

# **7 ELVETHAM ROAD**

**Preliminary Ecological Appraisal** 



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1	For Planning	Frances Morris	Kerry Shakespeare	Nick Betson	June 2020

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Prepared by:	Prepared for:
RPS	Birchcroft
Frances Morris	Sam Warren
Senior Ecologist	Director
Lakesbury House, Hiltingbury Road Hampshire SO53 5SS	Unit 1 The Parlour, Tilehouse Farm Offices, East Shalford Lane, Guildford, GU4 8AE
T +44 2380 810 440	T 07960 963908
E frances.morris@rpsgroup.com	E sam@birchcroft.uk

### **EXECUTIVE SUMMARY**

- RPS was commissioned by Birchcroft to undertake a Preliminary Ecological Appraisal (PEA) of 7 Elvetham Road, Fleet, Hampshire. This comprised a desk study, Phase 1 Habitat Survey and an ecological scoping survey which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.
- There are seven statutory and 24 non-statutory designated sites for nature conservation value within 2 km of the site. No direct or indirect impacts on the designated sites are envisaged as a result of the proposed development.
- Proposals for the site include the demolition of existing buildings on the site and construction of five residential dwellings (four two-bedroom terraced houses and one block of six one-bedroom apartments) with associated gardens.
- The site is located in Fleet, Hampshire and consists of 7 Elvetham Road along with the surrounding outbuildings and gardens. The site is approximately 0.15 ha in size. The site comprises existing buildings; hardstanding; amenity grassland, rough grassland and native hedgerow. Habitats directly surrounding the site comprise predominantly residential buildings and associated gardens, hardstanding and road networks. A mainline railway line is located approximately 20 metres to the north of the site.
- A number of protected species and notable species are recorded within the 2 km search radius of the site.
   Habitats on site have been assessed as having potential for roosting bats, nesting birds, badgers and common species of mammal such as fox. It is recommended that further Phase 2 surveys are undertaken for the following:
  - Emergence/re-entry bat surveys;
  - Breeding bird check prior to clearance works; and
  - Camera trap monitoring of mammal hole to the south of Building B1.
- Following Phase 2 protected species surveys an Ecological Appraisal report will be produced which will
  include information on potential impacts and suggested mitigation as well as a Biodiversity Net Gain
  Assessment.
- Due to the number of units (5) and the size of the site (0.2 ha), the provision of a SANG on-site will not be required. However, a developer contribution towards Natural England's Strategic Access Management and Monitoring (SAMM) project will be required in order to follow the SPA Mitigation Strategy. This will allow the Local Authority to conclude no adverse effect on the integrity of the SPA due to the development.
- Good practice guidelines will be adhered to during the construction phase to control impacts such as contamination and dust to surrounding habitats during the build of the proposed development.
- It is recommended that a Biodiversity Net Gain (BNG) assessment is conducted to ensure the site is achieving a net gain of biodiversity as recommended within the Hart Local Plan (Hart District Council, 2020).

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### 1 INTRODUCTION

### 1.1 Purpose and scope of this report

- 1.1.1 RPS was commissioned by Birchcroft to undertake a Preliminary Ecological Appraisal (PEA) of 7 Elvetham Road, Fleet, Hampshire.
- 1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EcIA) which supports the planning application.

#### 1.1.3 The PEA aims to:

- undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- map and assess the habitats present on site;
- assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
- provide outline options for mitigation measures as appropriate; and
- make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.
- 1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS. The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

## 1.2 Study area and Zone of Influence

- 1.2.1 The site is located in Fleet, Hampshire and consists of 7 Elvetham Road along with the surrounding outbuildings and gardens. The site is approximately 0.15 ha in size. The National Grid coordinates for the centre of the site are SU 8136 5518.
- 1.2.2 The site comprises existing buildings; hardstanding; amenity grassland, rough grassland and native hedgerow. Habitats directly surrounding the site comprise predominantly residential buildings and associated gardens, hardstanding and road networks. A mainline railway line is located approximately 20 metres to the north of the site.
- 1.2.3 Aerial imaging available via Google Earth Pro was reviewed to assess the site in relation to its context in the wider landscape. The site comprises existing buildings; hardstanding; amenity grassland, rough grassland and native hedgerow.
- 1.2.4 The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. The Zone of Influence is determined by the nature of the development and also in relation to designated sites, habitats or species which might be affected by the proposals.
- 1.2.5 For this site, the Zone of Influence is considered to be land on and immediately adjacent to the site.

## 1.3 **Development proposals**

- 1.3.1 Proposals for the site include the demolition of existing buildings on the site and construction of two residential dwellings with associated gardens.
- 1.3.2 Proposed site development plans can be found in Appendix C.

## 1.4 Legislation and policy

- 1.4.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application are explained in the relevant sections of this report.
- 1.4.2 The relevant articles of legislation are:
  - The National Planning Policy Framework (NPPF, 2019);
  - ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2019);
  - Hart Local Plan;
  - The Conservation of Habitats and Species (EU Exit) (as amended) Regulations 2019;
  - The Wildlife and Countryside Act 1981 (as amended);
  - The Protection of Badgers Act 1992;
  - The Countryside and Rights of Way Act 2000;
  - The Hedgerow Regulations 1997;
  - The Natural Environment and Rural Communities Act 2006; and
  - National / Local Biodiversity Action Plan for Hart District Council.
- 1.4.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.

### 2 METHODS

# 2.1 Desk Study

- 2.1.1 Ecological records within a 2 km radius of the site were requested from Hampshire Biological Records Centre (HBIC). Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 2 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).
- 2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2016).
- 2.1.3 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could provide habitat or connectivity to other areas.

## 2.2 **Ecological Appraisal**

- 2.2.1 The ecological appraisal consisted of two components: a Phase 1 Habitat Survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.
- 2.2.2 The Phase 1 Habitat Survey was undertaken by Frances Morris ACIEEM on 3<sup>rd</sup> June 2020.
- 2.2.3 The Phase 1 Habitat Survey followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (IEEM, 2012). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.
- 2.2.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat Survey. The site was assessed for its suitability to support protected species, in particular bats, nesting birds, common amphibians and common and widespread reptiles.
- 2.2.5 The surveyors looked for evidence of protected species including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted and where possible followed. Fence boundaries were walked to establish any entry points or animal signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

## **Internal Loft Inspection**

- 2.2.6 Following the review of a previous ecological appraisal for the site, it was noted the bat dropping were discovered within the loft of building one (B1) in 2018 (Aspect Ecology, 2018).
- 2.2.7 Following an updated site survey by RPS in June 2020, one building on the site was identified as having high potential for supporting roosting bats. Therefore, it was recommended that internal inspections of all known roof voids were completed, where safe to do so, to look for evidence of bats.
- 2.2.8 The internal inspection was undertaken on the 03rd June 2020 by Frances Morris (EPS Class 1 bat licence holder), to survey internally for bats. All loft spaces with safe access were surveyed internally using a Clulite and headtorch. Loft voids, where safe to do so, were searched systematically for evidence of bats (droppings; feeding remains; fur/urine staining and live/dead bats). A summary of the findings for each building are provided below and surveys were undertaken within Good Practice Guidelines (Collins, 2016).

## 2.3 Impact Appraisal

- 2.3.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as SSSIs or LWSs or inclusion on Red Data Book Lists or Biodiversity Action Plans.
- 2.3.2 The assessment also refers to planning policy guidance (e.g. NPPF) where relevant, to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.
- 2.3.3 The methodology for evaluation of the nature conservation value of ecological features affected by development (ecological receptors) is adapted from the current Charted Institute of Ecology & Environmental Management guidelines for Ecological Impact Assessment (CIEEM, 2016). These guidelines recommend assignment of value (or potential value) to ecological receptors in accordance with the following scale:
  - 1. International;
  - 2. UK:
  - 3. National (i.e. England/Northern
  - 4. Ireland/Scotland/Wales);
  - 5. Regional;
  - 6. County (or Metropolitan e.g. in London);
  - 7. District (or Unitary Authority, City, or Borough);
  - 8. Local or Parish; and/or
  - 9. within immediate zone of influence only.
- 2.3.4 Following on from the above, potential constraints to development are identified on that basis, with recommendations for further, more detailed surveys made as appropriate, for example to fully investigate botanical value or to confirm presence / likely absence of a protected species.
- 2.3.5 In appraising any impacts, the review considers the client's site proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:
  - Avoid: Provide advice on how the development may proceed by avoiding impacts to any species
    or sites by either consideration of site design or identification of an alternative option.
  - Mitigate: Where avoidance cannot be implemented, mitigation proposals are put forward to
    minimise impacts to species or sites as a result of the proposals. Mitigation put forward is
    proportionate to the site.
  - **Compensate:** Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
  - **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.
- 2.3.6 When describing impacts on ecosystem structure and function, reference is made to the following aspects where appropriate:
  - i. extent:

- ii. magnitude;
- iii. duration;
- iv. reversibility; and
- v. timing and frequency.
- 2.3.7 Understanding the nature of the impact enables determination of the effect on the ecological integrity of the ecological receptor. This in turn is assessed against the importance of the receptor to determine the significance of the effect on nature conservation interests as being (i) not significant, or (ii) a significant positive or adverse impact.

### 2.4 Limitations

#### **Desk Based Assessment**

2.4.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

### Survey

- 2.4.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.
- 2.4.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

## **Accurate Lifespan of Ecological Data**

2.4.4 The majority of ecological data remains valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.

### 3 RESULTS

## 3.1 **Designated Sites**

- 3.1.1 There are seven statutory designated sites for nature conservation value within 2 km of the site. Fleet Pond Site of Special Scientific Interest and Local Nature Reserve (SSSI/LNR); Foxlease and Ancells Meadows (SSSI); Elvetham Heath (LNR); Basingstoke Canal (SSSI); Castle Bottom to Yateley and Hawley Commons (SSSI); Bourley and Long Valley (SSSI) and Thames Basin Heaths (SPA).
- 3.1.2 Thames Basin Heaths SPA is located 1.55 km south and north of the site. The Thames Basin and Heaths SPA comprises a network of heathland sites which are designated for their ability to provide habitat for the internationally-important bird species Dartford warbler *Sylvia undata*, European nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*. The area is located throughout eleven local authorities across Hampshire, Berkshire and Surrey.
- 3.1.3 Foxlease and Ancells Meadows SSSI is located approximately 1 km north east of the proposed site. Foxlease and Ancells Meadows SSSI supports a diverse range of habitats including acid grassland, wet heath and mire plant communities. The site contains a number of ponds and ditches supporting a diverse flora, including possibly the largest populations of water violet *Viola palustris* in Hampshire.
- 3.1.4 Fleet Pond SSSI is located approximately 310 m to the east of the site. Fleet Pond is an extensive shallow lake. The pond supports a rich aquatic flora including a number of locally distributed or rare species. The site also supports a number of breeding bird populations such as reed warblers *Acrocephalus scirpaceus* and other wetland bird species. The site is important for over wintering wildfowl of both surface feeding and diving ducks.
- 3.1.5 Bourley and Long Valley SSSI is located 1.9 km north west and south of the site. This site is designated for its diverse mosaic of heathland, woodland, mire, scrub and grassland habitats which support a variety of protected species such as Dartford warbler, European nightjar and ruby-tailed wasp Chrysis fulgida.
- 3.1.6 The Basingstoke Canal SSSI is located 1.5 km south of the site and is designated along with its associated 'flashes' and heathland for supporting important aquatic plants and invertebrates. Species include the nationally rare solitary bee *Macropis europaea*, river water dropwort *Oenanthe fluviatilis*, the pondweed *Potamogeton trichoides*, tasteless water pepper *Persicaria laxiflora*, the horsetail *Equisetum 3 litorale* and the water crowfoot *Ranunculus pencillatus* subspecies *pseudofluitans var. vertumnus*.
- 3.1.7 Elvetham Heath LNR is located approximately one kilometre north west of the site. The site supports a number of protected habitats and species such as grass snakes *Natrix natrix* and heathland mosaic.
- 3.1.8 Castle Bottom to Yateley and Hawley Commons SSSI is located approximately 1.55 kilometres from the site. Castle Bottom and Yateley and Hawley Commons SSSI is one of the largest remnants of lowland heathland in the Thames Basin. The site supports a dry heathland mosaic which supports a number of protected species such as the European nightjar Caprimulgus europaeus and lowland heath which is a priority habitat in the UK.
- 3.1.9 24 non-statutory sites are located within the 2 km search radius of the site. The closest of these is Brookly Wood LWS/SINC, located 0.53 km from the site.
- 3.1.10 A summary of these sites is provided in Table 3.1 below and the location of each site is detailed in **Error! Reference source not found.**.

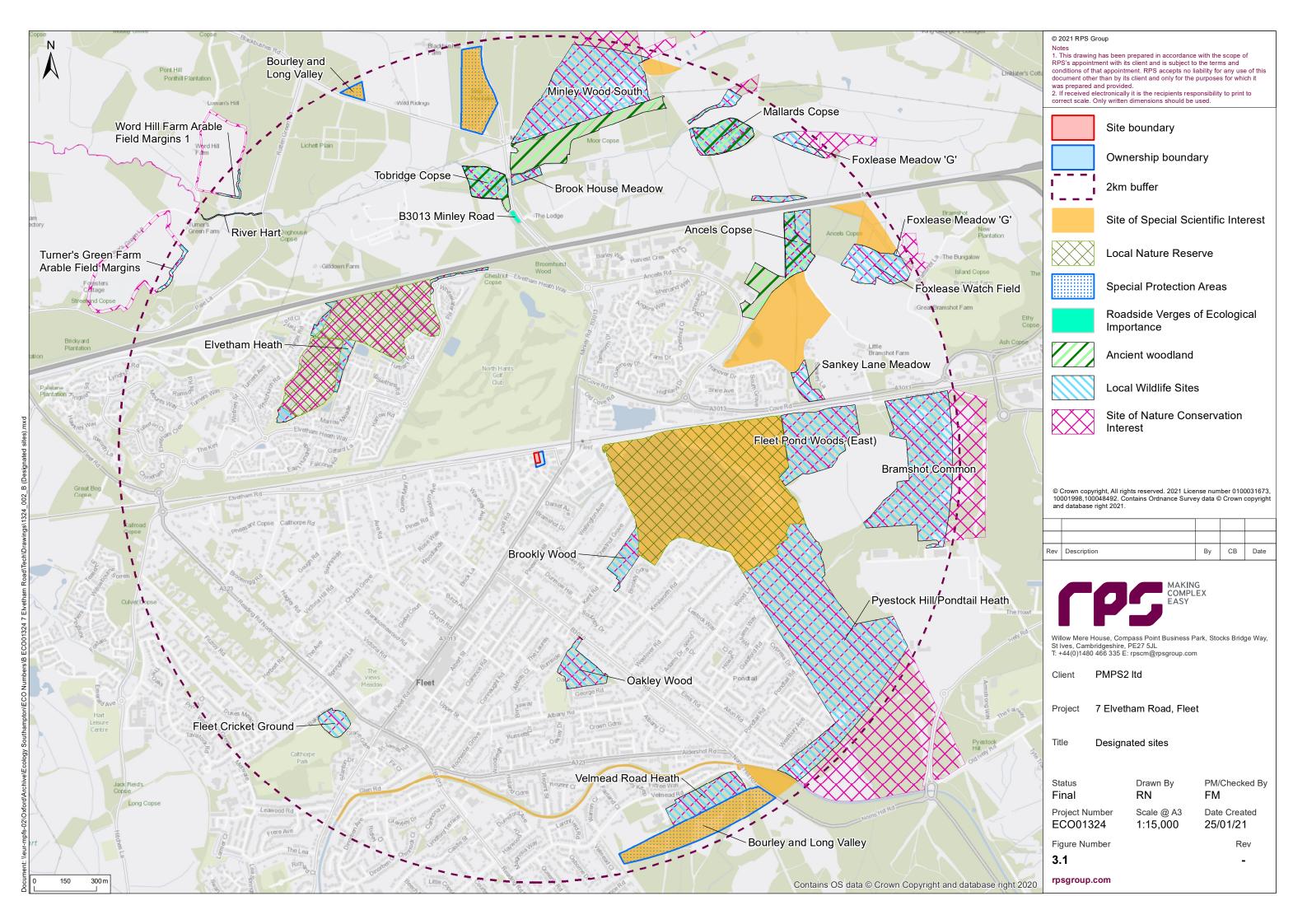
#### Table 3.1: Designated sites within 2 km of the study area

Site name	Туре	Approx. area (ha)	Distance from site (km)
	Statutory	Sites	
Fleet Pond	SSSI/LNR	48.34	0.29
Foxlease and Ancells Meadows	SSSI	16.5	0.96
Elvetham Heath	LNR	39.92	1.04
Basingstoke Canal	SSSI	4.63	1.50
Castle Bottom to Yateley and Hawley Commons	SSSI	5.71	1.55
Thames Basin Heaths	SPA	390.59	1.55
Bourley and Long Valley	SSSI	7.75	1.89
	Non-statutor	y Sites	
Brookly Wood	LWS/SINC	1.93	0.53
Oakley Wood	LWS/SINC	2.95	0.86
Elvetham Heath	LWS/SINC	2.23	1.04
B3013 Minley Road	RVEI/LWS/SINC	0.16	1.1
Pyestock Hill/Pondtail Heath	LWS/SINC	37.07	1.11
Fleet Pond Woods (East)	LWS/SINC	9.39	1.16
Tobridge Copse	LWS/SINC	2.64	1.23
Sankey Lane Meadow	LWS/SINC	1.32	1.28
Brook House Meadow	LWS/SINC	0.58	1.29
Ancels Copse	Ancient woodland/LWS/SINC	5.24	1.46
Minley Wood South	LWS/SINC	16.63	1.49
Fleet Cricket Ground	LWS/SINC	1.41	1.53
Bramshot Common	LWS/SINC	18.71	1.61
Mallards Copse	Ancient woodland/LWN/SINC	3.42	1.64
Foxlease Meadow 3	SINC	1.46	1.74
Foxlease Meadow 'G'	LWS/SINC	1.92	1.74
Foxlease Watch Field	LWS/SINC	4.18	1.75
Velmead Road Heath	LWS/SINC	4.26	1.75
River Hart	LWS/SINC	0.14	1.76
Word Hill Farm Arable Field Margins 1	LWS/SINC	0.2	1.89
Turner's Green Farm Arable Field Margins	LWS/SINC	0.42	1.94
Foxlease Meadows (field 10)	SINC	1.51	1.96
Foxlease Meadow 1	SINC	1.32	1.97
Foxlease Meadow 5	SINC	1.99	1.97

Abbreviations used in Table 3.1: SPA: Special Protection Area; SSSI: Site of Special Scientific Interest; LWS: Local Wildlife Site; SINC: Site of Nature Conservation Interest; RVEI: Road Verge of Ecological Importance; NS: Not supplied; ha: hectare

Figure 3.1: Designated sites within 2 km of 7 Elvetham Road

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## 3.2 Species

- 3.2.1 Records of protected species were obtained from Hampshire Biodiversity Information Centre (HBIC). A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary table of these records is provided in Table 3.2.1. Full data is found in Appendix D.
- 3.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6-figure grid reference resolution or higher are provided, since locations given at a lower resolution do not allow accurate calculation of distance to the site boundary.

Table 3.2.1: Summary of the protected species results

Taxon Group	Frequency
Amphibians & Reptiles	30
Birds	114
Higher plants	217
Invertebrates	174
Lower plants	6
Mammals - (bats)	105
Mammals - Terrestrial	6

## 3.3 Phase 1 Habitat Survey

- 3.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure 3.2). An explanation of target notes from Figures 3.2 can be found in Appendix B.
- 3.3.2 Descriptions of the habitat types and boundary features are detailed below. Habitat descriptions are defined by broad habitat types (JNCC, 2010).

**Buildings** 

3.3.3 One building (Building B1) and three outbuildings are present on the site and are discussed in more detail below. Locations of the structures can be seen on Figure 3.2.

#### **Building B1**

3.3.4 Building B1 is currently vacant and was previously occupied as a care home. The building is of red brick construction, with pitched and hipped roof sections clad with clay roof tiles. Four red brick chimneys are present. Several bay windows are present with sloping slate rooves and clay ridge tiles. To the northern elevations is a single-story section with a pitched slate roof. Plastic framed windows and doors are present throughout the building. Wooden soffit boxes are present, varying in condition. A conservatory is present on the southern elevation. Internally the building is unoccupied.

#### **Outbuildings**

3.3.5 One summer house can be found within the grounds to the south of Building B1 with a flat roof, along with a glass greenhouse and two wooden sheds, all in poor condition.

#### Hardstanding

3.3.6 Existing hardstanding on the site comprises an existing entrance road, a network of footpaths and associated car parking.

Amenity grassland

3.3.7 An area of unmanaged amenity grassland is located to the south of Building B1 with a sward height of approximately half a metre at the time of survey. Species include false oat-grass *Arrhenatherum elatius*, prickly sow-thistle *Sonchus asper*, green alkanet *Pentaglottis sempervirens*, fox glove *Digitalis purpurea* wood avens *Geum urbanum* and occasional oak *Quercus sp.* saplings.

#### Rough grassland

3.3.8 An area of rough grassland is present to the north of the site which was likely amenity grassland in the past and has developed into rough grassland since management has been removed. Species include false-oat grass, perennial rye-grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, columbine *Aquilegia vulgaris*, common bird's-foot trefoil *Lotus corniculatus*, common ragwort *Senecio jacobaea* and Canadian goldenrod *Solidago canadensis*.

#### Trees

3.3.9 A number of young and mature trees were present on the eastern and western boundaries of the site. These include cherry *Prunus sp.*, laurel sp., holly, privet *Ligustrum sp.*, hazel, rhododendron *Rhododendron ponticum*, box *Buxus sempervirens*, sycamore *Acer pseudoplatanus*, yew, beech *Fagus sylvatica*, silver birch *Betula pendula*, Lawson's cypress *Chamaecyparis lawsoniana*, goat willow *Salix caprea*, Norway maple *Acer platanoides*, false acacia *Robinia pseudoacacia* and alder *Alnus glutinosa*.

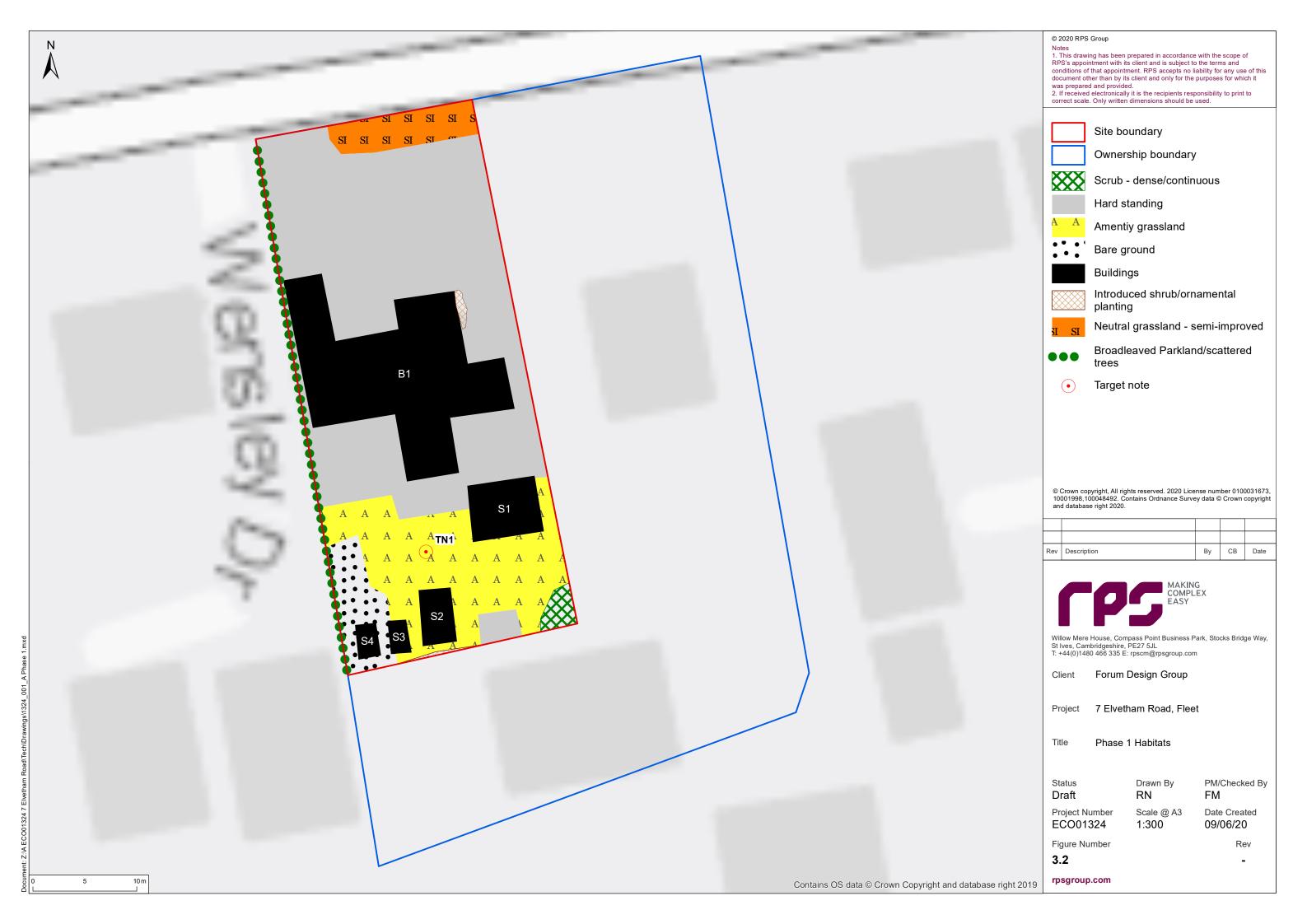
#### Amenity planting

3.3.10 A hydrangea *Hydrangea sp.* is located to the north east of the main building; however, the plant was dead at the time of survey.

Figures 3.2 Phase 1 habitat map

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## 3.4 Ecological Scoping Survey

#### **Habitats**

3.4.1 Habitats on site are common and widespread and no designated sites or priority habitats are present within the site boundary. The trees bordering the site to the east and west are likely to have some local ecological importance however many of these are non-native species and are common in the local area. It is understood that the trees on site will be retained under current proposals.

#### **Invertebrates**

3.4.2 The site is dominated by buildings, hardstanding and managed amenity planting, which are likely to support only a limited diversity of common species of invertebrates. As such, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations and the site is not considered to support an important invertebrate assemblage.

### **Amphibians**

3.4.3 There are no ponds present on site and there are no records of great crested newt *Triturus cristatus* within the two-kilometre search radius. A number of records of common amphibians such as common toads were present within the two-kilometre radius of the site, with the closest being of twenty individuals located approximately 0.6 km south-east of the site in 2006. The site is however dominated by hardstanding and amenity grassland and therefore has limited suitable habitat to support amphibians. It is therefore considered that there is **negligible potential for impacts to amphibians**.

### **Reptiles**

- 3.4.4 Records of common and widespread reptiles are present within the two-kilometre search radius of the site. These include grass snake *Natrix natrix*, adder *Vipera berus*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*.
- 3.4.5 The habitats on site provide sub-optimal foraging and refuge habitat for common and widespread reptiles and the site is isolated from suitable surrounding habitat by residential buildings and roads. It is therefore considered that there is negligible potential for impacts to reptiles.

#### **Birds**

3.4.6 Trees, scrub and buildings on site provided suitable habitat for nesting birds.

#### **Mammals**

#### **Bats**

- 3.4.7 There was one building and four outbuildings present throughout the site. Each of the buildings were externally and internally assessed for their potential to support roosting bats. Building locations can be seen on the Phase 1 Map in Figure 3.2.
- 3.4.8 Building B1 was subject to an internal inspection during the preliminary ecological appraisal and all loft voids that were safe to access were inspected for signs of bats. Three loft voids were present within the building. Two to the north west above the single-storey extension (loft one and two) and a third above the second storey of the main section of the building (loft three). Loft One was approximately 6 m long and 4 m wide with wooden beam fink roof truss. A large number of cobwebs were present with no evidence of bats such as droppings, feeding remains or fur/urine staining. The

loft void was well insulated with no obvious gaps to the outside. Loft Two was located to the south of Loft One, within the western section of the building and separated with plaster board. The loft was approximately ten metres by three metres with timber rafters, ridge beams and trussed purlins. The void was well insulated with fibre glass insulation with no obvious gaps to the outside. The majority of the loft was bitumen felt lined, although a section of sarking board was visible on the southern aspect. Loft Three was located above the second floor of the building in a cross. Loft three is approximately fifteen metres long and two and a half metres high at the apex. Wooden rafters, ridge beams and trussed purlins are present, and the roof is lined with bitumen felt. Water tanks are present, and the loft is largely empty and uncluttered. A gap to the outside was located on the southern elevation. External features on Building One with potential for supporting bats included broken and damaged soffit boxes to the north, east and south and lifted tiles to the north and south. Building B1 was considered to have high potential for supporting roosting bats.

- 3.4.9 Building S1 was a single-story summer house located to the south east of Building B1. The building had a pitched roof with wooden clad. The building was well maintained, and a loft void was not present. Building B1 is considered to have negligible potential for supporting bats.
- 3.4.10 Building S2 was a single-story greenhouse with a metal frame and plastic windows and roof. There were some panels missing in the roof and the building was light and open to the elements. Therefore, Building S2 is considered to have **negligible potential for supporting roosting bats**.
- 3.4.11 Building S3 was a wooden garden shed to the south of Building B1 with a pitched roof and wooden panels. The building was damp inside with no access/egress points for bats. Therefore, Building S3 is considered to have **negligible potential for supporting roosting bats.**
- 3.4.12 Building S4 was a wooden garden shed to the south of Building B1 with a pitched roof and wooden panels. The building was damp inside with no access/egress points for bats. Therefore, Building S3 is considered to have **negligible potential for supporting roosting bats.**
- 3.4.13 Features with potential to support roosting bats on the trees on site were not identified. Therefore, trees on site were considered to have **negligible potential for supporting roosting bats.**

### **Badgers**

3.4.14 The grassland habitats within the site provide some low-quality foraging areas for badgers, however the surrounding urban habitat is considered unsuitable for supporting badgers. It is therefore considered that there is **low potential for the site to support badgers**.

#### Other Mammals

3.4.15 One mammal hole was present to the south of Building B1 within an area of amenity grassland (Target note TN1) which displayed signs of recent activity (fresh spoil). The mammal hole was constant with that of fox or rabbit (small, round hole) and no evidence in the form of droppings and/or hairs were present

### 4 EVALUATION AND POTENTIAL IMPACTS

## 4.1 **Designated sites**

- 4.1.1 There are seven statutory and 24 non-statutory designated sites, the closest being Fleet Pond SSSI and LNR, 0.29 km from the application site.
- 4.1.2 Although direct impacts from noise etc. are considered highly unlikely, given the distance of the site from the designated sites, the potential for indirect effects of residential development on designated sites has been the subject of considerable research in recent years, with a particular focus on SPAs and the effect of disturbance on interest feature birds. With respect to the Thames Basin Heaths SPA, this research led to the adoption of the Thames Basin Heaths Special Protection Area Policy NBE3 by Hart District Council (Hart District Council, 2020).
- 4.1.3 Policy NBE3 'Thames Basin Heaths Special Protection Area' in the Hart Local Plan 2032 (Hart District Council, 2020) states that:

'New development which is considered to have a likely significant effect on the ecological integrity or the Thames Basin Heaths Special Protection Area (TBHSPA) will be required to demonstrate the adequate measures will be put in place to avoid or mitigate any potential adverse effects.'

'When considering development proposals for residential or similar forms of development the following principles will apply:

- a) There is an 'exclusion zone' set at 400m linear distance from the TBHSPA boundary. Permission will not be granted for development that results in a net increase in residential units within this zone unless it can be demonstrated through an Appropriate Assessment that there will be no adverse effect on the integrity of the TBHSPA;
- b) there is a "zone of influence" set at between 400m and 5km linear distance from the T BHSPA boundary. Mitigation measures will be required for all net new dwellings and must be delivered prior to occupation and in perpetuity. Measures must be based on a combination of Strategic Access Management and Monitoring (SAMM) and the provision and maintenance of Suitable Alternative Natural Greenspace (SANG).
- c) Residential development of over 50 net new dwellings that falls between five and seven kilometres from the TBHSPA may be required to provide mitigation measures. This will be assessed on a case-by-case basis in consultation with Natural England and where appropriate an appropriate assessment maybe required to ascertain whether the proposal could have an adverse effect on the SPA.'

'The provision of SANG will meet the following standards and arrangements:

- i. a minimum of 8 hectares of SANG land (after discounting to account for current access and capacity) should be provided in perpetuity per 1,000 new occupants;
- ii. developments must fall within the catchment of the SANG that provides mitigation, except developments of fewer than 10 net new residential units.'

'Where further evidence demonstrates that the integrity of the TBHSPA can be protected using different linear thresholds or with alternative mitigation measures these must be agreed with the Council and Natural England.'

'In the zone of influence, beyond the exclusion zone and up to 5km (linear) from the TBHSPA, a net increase in the number of homes is likely to lead to increased recreational use of the TBHSPA as visitor surveys produced by Natural England demonstrate that 70 percent of visitors to the TBHSPA come from within this distance. All new net dwellings between 400m and 5km from the SPA, are considered to have a likely significant effect and must undergo Appropriate Assessment to identify

measures that as a first step avoid, and secondly mitigate any adverse effects. If these developments provide or contribute to appropriate SANG and SAMM measures in accordance with Policy NBE3 and the Thames Basin Heaths Special Protection Area Avoidance and Mitigation Strategy, it is likely that it can be concluded that no adverse effects on the integrity of the SPA will occur as a result of increased recreational pressure.'

4.1.4 Policy NBE 4 Biodiversity in the Hart Local Plan (Hart District Council, 2020) states:

'In order to conserve and enhance biodiversity, new development will be permitted provided:

- a. It will not have an adverse effect on the integrity of an international, national or locally designated site including the Thames Basin Heaths Special Protection Area (SPA), Sites of Special Scientific Interest (SSSIs), Sites of Importance for Nature Conservation (SINCs) and National and Local Nature Reserves (NNRs and LNRs). The level of protection afforded to these sites is commensurate with their status within this hierarchy and gives appropriate weight to their importance and contribution to wider ecological networks.
- b. It does not result in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;
- c. Opportunities to protect and enhance biodiversity and contribute to wildlife and habitat connectivity are taken where possible, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations. All development proposals will be expected to avoid negative impacts on existing biodiversity and provide a net gain where possible.'
- 4.1.5 The development will comply with Policy NBE 4 by providing a developer contribution towards Natural England's Strategic Access Management and Monitoring (SAMM) project in order to follow the SPA Mitigation Strategy. This will allow the Local Authority to conclude no adverse effect on the integrity of the SPA due to the development. The development does not result in the loss or deterioration of irreplaceable habitats as described above in section 3.4.1. Also, opportunities to protect and enhance biodiversity are provided below in section 5.
- 4.1.6 Good practice guidelines would be adhered to during the construction phase to control impacts such as contamination and dust to surrounding habitats during the build of the proposed development.
- 4.1.7 The proposed redevelopment is not considered to cause any direct or indirect effects to this protected area, due to the distance from the application site and the intervening habitats (being large urban, comprising roads, residential buildings and commercial office space).

### 4.2 Habitats

4.2.1 None of the habitats on site are of ecological value in themselves, but may support protected/notable species (discussed below).

## 4.3 Species

#### **Birds**

- 4.3.1 Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.
- 4.3.2 The trees, scrub within the site and broken soffit boxes on Building B1 provide suitable habitat for nesting birds. Recommendations are also made in Section 5 to avoid disturbing nesting birds during any demolition of buildings or clearance of vegetation.

#### **Mammals**

#### **Bats**

- 4.3.3 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species (EU Exit) (as amended) Regulations 2019, and the Wildlife and Countryside Act 1981 (as amended). A number of bat species are also listed in Section 41 of the NERC Act 2006. These include the widespread species soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, and the rarer woodland species such as Bechstein's *Myotis bechsteinii* and barbastelle *Barbastella barbastellus*.
- 4.3.4 Building B1 has potential to support roosting bats within features such as broken soffit boxes and lifted roof tiles. A number of species of bat have previously been recorded within 2 km of the site, therefore further survey work is recommended in order to confirm if any bat roosts are present on site.
- 4.3.5 The scattered trees on the site boundaries provide some low-quality bat foraging habitat and it is unlikely that they are of more than local importance to foraging bats, however boundary trees will be retained under the current proposals and therefore impacts to foraging bats from the proposed development are considered unlikely.

### **Badgers**

- 4.3.6 Badgers and their setts are protected by the Protection of Badgers Act 1992. This makes it a criminal offence to kill/injure a badger, interfere with or damage a sett or disturb a badger occupying a sett. If a sett is likely to be disturbed or destroyed a licence will be required from Natural England and options to minimise impact to the species should be considered.
- 4.3.7 Due to the records of badger presence within the local area, it is possible that badgers may enter the site for foraging, however the surrounding habitats are considered unsuitable for supporting badgers. It is therefore considered that there is low potential for the site to support badgers.
- 4.3.8 A mammal push under was located on the southern boundary to the site and a mammal burrow was located within the grassland to the south of Building B1 (Figure 3.2, TN1). The mammal burrow was constant with that of fox or rabbit (small, round hole) and no evidence in the form of droppings and/or hairs were present. Recommendations for this are provided below in Section 5.

### 5 MITIGATION AND ENHANCEMENT

## 5.1 **Designated sites**

- 5.1.1 Due to the number of units (5) and the size of the site (0.15 ha), the provision of a SANG on-site will not be required. However, a developer contribution towards Natural England's Strategic Access Management and Monitoring (SAMM) project will be required in order to follow the SPA Mitigation Strategy.
- 5.1.2 Good practice guidelines will be adhered to during the construction phase to control impacts such as contamination and dust to surrounding habitats during the build of the proposed development.

### 5.2 Habitats

## 5.3 **Species**

#### **Birds**

- 5.3.1 To protect bird nests, any removal of vegetation and demolition of buildings should take place outside of the breeding bird season, which is generally considered to be from March to August inclusive.
- 5.3.2 If this is not possible, prior to removal, such vegetation should first be checked for the presence of nesting birds by an experienced ecologist. If any nests are found, they will be left undisturbed until the chicks had fledged (usually around six weeks).

#### Mammals:

#### **Bats**

- 5.3.3 One building (Building B1) and three outbuildings on site are due for demolition. Building B1 has been assessed as having high potential for supporting bats. Therefore, it is recommended that Building B1 is subject to further Phase 2 bat surveys.
- 5.3.4 The number of survey visits is determined by the potential of the building to support roosting bats. Buildings with high potential for supporting bats will be subject to three dusk/dawn survey visits with at least one survey at dawn. Buildings considered to have moderate potential for supporting bats will be subject to two dusk/dawn survey visits with at least one at dawn and buildings with low potential to support roosting bats will be subject to one dusk or dawn survey (Collins, 2016). Due to the number of features with potential for supporting roosting bats on Building B1, emergence/reentry surveys are recommended for Building B1 due to its potential to support roosting bats. These would comprise three dusk/dawn survey visits between May and October inclusive.
- 5.3.5 Two of the survey visits for buildings assessed to have moderate/high potential for supporting bats must be completed between mid-May and mid-August inclusive.
- 5.3.6 All remaining outbuildings on site are considered to have negligible potential to support roosting bats and therefore further survey work on these buildings is not required.

#### Other mammals

#### **Foxes**

5.3.7 It is recommended that further camera trap surveys are undertaken on the mammal hole present in the amenity grassland to the south of the site. The hole displayed signs of recent activity (fresh spoil

pile) and if a gate.	active, it is re	commended	any mamma	ls are exclu	ded prior to	works using	a one

### 6 CONCLUSIONS

- 6.1.1 No impacts on designated sites would occur from the proposed development.
- 6.1.2 Following the PEA, it has been confirmed that the site has potential to support nesting birds, bats, badgers and other common mammals such as foxes.
- 6.1.3 Further Phase 2 bat surveys are now recommended to assess the presence/likely absence of these protected species. This includes three emergence/re-entry bat surveys.
- 6.1.4 Nesting bird checks by an appropriately experienced person are recommended prior to vegetation clearance or demolition between April and October (inclusive) and if any active nests are found, an appropriate buffer installed until eggs have hatched and chicks fully fledged to avoid disturbance.
- 6.1.5 It is recommended that the mammal burrow to the south of Building B1 is monitored for a two-week period using a camera trap to identify species and activity levels. If occupied by a common mammal species, such as rabbit or fox, exclusion with a one-way gate will be recommended. If badgers are discovered, further surveys will be recommended, however the hole was not characteristic of badger and no evidence of badger presence was noted during the survey.
- 6.1.6 Due to the number of units (4) and the size of the site (0.2 ha), the provision of a SANG on-site will not be required. However, a developer contribution towards Natural England's Strategic Access Management and Monitoring (SAMM) project will be required in order to follow the SPA Mitigation Strategy.
- 6.1.7 Good practice guidelines will be adhered to during the construction phase to control impacts such as contamination and dust to surrounding habitats during the build of the proposed development.
- 6.1.8 It is recommended that a Biodiversity Net Gain (BNG) assessment is included within the further survey work to ensure the site is achieving a net gain of biodiversity as recommended within the Hart local plan.
- 6.1.9 The surveys above will inform any required protected species licence applications and detailed mitigation strategies.

### **REFERENCES**

Aspect Ecology, 2018. Ecological Appraisal Report.

CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. Chartered Institute of Ecology and Environmental Management, Winchester.

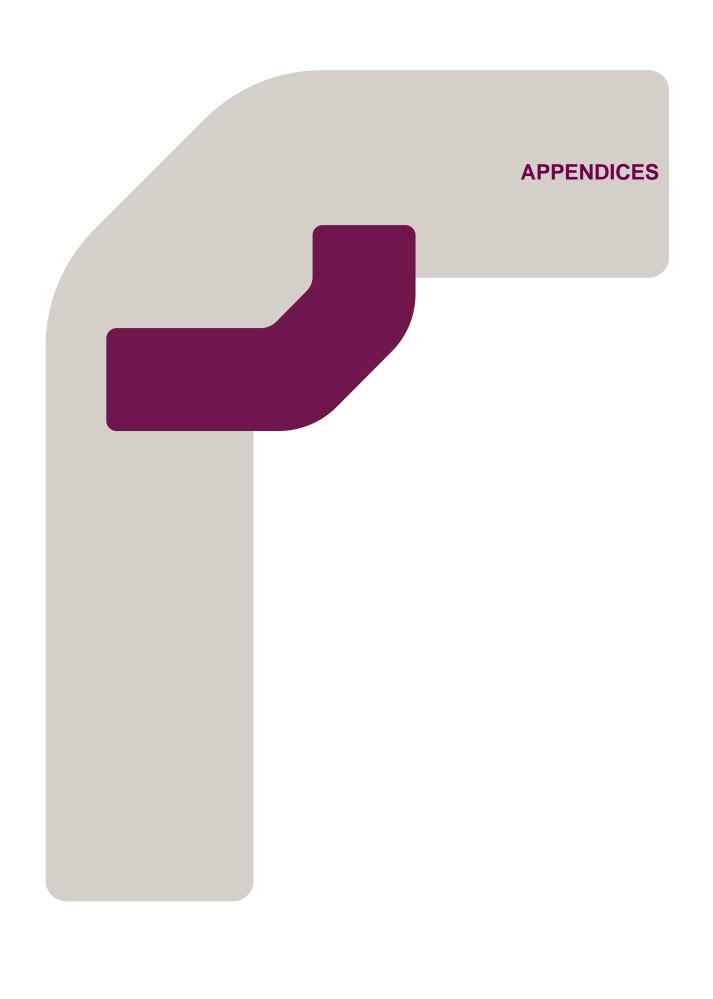
CIEEM (2017). *Guidelines for Preliminary Ecological Assessment*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2020). Advice on Covid-19 and Undertaking Site-Based Ecological Work. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins J. (ed.) (2016). Bat surveys for Professional Ecologists: Good practice guidelines (3<sup>rd</sup> Edition). Bat Conservation Trust, London.

Hart District Council, 2020. *Hart Local Plan*. [online]. Available at <a href="https://www.hart.gov.uk/sites/default/files/4\_The\_Council/Policies\_and\_published\_documents/Planning\_policy/Hart%20LPS%26S.pdf">https://www.hart.gov.uk/sites/default/files/4\_The\_Council/Policies\_and\_published\_documents/Planning\_policy/Hart%20LPS%26S.pdf</a> Accessed June 2020.

JNCC (2010). *Handbook for Phase 1 Habitat survey: a technique for environmental audit* (revised reprint). Joint Nature Conservation Committee, Peterborough.



### **Appendix A** Relevant Legislation

### Reptiles

All common UK reptile species (Adder *Vipera berus*, Grass Snake *Natrix natrix*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*) are protected through part of Section 9(1 and 5) of the Wildlife & Countryside Act 1981 (as amended). This prohibits:

- Intentional or reckless injuring or killing;
- Selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any
  live or dead wild animal or any part of, or anything derived from, such an animal; or
- Publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

#### **Birds**

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

#### **Bats**

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts.

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe, and Lesser Horseshoe.

#### **Badger**

Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;

**REPORT** Intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes. A sett is defined as "any structure or place that displays signs indicating current use by a badger".

# **Appendix B** Target notes

Target note number	Description
TN1	Mammal burrow with signs of recent activity (fresh spoil pile)

<b>Appendix</b>	C	Site	Develo	pment	<b>Plans</b>
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# Appendix D Full Species Data

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.79
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.84
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.84
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.84
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.85
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2011	s41s5s91t	1.86
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2013	s41s5s91t	0.70
Amphibians & Reptiles	Anguis fragilis	Slow-worm	2016	s41s5s91t	1.81
Amphibians & Reptiles	Bufo bufo	Common Toad	2013	s41	1.24
Amphibians & Reptiles	Natrix helvetica	Grass Snake	2011	s41s5s91t	1.84
Amphibians & Reptiles	Natrix helvetica	Grass Snake	2011	s41s5s91t	1.85
Amphibians & Reptiles	Natrix helvetica	Grass Snake	2013	s41s5s91t	1.24
Amphibians & Reptiles	Natrix helvetica	Grass Snake	2016	s41s5s91t	1.12
Amphibians & Reptiles	Natrix helvetica	Grass Snake	2018	s41s5s91t	1.93
Amphibians & Reptiles	Vipera berus	Adder	2011	s41s5s91t	1.79
Amphibians & Reptiles	Vipera berus	Adder	2011	s41s5s91t	1.80
Amphibians & Reptiles	Vipera berus	Adder	2011	s41s5s91t	1.81
Amphibians & Reptiles	Vipera berus	Adder	2011	s41s5s91t	1.81
Amphibians & Reptiles	Vipera berus	Adder	2011	s41s5s91t	1.85
Amphibians & Reptiles	Vipera berus	Adder	2012	s41s5s91t	1.93
Amphibians & Reptiles	Vipera berus	Adder	2016	s41s5s91t	1.53
Amphibians & Reptiles	Vipera berus	Adder	2016	s41s5s91t	1.81
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2011	s41s5s91t	1.84
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2011	s41s5s91t	1.84
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2012	s41s5s91t	1.73
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2012	s41s5s91t	1.97
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2013	s41s5s91t	1.24
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2013	s41s5s91t	1.46
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2016	s41s5s91t	1.12
Amphibians & Reptiles	Zootoca vivipara	Common Lizard	2019	s41s5s91t	1.93
Birds	Acanthis cabaret	Lesser Redpoll	2011	Red s41	0.35
Birds	Acanthis cabaret	Lesser Redpoll	2013	Red s41	1.26
Birds	Acanthis cabaret	Lesser Redpoll	2015	Red s41	0.96

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Birds	Acanthis cabaret	Lesser Redpoll	2015	Red s41	0.62
Birds	Acanthis cabaret	Lesser Redpoll	2017	Red s41	0.64
Birds	Alcedo atthis	Kingfisher	2010	Ann1 s1p1	0.67
Birds	Alcedo atthis	Kingfisher	2015	Ann1 s1p1	0.96
Birds	Alcedo atthis	Kingfisher	2017	Ann1 s1p1	1.26
Birds	Alcedo atthis	Kingfisher	2017	Ann1 s1p1	0.96
Birds	Alcedo atthis	Kingfisher	2017	Ann1 s1p1	0.67
Birds	Alcedo atthis	Kingfisher	2017	Ann1 s1p1	0.64
Birds	Alcedo atthis	Kingfisher	2017	Ann1 s1p1	1.90
Birds	Anas clypeata	Shoveler	2010	CR	0.67
Birds	Anas clypeata	Shoveler	2017	CR	0.64
Birds	Anas clypeata	Shoveler	2018	CR	0.67
Birds	Anas querquedula	Garganey	2017	s1p1	0.36
Birds	Anas querquedula	Garganey	2017	s1p1	0.64
Birds	Anthus trivialis	Tree Pipit	2012	Red s41	1.89
Birds	Anthus trivialis	Tree Pipit	2018	Red s41	1.99
Birds	Apus apus	Swift	2010		0.83
Birds	Apus apus	Swift	2011		0.97
Birds	Apus apus	Swift	2011		1.03
Birds	Ardea cinerea	Grey Heron	2010	CS	0.67
Birds	Ardea cinerea	Grey Heron	2017	CS	0.33
Birds	Ardea cinerea	Grey Heron	2018	CS	0.67
Birds	Ardea cinerea	Grey Heron	2018	CS	1.03
Birds	Asio flammeus	Short-eared Owl	2017	Ann1	0.96
Birds	Aythya ferina	Pochard	2018	Red CS	0.67
Birds	Caprimulgus europaeus	Nightjar	2010	Ann1 s41 CI	1.94
Birds	Caprimulgus europaeus	Nightjar	2016	Ann1 s41 CI	1.68
Birds	Caprimulgus europaeus	Nightjar	2016	Ann1 s41 CI	1.92
Birds	Chroicocephalus ridibundus	Black-headed Gull	2010	CR	0.67
Birds	Chroicocephalus ridibundus	Black-headed Gull	2014	CR	0.67
Birds	Chroicocephalus ridibundus	Black-headed Gull	2016	CR	1.12
Birds	Cuculus canorus	Cuckoo	2012	Red s41	0.96
Birds	Cuculus canorus	Cuckoo	2015	Red s41	0.96
Birds	Cuculus canorus	Cuckoo	2017	Red s41	0.96
Birds	Cuculus canorus	Cuckoo	2018	Red s41	1.85
Birds	Egretta garzetta	Little Egret	2012	Ann1 CR	0.96
Birds	Egretta garzetta	Little Egret	2017	Ann1 CR	0.67
Birds	Egretta garzetta	Little Egret	2017	Ann1 CR	0.64
Birds	Emberiza citrinella	Yellowhammer	2011	Red s41	0.96
Birds	Emberiza schoeniclus	Reed Bunting	2011	s41	1.99
Birds	Emberiza schoeniclus	Reed Bunting	2013	s41	1.24
Birds	Emberiza schoeniclus	Reed Bunting	2016	s41	1.26
Birds	Emberiza schoeniclus	Reed Bunting	2017	s41	1.26

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Birds	Fringilla montifringilla	Brambling	2018	s1p1	1.70
Birds	Gallinago gallinago	Snipe	2016	CS	0.67
Birds	Haematopus ostralegus	Oystercatcher	2013	CS	0.67
Birds	Haematopus ostralegus	Oystercatcher	2013	CS	0.72
Birds	Larus argentatus	Herring Gull	2010	Red CR	0.67
Birds	Larus argentatus	Herring Gull	2017	Red CR	0.64
Birds	Larus fuscus	Lesser Black-backed Gull	2010	Red CR	0.67
Birds	Larus fuscus	Lesser Black-backed Gull	2014	Red CR	0.67
Birds	Limosa limosa	Black-tailed Godwit	2010	Red s1p1Cl	0.96
Birds	Limosa limosa	Black-tailed Godwit	2018	Red s1p1Cl	0.96
Birds	Loxia curvirostra	Common Crossbill	2013	s1p1CS	0.96
Birds	Loxia curvirostra	Common Crossbill	2017	s1p1CS	0.96
Birds	Lullula arborea	Woodlark	2016	Ann1 s41s1p1Cl	1.92
Birds	Lullula arborea	Woodlark	2018	Ann1 s41s1p1Cl	1.92
Birds	Mergus merganser	Goosander	2015	CR	0.33
Birds	Milvus milvus	Red Kite	2012	Ann1 s1p1CR	0.96
Birds	Milvus milvus	Red Kite	2013	Ann1 s1p1CR	1.53
Birds	Milvus milvus	Red Kite	2013	Ann1 s1p1CR	0.96
Birds	Milvus milvus	Red Kite	2015	Ann1 s1p1CR	0.62
Birds	Milvus milvus	Red Kite	2016	Ann1 s1p1CR	1.87
Birds	Milvus milvus	Red Kite	2016	Ann1 s1p1CR	1.26
Birds	Milvus milvus	Red Kite	2017	Ann1 s1p1CR	1.75
Birds	Milvus milvus	Red Kite	2017	Ann1 s1p1CR	0.64
Birds	Milvus milvus	Red Kite	2018	Ann1 s1p1CR	1.48
Birds	Motacilla cinerea	Grey Wagtail	2013	Red	1.24
Birds	Motacilla cinerea	Grey Wagtail	2016	Red	1.87
Birds	Motacilla cinerea	Grey Wagtail	2017	Red	0.54
Birds	Muscicapa striata	Spotted Flycatcher	2013	Red s41	1.59
Birds	Phoenicurus ochruros	Black Redstart	2015	Red s1p1CR	0.96
Birds	Phoenicurus phoenicurus	Redstart	2010	CI	1.64
Birds	Podiceps cristatus	Great Crested Grebe	2010	CI	0.67
Birds	Podiceps cristatus	Great Crested Grebe	2018	CI	0.67
Birds	Poecile palustris	Marsh Tit	2017	Red	1.90
Birds	Rallus aquaticus	Water Rail	2010	CS	0.67
Birds	Rallus aquaticus	Water Rail	2013	CS	0.36
Birds	Rallus aquaticus	Water Rail	2017	CS	0.64
Birds	Rallus aquaticus	Water Rail	2018	CS	0.67
Birds	Regulus ignicapilla	Firecrest	2012	s1p1CS	0.56
Birds	Regulus ignicapilla	Firecrest	2012	s1p1CS	0.23
Birds	Regulus ignicapilla	Firecrest	2013	s1p1CS	1.26
Birds	Regulus ignicapilla	Firecrest	2013	s1p1CS	0.87
Birds	Regulus ignicapilla	Firecrest	2015	s1p1CS	1.60
Birds	Riparia riparia	Sand Martin	2017	CS	0.36

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Birds	Scolopax rusticola	Woodcock	2013	Red	1.98
Birds	Scolopax rusticola	Woodcock	2016	Red	0.96
Birds	Spinus spinus	Siskin	2010	CI	0.96
Birds	Spinus spinus	Siskin	2012	CI	1.26
Birds	Spinus spinus	Siskin	2012	CI	0.96
Birds	Spinus spinus	Siskin	2013	CI	1.26
Birds	Spinus spinus	Siskin	2013	CI	0.96
Birds	Spinus spinus	Siskin	2013	CI	0.28
Birds	Spinus spinus	Siskin	2015	CI	0.62
Birds	Spinus spinus	Siskin	2016	CI	1.87
Birds	Spinus spinus	Siskin	2016	CI	1.26
Birds	Spinus spinus	Siskin	2016	CI	0.96
Birds	Spinus spinus	Siskin	2016	CI	0.30
Birds	Spinus spinus	Siskin	2016	CI	1.72
Birds	Spinus spinus	Siskin	2017	CI	1.26
Birds	Spinus spinus	Siskin	2017	CI	0.64
Birds	Spinus spinus	Siskin	2017	CI	1.70
Birds	Tringa ochropus	Green Sandpiper	2014	s1p1	0.67
Birds	Tringa ochropus	Green Sandpiper	2017	s1p1	1.26
Birds	Turdus iliacus	Redwing	2016	Red s1p1	1.26
Birds	Turdus iliacus	Redwing	2017	Red s1p1	0.64
Birds	Turdus philomelos	Song Thrush	2017	Red	1.01
Birds	Turdus pilaris	Fieldfare	2013	Red s1p1	0.96
Birds	Vanellus vanellus	Lapwing	2013	Red s41	0.67
Birds	Vanellus vanellus	Lapwing	2016	Red s41	1.87
Higher plants	Agrostemma githago	Corncockle	2016	CS	0.90
Higher plants	Alisma lanceolatum	Narrow-leaved	2012	CS	1.97
		Water-plantain Narrow-leaved	2045		0.00
Higher plants	Alisma lanceolatum	Water-plantain	2015	CS	0.92
Higher plants	Alopecurus aequalis	Orange Foxtail	2015	CR	0.72
Higher plants	Apium inundatum	Lesser Marshwort	2011	IUCN_EN_2014:VU	1.03
Higher plants	Apium inundatum	Lesser Marshwort	2011	IUCN_EN_2014:VU	1.15
Higher plants	Apium inundatum	Lesser Marshwort	2019	IUCN_EN_2014:VU	1.13
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2011	IUCN_EN_2014:VU	1.15
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2013	IUCN_EN_2014:VU	0.92
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2013	IUCN_EN_2014:VU	1.02
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2013	IUCN_EN_2014:VU	1.15
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2015	IUCN_EN_2014:VU	0.92
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2015	IUCN_EN_2014:VU	1.03
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2019	IUCN_EN_2014:VU	1.08
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2019	IUCN_EN_2014:VU	1.10

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Higher plants	Baldellia ranunculoides	Lesser Water- plantain	2019	IUCN_EN_2014:VU	1.13
Higher plants	Bromus secalinus	Rye Brome	2017	IUCN_GB_2001:VU NS	1.95
Higher plants	Butomus umbellatus	Flowering-rush	2010		1.26
Higher plants	Butomus umbellatus	Flowering-rush	2012		1.57
Higher plants	Carex canescens	White Sedge	2011	CS	1.37
Higher plants	Carex canescens	White Sedge	2011	CS	1.42
Higher plants	Carex canescens	White Sedge	2011	CS	1.47
Higher plants	Carex canescens	White Sedge	2012	CS	1.37
Higher plants	Carex canescens	White Sedge	2013	CS	1.46
Higher plants	Carex canescens	White Sedge	2015	CS	0.90
Higher plants	Carex canescens	White Sedge	2015	CS	0.96
Higher plants	Carex canescens	White Sedge	2019	CS	0.74
Higher plants	Carex canescens	White Sedge	2019	CS	0.97
Higher plants	Carex canescens	White Sedge	2019	CS	1.03
Higher plants	Carex paniculata x remota (C. x boenninghausiana)	Sedge	2011	CR	1.21
Higher plants	Carex paniculata x remota (C. x boenninghausiana)	Sedge	2016	CR	1.12
Higher plants	Carex vesicaria	Bladder-sedge	2011	IUCN_EN_2014:VU	1.93
Higher plants	Carex vesicaria	Bladder-sedge	2015	IUCN_EN_2014:VU	1.03
Higher plants	Carex vesicaria	Bladder-sedge	2015	IUCN_EN_2014:VU	1.15
Higher plants	Carex viridula subsp. brachyrrhyncha	Long-stalked Yellow- sedge	2019	CS	1.14
Higher plants	Carex viridula subsp. viridula	Small-fruited Yellow- sedge	2012	CR	1.15
Higher plants	Carex viridula subsp. viridula	Small-fruited Yellow- sedge	2015	CR	1.03
Higher plants	Carex viridula subsp. viridula	Small-fruited Yellow- sedge	2015	CR	1.13
Higher plants	Carex viridula subsp. viridula	Small-fruited Yellow- sedge	2019	CR	1.09
Higher plants	Centaurea cyanus	Cornflower	2016	s41	0.90
Higher plants	Centaurea cyanus	Cornflower	2017	s41	0.96
Higher plants	Ceratocapnos claviculata	Climbing Corydalis	2013		1.97
Higher plants	Chamaemelum nobile	Chamomile	2012	IUCN_EN_2014:VU, IUCN_GB_2001:VU s41	1.59
Higher plants	Chamaemelum nobile	Chamomile	2014	IUCN_EN_2014:VU, IUCN_GB_2001:VU s41	1.65
Higher plants	Chenopodium hybridum	Maple-leaved Goosefoot	2018	CS	1.57
Higher plants	Chenopodium murale	Nettle-leaved Goosefoot	2018	IUCN_EN_2014:EN, IUCN_GB_2001:VU CS	1.54
Higher plants	Cuscuta epithymum	Dodder	2010	IUCN_EN_2014:VU, IUCN_GB_2001:VU	1.04
Higher plants	Cuscuta epithymum	Dodder	2011	IUCN_EN_2014:VU, IUCN_GB_2001:VU	1.12
Higher plants	Cuscuta epithymum	Dodder	2011	IUCN_EN_2014:VU, IUCN_GB_2001:VU	1.12
Higher plants	Cuscuta epithymum	Dodder	2015	IUCN_EN_2014:VU, IUCN_GB_2001:VU	1.98
Higher plants	Cynosurus echinatus	Rough Dog's-tail	2012	CR	1.70
Higher plants	Cynosurus echinatus	Rough Dog's-tail	2018	CR	1.69
Higher plants	Cynosurus echinatus	Rough Dog's-tail	2018	CR	1.65

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Higher plants	Dactylorhiza incarnata subsp. pulchella	Early Marsh-Orchid	2011		1.19
Higher plants	Dactylorhiza incarnata subsp. pulchella	Early Marsh-Orchid	2013		1.19
Higher plants	Dactylorhiza incarnata subsp. pulchella	Early Marsh-Orchid	2014		1.19
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2010	IUCN_EN_2014:VU	1.15
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2011	IUCN_EN_2014:VU	1.16
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2011	IUCN_EN_2014:VU	1.16
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2011	IUCN_EN_2014:VU	1.18
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2011	IUCN_EN_2014:VU	1.06
ligher plants	Drosera intermedia	Oblong-leaved Sundew	2012	IUCN_EN_2014:VU	1.06
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2012	IUCN_EN_2014:VU	1.15
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2013	IUCN_EN_2014:VU	1.03
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2013	IUCN_EN_2014:VU	1.24
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2019	IUCN_EN_2014:VU	1.12
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2019	IUCN_EN_2014:VU	1.12
Higher plants	Drosera intermedia	Oblong-leaved Sundew	2019	IUCN_EN_2014:VU	1.16
Higher plants	Elatine hexandra	Six-stamened Waterwort	2011	CS	1.15
Higher plants	Elatine hexandra	Six-stamened Waterwort	2012	CS	1.15
Higher plants	Eleocharis acicularis	Needle Spike-rush	2011	CS	1.03
Higher plants	Eleocharis acicularis	Needle Spike-rush	2015	CS	0.96
Higher plants	Eleocharis acicularis	Needle Spike-rush	2018	CS	0.96
Higher plants	Eleocharis acicularis	Needle Spike-rush	2019	CS	1.05
Higher plants	Eriophorum angustifolium	Common Cottongrass	2011	IUCN_EN_2014:VU	1.15
Higher plants	Eriophorum angustifolium	Common Cottongrass	2011	IUCN_EN_2014:VU	1.15
Higher plants	Eriophorum angustifolium	Common Cottongrass	2013	IUCN_EN_2014:VU	1.24
Higher plants	Eriophorum angustifolium	Common Cottongrass	2015	IUCN EN 2014:VU	1.05
Higher plants	Eriophorum angustifolium	Common Cottongrass	2016	IUCN_EN_2014:VU	1.17
Higher plants	Eriophorum angustifolium	Common Cottongrass	2016	IUCN EN 2014:VU	1.15
Higher plants	Eriophorum angustifolium	Common Cottongrass	2016	IUCN_EN_2014:VU	1.12
Higher plants	Eriophorum angustifolium	Common Cottongrass	2016	IUCN_EN_2014:VU	1.10
Higher plants	Eriophorum angustifolium	Common Cottongrass	2019	IUCN_EN_2014:VU	1.08
Higher plants	Eriophorum angustifolium	Common Cottongrass	2019	IUCN_EN_2014:VU	1.16
Higher plants	Genista anglica	Petty Whin	2011	IUCN_EN_2014:VU	1.76
Higher plants	Genista anglica	Petty Whin	2012	IUCN_EN_2014:VU	1.24
Higher plants	Genista anglica	Petty Whin	2012	IUCN_EN_2014:VU	1.69
Higher plants	Genista anglica	Petty Whin	2012	IUCN_EN_2014:VU	1.20
Higher plants	Genista anglica	Petty Whin	2014	IUCN_EN_2014:VU	1.83
Higher plants	Genista anglica	Petty Whin	2017	IUCN_EN_2014:VU	1.20
Higher plants	Genista tinctoria	Dyer's Greenweed	2017	IUCN_EN_2014:VU	1.88

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	Distance
Higher plants	Genista tinctoria	Dyer's Greenweed	2010	IUCN_EN_2014:VU	1.94
Higher plants	Genista tinctoria	Dyer's Greenweed	2012	IUCN_EN_2014:VU	1.24
Higher plants	Genista tinctoria	Dyer's Greenweed	2013	IUCN_EN_2014:VU	1.24
Higher plants	Genista tinctoria	Dyer's Greenweed	2013	IUCN_EN_2014:VU	1.94
Higher plants	Genista tinctoria	Dyer's Greenweed	2014	IUCN_EN_2014:VU	1.20
Higher plants	Genista tinctoria	Dyer's Greenweed	2014	IUCN_EN_2014:VU	1.24
Higher plants	Glebionis segetum	Corn Marigold	2016	IUCN_EN_2014:VU, IUCN_GB_2001:VU	0.90
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	1.16
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	1.16
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.98
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.98
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	1.04
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	1.04
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.90
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.90
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2011	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.96
Higher plants	Gnaphalium sylvaticum	Heath Cudweed	2013	IUCN_EN_2014:EN, IUCN_GB_2001:EN CS	0.92
Higher plants	Hieracium grandidens	Hawkweed	2011	CR	1.00
Higher plants	Hieracium grandidens	Hawkweed	2011	CR	0.92
Higher plants	Hieracium mammidens	Breast-toothed Hawkweed	2011	NR CR	0.92
Higher plants	Hieracium rigens	Hawkweed	2012	IUCN_EN_2014:EN CR	0.93
Higher plants	Hottonia palustris	Water-violet	2011	IUCN_EN_2014:VU CS	1.13
Higher plants	Hottonia palustris	Water-violet	2011	IUCN_EN_2014:VU CS	1.88
Higher plants	Hottonia palustris	Water-violet	2013	IUCN_EN_2014:VU CS	1.15
Higher plants	Hottonia palustris	Water-violet	2015	IUCN_EN_2014:VU CS	1.18
Higher plants	Hottonia palustris	Water-violet	2019	IUCN_EN_2014:VU CS	0.93
Higher plants	Hottonia palustris	Water-violet	2019	IUCN_EN_2014:VU CS	0.92
Higher plants	Hydrocharis morsus-ranae	Frogbit	2012	IUCN_EN_2014:VU, IUCN_GB_2001:VU CS	1.06
Higher plants	Hydrocharis morsus-ranae	Frogbit	2016	IUCN_EN_2014:VU, IUCN_GB_2001:VU CS	1.03
Higher plants	Lemna gibba	Fat Duckweed	2019		0.32
Higher plants	Lemna gibba	Fat Duckweed	2019		0.76
Higher plants	Linaria repens	Pale Toadflax	2015	CS	1.35
Higher plants	Littorella uniflora	Shoreweed	2010		1.05
Higher plants	Littorella uniflora	Shoreweed	2011		1.05
Higher plants	Littorella uniflora	Shoreweed	2011		1.15
Higher plants	Littorella uniflora	Shoreweed	2012		1.15
Higher plants	Littorella uniflora	Shoreweed	2013		0.92
Higher plants	Littorella uniflora	Shoreweed	2013		1.15
Higher plants	Littorella uniflora	Shoreweed	2015		0.92

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Higher plants	Littorella uniflora	Shoreweed	2015		1.03
Higher plants	Littorella uniflora	Shoreweed	2019		1.03
Higher plants	Littorella uniflora	Shoreweed	2019		1.08
Higher plants	Moenchia erecta	Upright Chickweed	2014	IUCN_EN_2014:VU	1.71
Higher plants	Pedicularis sylvatica	Lousewort	2010	IUCN_EN_2014:VU	1.96
Higher plants	Pedicularis sylvatica	Lousewort	2011	IUCN_EN_2014:VU	2.02
Higher plants	Pedicularis sylvatica	Lousewort	2011	IUCN_EN_2014:VU	1.15
Higher plants	Pedicularis sylvatica	Lousewort	2011	IUCN_EN_2014:VU	1.15
Higher plants	Pedicularis sylvatica	Lousewort	2011	IUCN_EN_2014:VU	2.00
Higher plants	Pedicularis sylvatica	Lousewort	2012	IUCN_EN_2014:VU	1.97
Higher plants	Pedicularis sylvatica	Lousewort	2013	IUCN_EN_2014:VU	1.24
Higher plants	Pedicularis sylvatica	Lousewort	2013	IUCN_EN_2014:VU	1.46
Higher plants	Pedicularis sylvatica	Lousewort	2014	IUCN_EN_2014:VU	1.01
Higher plants	Pedicularis sylvatica	Lousewort	2014	IUCN_EN_2014:VU	1.24
Higher plants	Pedicularis sylvatica	Lousewort	2015	IUCN_EN_2014:VU	0.92
Higher plants	Pedicularis sylvatica	Lousewort	2017	IUCN_EN_2014:VU	1.90
Higher plants	Pedicularis sylvatica subsp. sylvatica	Lousewort	2015	IUCN_EN_2014:VU	0.92
Higher plants	Pilularia globulifera	Pillwort	2010	IUCN_EN_2014:VU NSs41	1.05
Higher plants	Pilularia globulifera	Pillwort	2011	IUCN_EN_2014:VU NSs41	1.02
Higher plants	Pilularia globulifera	Pillwort	2011	IUCN_EN_2014:VU NSs41	1.12
Higher plants	Pilularia globulifera	Pillwort	2013	IUCN_EN_2014:VU NSs41	0.92
Higher plants	Pilularia globulifera	Pillwort	2013	IUCN_EN_2014:VU NSs41	1.03
Higher plants	Pilularia globulifera	Pillwort	2015	IUCN_EN_2014:VU NSs41	0.92
Higher plants	Pilularia globulifera	Pillwort	2017	IUCN_EN_2014:VU NSs41	1.90
Higher plants	Pilularia globulifera	Pillwort	2019	IUCN_EN_2014:VU NSs41	1.03
Higher plants	Poa infirma	Early Meadow-grass	2019	NS	1.66
Higher plants	Potamogeton obtusifolius	Blunt-leaved Pondweed	2019	CS	0.90
Higher plants	Potamogeton pectinatus	Fennel Pondweed	2019		0.76
Higher plants	Potamogeton pusillus	Lesser Pondweed	2019	CS	0.80
Higher plants	Potentilla palustris	Marsh Cinquefoil	2011		1.03
Higher plants	Potentilla palustris	Marsh Cinquefoil	2015		0.90
Higher plants	Potentilla palustris	Marsh Cinquefoil	2015		0.92
Higher plants	Potentilla palustris	Marsh Cinquefoil	2015		1.05
Higher plants	Potentilla palustris	Marsh Cinquefoil	2019		1.03
Higher plants	Pyrola minor	Common Wintergreen	2019	CS	1.02
Higher plants	Ranunculus flammula	Lesser Spearwort	2011	IUCN_EN_2014:VU	1.03
Higher plants	Ranunculus flammula	Lesser Spearwort	2011	IUCN_EN_2014:VU	1.15
Higher plants	Ranunculus flammula	Lesser Spearwort	2011	IUCN_EN_2014:VU	1.15
Higher plants	Ranunculus flammula	Lesser Spearwort	2012	IUCN_EN_2014:VU	1.97
Higher plants	Ranunculus flammula	Lesser Spearwort	2013	IUCN_EN_2014:VU	1.24
Higher plants	Ranunculus flammula	Lesser Spearwort	2013	IUCN_EN_2014:VU	1.46
Higher plants	Ranunculus flammula	Lesser Spearwort	2015	IUCN_EN_2014:VU	1.36
Higher plants	Ranunculus flammula	Lesser Spearwort	2016	IUCN_EN_2014:VU	1.12

## **REPORT**

Taxon Group	Taxon Name	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Higher plants	Ranunculus flammula	Lesser Spearwort	2016	IUCN_EN_2014:VU	2.04
Higher plants	Ranunculus flammula	Lesser Spearwort	2016	IUCN_EN_2014:VU	2.03
Higher plants	Ranunculus flammula	Lesser Spearwort	2017	IUCN_EN_2014:VU	1.90
Higher plants	Ranunculus flammula	Lesser Spearwort	2019	IUCN_EN_2014:VU	0.74
Higher plants	Ranunculus flammula	Lesser Spearwort	2019	IUCN_EN_2014:VU	1.03
Higher plants	Rorippa amphibia	Great Yellow-cress	2011	CS	2.04
Higher plants	Rorippa amphibia	Great Yellow-cress	2012	CS	1.61
Higher plants	Salix aurita	Eared Willow	2016		1.07
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2010		1.26
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2010		1.06
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2011		0.95
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2011		0.95
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2013		0.92
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2014		1.09
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2015		0.92
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2015		1.02
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2016		1.25
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2016		1.24
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2016		1.17
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2016		0.87
Higher plants	Schoenoplectus tabernaemontani	Grey Club-rush	2019		1.09
Higher plants	Scleranthus annuus	Annual Knawel	2019	IUCN_EN_2014:EN, IUCN_GB_2001:EN s41	1.15
Higher plants	Scleranthus annuus	Annual Knawel	2019	IUCN_EN_2014:EN, IUCN GB 2001:EN s41	1.11
Higher plants	Smyrnium olusatrum	Alexanders	2017		1.92
Higher plants	Smyrnium olusatrum	Alexanders	2019		1.73
Higher plants	Spergula arvensis	Corn Spurrey	2018	IUCN_EN_2014:VU, IUCN_GB_2001:VU	1.49
Higher plants	Spirodela polyrhiza	Greater Duckweed	2011	CS	1.06
Higher plants	Spirodela polyrhiza	Greater Duckweed	2014	CS	0.23
Higher plants	Spirodela polyrhiza	Greater Duckweed	2015	CS	0.96
Higher plants	Thelypteris palustris	Marsh Fern	2014	NS CS	0.49
Higher plants	Thelypteris palustris	Marsh Fern	2019	NS CS	1.03
Higher plants	Thelypteris palustris	Marsh Fern	2019	NS CS	1.04
Higher plants	Thelypteris palustris	Marsh Fern	2019	NS CS	1.05
Higher plants	Thelypteris palustris	Marsh Fern	2019	NS CS	1.06
Higher plants	Thelypteris palustris	Marsh Fern	2019	NS CS	1.44
Higher plants	Trifolium subterraneum	Subterranean Clover	2014		1.71
Higher plants	Utricularia australis	Bladderwort	2011	CS	1.06
Higher plants	Utricularia australis	Bladderwort	2012	CS	1.66
Higher plants	Utricularia australis	Bladderwort	2012	CS	1.66
Higher plants	Utricularia australis	Bladderwort	2012	CS	1.67
Higher plants	Utricularia australis	Bladderwort	2012	CS	1.62
Higher plants	Utricularia australis	Bladderwort	2016	CS	1.03

Taxon Group	Taxon Name	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Higher plants	Veronica catenata	Pink Water- Speedwell	2019		0.94
Higher plants	Wahlenbergia hederacea	Ivy-leaved Bellflower	2010	CS	1.21
nvertebrates	Achlya flavicornis	Yellow Horned	2015		0.94
nvertebrates	Acronicta rumicis	Knot Grass	2010	s41	0.96
nvertebrates	Adela cuprella	Early Long-horn	2011	CR	1.03
Invertebrates	Adela cuprella	Early Long-horn	2014	CR	0.82
Invertebrates	Amphipyra tragopoginis	Mouse Moth	2010	s41	0.96
Invertebrates	Apamea sublustris	Reddish Light Arches	2010	CS	0.96
Invertebrates	Apatura iris	Purple Emperor	2013	CS	0.64
Invertebrates	Apatura iris	Purple Emperor	2017	CS	2.05
nvertebrates	Apocheima hispidaria	Small Brindled Beauty	2010		0.96
Invertebrates	Apterogenum ypsillon	Dingy Shears	2010		0.96
nvertebrates	Araneus alsine	Araneus alsine	2013	NS	1.06
Invertebrates	Araneus alsine	Araneus alsine	2013	NS	1.43
Invertebrates	Araneus alsine	Araneus alsine	2013	NS	1.28
Invertebrates	Araneus alsine	Araneus alsine	2013	NS	1.97
Invertebrates	Archiearis parthenias	Orange Underwing	2013		1.95
Invertebrates	Archiearis parthenias	Orange Underwing	2014		0.82
Invertebrates	Argynnis paphia	Silver-washed Fritillary	2010	CI	2.08
Invertebrates	Argynnis paphia	Silver-washed Fritillary	2011	CI	2.04
Invertebrates	Argynnis paphia	Silver-washed Fritillary	2011	CI	1.61
Invertebrates	Cataclysta lemnata	Small China-mark	2014	CR	0.94
Invertebrates	Cirrhia icteritia	Sallow	2010	s41	0.96
Invertebrates	Cleorodes lichenaria	Brussels Lace	2010	CS	0.96
Invertebrates	Coenonympha pamphilus	Small Heath	2010	s41	0.46
Invertebrates	Coenonympha pamphilus	Small Heath	2011	s41	0.81
Invertebrates	Coenonympha pamphilus	Small Heath	2012	s41	2.03
Invertebrates	Coenonympha pamphilus	Small Heath	2013	s41	1.72
Invertebrates	Coenonympha pamphilus	Small Heath	2018	s41	1.84
Invertebrates	Cymatophorina diluta	Oak Lutestring	2010	s41	0.96
Invertebrates	Denticucullus pygmina	Small Wainscot	2014		0.94
Invertebrates	Dypterygia scabriuscula	Bird's Wing	2010		0.96
Invertebrates	Ennomos erosaria	September Thorn	2014	s41	0.94
Invertebrates	Erynnis tages	Dingy Skipper	2018	IUCN_GB_2001:VU s41 CI	1.84
Invertebrates	Euphydryas aurinia	Marsh Fritillary	2018	Ann2np IUCN_GB_2001:VU s41s5s91k, s5s91t, s5s94a, s5s94b, s5s94cCR	1.93
Invertebrates	Euphyia unangulata	Sharp-angled Carpet	2014	CS	0.94
Invertebrates	Hecatera dysodea	Small Ranunculus	2010	IUCN_GB_pre94:EX	0.96
Invertebrates	Hecatera dysodea	Small Ranunculus	2014	IUCN_GB_pre94:EX	0.94
Invertebrates	Hipparchia semele	Grayling	2010	IUCN_GB_2001:VU s41	1.59
Invertebrates	Hipparchia semele	Grayling	2018	IUCN_GB_2001:VU s41	1.90
Invertebrates	Hoplodrina blanda	Rustic	2010	s41	0.96

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Invertebrates	Idaea straminata	Plain Wave	2010		0.96
Invertebrates	Idaea subsericeata	Satin Wave	2010		0.96
Invertebrates	Limenitis camilla	White Admiral	2017	IUCN_GB_2001:VU s41	1.68
Invertebrates	Lithophane socia	Pale Pinion	2010		0.96
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.85
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.77
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.41
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.36
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	0.38
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	0.95
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	0.88
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.39
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.00
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.40
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.28
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.08
Invertebrates	Lucanus cervus	Stag Beetle	2015	Ann2np NSs41	1.21
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.86
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	2.07
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.37
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	2.00
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.92
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.61
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.26
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.47
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.46
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.30
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.39
Invertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	0.42
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.33
nvertebrates	Lucanus cervus	Stag Beetle	2016	Ann2np NSs41	1.26
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.74
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.64
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.74
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.24
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.88
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.75
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.65
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	0.76
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.27
nvertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	0.56
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	0.49
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	0.43

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	0.64
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.50
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.42
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.13
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.70
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.61
Invertebrates	Lucanus cervus	Stag Beetle	2017	Ann2np NSs41	1.54
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	2.05
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.25
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.49
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.95
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.85
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.59
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.81
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.98
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	2.07
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.56
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.25
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.75
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.35
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.57
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	1.61
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.63
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.66
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.83
nvertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.87
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.79
Invertebrates	Lucanus cervus	Stag Beetle	2018	Ann2np NSs41	0.83
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.96
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.95
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.36
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.87
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.71
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.71
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.96
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.88
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.48
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.40
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.30
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.98
nvertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.77
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.65
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.85

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.69
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.23
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.25
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.48
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.33
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.60
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.23
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.04
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.27
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.62
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.97
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.67
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.58
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	0.88
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.01
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.78
Invertebrates	Lucanus cervus	Stag Beetle	2019	Ann2np NSs41	1.40
Invertebrates	Lycia hirtaria	Brindled Beauty	2010	s41	0.96
nvertebrates	Lycia hirtaria	Brindled Beauty	2015	s41	0.94
nvertebrates	Melanchra persicariae	Dot Moth	2010	s41	0.96
Invertebrates	Melanchra persicariae	Dot Moth	2015	s41	0.94
Invertebrates	Mythimna albipuncta	White-point	2010		0.96
Invertebrates	Mythimna albipuncta	White-point	2015		0.94
Invertebrates	Naenia typica	Gothic	2014		0.94
Invertebrates	Nonagria typhae	Bulrush Wainscot	2014		0.94
Invertebrates	Orthosia gracilis	Powdered Quaker	2010	s41	0.96
nvertebrates	Orthosia gracilis	Powdered Quaker	2015	s41	0.94
Invertebrates	Panolis flammea	Pine Beauty	2010		0.96
nvertebrates	Panolis flammea	Pine Beauty	2015		0.94
Invertebrates	Pennithera firmata	Pine Carpet	2010		0.96
Invertebrates	Pennithera firmata	Pine Carpet	2014		0.94
Invertebrates	Pennithera firmata	Pine Carpet	2015		0.94
Invertebrates	Pseudoterpna pruinata	Grass Emerald	2010		0.96
nvertebrates	Pyrgus malvae	Grizzled Skipper	2018	IUCN_GB_2001:VU_s41 CI	1.93
nvertebrates	Saturnia pavonia	Emperor Moth	2014	CS	1.21
nvertebrates	Spilosoma lutea	Buff Ermine	2010	s41	0.96
Invertebrates	Spilosoma lutea	Buff Ermine	2015	s41	0.94
nvertebrates	Tethea or	Poplar Lutestring	2010	CS	0.96
Invertebrates	Tholera decimalis	Feathered Gothic	2010	s41	0.96
Invertebrates	Tholera decimalis	Feathered Gothic	2014	s41	0.94
Invertebrates	Timandra comae	Blood-vein	2010	s41	0.96
Invertebrates	Tyria jacobaeae	Cinnabar	2010	s41	1.16
Invertebrates	Tyria jacobaeae	Cinnabar	2012	s41	1.21

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Invertebrates	Tyria jacobaeae	Cinnabar	2012	s41	1.05
Invertebrates	Tyria jacobaeae	Cinnabar	2012	s41	1.33
Invertebrates	Tyria jacobaeae	Cinnabar	2012	s41	1.53
Invertebrates	Tyria jacobaeae	Cinnabar	2015	s41	1.62
Invertebrates	Watsonalla binaria	Oak Hook-tip	2010	s41	0.96
Invertebrates	Zygaena trifolii	Five-spot Burnet	2010	CS	1.16
Lower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.58
Lower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.63
Lower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.68
ower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.81
ower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.82
ower plants	Nitella flexilis	Smooth Stonewort	2019	CS	0.90
Mammals - (bats)	Barbastella barbastellus	Western Barbastelle	2015	Ann2np, Ann4Sch2IUCN_GB_2001:VU s41s5s94b, s5s94cCl	1.59
Mammals - (bats)	Chiroptera	Bats	2012	Ann2np, Ann4Sch2 s41s5s94b, s5s94cCl	0.32
Mammals - (bats)	Chiroptera	Bats	2015	Ann2np, Ann4Sch2 s41s5s94b, s5s94cCl	0.95
Mammals - (bats) Mammals -	Eptesicus serotinus	Serotine	2011	Ann4Sch2IUCN_GB_2001:VU s5s94b, s5s94c Ann4Sch2IUCN_GB_2001:VU	1.08
(bats)	Eptesicus serotinus	Serotine	2012	s5s94b, s5s94c	0.56
Mammals - (bats)	Eptesicus serotinus	Serotine	2013	Ann4Sch2IUCN_GB_2001:VU s5s94b, s5s94c	0.97
Mammals - (bats) Mammals -	Eptesicus serotinus	Serotine	2013	Ann4Sch2IUCN_GB_2001:VU s5s94b, s5s94c Ann4Sch2IUCN_GB_2001:VU	0.43
(bats)	Eptesicus serotinus	Serotine	2015	s5s94b, s5s94c	1.59
Mammals - (bats)	Eptesicus serotinus	Serotine	2019	Ann4Sch2IUCN_GB_2001:VU s5s94b, s5s94c	0.99
Mammals - (bats)	Myotis	Unidentified Bat	2012	Ann2np, Ann4Sch2IUCN_GB_2001:CR, IUCN_GB_2001:DD s41s5s94b, s5s94cCl	0.56
Mammals - (bats)	Myotis	Unidentified Bat	2013	Ann2np, Ann4Sch2IUCN_GB_2001:CR, IUCN_GB_2001:DD s41s5s94b, s5s94cCI	0.97
Mammals - (bats)	Myotis	Unidentified Bat	2015	Ann2np, Ann4Sch2IUCN_GB_2001:CR, IUCN_GB_2001:DD s41s5s94b, s5s94cCl	1.59
Mammals - (bats)	Myotis	Unidentified Bat	2019	Ann2np, Ann4Sch2IUCN_GB_2001:CR, IUCN_GB_2001:DD s41s5s94b, s5s94cCl	0.99
Mammals - (bats)	Myotis	Unidentified Bat	2019	Ann2np, Ann4Sch2IUCN_GB_2001:CR, IUCN_GB_2001:DD s41s5s94b, s5s94cCl	1.18
Mammals - (bats)	Myotis daubentonii	Daubenton's Bat	2011	Ann4Sch2 s5s94b, s5s94c	1.67
Mammals - (bats)	Myotis daubentonii	Daubenton's Bat	2014	Ann4Sch2 s5s94b, s5s94c	2.06
Mammals - (bats)	Myotis daubentonii	Daubenton's Bat	2019	Ann4Sch2 s5s94b, s5s94c	1.18
Mammals - (bats)	Myotis daubentonii	Daubenton's Bat	2019	Ann4Sch2 s5s94b, s5s94c	1.18
Mammals - (bats)	Myotis daubentonii	Daubenton's Bat	2019	Ann4Sch2 s5s94b, s5s94c	1.25

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Mammals - (bats)	Myotis mystacinus	Whiskered Bat	2019	Ann4Sch2IUCN_GB_2001:DD s5s94b, s5s94c	1.25
Mammals -	Myotis mystacinus/brandtii	Whiskered/Brandt's	2012	Sch2 s5s94b, s5s94c	1.19
(bats) Mammals -	Myotis nattereri	Bat Natterer's Bat	2019	Ann4Sch2 s5s94b, s5s94c	1.13
(bats) Mammals -	Myotis nattereri	Natterer's Bat	2019	Ann4Sch2 s5s94b, s5s94c	1.25
(bats) Mammals -	Nyctalus leisleri	Lesser Noctule	2012	Ann4Sch2 s5s94b, s5s94c	0.56
(bats) Mammals -	Nyctalus noctula	Noctule Bat	2011	Ann4Sch2 s41s5s94b, s5s94c	1.08
(bats) Mammals -	·			· ·	
(bats) Mammals -	Nyctalus noctula	Noctule Bat	2011	Ann4Sch2 s41s5s94b, s5s94c	0.43
(bats) Mammals -	Nyctalus noctula	Noctule Bat	2011	Ann4Sch2 s41s5s94b, s5s94c	1.67
(bats)  Mammals -	Nyctalus noctula	Noctule Bat	2012	Ann4Sch2 s41s5s94b, s5s94c	0.56
(bats)	Nyctalus noctula	Noctule Bat	2012	Ann4Sch2 s41s5s94b, s5s94c	1.19
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2013	Ann4Sch2 s41s5s94b, s5s94c	0.97
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2013	Ann4Sch2 s41s5s94b, s5s94c	0.43
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2013	Ann4Sch2 s41s5s94b, s5s94c	1.23
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2014	Ann4Sch2 s41s5s94b, s5s94c	2.06
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2014	Ann4Sch2 s41s5s94b, s5s94c	0.56
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2015	Ann4Sch2 s41s5s94b, s5s94c	1.59
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2019	Ann4Sch2 s41s5s94b, s5s94c	0.99
Mammals - (bats)	Nyctalus noctula	Noctule Bat	2019	Ann4Sch2 s41s5s94b, s5s94c	1.33
Mammals - (bats)	Pipistrellus	Pipistrelle Bat species	2010	Ann4Sch2 s41s5s94b, s5s94c	0.99
Mammals - (bats)	Pipistrellus	Pipistrelle Bat species	2010	Ann4Sch2 s41s5s94b, s5s94c	0.99
Mammals - (bats)	Pipistrellus	Pipistrelle Bat species	2013	Ann4Sch2 s41s5s94b, s5s94c	0.56
Mammals - (bats)	Pipistrellus	Pipistrelle Bat species	2013	Ann4Sch2 s41s5s94b, s5s94c	1.58
Mammals - (bats)	Pipistrellus	Pipistrelle Bat species	2015	Ann4Sch2 s41s5s94b, s5s94c	0.57
Mammals -	Pipistrellus nathusii	Nathusius's	2014	Ann4Sch2 s5s94b, s5s94c	0.56
(bats) Mammals -	Pipistrellus pipistrellus	Pipistrelle  Common Pipistrelle	2011	Ann4Sch2 s5s94b, s5s94c	1.59
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2011	Ann4Sch2 s5s94b, s5s94c	1.08
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2011	Ann4Sch2 s5s94b, s5s94c	0.43
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2011	Ann4Sch2 s5s94b, s5s94c	1.67
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2012	Ann4Sch2 s5s94b, s5s94c	0.56
(bats) Mammals -	· · · ·	·		·	
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2012	Ann4Sch2 s5s94b, s5s94c	1.19
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2013	Ann4Sch2 s5s94b, s5s94c	0.97
(bats)	Pipistrellus pipistrellus	Common Pipistrelle	2013	Ann4Sch2 s5s94b, s5s94c	0.43
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2013	Ann4Sch2 s5s94b, s5s94c	1.23

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2014	Ann4Sch2 s5s94b, s5s94c	2.06
Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2014	Ann4Sch2 s5s94b, s5s94c	0.56
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2015	Ann4Sch2 s5s94b, s5s94c	1.59
(bats) Mammals -		·		·	
(bats) Mammals -	Pipistrellus pipistrellus	Common Pipistrelle	2015	Ann4Sch2 s5s94b, s5s94c	1.50
(bats)	Pipistrellus pipistrellus	Common Pipistrelle	2016	Ann4Sch2 s5s94b, s5s94c	1.46
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2016	Ann4Sch2 s5s94b, s5s94c	0.77
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2018	Ann4Sch2 s5s94b, s5s94c	1.25
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2018	Ann4Sch2 s5s94b, s5s94c	1.30
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2018	Ann4Sch2 s5s94b, s5s94c	1.61
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	0.99
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.33
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.18
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.18
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.15
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.13
Mammals - (bats)	Pipistrellus pipistrellus	Common Pipistrelle	2019	Ann4Sch2 s5s94b, s5s94c	1.25
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2011	Ann4Sch2 s41s5s94b, s5s94c	1.59
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2011	Ann4Sch2 s41s5s94b, s5s94c	1.08
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2011	Ann4Sch2 s41s5s94b, s5s94c	1.67
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2012	Ann4Sch2 s41s5s94b, s5s94c	1.19
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2013	Ann4Sch2 s41s5s94b, s5s94c	0.97
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2013	Ann4Sch2 s41s5s94b, s5s94c	0.43
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2014	Ann4Sch2 s41s5s94b, s5s94c	2.06
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2014	Ann4Sch2 s41s5s94b, s5s94c	0.56
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2015	Ann4Sch2 s41s5s94b, s5s94c	1.59
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2018	Ann4Sch2 s41s5s94b, s5s94c	1.30
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2019	Ann4Sch2 s41s5s94b, s5s94c	0.99
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2019	Ann4Sch2 s41s5s94b, s5s94c	1.33
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2019	Ann4Sch2 s41s5s94b, s5s94c	1.27
Mammals - (bats)	Pipistrellus pygmaeus	Soprano Pipistrelle	2019	Ann4Sch2 s41s5s94b, s5s94c	1.13
Mammals -	Pipistrellus pygmaeus	Soprano Pipistrelle	2019	Ann4Sch2 s41s5s94b, s5s94c	1.25
(bats)  Mammals -	Plecotus	Long-eared Bat	2011	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.59
(bats) Mammals - (bats)	Plecotus	species  Long-eared Bat  species	2011	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.08

## **REPORT**

Taxon Group	<u>Taxon Name</u>	Common name	<u>Year</u>	<u>Status</u>	<u>Distance</u>
Mammals - (bats)	Plecotus	Long-eared Bat species	2012	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.21
Mammals - (bats)	Plecotus	Long-eared Bat species	2012	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	0.56
Mammals - (bats)	Plecotus	Long-eared Bat species	2012	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.19
Mammals - (bats)	Plecotus	Long-eared Bat species	2013	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	0.97
Mammals - (bats)	Plecotus	Long-eared Bat species	2014	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	2.06
Mammals - (bats)	Plecotus	Long-eared Bat species	2014	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.66
Mammals - (bats)	Plecotus	Long-eared Bat species	2015	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.13
Mammals - (bats)	Plecotus	Long-eared Bat species	2017	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.27
Mammals - (bats)	Plecotus	Long-eared Bat species	2018	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.91
Mammals - (bats)	Plecotus	Long-eared Bat species	2018	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	1.50
Mammals - (bats)	Plecotus	Long-eared Bat species	2019	Ann4Sch2IUCN_GB_2001:EN s41s5s94b, s5s94cCl	0.99
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2010	Ann4Sch2 s41s5s94b, s5s94c	1.46
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2010	Ann4Sch2 s41s5s94b, s5s94c	1.07
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2010	Ann4Sch2 s41s5s94b, s5s94c	1.05
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2010	Ann4Sch2 s41s5s94b, s5s94c	0.91
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2013	Ann4Sch2 s41s5s94b, s5s94c	0.92
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2015	Ann4Sch2 s41s5s94b, s5s94c	1.59
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2015	Ann4Sch2 s41s5s94b, s5s94c	0.91
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2019	Ann4Sch2 s41s5s94b, s5s94c	1.18
Mammals - (bats)	Plecotus auritus	Brown Long-eared Bat	2019	Ann4Sch2 s41s5s94b, s5s94c	1.25
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	1.45
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	1.37
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	1.37
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	0.77
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	1.09
Mammals - Terrestrial	Erinaceus europaeus	West European Hedgehog	2018	IUCN_GB_2001:VU s41	1.14