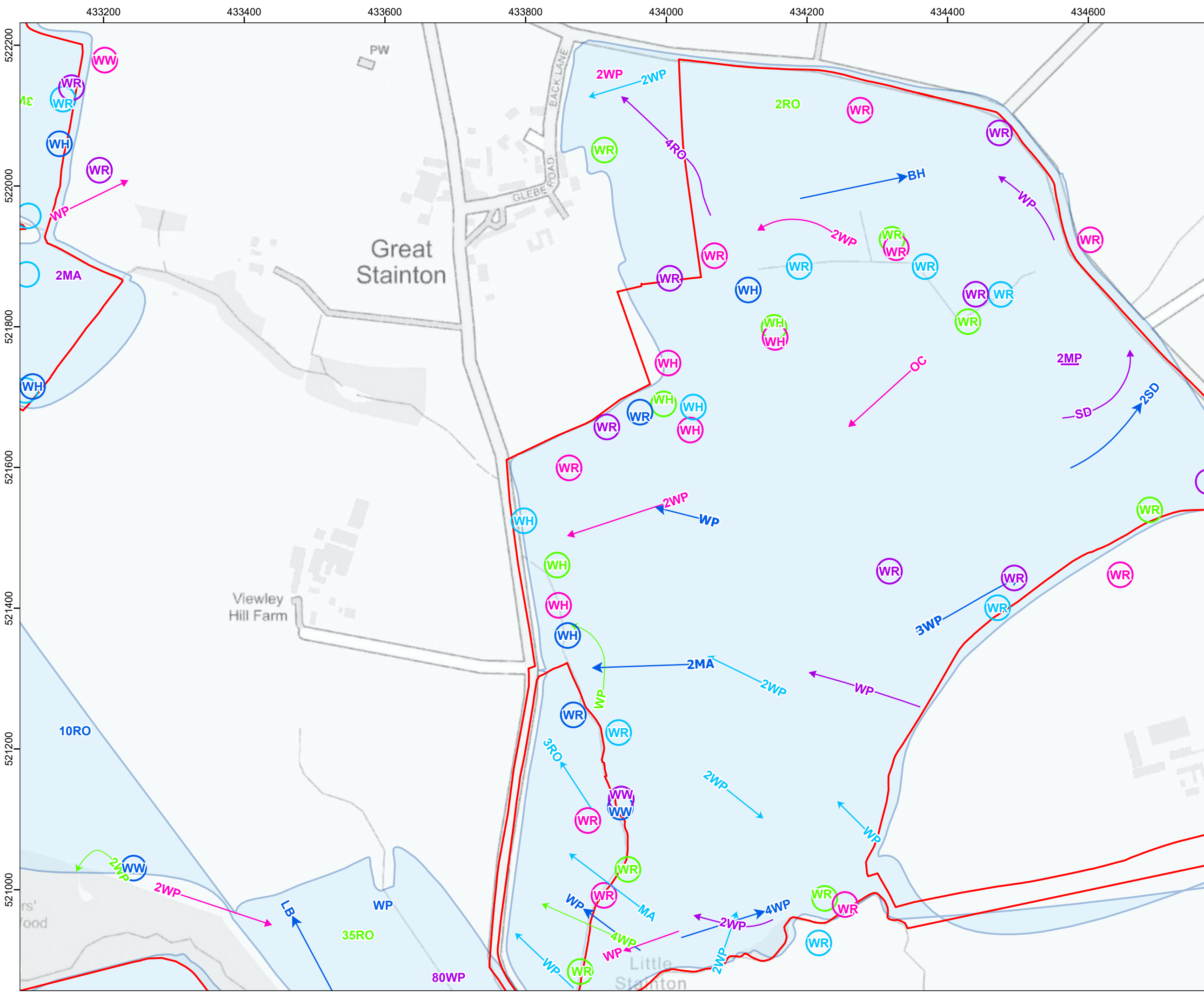
Code	Scientific name	Common name
BH	<i>Larus ridibundus</i>	Black-headed Gull
CM	<i>Larus canus</i>	Common Gull
GJ	<i>Anser anser</i>	Greylag Goose
GL	<i>Motacilla cinerea</i>	Grey Wagtail
K.	<i>Falco tinnunculus</i>	Kestrel
LB	<i>Larus fuscus</i>	Lesser Black-backed Gull
MA	<i>Anas platyrhynchos</i>	Mallard
MP	<i>Anthus pratensis</i>	Meadow Pipit
OC	<i>Haematopus ostralegus</i>	Oystercatcher
PW	<i>Motacilla alba</i>	Pied Wagtail
RO	<i>Corvus frugilegus</i>	Rook
SD	<i>Columba oenas</i>	Stock Dove
SH	<i>Accipiter nisus</i>	Sparrowhawk
SU	<i>Tadorna tadorna</i>	Shelduck
SW	<i>Acrocephalus schoenobaenus</i>	Sedge Warbler
WH	<i>Sylvia communis</i>	Common Whitethroat
WP	<i>Columba palumbus</i>	Woodpigeon
WR	<i>Troglodytes troglodytes</i>	Wren
WW	<i>Phylloscopus trochilus</i>	Willow Warbler
WH	<i>Sylvia communis</i>	Whitethroat



00	03/11/2023	2483386	RG	SP	LP
Rev	Date	Description	Drn	Chk	App

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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
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Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
BH	Larus ridibundus	Black-headed Gull
CM	Larus canus	Common Gull
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WR	Troglodytes troglodytes	Wren
WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat



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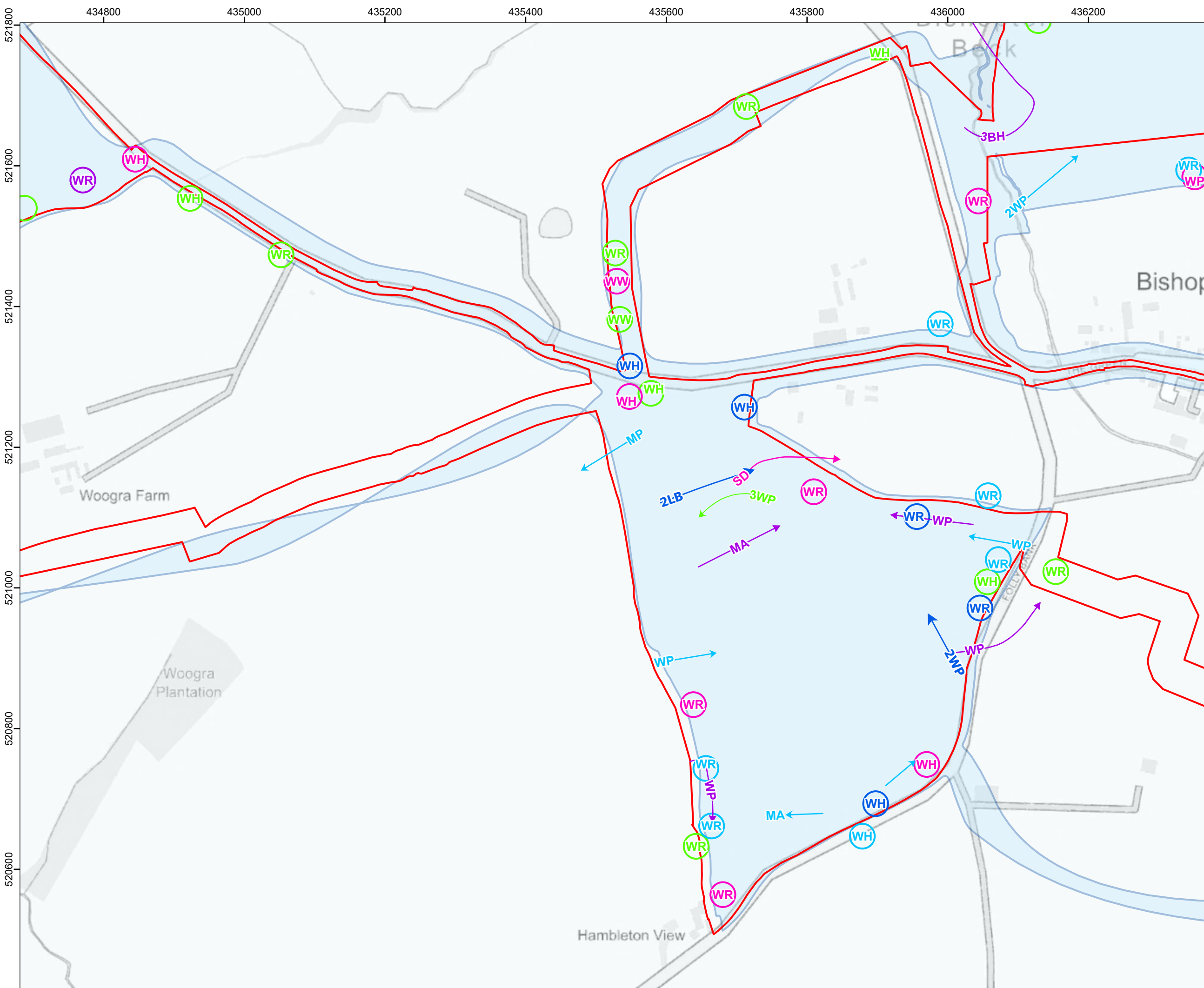
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Amber List Species
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Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
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WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat



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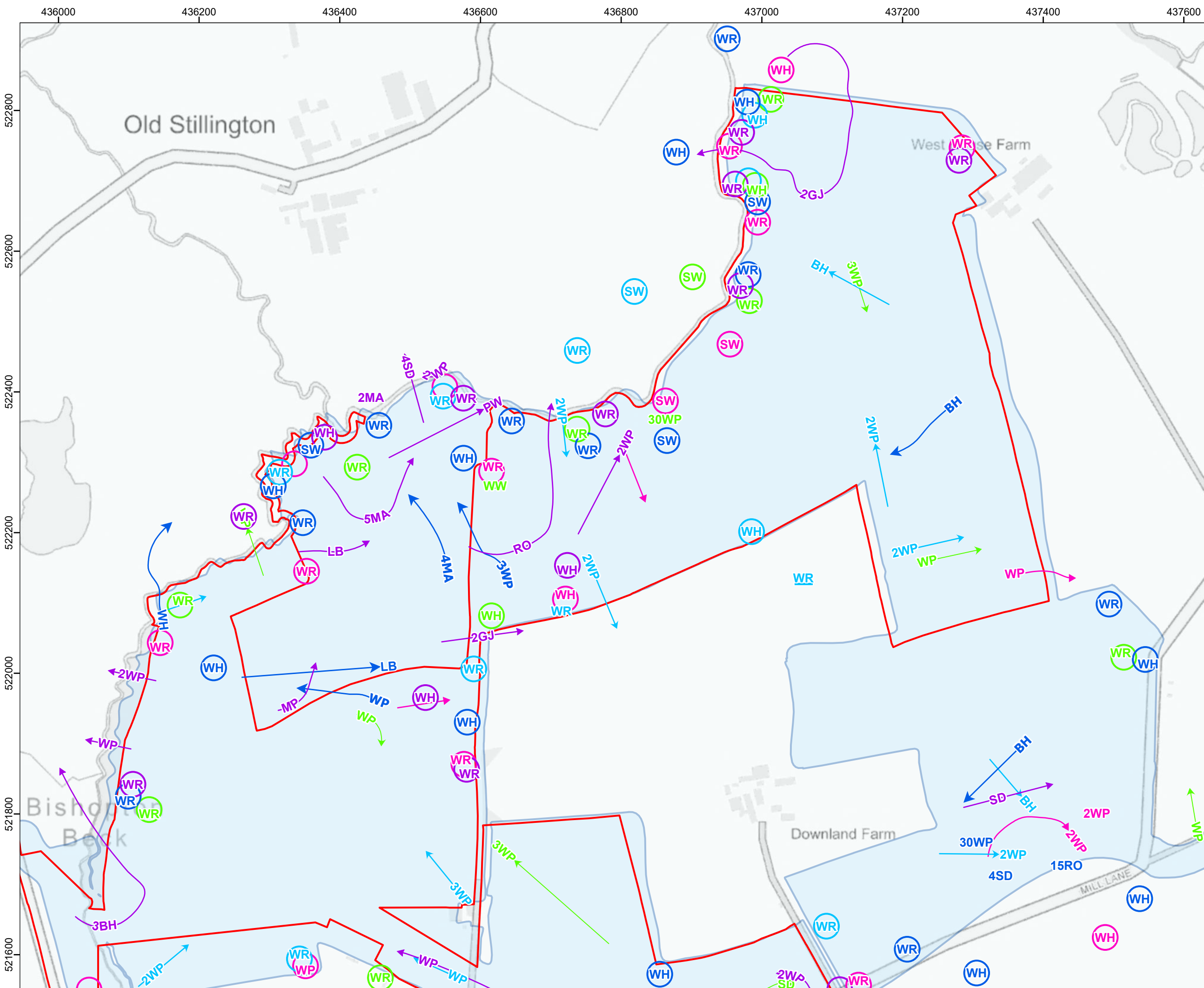
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Breeding Bird Survey Results
Amber List Species
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Metres
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Legend:

- Order Limits
- Study Area
- Visit
 - April
 - May 9th
 - May 29th
 - June
 - July
- Sex
 - ♂ Male
 - ♀ Female
- Activity
 - Alarm Call
 - Calling
 - Singing
 - Flight Direction

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WR	Troglodytes troglodytes	Wren
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WH	Sylvia communis	Whitethroat



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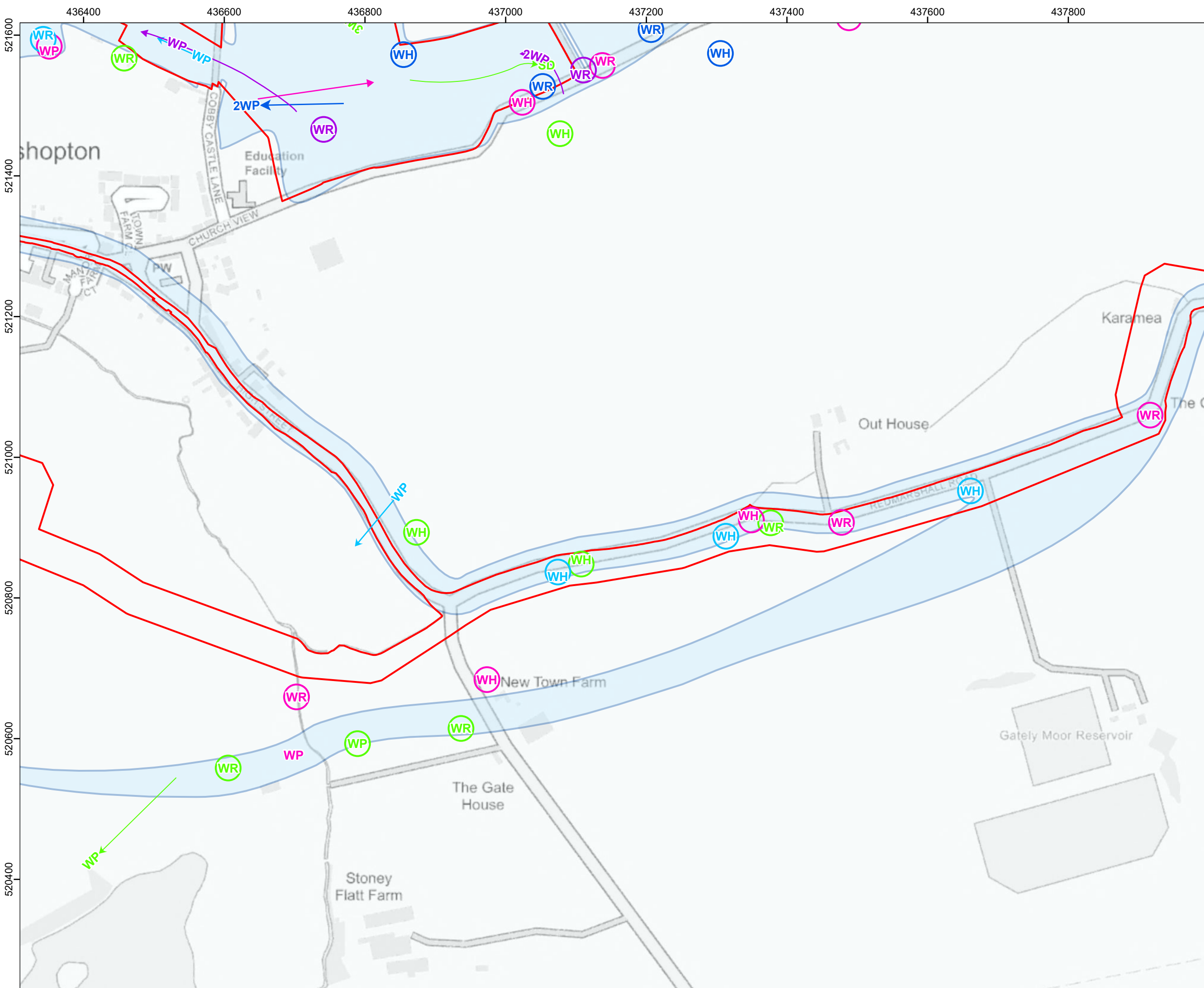
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Metres
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Legend:

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Visit

- April
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- May 29th
- June
- July

Sex

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- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

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WH	Sylvia communis	Whitethroat



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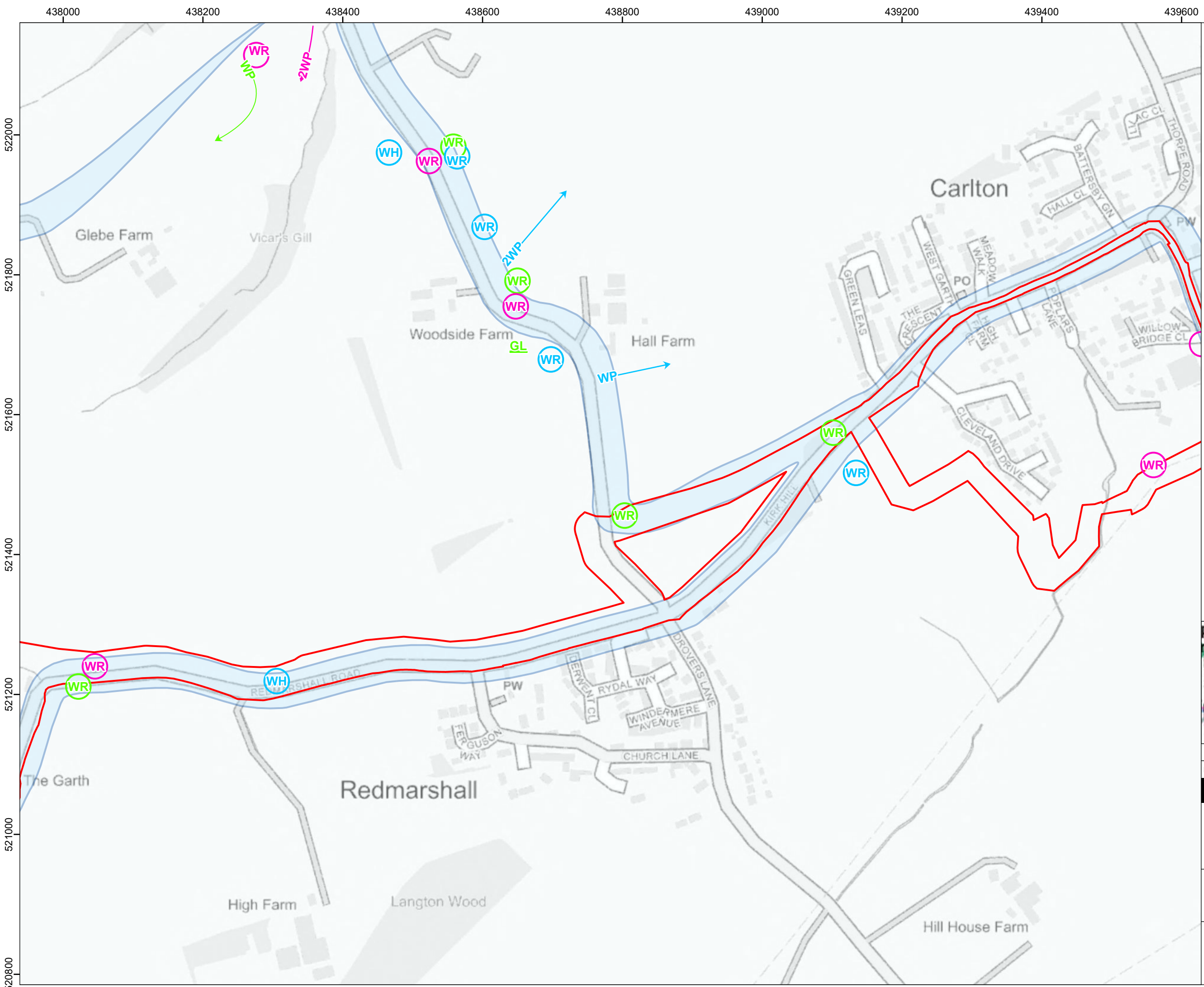
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Metres
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Legend:

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- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

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- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

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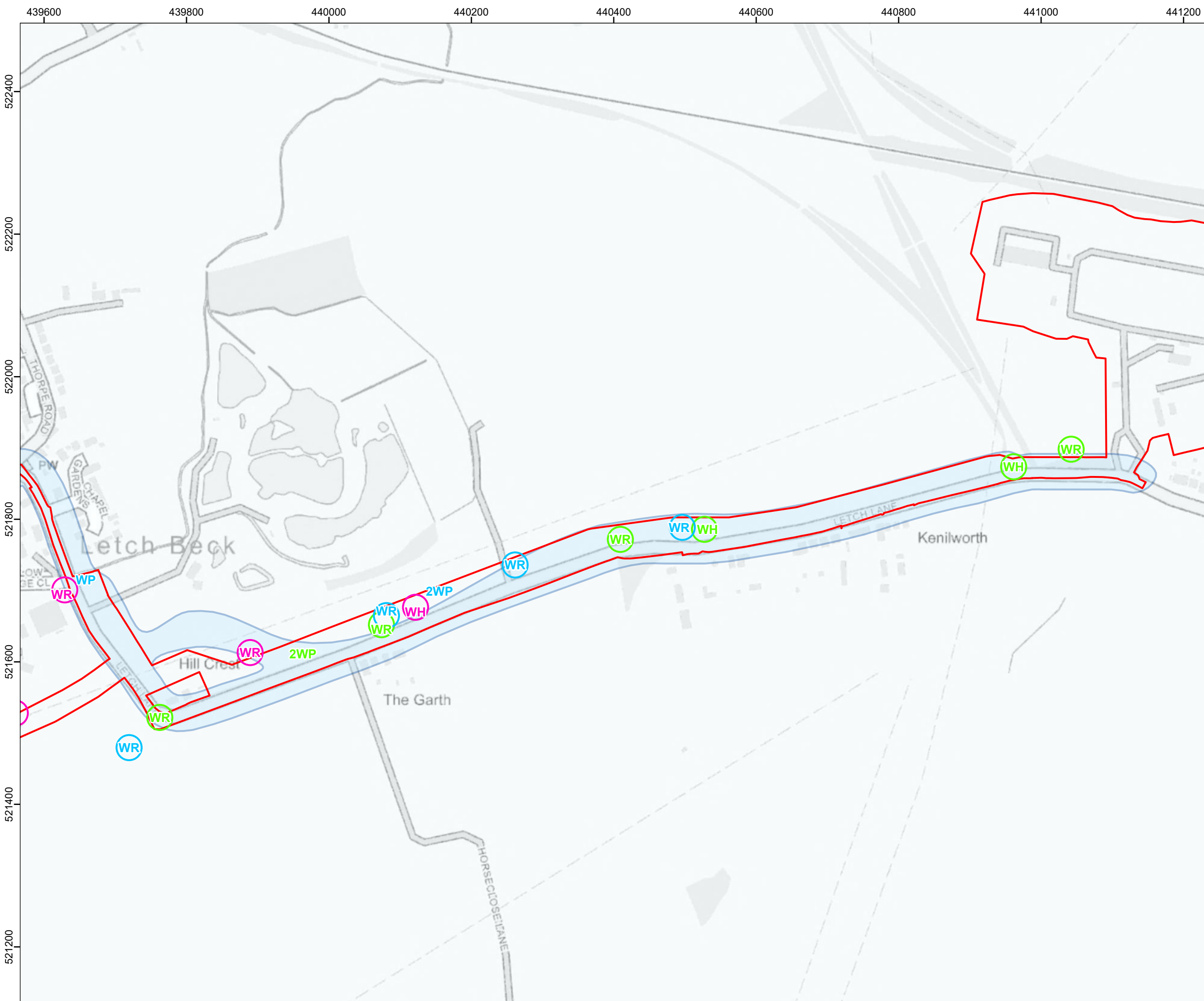
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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
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Metres
SCALE: 1:5,000 @ A3

REV 00



- Legend:**
- Order Limits
 - Study Area
- Visit**
- April
 - May 9th
 - May 29th
 - June
 - July
- Sex**
- ♂ Male
 - ♀ Female
- Activity**
- Alarm Call
 - Calling
 - Singing
 - Flight Direction

Code	Scientific name	Common name
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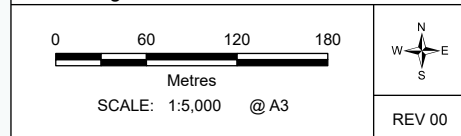
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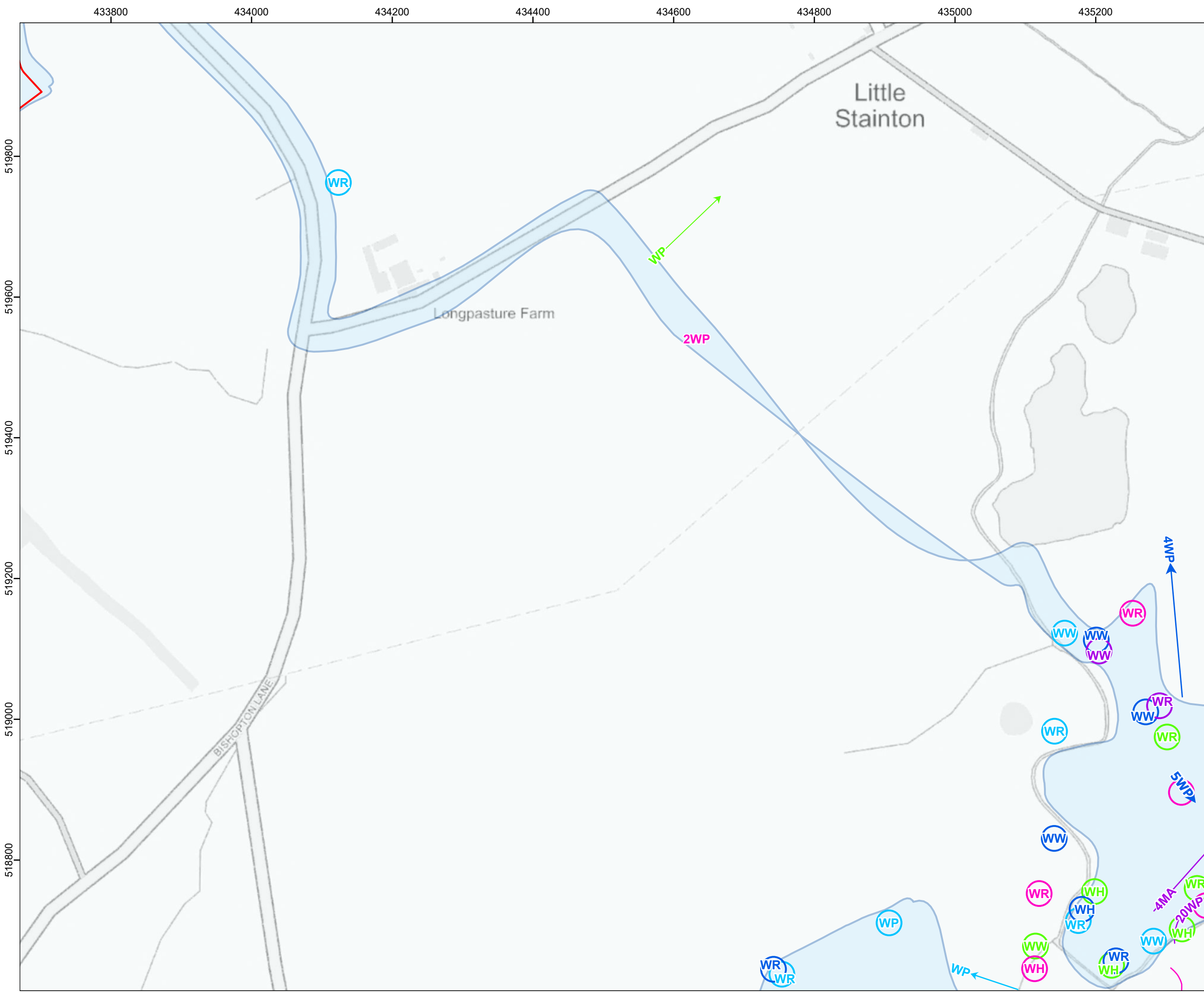
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TITLE: Figure 6.3.5:
Breeding Bird Survey Results
Amber List Species
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Legend:

- Order Limits
- Study Area

Visit

- April
- May 9th
- May 29th
- June
- July

Sex

- ♂ Male
- ♀ Female

Activity

- Alarm Call
- Calling
- Singing
- Flight Direction

Code	Scientific name	Common name
BH	Larus ridibundus	Black-headed Gull
CM	Larus canus	Common Gull
GJ	Anser anser	Greylag Goose
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WR	Troglodytes troglodytes	Wren
WW	Phylloscopus trochilus	Willow Warbler
WH	Sylvia communis	Whitethroat



Rev	Date	Description	Drn	Chk	App
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TITLE: Figure 6.3.5:
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Amber List Species
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APPENDIX B – SURVEY DATA

Full breeding bird survey data for the transect surveys of the study area undertaken between April and July 2022 inclusive are provided below for priority species (see following table for Green list species).

Species				Number of individuals recorded					
Common Name	Scientific Name	BTO Code	Conservation Status	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
Greylag Goose	<i>Anser anser</i>	GJ	Amber	2	0	42	0	1	0
Shelduck	<i>Tadorna tadorna</i>	SU	Amber	0	0	4	0	0	0
Mallard	<i>Anas platyrhynchos</i>	MA	Amber	16	7	4	0	0	0
Grey Partridge	<i>Perdix perdix</i>	P.	Sch1, Red	12	7	2	13	2	0
Oystercatcher	<i>Haematopus ostralegus</i>	OC	Amber	0	0	1	1	0	0
Lapwing	<i>Vanellus vanellus</i>	L.	S41, Red	7	10	4	4	0	0
Little Ringed Plover	<i>Charadrius dubius</i>	LP	S1, Green	1	1	0	0	0	0
Curlew	<i>Numenius arquata</i>	CU	S41, Red	13	1	2	4	3	0
Black-headed gull	<i>Chroicocephalus ridibundus</i>	BH	Amber	3	6	2	0	0	0
Common Gull	<i>Larus canus</i>	CM	Amber	70	0	0	0	0	0
Lesser Black-backed Gull	<i>Larus fuscus</i>	LB	Amber	3	6	8	0	0	0
Herring Gull	<i>Larus argentatus</i>	HG	S41, Red	35	3	47	0	0	0
Stock Dove	<i>Columba oenas</i>	SD	Amber	6	11	5	9	18	0
Woodpigeon	<i>Columba palumbus</i>	WP	Amber	155	123	107	60	54	0
Cuckoo	<i>Cuculus canorus</i>	CK	S41, Red	0	0	1	0	0	0

Species				Number of individuals recorded					
Tawny Owl	<i>Strix aluco</i>	TO	Amber	0	0	0	0	0	2
Kestrel	<i>Falco tinnunculus</i>	K.	Amber	1	1	0	2	2	0
Rook	<i>Corvus frugilegus</i>	RO	Amber	11	54	24	16	0	0
Willow tit	<i>Poecile montana</i>	WT	S41, Red	0	0	2	0	0	0
Skylark	<i>Alauda arvensis</i>	S.	Red	21	31	19	22	9	0
House Martin	<i>Delichon urbicum</i>	HM	Red	0	2	5	0	0	0
Willow Warbler	<i>Phylloscopus trochilus</i>	WW	Amber	16	10	12	6	3	0
Whitethroat	<i>Sylvia communis</i>	WH	Amber	5	35	27	32	14	0
Grasshopper Warbler	<i>Locustella naevia</i>	GH	S41, Red	3	1	0	0	0	0
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	SW	Amber	0	4	3	2	0	0
Wren	<i>Troglodytes troglodytes</i>	WR	Amber	47	39	64	80	35	0
Starling	<i>Sturnus vulgaris</i>	SG	S41, Red	9	8	10	15	1	0
Fieldfare	<i>Turdus pilaris</i>	FF	S1, Red	2	0	0	0	0	0
Song Thrush	<i>Turdus philomelos</i>	ST	S41, Amber	11	8	4	10	2	0
Mistle Thrush	<i>Turdus viscivorus</i>	M.	Red	0	0	2	4	10	0
Dunnock	<i>Prunella modularis</i>	D.	S41, Amber	12	11	2	24	13	0
House Sparrow	<i>Passer domesticus</i>	HS	S41, Red	1	2	15	28	15	0
Tree Sparrow	<i>Passer montanus</i>	TS	S41, Red	17	18	21	20	11	0
Yellow Wagtail	<i>Motacilla flava</i>	YW	S41, Red	1	0	1	5	0	0
Grey Wagtail	<i>Motacilla cinerea</i>	GL	Amber	1	0	0	0	1	0
Meadow Pipit	<i>Anthus pratensis</i>	MP	Amber	4	0	1	0	0	0
Bullfinch	<i>Pyrrhula pyrrhula</i>	BF	S41, Amber	3	0	0	0	0	0

Species				Number of individuals recorded					
Greenfinch	<i>Chloris chloris</i>	GR	Red	1	0	2	4	5	0
Linnet	<i>Linaria cannabina</i>	LI	Red	43	15	5	51	21	0
Yellowhammer	<i>Emberiza citrinella</i>	Y.	S41, Red	20	49	31	37	13	0
Reed Bunting	<i>Emberiza schoeniclus</i>	RB	S41, Amber	3	3	2	6	4	0

Green list species recorded within the study area in 2022.

Common name	Scientific Name	BTO Code
Mute Swan	<i>Cygnus olor</i>	MS
Pheasant	<i>Phasianus colchicus</i>	PH
Grey Heron	<i>Ardea cinerea</i>	H.
Buzzard	<i>Buteo buteo</i>	BZ
Collared Dove	<i>Streptopelia decaocto</i>	CD
Great Spotted Woodpecker	<i>Dendrocopos major</i>	GS
Magpie	<i>Pica pica</i>	MG
Jay	<i>Garrulus glandarius</i>	J.
Jackdaw	<i>Coloeus monedula</i>	JD
Carrion Crow	<i>Corvus corone</i>	C.
Blue Tit	<i>Cyanistes caeruleus</i>	BT
Great Tit	<i>Parus major</i>	GT
Swallow	<i>Hirundo rustica</i>	SL
Long-tailed Tit	<i>Aegithalos caudatus</i>	LT
Chiffchaff	<i>Phylloscopus collybita</i>	CC
Blackcap	<i>Sylvia atricapilla</i>	BC
Garden Warbler	<i>Sylvia borin</i>	GW
Lesser Whitethroat	<i>Sylvia curruca</i>	LW
Treecreeper	<i>Certhia familiaris</i>	TC
Blackbird	<i>Turdus merula</i>	B.
Robin	<i>Erithacus rubecula</i>	R.
Pied Wagtail	<i>Motacilla alba</i>	PW
Chaffinch	<i>Fringilla coelebs</i>	CH
Goldfinch	<i>Carduelis carduelis</i>	GO
Siskin	<i>Spinus spinus</i>	SK