



Preliminary Ecological Appraisal:

Mayflower Way, Angmering, West Sussex



July 2017

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Quality Control

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the '*Guidelines for Preliminary Ecological Appraisal*' and '*Code of Professional Conduct*' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

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Summary

Surrey Wildlife Trust (SWT) Ecology Services were commissioned on 28 June 2017 by The Angmering Community Land Trust to undertake an Ecological Appraisal at Mayflower Way, Angmering. This is required for potential planning permission being sought for development.

The aim of the appraisal was to visit and assess the overall ecology of the survey area (see Figure 1 & Photographs), as well as the likelihood of the proposed development to affect species which are protected by law. A site visit was made on 06 June 2017 and a data search was conducted by the Surrey Biodiversity Information Centre (SBIC) to inform the appraisal.

Six Phase I habitat types were recorded during the field survey; semi-improved neutral grassland, tall ruderal, non-ruderal, native species poor hedge, fences, hard standing, plus a target note. The survey area does not have any statutory or non-statutory designation. Habitats with potential to support protected species were not identified within the survey area.

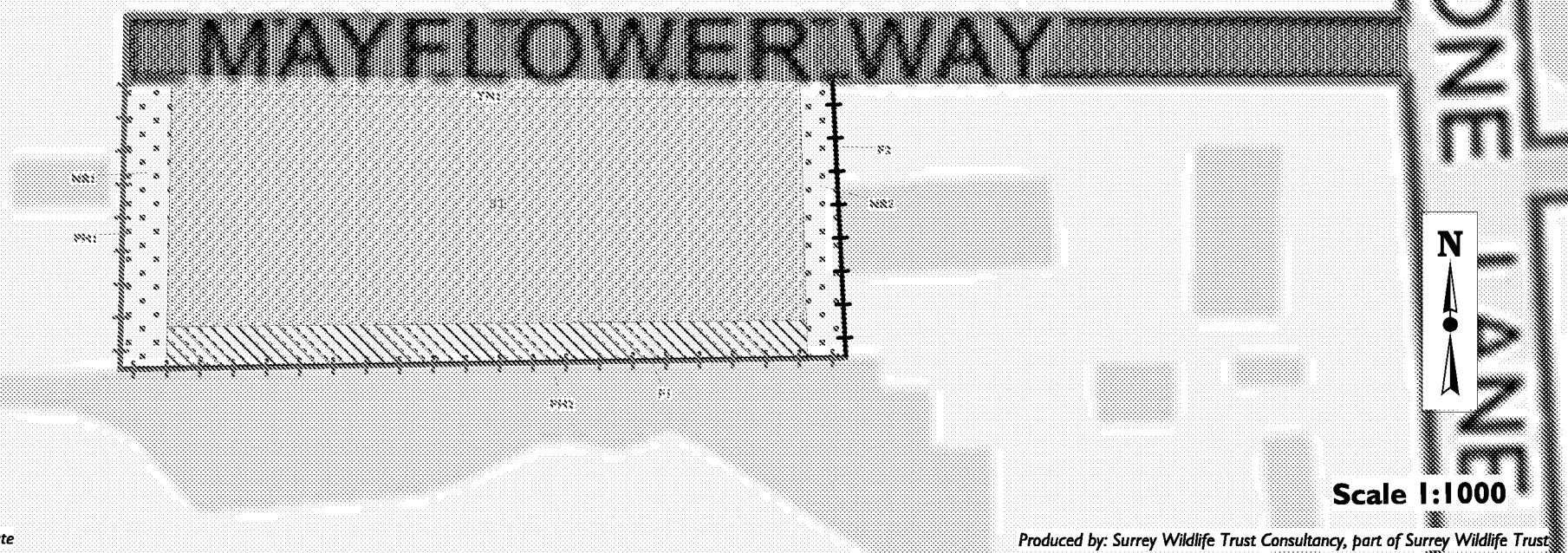
The following recommendations should be followed:

- Hedgerows on the edge of the survey area have the potential to support bats and further surveys should be carried out if these features are affected in any way by the proposals.
- Breeding birds may be present within the hedgerows and any proposal which affect these features should be undertaken outside the bird nesting season (which is typically 1st March to 31st August).
- A precautionary and appropriately timed approach to site clearance as well as good building practice is recommended as to minimize any impact on other fauna such as mammals, reptiles, and amphibians.
- If the proposals are subject to Code for Sustainable Homes accreditation, consideration should be given to the Ecology Land Use and Ecology section (Category 9) as the plans suggest that points can be achieved under this category.
- A range of environmental enhancement measures have been identified (see section 4.8) and these should be included and carried out wherever possible.

Figure 1: Phase 1 Survey Results

Key

-  Survey Area
-  Semi-improved Neutral Grassland
-  Tall Ruderal Vegetation
-  Non Ruderal Vegetation (NRI-NR2)
-  Hardstanding
-  Species-poor Hedge With Trees (PHI-PH2)
-  Fence (F1-F2)
-  Target Note



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C3039 July 2017

Figure 1
Mayflower Way, Angmering, Sussex
Phase I Survey Results



1.0 Introduction and Terms of Reference

- 1.1 Surrey Wildlife Trust (SWT) Ecology Services were commissioned on 28 June 2017 by Angmering Community Land Trust to undertake a Preliminary Ecological Appraisal at Mayflower Way, Angmering, West Sussex. This is required as the client is seeking planning permission for the site. A map of the site outlining the boundary in red was provided.
- 1.2 The aim of the survey was to visit and assess the overall ecology of the survey area (see Figure 1 & Photographs), as well as the likelihood of the proposed development to affect species which are protected by law.

2.0 Description of Site

- 2.1 The site is 0.7 hectares (ha) in size and located at OS Grid reference TQ07263 03277 off Mayflower Way, Angmering, West Sussex. The site is located immediately north of an over stood hedge which separates the site from a grassland area to the south. An industrial estate is located to the northwest across Mayflower Way. Residential properties lie to the east and there is a residential property and open grassland areas to the west.
- 2.2 The wider area is consists of high density housing, with some industrial areas, arable fields, and a busy A-road (A259) to the south.

3.0 Methodology

3.1 Phase 1 survey

- 3.1.1 A survey area was defined that included the development site and the surrounding hedges and a section of Mayflower Way leading up to Roundstone Lane. Note that the proposed development is confined to an area within a boundary outlined in red on a map provided by the client, therefore survey effort was concentrated in this area; however, where accessible, parts of the wider site were briefly walked over or observed to put the survey area into context and to highlight potential areas for ecological enhancement.
- 3.1.2 A site visit was made on 06 June 2017 by Jamel Guenioui BSc (Hons) and Danial Winchester BSc (Hons) MCIEEM to conduct the survey. The survey area was systematically walked and surveyed according to Phase 1 criteria during daylight hours. Phase 1 survey is a standardised system for classifying and mapping semi-natural vegetation and wildlife habitats in Great Britain. Vegetation is mapped in terms of standard habitat types as defined in the JNCC Handbook for Phase 1 Habitat Survey (2010).
- 3.1.3 Where the abundances of species are mentioned, these are based on the DAFOR scale and refer to that within a particular habitat area. The DAFOR scale is a way of describing the abundance of a species using the following key (**L**ocally), **D**ominant, **A**bundant, **F**requent, **O**ccasional and **R**are.

Therefore, plants described as “*rare*” in this context means that they were not found often. The double DAFOR system records two abundance values. The first value is an assessment of the overall abundance of species and the second value indicates whether the species is distinctly clumped or is significantly more abundant locally.

- 3.1.4 Nomenclature follows Stace (2010) for vascular plants. Species are referred to in the text using common names throughout. The full list of vascular plants with common and scientific names and abundance recorded at the site visit are provided in Section 6.

3.2 Desk Study

- 3.2.1 A data search was conducted by the Sussex Biodiversity Record Centre (SxBRC) on behalf of SWT Ecology Services. This searched for records of notable species within 1km of the site and statutory and non-statutory sites within 2km of the site.
- 3.2.2 Ponds within 500m of the survey area boundary were identified from 1:10,000 OS map held at SWT.
- 3.2.3 In addition maps held by SWT / MAGIC were checked for SPAs within 5km.

3.3 Site Evaluation

- 3.3.1 The development proposals are looked at in association with the Phase 1 habitat survey results in order to identify potential impacts of the development.
- 3.3.2 A brief evaluation of the ecological value of the habitats and plant species identified within the survey area is made.

3.4 Protected and Notable Species Assessment

- 3.4.1 The Phase 1 methodology was extended to include an assessment of the suitability or potential of the habitats present to support protected species. Trees were assessed from ground level, note buildings were not entered. Any signs of protected species (such as runs, setts or foraging remains) were recorded. Site boundaries were checked for push throughs and connective habitat.
- 3.4.2 The location of the site within a wider landscape context and the data search findings were taken into account.
- 3.4.3 Anecdotal faunal sightings and invasive species within the survey area were noted.

Limitations

- 3.4.4 Optimal time frame for conducting these surveys is March to September, as this is the time when most plant species are evident, however they can be conducted at any time of year. Therefore, a full appraisal of the plant species and habitats present was conducted within the optimal timeframe.
- 3.4.5 Whilst every effort has gone into providing a comprehensive description, the preliminary ecological appraisal can only give an initial view of the site. It should be noted that the ecologist's recommendations are based on what is evident at the time of the survey and from the available information from the desk study. The extended element of this survey can often only identify the potential for protected species to be present and, therefore, is not a complete survey of those species.
- 3.4.6 Weather conditions at time of the survey were fine and sunny.
- 3.4.7 Recommendations provided relate to the plans / proposals and boundaries provided to us by the client; any subsequent changes may alter those recommendations and any proposed mitigation or enhancement measures.
- 3.4.8 No development plans were provided and therefore the recommendations are general in nature, once detailed plans are known further ecological advice can be provided.

4.0 Results and Recommendations

4.1 Phase 1 survey

Descriptions of each habitat found on the site are provided below, the approximate locations of which are identified on the attached map (Figure 1).

Semi-improved Neutral Grassland

4.1.1 Shown in orange and labelled SI on Figure 1. This habitat covers the majority of the site.

4.1.2 This grassland has been cut making it a little more difficult to identify some species. Species present include Perennial Ryegrass, Cocksfoot, Creeping Bent, Yorkshire Fog, Bird's-foot Trefoil, Yarrow, White Clover, Creeping Buttercup, Common Mouse-ear, Field Bindweed, and Creeping Thistle.

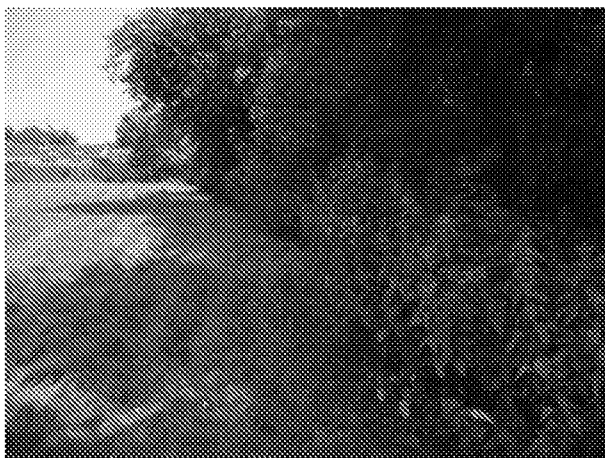
Photo 1: Semi-improved Neutral Grassland (SI)



Tall Ruderal

4.1.3 Shown as terracotta diagonal lines on Figure 1. A strip of taller vegetation along the southern edge of the grassland (SI) inside of north of hedge line. This strip is dominated by Common Nettle. Other species recorded include Bramble, Spear Thistle, and Ivy.

Photo 2: Tall Ruderal



Non-Ruderal

4.1.4 Shown as terracotta dots on Figure 1. There are two areas of non-ruderal habitat labelled as NR1 and NR2 in Figure 1.

NR1: An unmown thin strip of vegetation on the western edge of the grassland (SI) approximately 3 metres wide. Species include Common Nettle, Hogweed, Bramble, Cleavers, Spear Thistle, and locally frequent Yorkshire Fog.

NR2: An unmown strip on the eastern edge of the grassland (SI) consisting of Bramble, Yorkshire Fog, locally frequent Virginia Creeper, occasional Hogweed, occasional Spear Thistle, locally frequent Large Bindweed, Goat Willow, and Cherry spp.

Photo 3: Non-Ruderal (NR1)



Native Species-poor Hedge

4.1.5 Shown as a straight green line on Figure 1. There are two hedges next to the survey area boundary labelled as PH1 and PH2.

PH1: Hedge of western edge of the site is dominated by Hawthorn, with frequent Elder and Bramble, and occasional Goat Willow and Ivy.

PH2: Overstood hedge on southern edge of grassland (SI) with Hawthorn, Ivy, Bramble, Blackthorn, Elder, Crab Apple, and Butterfly-bush.

Fence

4.1.6 Shown as a straight black line with cross hatching on Figure 1. There are two fences on the survey area boundary and these are labelled as F1 and F2 on Figure 1.

F1: Heras fencing on southern boundary of survey area. This has fallen over in places and some sections were difficult to see due to dense vegetation.

F2: Garden fencing on eastern edge of grassland area.

Photos 4 and 5: Fences (F1(left) and F2 (right))



Hard Standing

4.1.7 Shown in grey on Figure 1. This is the hard standing surface of Mayflower Way. Sparse vegetation is present along the edge of the hard standing roadside of the kerb including Annual Meadow Grass, Dandelion spp, Knotgrass, Bristly Oxtongue, and Pineappleweed.

Photo 6: Hard Standing (HS)



Target Notes

4.1.8 Shown as a red circle and numbered TN1 on Figure 1.

TN1: Earth bank approximately 4 metres wide along the northern edge of the grassland area SI. This bank is unmown and therefore managed differently to the neighbouring grassland. Species present include abundant Creeping Thistle, frequent Large Bindweed (dominant in places), Broad-leaved Dock, Common Nettle, False Oat-grass, Common Mallow, and occasional Red Fescue.

Photo 7: Earth bank (TN1)



Anecdotal faunal records

4.1.9 Signs of mammal activity were observed within the survey area. A Rabbit was spotted close to the southern boundary hedge (PH2), and Fox droppings were recorded on the earth bank (TN1) next to Mayflower Way. A number of birds were recorded within the survey area, which include Herring Gull observed overhead, Robin, Blue Tit, Magpie, Dunnock, and Blackcap singing/calling in southern hedge (PH2), Chaffinch, Wren and Goldfinch observed/calling from the eastern boundary, and Blackbird close to Mayflower Way. Invertebrates recorded include Soldier Beetle spp, Short-winged Conehead Cricket, Meadow Grasshopper, Dark Bush-cricket, Meadow Brown Butterfly, Gatekeeper Butterfly, Honey Bee, and Red-tailed Bumblebee.

4.2 Direct and indirect habitat impacts

4.2.1 The details of the planning proposals for the site are unknown at this stage. As a result it is not possible to ascertain what the exact ecological impacts will be upon the survey area.

4.3 Site Designations

4.3.1 The government ODPM Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System (2005) states the **legal requirement for planning authorities in regard to protected sites and species protected by law.**

4.3.2 The full data search is given in Appendix 1 and should be referred to for full details. The results are summarised below for information only.

Statutory Sites

4.3.3 *The National Planning Policy Framework (NPPF, 2012) states that any schemes that destroy irreplaceable habitats such as ancient woodland should be avoided. Schemes that impact directly or indirectly, within or near nationally designated sites such as SSSI's and internationally designated sites such as SPA's and SAC's should also be avoided with exceptions where economical benefits outweigh the negative impacts (Para 118).*

Internationally designated sites: Special Protection Areas (SPA), Special Areas of Conservation (SAC) & RAMSAR sites

4.3.4 *Development proposals which will adversely affect these sites are not permitted (except where there are no alternative solutions and the proposal is necessary for imperative reasons of overriding public interest). If a development could possibly impact on a SPA or SAC, the applicant will need to submit an assessment of potential impacts and their significance with their planning application for the local authority to make an 'Appropriate Assessment'. Indirect impacts could result from development proposals some distance from a SPA/SAC; impacts on internationally designated sites in other counties should also be considered.*

- 4.3.5 The survey area is not within any SPA, SAC or Ramsar sites and the data search shows it is not within 2km/1km of any of these sites.

Sites of Special Scientific Interest (SSSIs)

- 4.3.6 *SSSIs are given a high level of protection through both the planning and legal system. Development which would adversely affect a SSSI is not acceptable except only in special cases, where the importance of a development outweighs the impact on the SSSI when planning conditions or obligations would be used to mitigate the impact. Developments likely to impact on a SSSI will likely require an Environmental Impact Assessment.*
- 4.3.7 *The Impact Risk Zones (IRZs) dataset is a GIS tool which maps zones around each SSSI according to the particular sensitivities of the features for which it is notified and specifies the types of development that have the potential to have adverse impacts. Natural England uses the IRZs to make an initial assessment of the likely risk of impacts on SSSIs and to quickly determine which consultations are unlikely to pose risks and which require more detailed consideration. LPAs have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI.*
- 4.3.8 The survey area is not within any SSSIs and the data search shows it is not within 1km of any of these sites.
- 4.3.9 There should not be any effect on the nearby SSSIs from the proposed works.

Local Nature Reserves (LNRs)

- 4.3.10 *LNRs are a statutory designation made by local authorities.*
- 4.3.11 The survey area is not a LNR.
- 4.3.12 There will be no effects on the nearby LNRs from the proposed works.

Sites of Nature Conservation Importance (SNCI)

- 4.3.13 Local wildlife sites are known as Sites of Nature Conservation Importance (SNCIs) in Sussex. SNCIs have no statutory protection but are subject control policies in local plans.
- 4.3.14 The survey area is not an SNCI.
- 4.3.15 There should be no effect on the nearby SNCIs from the proposed works.

Ancient woodland and veteran trees

4.3.16 *The National Planning Policy Framework (2012) states that 'Planning permission should be refused for development resulting 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'. In addition Natural England's standing advice for ancient woodland indicates that a 15m buffer is retained between ancient woodland and any works or development. Ancient woodlands, and ancient and veteran trees, may also be protected by Tree Preservation Orders.*

4.3.17 There is not any woodland or veteran trees within the survey area or adjacent to within 15m of the survey area.

Hedgerows

4.3.18 *Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the local planning authority, which are also the enforcement body for offences created by the Regulations. Local planning authority permission is normally required before removing hedges that are at least 20 metres (66 feet) in length, more than 30 years old and contain certain plant species. The authority will assess the importance of the hedgerow using criteria set out in the regulations. The regulations **do not** apply to hedgerows within the curtilage of, or marking a boundary of the curtilage of, a dwelling house.*

4.3.19 The hedgerows in the survey area and adjacent to the survey area are unlikely to meet the criteria for an important hedgerow.

Habitats of Principal Importance

4.3.20 *UK Biodiversity Action Plan (UK BAP) Priority Habitats are also Habitats of Principle Importance (HPI) listed under The Natural Environment and Rural Communities Act 2006 Section 41 (NERC S41). These habitats do not receive statutory protection, but the S41 list is intended to provide guidance to decision-makers, e.g. those representing public bodies and local/regional authorities, in implementing their duty under Section 40 of the NERC Act to '...have regard to the conservation of biodiversity in England when carrying out their normal functions'.*

4.3.21 The habitats recorded are typical of the wider area.

4.3.22 No UK BAP Priority Habitats / HPI were found within the survey area. Although the hedgerows adjoining the survey area to the south and west would be classified as habitats of principal importance under the UK Biodiversity Action Plan priority habitat descriptions (JNCC, 2008).

Biodiversity Opportunity Areas (BOAs)

4.3.23 *BOAs cover a variety of habitats and are regional priority areas for restoration and creation of Biodiversity Action plan (BAP) habitats. These are mapped on the South East Biodiversity Strategy website and are spatial representations of the BAP targets and are areas of opportunity, not constraint. BOAs are intended to complement the work of regional and local organisations; delivering BAP targets and actions through this agreed area based approach will result in a landscape scale approach to conservation to restore and create areas rich in biodiversity, making our wildlife more robust to changing climate and socio-economic pressures.*

4.3.24 The site is not within an area that has been identified as a BOA.

4.4 Protected and Notable Species Assessment and Recommendations

4.4.1 Each section contains a summary, in italics, of the legal protection afforded to each species. Please note that this is for information only and is not intended to be a complete synopsis of the legislation.

Reptiles

4.4.2 *All native British reptiles are protected under the Wildlife and Countryside Act (1981) from killing and injury. Sand Lizards and Smooth Snakes also receive additional protection under the Conservation (Natural Habitats &c) Regulations 2010 from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. All native UK reptiles are UK BAP Priority species and SPI.*

4.4.3 The data search identified records of Slow-worm, Common Lizard, and Grass Snake, within the search area. Sussex Amphibian and Reptile Group (SxARG) may hold additional data.

4.4.4 No reptiles were recorded within the survey area during the site assessment.

4.4.5 There is limited habitat suitable for reptiles within the survey area, these being the areas of semi-improved grassland, hedge line edges, and the south facing earth bank on the northern edge of the survey area.

4.4.7 As there is limited potential for reptiles to be present within the survey area, it is recommended that a precautionary approach to site clearance be conducted during the season when reptiles are active (typically April to September). The vegetation should be cut down to around 10cm a day or so before site works, then the area should be carefully cleared with a closer cut before site works.

Amphibians

4.4.8 Great Crested Newts are protected under schedule 5 of the Wildlife and Countryside Act 1981 and of the Conservation (Natural Habitats &c) Regulations 2010 from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. In addition Great Crested Newts and Common Toads are UK BAP Priority species and SPI.

4.4.10 The data search found records of Smooth Newts, Common Frog and Common Toad within the 1km search area.

4.4.11 No amphibian records were identified within the search area; however the Sussex Amphibian and Reptile Group (SxARG) may hold records.

4.4.12 The survey area did not contain any ponds.

4.4.13 MAGIC Maps shows there to be one pond within 500m of the survey area. This is located approximately 80 metres to the north west of the survey area at TQ07165 03372. Other small garden ponds may be present but not marked on the OS map.

4.4.14 The size of the proposed development area (0.7ha) and the distance (80m) to the nearest suitable ponds that may have some suitability for Great Crested Newts indicates that an offense is not likely should they be present. To reduce the risk for amphibians it is recommended that a precautionary approach to site clearance should be adopted as for reptiles above. In the unlikely event that Great Crested Newts are found, work should cease and Natural England and / or an ecologist be contacted.

Bats

4.4.15 Bats are fully protected under the Wildlife and Countryside Act 1981, as amended, and also receive additional protection via The Conservation of Species and Habitats Regulations (2010) from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. It is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time or not. Barbastelle Bats, Bechstein's Bat, Noctule, Soprano Pipistrelle, Brown Long-eared Bat, Greater Horseshoe Bat and Lesser Horseshoe Bat are also UK BAP Priority species and SPI.

4.4.16 The data search identified records of Brown Long-eared Bat, Common Pipistrelle, Noctule, Serotine, Soprano Pipistrelle, within the search area.

4.4.17 Some of the trees within the adjoining hedgerows harbour trees with dense ivy cladding. The wider area is suitable for bats and there may be roosts within nearby trees / houses.

4.4.18 If development proposals affect the field hedgerow or trees along these linear features, a further survey by a bat ecologist would be required and the findings should be followed.

4.4.19 As bats may be roosting nearby it is recommended that any lighting is kept to a minimum.

Breeding Birds

4.4.20 *All wild birds are protected under Wildlife and Countryside Act 1981, as amended, from damage or destruction of their nest whilst in use or construction, some birds listed on Schedule 1 receive additional protection from disturbance during nesting.*

4.4.21 The data search identified an assemblage of widespread bird species within the 1km search area. In addition the following Schedule 1 birds were identified Common Scoter, Bittern, Slavonian Grebe, Red Kite, Honey-buzzard, Marsh Harrier, Hen Harrier, Osprey, Merlin, Hobby, Peregrine, Stone-Curlew, Green Sandpiper, Little Gull, Mediterranean Gull, Barn Owl, Kingfisher, Hoopoe, Black Redstart, Fieldfare, Redwing, Firecrest, Brambling, Common Crossbill, Snow Bunting.

4.4.22 Breeding birds may be present within the field hedgerows on the edge of the survey area.

4.4.23 If any clearance of trees and shrub is planned, this should be undertaken outside the bird nesting season (which is typically 1st March to 31st August).

4.4.24 If any clearance occurs within the breeding bird season the area should be checked, ideally by an ecologist, and if any nesting birds are found the vegetation should be retained and protected until after the young have fledged.

Badgers

4.4.25 *Badgers are protected under the Protection of Badgers Act 1992, which makes it illegal to kill, injure or take a badger or to interfere with their setts; such as by the use of heavy machinery nearby.*

4.4.26 The data search did not identify any Badger setts within 1km of the survey area, however the Badger Trust Sussex (www.badgertrust-sussex.org.uk) may hold additional records.

4.4.27 No definitive evidence of Badgers (holes, dung pits or push throughs under fences) were found within the survey area, but a detailed search of the wider area was not conducted.

4.4.28 The view beyond the immediate survey area was limited, no obvious Badger signs or setts were found.

- 4.4.29 A precautionary check for mammal holes within 30m of the site should be conducted prior to works commencing.

Dormice

- 4.4.30 *Dormice are fully protected under the Wildlife and Countryside Act 1981 as amended and habitats receive additional protection under the Conservation (Natural Habitats etc.) Regulations 2010 from damage, destruction or obstruction of access to a place of shelter.*

- 4.4.31 The data search identified no records of Dormice within the search area.

- 4.4.32 The adjoining hedgerow habitat is considered to be suitable for Dormice.

- 4.4.33 The adjoining hedgerows are located on the outside edge of the survey area. Therefore, it is considered unlikely that Dormice habitat will be affected by the proposed works and, as such, no further action with respect to this species is required.

Otters & Water Voles

- 4.4.34 *Otters and Water Voles are fully protected under the Wildlife and Countryside Act 1981 as amended. Otters and their habitats receive additional protection under the Conservation (Natural Habitats etc.) Regulations 2010 from damage, destruction or obstruction of access to a place of shelter. Both species are also UK BAP Priority species and SPI.*

- 4.4.35 No records of Water Vole or Otter were identified within the search area.

- 4.4.36 There are no features, such as ditches, rivers, canals or areas of scrub vegetation that are suitable for these species within the survey area.

- 4.4.37 It is considered unlikely that Otters and Water Vole are present within the survey area and, as such, no further action with regards to these species is required.

Other Mammals

- 4.4.38 *All mammals receive some protection under the Wild Mammals (Protection) Act 1996, which makes it an offence to crush or asphyxiate an animal (e.g. within its burrow). Brown Hare, Hedgehogs and Harvest Mice are also UK BAP Priority species and SPI.*

- 4.4.39 Records of West European Hedgehog, were identified within the search area.

- 4.4.40 Fox droppings and Rabbits were identified within the survey area.

- 4.4.41 Site clearance work should be undertaken carefully (by hand if necessary).

Species of Principal Importance

4.4.42 *UK Biodiversity Action Plan (UK BAP) Priority Species are also Species / of Principle Importance (SPI) listed under The Natural Environment and Rural Communities Act 2006 Section 41 (NERC S41. The S41 list is intended to provide guidance to decision-makers, e.g. those representing public bodies and local/regional authorities, in implementing their duty under Section 40 of the NERC Act to ‘...have regard to the conservation of biodiversity in England when carrying out their normal functions’.*

4.4.43 UK BAP Priority species / SPI plants or animals were not recorded during the site survey.

4.4.44 There is potential for the following UK BAP Priority species / SPI plants or animals to be present within the survey area:

- Brown Long-eared Bat
- Soprano Pipistrelle Bat
- Noctule Bat
- Slow-Worm
- Common Lizard
- Grass Snake

Rare / Notable Plants

4.4.45 A total of 61 vascular plants were recorded, this is a fairly low number given the habitats present and the time of year.

4.4.46 A survey during a period when the Semi-improved Neutral Grassland (SI) was left long would likely identify a higher number of species.

Non Native Plant Species

4.4.47 *It is an offence to plant or otherwise cause to grow in the wild invasive non-native species listed under Schedule 9 of the Wildlife and Countryside Act (1981 as amended).*

4.4.48 Plants listed on Schedule 9 and recorded within the survey area are as follows:

- Virginia Creeper

4.4.49 In addition Butterfly-bush, a non-native invasive plants (but not listed on Schedule 9) was recorded within the survey area.

4.4.50 Care should be taken to prevent the further spread of Virginia Creeper. Ideally efforts should be made to remove this species from the site.

Species Desk Study

Notable Species

- Protected species and species of conservation concern were found within the 1km search area, full lists of species are given in the data search Appendix 1. Species of particular note because of their legal protection and / or because they have site relevance, as preferred habitats occur on site, are as given in Table 1:

Table 1: Data Search Results

		The Conservation of Habitats and Species Regulation, 2010	Wildlife and Countryside Act 1981								Specially Protected	SPI (S.41, NERC Act)	UK Rare/RDB	UK Scarce	Relevant Priority Habitat(s)	
			Schedule 5					Schedule 8								
			Section 9 parts 4 (b) and (c) and 5 only	section 9, parts 1, 5(a) and (b)	Section 9 parts 1, 2 and 5	Section 9 all parts	Section 9 parts 5(a) and (b)	Schedule 8 (all parts)	Section 13 Part 2							
PLANTS																
Tubular Water-dropwort	<i>Oenanthe fistulosa</i>											x				
BUTTERFLIES																
Adonis Blue	<i>Polyommatus bellargus</i>							x						Nb	Calcareous grassland	
White-letter Hairstreak	<i>Satyrrium w-album</i>							x						Nb	Mixed deciduous woodland, Hedgerows	
MACRO-MOTHS																
Blood-vein	<i>Timandra comae</i>											●				
Buff Ermine	<i>Spilosoma luteum</i>											●				
Cinnabar	<i>Tyria jacobaeae</i>											●			Various	
Knot Grass	<i>Acronicta rumicis</i>											●			Urban	
Mottled Rustic	<i>Caradrina morpheus</i>											●				
Rustic	<i>Hoplodrina blanda</i>											●				
Shoulder-striped Wainscot	<i>Mythimna comma</i>											●				
Small Emerald	<i>Hemistola chrysoprasaria</i>											●			Calcareous grassland, Mixed deciduous woodland	
Small Square-spot	<i>Diarsia rubi</i>											●				
Spinach	<i>Eulithis mellinata</i>											●				
White Ermine	<i>Spilosoma lubricipeda</i>											●				
COLEOPTERA (Beetles)																

		The Conservation of Habitats and Species Regulation, 2010	Wildlife and Countryside Act 1981										Specially Protected	SPEI (S.41, NERC Act)	UK Rare/RDB	UK Scarce	Relevant Priority Habitat(s)
			Schedule 5						Schedule 8								
			Section 9 parts 4 (b) and (c) and 5 only	section 9, parts 1, 5(a) and (b)	Section 9 parts 1, 2 and 5	Section 9 all parts	Section 9 parts 5(a) and (b)	Schedule 8 (all parts)	Section 13 Part 2								
										Schedule 1							
Stag Beetle	<i>Lucanus cervus</i>	A2					x					S5(s)/A2	●		Nb	Mixed deciduous woodland, Hedgerows, Wood-pasture & parkland	
BIRDS																	
Barn Owl	<i>Tyto alba</i>									x		S1				Various	
Bittern	<i>Botaurus stellata</i>									x		S1	●		●	Reedbed	
Black Redstart	<i>Phoenicurus ochrurus</i>									x		S1		●		Urban	
Bullfinch	<i>Pyrrhula pyrruhula</i>												●		●	Mixed deciduous woodland, Hedgerows	
Common Crossbill	<i>Loxia curvirostra</i>									x		S1				Heathland	
Common Tern	<i>Sterna hirundo</i>											S1			●	Standing water, Rivers	
Cuckoo	<i>Cuculus canorus</i>												●	●		Various	
Curlew	<i>Numenius arquatus</i>												●	●		Heathland, Floodplain grazing marsh	
Dunnock	<i>Prunella modularis</i>												●		●	Various	
Firecrest	<i>Regulus ignicapillus</i>									x		S1				Mixed deciduous woodland	
Fieldfare	<i>Turdus pilaris</i>											S1		●		Various	
Grasshopper Warbler	<i>Locustella naevia</i>												●	●		Wet woodland, Floodplain grazing marsh	
Grey Partridge	<i>Perdix perdix</i>												●	●		Arable field margins, Hedgerows	
Hen Harrier	<i>Circus cyaneus</i>									x		S1	●	●		Heathland	
Herring Gull	<i>Larus argentatus</i>												●	●		Standing water, Urban	
Hobby	<i>Falco subbuteo</i>									x		S1				Mixed deciduous woodland, Wood-pasture & parkland	
Honey-buzzard	<i>Pernis apivorus</i>									x		S1		●		Mixed deciduous woodland	

		The Conservation of Habitats and Species Regulation, 2010	Wildlife and Countryside Act 1981										Specially Protected	SPI (S 41, NERC Act)	UK Rare/RDB	UK Scarce	Relevant Priority Habitat(s)
			Schedule 5						Schedule 8								
			Section 9 parts 4 (b) and (c) and 5 only	section 9, parts 1, 5(a) and (b)	Section 9 parts 1, 2 and 5	Section 9 all parts	Section 9 parts 5(a) and (b)	Schedule 8 (all parts)	Section 13 Part 2								
										Schedule 1							
Hoopoe	<i>Upupa epos</i>									x		S1				Various	
House Sparrow	<i>Passer domesticus</i>												●			Urban	
Kingfisher	<i>Alcedo atthis</i>									x		S1				Rivers, Standing water	
Lapwing	<i>Vanellus vanellus</i>												●			Floodplain grazing marsh, Standing water	
Lesser Redpoll	<i>Carduelis flammea</i>												●			Heathland	
Linnet	<i>Carduelis cannabina</i>												●			Heathland, Acid grassland, Hedgerows	
Marsh Tit	<i>Parus palustris</i>												●			Mixed deciduous/Wet woodland	
Peregrine	<i>Falco peregrinus</i>									x		S1				Urban	
Red Kite	<i>Milvus milvus</i>									x		S1				Mixed deciduous woodland	
Reed Bunting	<i>Emberiza schoeniclus</i>												●	●		Reedbeds, Standing water, Hedgerows	
Skylark	<i>Alauda arvensis</i>												●	●		Neutral grassland, Acid grassland, Calcareous grassland	
Song Thrush	<i>Turdus philomelos</i>												●	●		Various	
Spotted Flycatcher	<i>Muscicapa striata</i>												●	●		Wood-pasture & parkland, Mixed deciduous woodland	
Starling	<i>Sturnus vulgaris</i>												●	●		Various	
Turtle Dove	<i>Streptopelia turtur</i>												●	●		Wood-pasture & parkland, Hedgerows	
Yellow Wagtail	<i>Motacilla flava</i>												●	●		Floodplain grazing marsh	
Yellowhammer	<i>Emberiza citrinella</i>												●	●		Heathland, Hedgerows, Arable field margins	
REPTILES																	
Common Lizard	<i>Zootoca vivipara</i>			x								S5	●			Various	
Grass Snake	<i>Natrix natrix</i>			x								S5	●			Vvarious	

		The Conservation of Habitats and Species Regulation, 2010	Wildlife and Countryside Act 1981									Specially Protected	SPI (S.41, NERC Act)	UK Rare/RDB	UK Scarce	Relevant Priority Habitat(s)	
			Schedule 5						Schedule 8		Schedule 1						Schedule 6
			Section 9 parts 4 (b) and (c) and 5 only	section 9, parts 1, 5(a) and (b)	Section 9 parts 1, 2 and 5	Section 9 all parts	Section 9 parts 5(a) and (b)	Schedule 8 (all parts)	Section 13 Part 2								
Slow-worm	<i>Anguis fragilis</i>		x								S5	●			Various		
AMPHIBIANS																	
Common Toad	<i>Bufo bufo</i>						x				S5(s)	●			Various		
Common Frog	<i>Rana temporaria</i>						x										
Smooth newt	<i>Triturus vulgaris</i>						x										
MAMMALS																	
Brown Long-eared Bat	<i>Plecotus auritus</i>	A4	x								S5/A 4	●			Mixed deciduous woodland, Wood-pasture & parkland, Urban		
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	A4	x								S5/A 4				Various		
Hedgehog	<i>Erinaceus europaeus</i>									x	S6	●			Various		
Noctule	<i>Nyctalus noctula</i>	A4	x								S5/A 4	●			Mixed deciduous woodland, Wood-pasture & parkland, Standing water, Urban		
Serotine	<i>Eptesicus serotinus</i>	A4	x								S5/A 4				Mixed deciduous woodland, Wood-pasture & parkland, Standing water, Urban		
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	A4	x								S5/A 4	●			Various		

4.6 **Other Recommendations**

- In the unlikely event that any other protected species are found during the course of the site works, works should cease and Natural England and / or an ecologist be consulted.
- As far as possible all the mature trees should be retained and protected during construction in line with guidance provided by British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- Non-native invasive species, such as the Virginia Creeper on the eastern boundary, should be removed from the site.
- The local authority should be contacted to check if any trees within the survey area have Tree Preservation Orders.
- Further surveys recommended for protected species and habitats should be conducted prior to submission of planning application and any mitigation recommended be built into the design of the development.
- Hedgerows on the edge of the survey area have the potential to support bats and further surveys should be carried out if these features are affected in any way by the proposals.
- Breeding birds may be present within the hedgerows and any proposal which affect these features should be undertaken outside the bird nesting season (which is typically 1st March to 31st August).
- A precautionary and appropriately timed approach to site clearance as well as good building practice is recommended as to minimize any impact on other fauna such as mammals, reptiles, and amphibians. This approach should be undertaken when working close to the earth bank (TN1) on the northern edge of the survey area.
- A range of environmental enhancement measures have been identified and these should be carried out and included wherever possible.

4.7 Ecological Enhancements

- *The National Planning Policy Framework (NPPF, 2012) maintains the emphasis of not only minimising impacts on biodiversity but also for local planning authorities to provide 'net gains' in biodiversity thereby 'contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures' (Para 109). Planning authorities should aim to 'conserve and enhance biodiversity' within and around development schemes.*
- *The Natural Environment White Paper issued in June 2011 highlights the need to value nature not only as an economical asset but also just for itself, with this theme developed within the New England Biodiversity Strategy 2020: A strategy for England's Wildlife and Ecosystem services (Defra). Therefore, any mitigation required for the scheme on site must consider these documents in its regard to data collection of the species on site, and maintaining biodiversity within the scheme.*
- If the proposals are subject to the Code for Sustainable Homes accreditation, consideration should be given to the Ecology Land Use and Ecology section (Category 9) as the plans suggest that points can be achieved under this category.
- There are opportunities for ecological enhancement within the survey area that could be built into the plans for the development, the following are suggested:
 - Planting for the proposed landscaping scheme would ideally comprise native species or species with a known benefit to wildlife;
 - Non-native species in the survey area should be controlled;
 - Additional habitats could be provided for birds and bats by installing boxes on trees;
 - A herb garden or wildflower grassland area could be included within the proposals to include habitat for species such as butterflies, bees and other pollinators
 - Increase the dead wood habitat by stacking any wood from site works to create log piles in discrete corners of the site;
 - Consideration should be given to using a surface for driveways / parking areas that allows for vegetation growth (such as grass crete or similar) rather than solid tarmac or hardcore;
 - Consider creating a pond within a communal area;
 - External lighting should be kept to a minimum.

5 Species List

The following species were recorded during the Phase 1 survey.

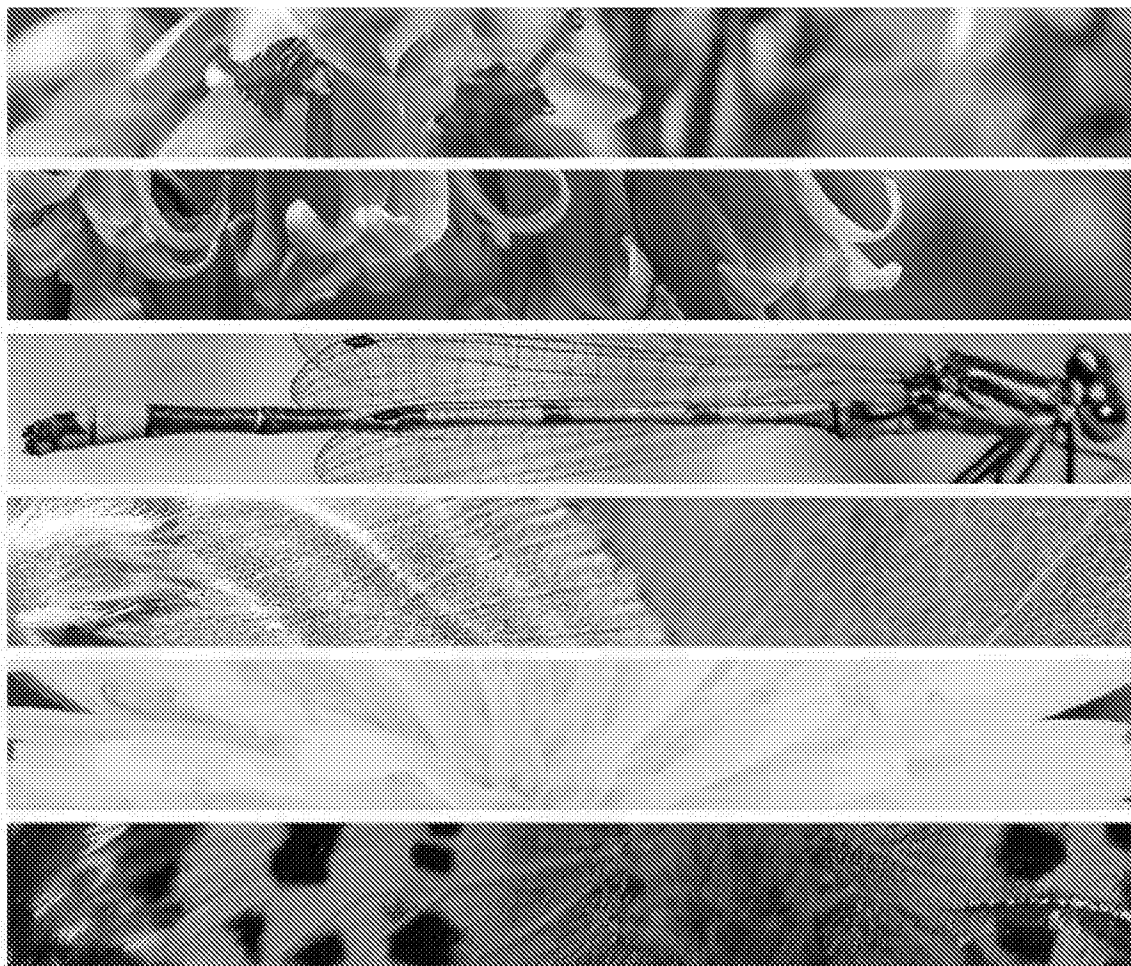
Scientific name	Common name	Abundance
<i>Achillea millefolium</i>	Yarrow	F
<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Anagallis arvensis</i>	Scarlet Pimpernel	O
<i>Anisantha sterilis</i>	Barren Brome	O
<i>Arctium lappa</i>	Greater Burdock	O
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Artemisia vulgaris</i>	Mugwort	O
<i>Buddleja davidii</i>	Butterfly-bush	O
<i>Calystegia silvatica</i>	Large Bindweed	LA
<i>Centranthus ruber</i>	Red Valerian	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Cirsium arvense</i>	Creeping Thistle	A
<i>Cirsium vulgare</i>	Spear Thistle	F
<i>Convolvulus arvensis</i>	Field Bindweed	O
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Dipsacus fullonum</i>	Wild Teasel	O
<i>Elytrigia repens</i>	Common Couch	O
<i>Festuca rubra</i>	Red Fescue	F
<i>Galium aparine</i>	Cleavers	LF
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	O
<i>Geranium molle</i>	Dove's-foot Crane's-bill	O
<i>Geranium pyrenaicum</i>	Hedgerow Crane's-bill	O
<i>Hedera helix</i>	Ivy	F
<i>Helminthotheca echioides</i>	Bristly Oxtongue	O
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Hordeum murinum</i>	Wall Barley	LF
<i>Iris foetidissima</i>	Stinking Iris	R
<i>Iris sp. cultivar</i>	A Garden Iris	R
<i>Lactuca serriola</i>	Prickly Lettuce	O
<i>Leucanthemum vulgare</i>	Oxeye Daisy	LF
<i>Lolium perenne</i>	Perennial Rye-grass	F
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	F
<i>Malus sylvestris sens.str.</i>	Crab Apple	O
<i>Malva sylvestris</i>	Common Mallow	O
<i>Matricaria discoidea</i>	Pineapple Weed	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Parthenocissus quinquefolia</i>	Virginia-creeper	R
<i>Pentaglottis sempervirens</i>	Green Alkanet	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Poa annua</i>	Annual Meadow-grass	F
<i>Polygonum aviculare</i>	Knotgrass	O
<i>Populus alba x tremula</i>	Grey Poplar	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	O

<i>Prunella vulgaris</i>	Selfheal	O
<i>Prunus sp.</i>	A Planted Cherry	R
<i>Prunus spinosa</i>	Blackthorn	O
<i>Pulicaria dysenterica</i>	Common Fleabane	O
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Rumex obtusifolius</i>	Broad-leaved Dock	F
<i>Sambucus nigra</i>	Elder	O
<i>Senecio erucifolius</i>	Hoary Ragwort	O
<i>Senecio jacobaea</i>	Common Ragwort	O
<i>Sisymbrium officinale</i>	Hedge Mustard	O
<i>Stachys sylvatica</i>	Hedge Woundwort	O
<i>Symphytum x uplandicum</i>	Russian Comfrey	O
<i>Taraxacum sp.</i>	Dandelion agg.	F
<i>Trifolium repens</i>	White Clover	F
<i>Urtica dioica</i>	Common Nettle	A
<i>Vicia sativa</i>	Common Vetch	O

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Appendix 1: Data Search Results



Ecological data search for land at Mayflower Way, Angmering

On behalf of Danial Winchester (Surrey Wildlife Trust Ecology Services)

Report reference SxBRC/17/236

Prepared on 04/07/2017



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- 2 Non-Statutory designations
- 3 Ownership/management
- 4 Section 41 habitats and other

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- Table 2: Protected and designated species records
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- Table 4: Bat records
- Table 5: Summary bird records
- Table 6: Sussex notable bird records
- Table 7: Summary invasive non-native species records
- Table 8: Invasive non-native species records

Map citation sheets

Annex: Supporting information

Introduction & Summary of Results

An ecological data search was carried out for land at Mayflower Way, Angmering on behalf of Danial Winchester (Surrey Wildlife Trust Ecology Services) on 04/07/2017.

The following datasets were consulted for this report:

	Requested	Radius/buffer size
Designated sites, habitats & ownership maps	Yes	2km
Protected, designated and invasive species	Yes	1km

Summary of results

Sites and habitats

Statutory sites	1 National Park
Non-statutory sites	2 LWS
Section 41 habitats	7 habitats
Ancient and/or ghyll woodland	Present

Protected and designated species

International designations	26 species	121 records
National designations	74 species	510 records
Other designations	135 species	970 records
Total	142 species	991 records

Invasive non-natives species	15 species	39 records
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Important Information

PERMISSION

This report is valid until 04/07/2018

This report is for the internal use of Danial Winchester of Surrey Wildlife Trust Ecology Services (which includes the client where applicable) to inform understanding of the site of interest. This report must not be distributed or published for an external or public audience, for example within the appendix of a report. However, data from within this report may be referenced as long as the Sussex Biodiversity Record Centre is acknowledged.

The separate summary sheet may be published.

It must not be assumed that this report contains the definitive species and habitat information for the site concerned.

The species data held by the Sussex Biodiversity Record Centre (SxBRC) are collated from the biological recording community in Sussex. However, there are many areas of Sussex where the records held are limited, either spatially or taxonomically.

A data search from SxBRC will give the user a clear indication of what biological recording has taken place. The information provided is a useful tool for making an assessment of the site, but should be used in conjunction with site visits and appropriate surveys before further judgements on the presence or absence of key species or habitats can be made. It may be that the content of this report guides the reader as to which surveys should be carried out on the site.

This report was compiled using data held at SxBRC at the time of production. SxBRC takes data validation very seriously, but cannot be held responsible for the accuracy of data included in this report.

SxBRC operates as agent to the individuals and groups who provide their records free of charge. The data suppliers retain copyright on their data, while SxBRC retains copyright on its data search reports.

Impartiality

SxBRC functions as custodian of biological data. Our role is to collect, manage and disseminate wildlife and habitat data. As such, we have to remain impartial and cannot offer opinions on the biodiversity value of a given site. Similarly, we cannot put forward objections to planning applications or be involved in campaigns.

Maps

Based on data currently held at the Sussex Biodiversity Record Centre, the following appear within the search radius:

Statutory site designations	
National Park	South Downs
Non-statutory site designations	
Local Wildlife Site (LWS)	Ar12 - Ferring Rife and Meadows Ar16/W02 - Highdown Hill and the Miller's Tomb
Ownership/management	
Environmental Stewardship Agreement National Trust	
Section 41 habitats & other	
Lowland fen Intertidal mudflat Coastal vegetated shingle Traditional orchard Lowland calcareous grassland Coastal & floodplain grazing marsh Deciduous woodland Ancient woodland Tree Register of British Isles Ancient Tree Hunt	

Any citation sheets currently available can be found towards the back of this report.

Habitat data held by Sussex Biodiversity Record Centre (SxBRC) are created in-house or obtained from a variety of dataset providers. SxBRC continually strive to further improve and update these data wherever possible. However, this map should be treated as indicative rather than definitive. Data may be generated from a range of field survey and/or predictive methods, each of which may have its own inherent limitations. In some situations a recent ground survey may be required to establish definitively the current status of a particular habitat at a specific location.

Key to Maps

The numbers in the table below correlate with the maps on the following pages.

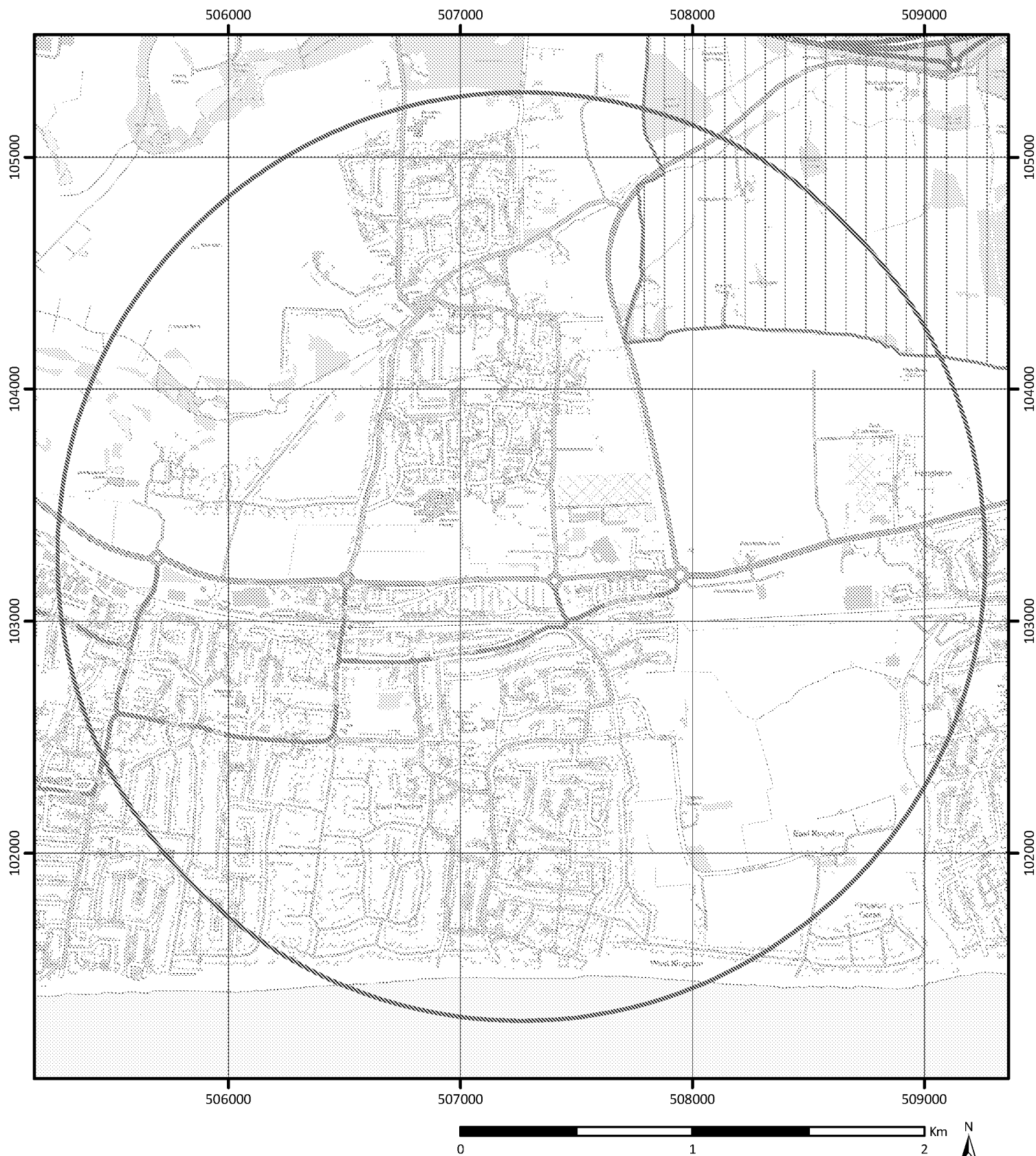
Map 2: Non-statutory site designations		
Local Wildlife Site	1	Ar12 - Ferring Rife and Meadows
	2	Ar16/W02 - Highdown Hill and the Miller's Tomb

Map 1: Statutory site designations

Land at Mayflower Way, Angmering + 2km radius

Prepared for Danial Winchester (Surrey Wildlife Trust Ecology Services)

SxBRC/17/236 - 04/07/2017



Key to Map:

-  Search Area
-  National Park

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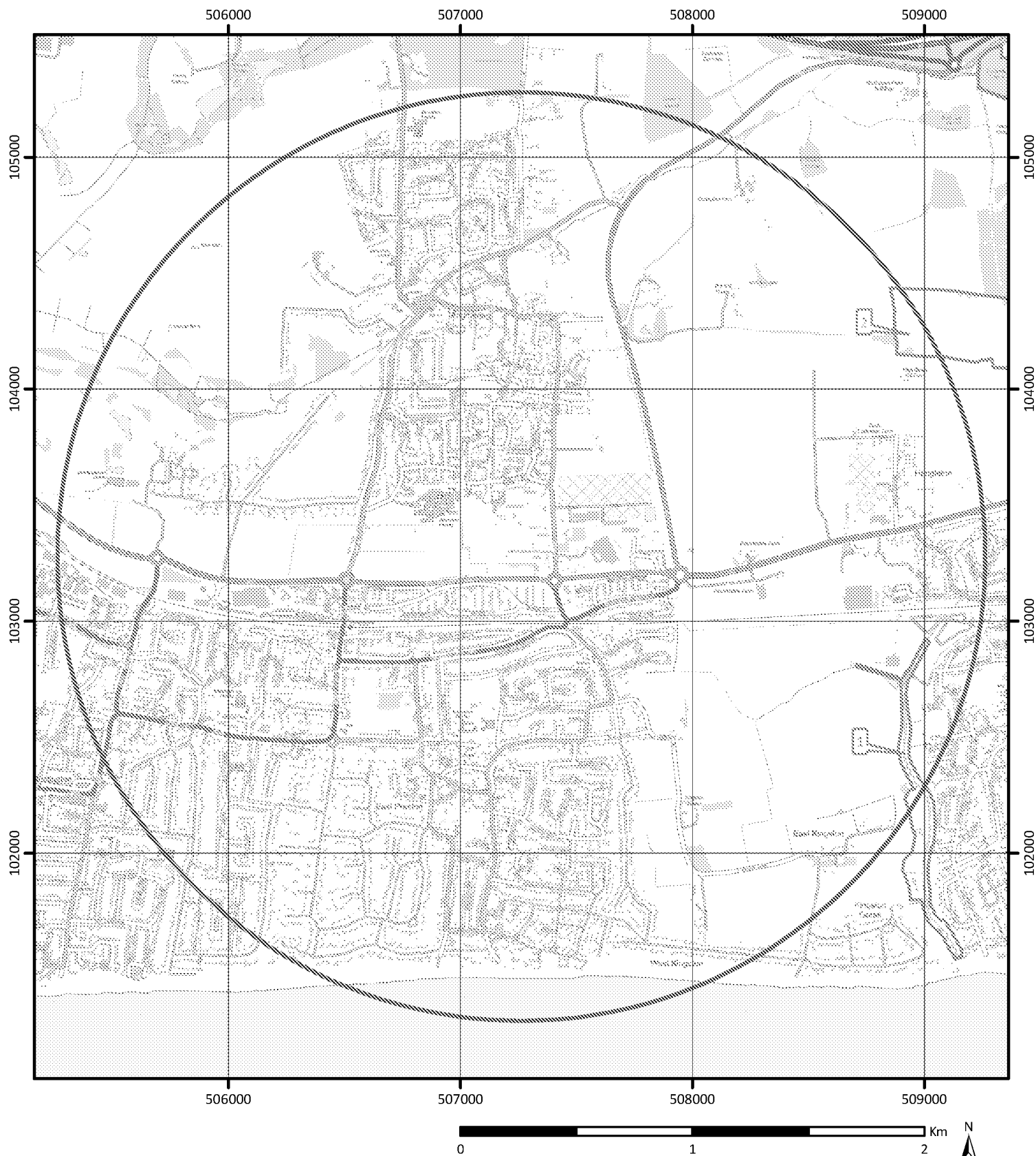
Ramsar, Special Area of Conservation (SAC), Special Protection Area (SPA), National Park, Area of Outstanding Natural Beauty (AONB), National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI), Local Nature Reserve (LNR) and Country Park data reproduced with permission of Natural England. © Crown Copyright. All rights reserved 2017.

Map 2: Non-statutory site designations

Land at Mayflower Way, Angmering + 2km radius

Prepared for Danial Winchester (Surrey Wildlife Trust Ecology Services)

SxBRC/17/236 - 04/07/2017



Key to Map:

-  Search Area
-  Local Wildlife Site

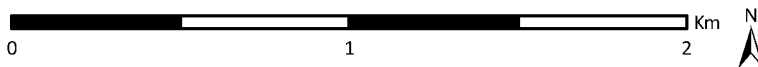
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Local Wildlife Site (LWS) data provided by East and West Sussex County Councils, and Brighton & Hove City Council. Notable Road Verge data supplied by East and West Sussex County Councils. Local Geological Site (LGS) data created by SxBRC in partnership with Sussex Geodiversity Group. © Crown Copyright. All rights reserved 2017.

Land at Mayflower Way, Angmering + 2km radius

Prepared for Danial Winchester (Surrey Wildlife Trust Ecology Services)

SxBRC/17/236 - 04/07/2017



 Search Area
 National Trust property

- Higher Level Stewardship (HLS)
- Entry Level Stewardship (ELS)
- Organic ELS
- Organic ELS plus HLS
- ELS plus HLS

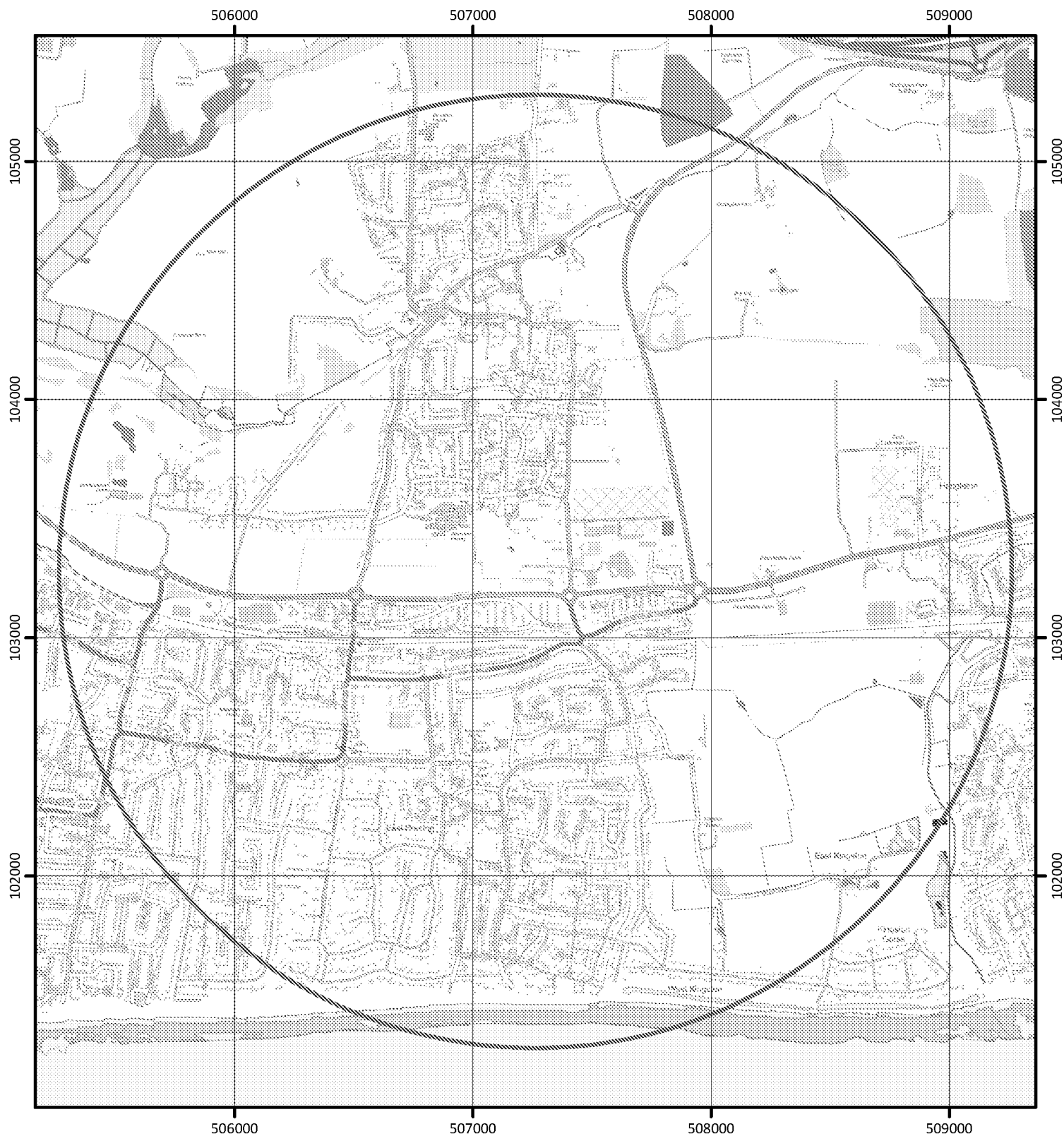
Environmental Stewardship Agreement data reproduced with permission of Natural England. Other datasets reproduced respectively with permission of the Woodland Trust, Forestry Commission, National Trust, Sussex Wildlife Trust and Royal Society for the Protection of Birds. © Crown Copyright. All rights reserved 2017.

Map 4: Section 41 habitats and other

Land at Mayflower Way, Angmering + 2km radius

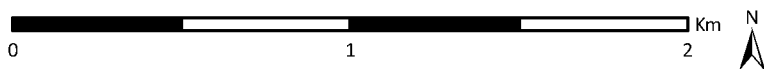
Prepared for Danial Winchester (Surrey Wildlife Trust Ecology Services)

SxBRC/17/236 - 04/07/2017



Key to Map:

- Search Area
- Ancient/veteran tree
- Lowland fen
- Reedbed
- Intertidal mudflat
- Coastal vegetated shingle
- Open Water
- Traditional orchard
- Ancient woodland
- Lowland calcareous grassland
- Coastal & floodplain grazing marsh
- Deciduous woodland



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Species Data

Data presented on the following pages are from 1980 onwards and only include species which have a form of protection or designation.

The following designations have been used:

Abbreviation	Designation
Birds Dir A1	Birds Directive Annex 1
Hab Dir A2 P	Habitats Directive Annex 2 Priority Species
Hab Dir A2 NP	Habitats Directive Annex 2 Non-Priority Species
Hab Dir A4	Habitats Directive Annex 4
Hab Reg Sch2	Conservation of Habitats & Species Regulations 2010 Schedule 2
Hab Reg Sch5	Conservation of Habitats & Species Regulations 2010 Schedule 5
WCA	Wildlife & Countryside Act 1981
NERC S41	Natural Environment & Rural Communities Act 2006 Section 41
UK BAP	UK Biodiversity Action Plan Priority Species
Red List	IUCN Red list
Rare/Scarce	Nationally rare or scarce (formerly Nationally Notable)
Sussex Rare	Sussex Rare Species Inventory
BoCC Red	Birds of Conservation Concern 4: Red list
BoCC Amber	Birds of Conservation Concern 4: Amber list
Notable Bird	Sussex Notable Bird List

Details of each designation can be found in the annex of supporting information at the end of this report.

Invasive non-native species records, which are also relevant to the planning process, appear in a separate table to the above.

Confidential records

Badger and otter records are not included in our reports.

Badgers

Local badger groups have requested that badger records remain confidential. If you need further information about badgers in your enquiry area please visit the Badger Trust website:

www.badger.org.uk/southern-england

Please be aware that there are several local groups covering different geographic areas within Sussex.

Otters

Otters became extinct in Sussex and many other parts of the UK in the late 1960s. This was a result of deteriorating water quality due to industrial and agricultural pollution, along with hunting and habitat degradation. Recent improvements to the state of watercourses and a reduction in persecution have led to the slow return of the otter to the South East. Sussex has over 4,500km of rivers and tributaries. There are no recent breeding otter records and very few resident otters in Sussex. Over the last 20 years however, signs of otter activity have been found in most of the Sussex river catchments.

If there is a river or tributary within 1km of your search area please be aware of the potential for otters in the vicinity, especially if you are undertaking operations that may impact potential otter habitat, or if your work includes Highways operations.

Sensitive records

Wood White and Duke of Burgundy

These two rare butterfly species have a very restricted range in Sussex and so records are reported at a 1km resolution on advice from Butterfly Conservation Sussex Branch.

The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.

Table 1: Summary protected and designated species records (excluding bats and birds)

This table summarises records from 1980 onwards. See table 2 for detailed records.

See tables 3 & 4 for bat records, tables 5 & 6 for bird records and tables 7 & 8 for invasive non-native species.

Maximum abundance = highest total number of species recorded at one time.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
Amphibians								
<i>Bufo bufo</i>	Common Toad		WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	2002	2002	1	Present
<i>Lissotriton vulgaris</i>	Smooth Newt		WCA Sch5 Sec9.5a		03/02/1995	2002	2	12
<i>Rana temporaria</i>	Common Frog		WCA Sch5 Sec9.5a		03/02/1987	2002	6	3
Higher Plants - Ferns								
<i>Osmunda regalis</i>	Royal Fern			Sussex Rare	26/05/2007	26/05/2007	1	Present
Higher Plants - Flowering Plants								
<i>Arum italicum subsp. neglectum</i>	A Flowering Plant			RedList GB post2001 NT, Nat Scarce, Sussex Rare	1997	18/10/2005	4	1
<i>Dactylorhiza incarnata subsp. incarnata</i>	Early Marsh-Orchid			Sussex Rare	1996	30/04/2017	2	250
<i>Dactylorhiza incarnata subsp. pulchella</i>	Early Marsh-Orchid			Sussex Rare	1996	1996	1	1
<i>Erodium moschatum</i>	Musk Stork's-bill			Sussex Rare	2006	09/05/2009	2	1
<i>Fragaria vesca</i>	Wild Strawberry			RedList GB post2001 NT	24/09/2005	07/01/2014	3	1
<i>Glebionis segetum</i>	Corn Marigold			RedList GB post2001 VU	13/07/2011	13/07/2011	1	1
<i>Helleborus foetidus</i>	Stinking Hellebore			Nat Scarce, Sussex Rare	26/05/2007	01/01/2010 - 31/12/2010	2	1
<i>Lathyrus aphaca</i>	Yellow Vetchling			RedList GB post2001 VU, Nat Scarce, Sussex Rare	01/01/2010 - 31/12/2010	01/01/2010 - 31/12/2010	1	1
<i>Mentha arvensis</i>	Corn Mint			RedList GB post2001 NT	09/05/2009	09/05/2009	1	1

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Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Misopates orontium</i>	Weasel's-snout			RedList GB post2001 VU, Sussex Rare	21/10/2013	21/10/2013	1	1
<i>Muscari neglectum</i>	Grape-hyacinth		NERC S41	UK BAP Priority, RedList GB post2001 VU, Nat Rare	2005	2005	1	1
<i>Oenanthe fistulosa</i>	Tubular Water-dropwort		NERC S41	UK BAP Priority, RedList GB post2001 VU	2006	2006	1	1
<i>Petroselinum segetum</i>	Corn Parsley			Sussex Rare	25/03/2012	25/03/2012	1	1
<i>Salicornia dolichostachya</i>	Long-spiked Glasswort			Sussex Rare	1989	1989	1	1
<i>Sanicula europaea</i>	Sanicle			RedList GB post2001 NT	26/05/2007	26/05/2007	1	Present
<i>Sedum forsterianum</i>	Rock Stonecrop			Nat Scarce	21/06/2005	21/06/2005	1	1
<i>Senecio aquaticus</i>	Marsh Ragwort			RedList GB post2001 NT	21/02/2011	21/02/2011	1	1
<i>Tilia platyphyllos</i>	Large-leaved Lime			Nat Scarce, Sussex Rare	25/04/1994	25/04/1994	1	Present
<i>Trifolium fragiferum</i>	Strawberry Clover			RedList GB post2001 VU	09/05/2009	09/05/2009	1	1
Invertebrates - Beetles								
<i>Lucanus cervus</i>	Stag Beetle	Hab Dir A2 NP	WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority, Notable B, Sussex Rare	07/01/1998	22/06/2016	18	1
Invertebrates - Butterflies								
<i>Polyommatus bellargus</i>	Adonis Blue			RedList GB post2001 NT, Sussex Rare	1996 - 2000	1996 - 2000	1	1
<i>Satyrion w-album</i>	White-letter Hairstreak		WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority, RedList GB post2001 EN	1996 - 2000	1996 - 2000	3	1
Invertebrates - Grasshoppers & Crickets								
<i>Conocephalus fuscus</i>	Long-winged Cone-head			Sussex Rare	06/12/2011	06/12/2011	1	1
<i>Metrioptera roeselii</i>	Roesel's Bush-cricket			Sussex Rare	06/12/2011	06/12/2011	1	1
Invertebrates - Moths								
<i>Acronicta rumicis</i>	Knot Grass		NERC S41	UK BAP Priority	06/03/2004	06/03/2004	1	1
<i>Caradrina morpheus</i>	Mottled Rustic		NERC S41	UK BAP Priority	28/06/2004	21/06/2005	2	2
<i>Diarsia rubi</i>	Small Square-spot		NERC S41	UK BAP Priority	21/06/2005	21/06/2005	1	2
<i>Earias clorana</i>	Cream-bordered Green Pea			Sussex Rare	21/06/2005	21/06/2005	1	1
<i>Ennomos autumnaria</i>	Large Thorn			Sussex Rare	30/08/2005	30/08/2005	1	1

The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.

Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Eulithis mellinata</i>	Spinach		NERC S41	UK BAP Priority	21/06/2005	21/06/2005	1	1
<i>Hemistola chrysoprasaria</i>	Small Emerald		NERC S41	UK BAP Priority	25/07/2004	25/07/2004	1	1
<i>Hoplodrina blanda</i>	Rustic		NERC S41	UK BAP Priority	06/03/2004	30/08/2005	2	16
<i>Leucania comma</i>	Shoulder-striped Wainscot		NERC S41	UK BAP Priority	21/06/2005	21/06/2005	1	1
<i>Spilosoma lubricipeda</i>	White Ermine		NERC S41	UK BAP Priority	21/06/2005	21/06/2005	1	2
<i>Spilosoma lutea</i>	Buff Ermine		NERC S41	UK BAP Priority	28/06/2004	24/08/2004	3	3
<i>Thera cupressata</i>	Cypress Carpet			Sussex Rare	28/06/2004	21/06/2005	2	3
<i>Timandra comae</i>	Blood-Vein		NERC S41	UK BAP Priority	30/08/2005	30/08/2005	1	2
<i>Tyria jacobaeae</i>	Cinnabar		NERC S41	UK BAP Priority	06/03/2004	21/06/2005	2	2
Lichens								
<i>Athallia holocarpa</i>	A Lichen			Nat Scarce	07/02/1992	07/02/1992	1	Present
<i>Pertusaria flavicans</i>	A Lichen			Sussex Rare	07/02/1992	07/02/1992	1	Present
<i>Ramalina siliquosa</i>	Sea ivory			Sussex Rare	07/02/1992	07/02/1992	1	Present
Mammals - Terrestrial (excl. bats)								
<i>Erinaceus europaeus</i>	West European Hedgehog		NERC S41	UK BAP Priority	15/07/2000	25/09/2016	31	6
Reptiles								
<i>Anguis fragilis</i>	Slow-worm		WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	09/09/1996	09/09/1996	1	3
<i>Natrix natrix</i>	Grass Snake		NERC S41	UK BAP Priority	19/08/1994	19/08/1994	1	3
<i>Zootoca vivipara</i>	Common Lizard		WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	09/09/1996	09/09/1996	1	20

Table 2: Protected and designated species records (excluding bats and birds)

Records in the table are from 1980 onwards.

See tables 3 & 4 for bat records, tables 5 & 6 for bird records and tables 7 & 8 for invasive non-native species.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method
Amphibians						
Bufo bufo	Common Toad	2002	TQ075030	East Sussex		Field Observation
Lissotriton vulgaris	Smooth Newt	2002	TQ075030	East Sussex		Field Observation
		02/03/1995	TQ0603	Fallowdale, North Drive, Angmering	12 Present	Field Observation
Rana temporaria	Common Frog	2002	TQ075030	East Sussex		Field Observation
		26/02/1998	TQ0602	29 Willow Avenue, Rustington	3 Present	Field Observation
		26/02/1998	TQ0602	29 Willow Avenue, Rustington	Present	Field Observation
		23/02/1998	TQ077031	Thakeham Close, East Preston	Present	Field Observation
		02/03/1995	TQ0603	Fallowdale, North Drive, Angmering	Present	Field Observation
		02/03/1987	TQ0704	Pigeon House, High Street, Angemring	Present	Field Observation
		Higher Plants - Ferns				
Osmunda regalis	Royal Fern	26/05/2007	TQ065025	East Preston parish, Church Field (a garden), East Preston		Field Observation
Higher Plants - Flowering Plants						
Arum italicum subsp. neglectum	A Flowering Plant	18/10/2005	TQ07150241	East Preston,	Present	Field Observation
		18/10/2005	TQ07160242	East Preston,	Present	Field Observation
		1997	TQ00R		Present	Field Observation
		1997	TQ00W		Present	Field Observation
Dactylorhiza incarnata subsp. incarnata	Early Marsh-Orchid	30/04/2017	TQ0803	Sensitive and/or private location within the parish of Ferring	250+ Present	Field Observation
		1996	TQ00W	Ferring Rife	several Present	Field Observation
Dactylorhiza incarnata subsp. pulchella	Early Marsh-Orchid	1996	TQ00W	Ferring Rife	Present	Field Observation
Erodium moschatum	Musk Stork's-bill	05/09/2009	TQ00W	Ferring	Present	Field Observation
		2006	TQ0697702485	St.Mary's Drive, East Preston	Present	Field Observation
Fragaria vesca	Wild Strawberry	01/07/2014	TQ00S	Angmering	Present	Field Observation
		01/01/2010 - 31/12/2010	TQ00R	Rustington/East & West Preston area	Present	Field Observation
		24/09/2005	TQ00R	N of Angmering Station	Present	Field Observation
Glebionis segetum	Corn Marigold	13/07/2011	TQ00S	Angmering CP, Angmering	Present	Field Observation

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method
<i>Helleborus foetidus</i>	Stinking Hellebore	01/01/2010 - 31/12/2010	TQ066029	Angmering CP, Angmering	Present	Field Observation
		26/05/2007	TQ065025	East Preston parish, Church Field (a garden), East Preston		Field Observation
<i>Lathyrus aphaca</i>	Yellow Vetchling	01/01/2010 - 31/12/2010	TQ00W	Ferring	Present	Field Observation
<i>Mentha arvensis</i>	Corn Mint	05/09/2009	TQ00W	Ferring	Present	Field Observation
<i>Misopates orontium</i>	Weasel's-snout	21/10/2013	TQ0718603378	Mayflower Way	Present	Field Observation
<i>Muscari neglectum</i>	Grape-hyacinth	2005	TQ069024	East Preston,	Present	Field Observation
<i>Oenanthe fistulosa</i>	Tubular Water-dropwort	2006	TQ00W	Ferring/E.Kingston area	Present	Field Observation
<i>Petroselinum segetum</i>	Corn Parsley	25/03/2012	TQ0739703331	Angmering	Present	Field Observation
<i>Salicornia dolichostachya</i>	Long-spiked Glasswort	1989	TQ0602		Present	Field Observation
<i>Sanicula europaea</i>	Sanicle	26/05/2007	TQ065025	East Preston parish, Church Field (a garden), East Preston		Field Observation
<i>Sedum forsterianum</i>	Rock Stonecrop	21/06/2005	TQ00R	Angmering CP, Angmering	Present	Field Observation
<i>Senecio aquaticus</i>	Marsh Ragwort	21/02/2011	TQ00R	Rustington, West Preston, East Preston	Present	Field Observation
<i>Tilia platyphyllos</i>	Large-leaved Lime	25/04/1994	TQ077040	Angmering CP,		Field Observation
<i>Trifolium fragiferum</i>	Strawberry Clover	05/09/2009	TQ00W	Ferring	Present	Field Observation
Invertebrates - Beetles						
<i>Lucanus cervus</i>	Stag Beetle	22/06/2016	TQ06980289	Garden of 55 Worthing Road, East Preston	1 Male	Field Observation
		15/06/2016	TQ066026	Langmead Recreation Ground, Rustington	1 Adult Female	Field Observation
		12/06/2016	TQ07410426	Roundstone Lane	1 Adult Male	Field Observation
		06/06/2016	TQ06900234	The Street, East Preston	1 Adult Male	Field Observation
		16/07/2015	TQ078029	Unspecified location in the parish of East Preston	present	Field Observation
		09/07/2015	TQ075027	Unspecified location in the parish of East Preston	present	Field Observation
		28/06/2015	TQ063031	Unspecified location in the parish of Rustington	present	Field Observation
		27/06/2015	TQ071024	Unspecified location in the parish of East Preston	present	Field Observation
		18/06/2015	TQ068025	Unspecified location in the parish of East Preston	present	Field Observation
		10/06/2015	TQ067027	Unspecified location in the parish of East Preston	present	Field Observation
		19/05/2015	TQ07320240	Garden of Paladin, Montpelier Road, East Preston	1 Adult Male	Field Observation
		12/06/2011	TQ075040	Hill View Farm	Present	Field Observation
		07/06/2007	TQ074026	Unspecified location in the parish of East Preston	present	Field Observation
		01/06/2007	TQ067027	Cedarwood, Preston Hall, The Street	1 Male	Field Observation
		23/05/2007	TQ074026	Unspecified location in the parish of East Preston	present	Field Observation
		16/07/2001	TQ0702	East Preston,North Lane	1 Male	Field Observation
		15/07/2001	TQ0702	East Preston,North Lane	1 Male	Field Observation
		01/07/1998	TQ074027	Unspecified location in the parish of East Preston	present	Field Observation

Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method
Invertebrates - Butterflies						
Polyommatus bellargus	Adonis Blue	1996 - 2000	TQ00R		Present	Field Observation
Satyrium w-album	White-letter Hairstreak	1996 - 2000	TQ00R		Present	Field Observation
		1996 - 2000	TQ00W		Present	Field Observation
		14/07/2000	TQ0702	East Preston	1 Adult	Field Observation
Invertebrates - Grasshoppers & Crickets						
Conocephalus fuscus	Long-winged Cone-head	12/06/2011	TQ075040	Hill View Farm	Present	Field Observation
Metrioptera roeselii	Roesel's Bush-cricket	12/06/2011	TQ075040	Hill View Farm	Present	Field Observation
Invertebrates - Moths						
Acronicta rumicis	Knot Grass	03/06/2004	TQ075028	East Preston, Hillview Crescent	1 Adult	Moth Trap
Caradrina morpheus	Mottled Rustic	21/06/2005	TQ075028	East Preston,	2 Adult	Moth Trap
		28/06/2004	TQ075028	East Preston, Hillview Crescent	1 Adult	Moth Trap
Diarsia rubi	Small Square-spot	21/06/2005	TQ075028	East Preston,	2 Adult	Moth Trap
Earias clorana	Cream-bordered Green Pea	21/06/2005	TQ075028	East Preston,	1 Adult	Moth Trap
Ennomos autumnaria	Large Thorn	30/08/2005	TQ075028	East Preston,	1 Adult	Moth Trap
Eulithis mellinata	Spinach	21/06/2005	TQ075028	East Preston,	1 Adult	Moth Trap
Hemistola chrysoprasaria	Small Emerald	25/07/2004	TQ075028	East Preston, Hillview Crescent	1 Adult	Moth Trap
Hoplodrina blanda	Rustic	30/08/2005	TQ075028	East Preston,	16 Adult	Moth Trap
		03/06/2004	TQ075028	East Preston, Hillview Crescent	1 Adult	Moth Trap
Leucania comma	Shoulder-striped Wainscot	21/06/2005	TQ075028	East Preston,	1 Adult	Moth Trap
Spilosoma lubricipeda	White Ermine	21/06/2005	TQ075028	East Preston,	2 Adult	Moth Trap
Spilosoma lutea	Buff Ermine	24/08/2004	TQ075028	East Preston, Hillview Crescent	1 Adult	Moth Trap
		25/07/2004	TQ075028	East Preston, Hillview Crescent	3 Adult	Moth Trap
		28/06/2004	TQ075028	East Preston, Hillview Crescent	2 Adult	Moth Trap
Thera cupressata	Cypress Carpet	21/06/2005	TQ075028	East Preston,	3 Adult	Moth Trap
		28/06/2004	TQ075028	East Preston, Hillview Crescent	2 Adult	Moth Trap
Timandra comae	Blood-Vein	30/08/2005	TQ075028	East Preston,	2 Adult	Moth Trap
Tyria jacobaeae	Cinnabar	21/06/2005	TQ075028	East Preston,	1 Adult	Moth Trap
		03/06/2004	TQ075028	East Preston, Hillview Crescent	2 Adult	Moth Trap
Lichens						
Athallia holocarpa	A Lichen	02/07/1992	TQ065025	West Preston Churchyard		Field Observation
Pertusaria flavicans	A Lichen	02/07/1992	TQ065025	West Preston Churchyard		Field Observation
Ramalina siliquosa	Sea ivory	02/07/1992	TQ065025	West Preston Churchyard		Field Observation
Mammals - Terrestrial (excl. bats)						

The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.

Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method
<i>Erinaceus europaeus</i>	West European Hedgehog	25/09/2016	TQ076024	Elm Avenue	2 Adult	Field Observation
		2015	TQ064026	Unspecified Location Within Rustington CP	present	Field Observation
		2015	TQ065025	Unspecified Location Within East Preston CP	present	Field Observation
		2015	TQ066027	Unspecified Location Within East Preston CP	present	Field Observation
		2015	TQ068038	Unspecified Location Within Angmering CP	present	Field Observation
		2015	TQ070037	Unspecified Location Within Angmering CP	present	Field Observation
		2015	TQ070040	Unspecified Location Within Angmering CP	present	Field Observation
		2015	TQ071039	Unspecified Location Within Angmering CP	present	Field Observation
		2015	TQ073033	Unspecified Location Within Angmering CP	present	Field Observation
		2015	TQ076024	Unspecified Location Within East Preston CP	present	Field Observation
		09/05/2015	TQ07320240	Garden of Paladin, Montpelier Road, East Preston	1 Adult	Field Observation
		2014	TQ065030	Unspecified Location Within Angmering CP	1 Dead	Field Observation
		2014	TQ068038	Unspecified Location Within Angmering CP	1 Present	Field Observation
		2013	TQ068031	Unspecified Location Within Angmering CP	1 Dead	Field Observation
		2013	TQ070036	Unspecified Location Within Angmering CP	2 Present	Field Observation
		14/11/2013	TQ0722004205	Garden of 10 Highdown Close, Angmering	3 Individual	Field Observation
		28/05/2013	TQ067037	Garden of 5 Badgers Walk, Angmering	3 Individual	Field Observation
		28/05/2013	TQ06910382	Garden of 27 Foxdale Drive, Angmering	1 Adult	Field Observation
		12/10/2012	TQ068036	Garden of 1 Sycamore Close, Angmering	1 Female; 3 Young	Field Observation
		2006	TQ0602	Unspecified Location Within East Preston CP	1 Adult	Field Observation
		2006	TQ0602	Unspecified Location Within East Preston CP	2 Adult	Field Observation
		2006	TQ0602	Unspecified Location Within East Preston CP	2 Juvenile; 4 Adult	Field Observation
		2006	TQ0604	Unspecified Location Within Angmering CP	2 Adult	Field Observation
		2006	TQ0604	Unspecified Location Within Angmering CP	3 Adult	Field Observation
		2006	TQ0702	Unspecified Location Within East Preston CP	1 Adult	Field Observation
		2006	TQ0704	Unspecified Location Within Angmering CP	1 Juvenile; 1 Adult	Field Observation
		2005	TQ0603	Unspecified Location Within Angmering CP	present	Field Observation
		2005	TQ0604	Unspecified Location Within Angmering CP	present	Field Observation
		2005	TQ0703	Unspecified Location Within Angmering CP	present	Field Observation
		2005	TQ0704	Unspecified Location Within Angmering CP	present	Field Observation
		15/07/2000	TQ076032	A259 Roundstone	1 Dead	Field Observation
Reptiles						
<i>Anguis fragilis</i>	Slow-worm	09/09/1996	TQ0802	Ferring	3 Present	Field Observation

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method
<i>Natrix natrix</i>	Grass Snake	19/08/1994	TQ0704	Pigeon House, High Street, Angmering	1 Present; 1 Egg/ovum, emerged; 1 Adult	Field Observation
<i>Zootoca vivipara</i>	Common Lizard	09/09/1996	TQ0802	Ferring	20 Present	Field Observation

Table 3: Summary bat records

This table summarises records from 1980 onwards. See table 4 for detailed bat records.

Maximum abundance = highest total number of bats recorded at one time.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Chiroptera</i>	Bat sp.	Hab Dir A2 NP, Hab Dir A4	Hab Reg Sch2, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority, RedList Global post2001 NT	22/04/1994	22/04/1994	1	Present
<i>Eptesicus serotinus</i>	Serotine	Hab Dir A4	Hab Reg Sch2, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a		27/06/2011	30/06/2011	2	2
<i>Nyctalus noctula</i>	Noctule Bat	Hab Dir A4	Hab Reg Sch2, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	27/06/2011	27/06/2011	1	1
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	Hab Dir A4	Hab Reg Sch2, NERC S41, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a	UK BAP Priority	21/08/2007	19/07/2011	7	2
<i>Pipistrellus pygmaeus</i>	Soprano Pipstrelle (55 kHz)	Hab Dir A4	Hab Reg Sch2, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	06/12/2011	19/07/2011	4	2
<i>Plecotus auritus</i>	Brown Long-eared Bat	Hab Dir A4	Hab Reg Sch2, WCA Sch5 Sec9.4b, WCA Sch5 Sec9.4c, WCA Sch5 Sec9.5a, NERC S41	UK BAP Priority	14/08/2010	19/07/2011	3	1

Table 4: Bat records

Records in this table are from 1980 onwards.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	Date	Grid reference	Location name	Abundance	Sampling method	Roost type	Roost location	Comments
<i>Chiroptera</i>	Bat sp.	22/04/1994	TQ063027	Bay Tree Barn, The Street, East Preston		Building Inspection	Unspecified Roost		
<i>Eptesicus serotinus</i>	Serotine	30/06/2011	TQ075040	Hill View Farm	2 Present	Bat Survey			25 degrees c, warm and clear 21:58
		27/06/2011	TQ075040	Hill View Farm	2 Present	Bat Survey			20 degrees c, warm and clear 22:02-22:10
<i>Nyctalus noctula</i>	Noctule Bat	27/06/2011	TQ075040	Hill View Farm	Present	Bat Survey			16 degrees c, warm after rain, sw 2-3 100% 21:58 Foraging
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	19/07/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			15 degrees c
		19/07/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			15 degrees c 21:40
		30/06/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			18 degrees c, 21:50
		30/06/2011	TQ075040	Hill View Farm	2 Present	Bat Survey			25 degrees c, warm and clear 21:58
		30/06/2011	TQ075040	Hill View Farm	Present	Bat Survey			18 degrees c, 21:47
		27/06/2011	TQ075040	Hill View Farm	Present	Bat Survey			16 degrees c, warm after rain, sw 2-3 100% 21:55
		21/08/2007	TQ064026	Church Field, Station Road, East Preston	Present	Aural bat detector			4 passes / brief commuting flights recorded during a bat evening activity survey.
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle (55 kHz)	19/07/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			15 degrees c
		30/06/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			18 degrees c, 22:17
		27/06/2011	TQ075040	Hill View Farm	Present	Bat Survey			16 degrees c, warm after rain, sw 2-3 100% 21:51
		12/06/2011	TQ075040	Hill View Farm	2 Present	Bat Survey			16 degrees c, warm after rain, sw 2-3 100% 22:00
<i>Plecotus auritus</i>	Brown Long-eared Bat	19/07/2011	TQ075040	Hill View Farm	1 Present	Bat Survey			15 degrees c 21:44
		27/06/2011	TQ075040	Hill View Farm	Present	Bat Survey			16 degrees c, warm after rain, sw 2-3 100% Foraging
		14/08/2010	TQ071035	Angmering	1 Adult Male	Grounded Bat			Dead bat submitted to VLA Passive Surveillance Programme

Table 5: Summary bird records

Records of birds classed as confidential by the Sussex Ornithological Society (SOS) are not included in our reports. These records relate to a range of different species. No such records been flagged up in this search area. The SOS should be contacted directly if potentially damaging operations are to occur.

Email: conservation@sos.org.uk

Records in this table are from 1980 onwards.

This table provides a summary of all bird records. Table 6 provides records of Sussex Notable Birds (where applicable).

Maximum abundance = highest total number of birds recorded at one time.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Parus ater subsp. ater</i>	Continental Coal Tit					11/10/2012	1	1
<i>Cygnus olor</i>	Mute Swan			Bird Amber, Notable Bird	18/03/2001	18/03/2001	1	66
<i>Mergus serrator</i>	Red-breasted Merganser				02/08/1996	02/08/1996	1	6
<i>Anas penelope</i>	Wigeon			Bird Amber, Notable Bird	01/09/2010	01/09/2010	1	Present
<i>Anas crecca</i>	Teal			Bird Amber, Notable Bird	01/06/2009	23/02/2012	7	9
<i>Anas platyrhynchos</i>	Mallard			Bird Amber, Notable Bird	15/01/1984	04/05/2015	23	50
<i>Melanitta nigra</i>	Common Scoter		WCA Sch1 Pt1, NERC S41	UK BAP Priority, Bird Red	19/06/2007	19/06/2007	1	1
<i>Egretta garzetta</i>	Little Egret	Birds Dir A1		Notable Bird	25/11/1998	08/05/2015	39	35
<i>Ardea cinerea</i>	Grey Heron				16/11/2007	28/12/2014	10	3
<i>Botaurus stellaris</i>	Bittern	Birds Dir A1	WCA Sch1 Pt1, NERC S41	UK BAP Priority, Notable Bird	20/01/2010	20/01/2010	1	1
<i>Alectoris rufa</i>	Red-legged Partridge				14/01/2009	14/01/2009	1	1
<i>Perdix perdix</i>	Grey Partridge		NERC S41	UK BAP Priority, Notable Bird	10/06/1996	28/10/2014	2	9
<i>Phasianus colchicus</i>	Pheasant				26/02/2006	07/03/2015	35	22
<i>Tachybaptus ruficollis</i>	Little Grebe			Notable Bird	15/01/1984	28/12/2014	13	3
<i>Podiceps cristatus</i>	Great Crested Grebe				04/10/2015	04/10/2015	1	4
<i>Podiceps auritus</i>	Slavonian Grebe	Birds Dir A1	WCA Sch1 Pt1	Bird Red	13/11/1996	13/11/1996	2	21
<i>Phalacrocorax carbo</i>	Cormorant				11/01/2006	04/10/2015	9	4

The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.

Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Pernis apivorus</i>	Honey-buzzard	Birds Dir A1	WCA Sch1 Pt1	Bird Amber, Notable Bird	09/02/2011	09/02/2011	1	1
<i>Milvus milvus</i>	Red Kite	Birds Dir A1	WCA Sch1 Pt1	RedList Global post2001 NT, Notable Bird	25/05/2010	11/08/2015	7	2
<i>Circus aeruginosus</i>	Marsh Harrier	Birds Dir A1	WCA Sch1 Pt1	Notable Bird	09/06/2009	09/06/2009	1	1
<i>Circus cyaneus</i>	Hen Harrier	Birds Dir A1	WCA Sch1 Pt1, NERC S41	Notable Bird	16/10/2012	16/10/2012	1	1
<i>Accipiter nisus</i>	Sparrowhawk				29/08/1998	04/05/2015	32	3
<i>Buteo buteo</i>	Buzzard				08/07/2004	07/03/2015	21	6
<i>Pandion haliaetus</i>	Osprey	Birds Dir A1	WCA Sch1 Pt1	Bird Amber, Notable Bird	10/03/2010	04/10/2015	3	1
<i>Falco tinnunculus</i>	Kestrel			Notable Bird	27/04/1989	07/03/2015	26	2
<i>Falco columbarius</i>	Merlin	Birds Dir A1	WCA Sch1 Pt1		19/01/2005	14/12/2012	3	1
<i>Falco subbuteo</i>	Hobby		WCA Sch1 Pt1	Notable Bird	27/04/2008	26/08/2012	6	1
<i>Falco peregrinus</i>	Peregrine	Birds Dir A1	WCA Sch1 Pt1	Notable Bird	10/06/2004	28/12/2014	5	2
<i>Gallinula chloropus</i>	Moorhen				15/01/1984	07/03/2015	44	40
<i>Rallus aquaticus</i>	Water Rail				02/03/1999	03/10/2012	13	2
<i>Haematopus ostralegus</i>	Oystercatcher			Bird Amber, Notable Bird	09/07/1996	19/08/2004	2	38
<i>Charadrius hiaticula</i>	Ringed Plover			Bird Red, Notable Bird	09/07/1996	09/07/1996	1	48
<i>Pluvialis apricaria</i>	Golden Plover	Birds Dir A1			10/06/2004	12/04/2010	5	20
<i>Pluvialis squatarola</i>	Grey Plover			Bird Amber	09/07/1996	13/11/1996	2	181
<i>Vanellus vanellus</i>	Lapwing		NERC S41	UK BAP Priority, Notable Bird	25/04/1994	25/12/2010	18	100
<i>Burhinus oedicnemus</i>	Stone-curlew	Birds Dir A1	WCA Sch1 Pt1, NERC S41	UK BAP Priority, Notable Bird	02/12/2012	02/12/2012	1	1
<i>Actitis hypoleucos</i>	Common Sandpiper			Notable Bird	19/09/2009	23/04/2010	2	1
<i>Gallinago gallinago</i>	Snipe			Notable Bird	01/08/2002	28/12/2014	21	20
<i>Lymnocyptes minimus</i>	Jack Snipe				17/02/1992	02/12/2010 - 13/12/2010	18	4
<i>Numenius arquata</i>	Curlew		NERC S41	UK BAP Priority, RedList Global post2001 NT, Notable Bird	06/12/2007	17/06/2007	3	2
<i>Scolopax rusticola</i>	Woodcock			Bird Red, Notable Bird	18/01/1985	12/03/2010	5	2

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Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Calidris alba</i>	Sanderling			Bird Amber	09/07/1996	04/12/2004	4	60
<i>Calidris alpina</i>	Dunlin				09/07/1996	03/12/2010 - 04/12/2010	2	17
<i>Limosa lapponica</i>	Bar-tailed Godwit	Birds Dir A1		Bird Amber	09/07/1996	14/04/2004	2	2
<i>Tringa totanus</i>	Redshank			Notable Bird	03/12/2010 - 13/12/2010	03/12/2010 - 13/12/2010	1	1
<i>Tringa ochropus</i>	Green Sandpiper		WCA Sch1 Pt1	Bird Amber	02/02/2009	10/12/2010 - 13/12/2010	5	3
<i>Arenaria interpres</i>	Turnstone			Bird Amber	04/12/2004	04/12/2004	1	50
<i>Stercorarius parasiticus</i>	Arctic Skua			UK BAP Priority, Bird Red	06/12/2007	06/12/2007	1	1
<i>Stercorarius longicaudus</i>	Long-tailed Skua				23/05/2007	23/05/2007	1	1
<i>Hydrocoloeus minutus</i>	Little Gull	Birds Dir A1	WCA Sch1 Pt1		19/01/2013	03/03/2014	2	1
<i>Larus melanocephalus</i>	Mediterranean Gull	Birds Dir A1	WCA Sch1 Pt1	Bird Amber, Notable Bird	14/06/2007	23/04/2011	4	3
<i>Larus canus</i>	Common Gull			Bird Amber, Notable Bird	17/01/2004	28/12/2014	7	77
<i>Larus fuscus</i>	Lesser Black-backed Gull			Bird Amber, Notable Bird	16/12/2003	04/05/2015	7	6
<i>Larus argentatus</i>	Herring Gull		NERC S41	UK BAP Priority, Bird Red, Notable Bird	06/01/2001	07/03/2015	49	45
<i>Larus marinus</i>	Great Black-backed Gull			Bird Amber, Notable Bird	17/01/2004	03/01/2010 - 12/01/2010	6	5
<i>Chroicocephalus ridibundus</i>	Black-headed Gull			Bird Amber, Notable Bird	17/01/2004	28/12/2014	21	300
<i>Sterna sandvicensis</i>	Sandwich Tern	Birds Dir A1		Notable Bird	23/05/2007	08/05/2009	2	10
<i>Sterna hirundo</i>	Common Tern	Birds Dir A1		Bird Amber, Notable Bird	17/05/2008	17/05/2008	1	20
<i>Uria aalge</i>	Guillemot			Bird Amber	02/08/1996	02/08/1996	1	1
<i>Columba livia</i>	Rock Dove				20/11/2008	27/12/2012	6	37
<i>Columba oenas</i>	Stock Dove			Bird Amber, Notable Bird	04/04/1995	04/05/2015	9	20
<i>Columba palumbus</i>	Woodpigeon				11/01/2006	07/03/2015	43	3000
<i>Streptopelia decaocto</i>	Collared Dove				10/06/1996	07/03/2015	36	22
<i>Streptopelia turtur</i>	Turtle Dove		NERC S41	UK BAP Priority, Notable Bird	18/09/2013	05/09/2014	2	3
<i>Psittacula krameri</i>	Ring-necked Parakeet				13/03/1993	13/03/1993	1	1

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Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Melopsittacus undulatus</i>	Budgerigar				05/09/1992	05/09/1992	1	1
<i>Cuculus canorus</i>	Cuckoo		NERC S41	UK BAP Priority, Bird Red, Notable Bird	04/05/1992	31/05/2010	2	1
<i>Tyto alba</i>	Barn Owl		WCA Sch1 Pt1	Notable Bird	01/06/2011	01/06/2011	1	1
<i>Athene noctua</i>	Little Owl				17/05/1990	17/05/1990	1	1
<i>Strix aluco</i>	Tawny Owl			Bird Amber, Notable Bird	02/08/1995	14/02/2011	12	1
<i>Asio flammeus</i>	Short-eared Owl	Birds Dir A1		Notable Bird	17/01/2010	20/04/2015	2	1
<i>Apus apus</i>	Swift			Bird Amber, Notable Bird	07/05/1996	07/04/2012	12	200
<i>Alcedo atthis</i>	Kingfisher	Birds Dir A1	WCA Sch1 Pt1	Notable Bird	07/02/2006	02/12/2010 - 13/12/2010	3	1
<i>Upupa epops</i>	Hoopoe		WCA Sch1 Pt1	Notable Bird	23/04/1980	31/08/2015 - 01/09/2015	3	1
<i>Picus viridis</i>	Green Woodpecker			Notable Bird	29/06/1985	08/05/2015	52	3
<i>Dendrocopos major</i>	Great Spotted Woodpecker				13/12/1995	28/12/2014	23	3
<i>Acrocephalus schoenobaenus</i>	Sedge Warbler				09/02/2010	09/02/2010	1	3
<i>Acrocephalus scirpaceus</i>	Reed Warbler				27/08/2007	08/01/2015	8	3
<i>Locustella naevia</i>	Grasshopper Warbler		NERC S41	UK BAP Priority, Bird Red, Notable Bird	08/04/2010 - 21/04/2010	08/04/2010 - 21/04/2010	1	Present
<i>Phylloscopus collybita</i>	Chiffchaff				12/08/1995	07/03/2015	32	7
<i>Phylloscopus trochilus</i>	Willow Warbler			Bird Amber, Notable Bird	29/03/1998	08/01/2015	17	15
<i>Alauda arvensis</i>	Skylark		NERC S41	UK BAP Priority, Notable Bird	29/03/1998	07/03/2015	26	65
<i>Hirundo rustica</i>	Swallow			Notable Bird	20/04/1992	07/03/2015	29	500
<i>Delichon urbicum</i>	House Martin			Bird Amber, Notable Bird	06/01/1999	10/08/2011	16	50
<i>Anthus pratensis</i>	Meadow Pipit			Bird Amber, Notable Bird	10/06/1996	04/05/2015	20	350
<i>Motacilla flava</i>	Yellow Wagtail		NERC S41	UK BAP Priority, Notable Bird	09/10/2007	23/04/2013	4	12
<i>Motacilla cinerea</i>	Grey Wagtail			Bird Red, Notable Bird	18/09/1995	28/12/2014	14	3
<i>Motacilla alba</i>	Pied Wagtail				10/06/1996	04/10/2015	23	100
<i>Motacilla alba subsp. yarrellii</i>	Pied Wagtail				03/06/2007	11/11/2009	3	40
<i>Bombycilla garrulus</i>	Waxwing				31/10/2010	29/04/2013	23	33

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Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Troglodytes troglodytes</i>	Wren				11/01/2006	04/05/2015	30	19
<i>Prunella modularis</i>	Dunnock		NERC S41	UK BAP Priority, Bird Amber, Notable Bird	11/01/2006	07/03/2015	40	20
<i>Erithacus rubecula</i>	Robin				25/04/1994	04/05/2015	43	44
<i>Phoenicurus ochruros</i>	Black Redstart		WCA Sch1 Pt1	Bird Red, Notable Bird	31/10/1993	11/07/2014	11	2
<i>Phoenicurus phoenicurus</i>	Redstart			Bird Amber, Notable Bird	31/08/1997	05/12/2014	10	2
<i>Saxicola rubetra</i>	Whinchat			Bird Red, Notable Bird	21/05/1995	10/08/2015	7	3
<i>Saxicola rubicola</i>	Stonechat				11/10/2003	10/08/2015	20	5
<i>Oenanthe oenanthe</i>	Wheatear			Notable Bird	04/01/2006	04/05/2015	9	7
<i>Turdus torquatus</i>	Ring Ouzel		NERC S41	UK BAP Priority	10/12/2013	13/10/2013	2	1
<i>Turdus merula</i>	Blackbird				11/01/2006	07/03/2015	44	64
<i>Turdus pilaris</i>	Fieldfare		WCA Sch1 Pt1	Bird Red	02/06/2008	19/01/2013	16	600
<i>Turdus philomelos</i>	Song Thrush		NERC S41	UK BAP Priority, Notable Bird	11/01/2006	04/05/2015	39	17
<i>Turdus iliacus</i>	Redwing		WCA Sch1 Pt1	Bird Red	17/12/2007	15/10/2011	17	200
<i>Turdus viscivorus</i>	Mistle Thrush			Bird Red, Notable Bird	05/01/1996	20/04/2015	15	4
<i>Muscicapa striata</i>	Spotted Flycatcher		NERC S41	UK BAP Priority, Notable Bird	09/02/2008	09/07/2014	7	4
<i>Sylvia atricapilla</i>	Blackcap				13/12/1995	07/03/2015	30	5
<i>Sylvia borin</i>	Garden Warbler				14/06/2009	14/06/2009	1	2
<i>Sylvia curruca</i>	Lesser Whitethroat				09/02/2008	13/09/2010	8	1
<i>Sylvia communis</i>	Whitethroat			Notable Bird	14/06/2003	07/03/2015	19	12
<i>Regulus regulus</i>	Goldcrest				12/09/1995	20/04/2015	17	3
<i>Regulus ignicapilla</i>	Firecrest		WCA Sch1 Pt1	Notable Bird	19/10/2012 - 20/10/2012	19/09/2014	3	3
<i>Aegithalos caudatus</i>	Long-tailed Tit				11/01/2006	04/05/2015	25	35
<i>Cyanistes caeruleus</i>	Blue Tit				11/01/2006	07/03/2015	43	36
<i>Parus major</i>	Great Tit				11/01/2006	04/05/2015	44	31
<i>Periparus ater</i>	Coal Tit				01/01/2007 - 29/01/2007	17/09/2013	18	4
<i>Poecile palustris</i>	Marsh Tit		NERC S41	UK BAP Priority, Bird Red, Notable Bird	17/01/1985	04/03/1985	2	1
<i>Sitta europaea</i>	Nuthatch				24/04/2009	24/04/2009	1	1
<i>Certhia familiaris</i>	Treecreeper				01/01/1995	12/07/1995	2	2

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Taxon name	Common name	International Designation	National Designation	Other Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
<i>Garrulus glandarius</i>	Jay				16/11/2007	22/11/2015	22	3
<i>Pica pica</i>	Magpie				11/01/2006	07/03/2015	37	30
<i>Corvus monedula</i>	Jackdaw				27/08/2007	04/05/2015	21	36
<i>Corvus frugilegus</i>	Rook				11/01/2006	04/05/2015	15	50
<i>Corvus corone</i>	Carrion Crow				11/01/2006	08/05/2015	38	52
<i>Pastor roseus</i>	Rose-coloured Starling				06/04/2001	06/04/2001	1	1
<i>Sturnus vulgaris</i>	Starling		NERC S41	UK BAP Priority, Notable Bird	27/08/2007	07/03/2015	40	2000
<i>Passer domesticus</i>	House Sparrow		NERC S41	UK BAP Priority, Bird Red, Notable Bird	11/01/2006	07/03/2015	42	50
<i>Acanthis cabaret</i>	Lesser Redpoll		NERC S41	UK BAP Priority, Notable Bird	10/08/2015	10/08/2015	1	2
<i>Chloris chloris</i>	Greenfinch				11/01/2006	07/03/2015	35	45
<i>Linaria cannabina</i>	Linnet		NERC S41	UK BAP Priority, Notable Bird	27/08/2007	07/03/2015	8	45
<i>Spinus spinus</i>	Siskin				30/10/2009	21/11/2010 - 29/11/2010	3	6
<i>Fringilla coelebs</i>	Chaffinch				25/04/1994	04/05/2015	33	20
<i>Fringilla montifringilla</i>	Brambling		WCA Sch1 Pt1		26/01/2008	26/01/2008	1	1
<i>Carduelis carduelis</i>	Goldfinch				15/01/2007	08/05/2015	40	30
<i>Loxia curvirostra</i>	Common Crossbill		WCA Sch1 Pt1	Notable Bird	12/10/2011 - 21/10/2011	26/11/2011	2	21
<i>Pyrrhula pyrrhula</i>	Bullfinch		NERC S41	UK BAP Priority, Notable Bird	14/05/2007	22/01/2015	2	2
<i>Plectrophenax nivalis</i>	Snow Bunting		WCA Sch1 Pt1	Bird Amber	16/11/2007	22/11/2007	2	1
<i>Emberiza citrinella</i>	Yellowhammer		NERC S41	UK BAP Priority, Notable Bird	21/05/1995	15/11/2013	4	8
<i>Emberiza schoeniclus</i>	Reed Bunting		NERC S41	UK BAP Priority, Notable Bird	06/01/2008	04/05/2015	14	25

Table 6: Sussex notable bird records

Records in this table are from 1980 onwards.

The list of notable birds can be found in the appendix together with an explanation of the basis of selection.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
<i>Anas platyrhynchos</i>	Mallard	03/05/2010 - 19/05/2010	TQ00W	Ferring Rife		Positive Breeding
		27/03/2010	TQ00W	Ferring Rife	6 Present	Positive Breeding
		23/03/2010 - 27/03/2010	TQ00W	Ferring Rife	2 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	Present	Date, Positive Breeding
		24/04/2009	TQ00S	Angmering	4 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	8 Present	Date, Positive Breeding
		09/07/2007 - 16/07/2007	TQ0604	Angmering CP, Angmering	2 Present	Date
		04/06/2007	TQ0604	Angmering CP, Angmering	4 Present	Date
		07/05/2007 - 28/05/2007	TQ0604	Angmering CP, Angmering	2 Present	Date
		02/07/2006 - 23/07/2006	TQ0604	Angmering CP, Angmering	2 Present	Date
		04/06/2006 - 25/06/2006	TQ0604	Angmering CP, Angmering	2 Present	Date
		07/05/2006 - 28/05/2006	TQ0604	Angmering CP, Angmering	2 Present	Date
<i>Egretta garzetta</i>	Little Egret	04/07/2010	TQ00W	Ferring Rife	7 Present	Roost
		02/06/2010 - 30/06/2010	TQ00W	Ferring Rife		Roost
		15/05/2010 - 31/05/2010	TQ00W	Ferring Rife	1 Present	Roost
		14/02/2010 - 24/02/2010	TQ00W	Ferring Rife	2 Present	Roost
		27/08/2007	TQ0802	Ferring, Ferring East Kingston	3 Present	Roost
<i>Botaurus stellaris</i>	Bittern	20/01/2010	TQ00W	Ferring Rife	1 Present	All Records
<i>Milvus milvus</i>	Red Kite	01/03/2014	TQ0604	Angmering	1 Present	Date
		29/03/2012	TQ0604	Angmering CP, Angmering	1 Present	Date
		27/05/2011	TQ0604	Angmering CP, Angmering	2 Present	Date

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
		23/04/2011	TQ0604	Angmering CP, Angmering	1 Present	Date
		25/05/2010	TQ00W	Ferring Rife	1 Present	Date
<i>Falco tinnunculus</i>	Kestrel	03/07/2015	TQ0802	Ferring East Kingston	1 Present	Date, Positive Breeding
		08/09/2010 - 24/09/2010	TQ00W	Ferring Rife		Positive Breeding
		02/06/2010 - 07/06/2010	TQ00W	Ferring Rife	1 Present	Date, Positive Breeding
		02/07/2006 - 23/07/2006	TQ0604	Angmering CP, Angmering	1 Present	Date
		18/06/2006	TQ0604	Angmering CP, Angmering	1 Present	Date
		27/04/1989	TQ0603	Angmering CP, Angmering	1 Present	Positive Breeding
<i>Falco subbuteo</i>	Hobby	26/08/2012	TQ0802	Ferring, Ferring East Kingston	1 Present	Date
		26/07/2010	TQ00W	Ferring Rife		Date
		29/04/2009	TQ0603	Angmering CP, Angmering	1 Present	Date
		27/04/2008	TQ00W	Ferring	1 Present	Date
<i>Vanellus vanellus</i>	Lapwing	15/04/2010	TQ00W	Ferring Rife	1 Present	Date
		01/06/1996	TQ0603	Angmering CP, Angmering	2 Present	Date, Positive Breeding
		25/04/1994	TQ077040	Angmering CP,		Date
<i>Numenius arquata</i>	Curlew	17/06/2007	TQ0802	Ferring, Ferring East Kingston	2 Present	Date
		14/06/2007	TQ0802	Ferring, Ferring East Kingston	2 Present	Date
		12/06/2007	TQ0802	Ferring, Ferring East Kingston	1 Present	Date
<i>Larus fuscus</i>	Lesser Black-backed Gull	25/06/2010	TQ065029	East Preston	1 Present	Positive Breeding
<i>Larus argentatus</i>	Herring Gull	01/06/2012	TQ066029	East Preston	4 Present	Positive Breeding
		25/06/2010	TQ065029	East Preston		Positive Breeding
		14/06/2009	TQ00R	East Preston	16 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	45 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	6 Present	Positive Breeding
		27/04/2008	TQ00W	Ferring	1 Present	Positive Breeding
<i>Columba oenas</i>	Stock Dove	24/04/2009	TQ00S	Angmering	2 Present	Positive Breeding
<i>Streptopelia turtur</i>	Turtle Dove	09/05/2014	TQ0604	Angmering	3 Present	Date
<i>Cuculus canorus</i>	Cuckoo	31/05/2010	TQ00W	Ferring Rife		Date, Positive Breeding
<i>Tyto alba</i>	Barn Owl	06/01/2011	TQ0704	Angmering CP, Angmering	1 Present	All Records
<i>Strix aluco</i>	Tawny Owl	14/02/2011	TQ00R	East Preston	1 Present	Positive Breeding
		11/06/2006	TQ0604	Angmering CP, Angmering	1 Present	Date
<i>Apus apus</i>	Swift	01/06/2009	TQ074028	East Preston	1 Present	Positive Breeding

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
		01/06/2009	TQ075025	East Preston	1 Present	Positive Breeding
<i>Alcedo atthis</i>	Kingfisher	12/03/2007	TQ0604	Angmering CP, Angmering	1 Present	Date
		02/07/2006	TQ0604	Angmering CP, Angmering	1 Present	Date
<i>Upupa epops</i>	Hoopoe	25/05/2010	TQ0604	Angmering CP, Angmering	1 Present	Date
<i>Picus viridis</i>	Green Woodpecker	03/07/2015	TQ0802	Ferring East Kingston	3 Present	Positive Breeding
		27/07/2010	TQ00W	Ferring Rife		Positive Breeding
		05/06/2010 - 07/06/2010	TQ00W	Ferring Rife	2 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	2 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	1 Present	Positive Breeding
		29/06/1985	TQ0603	Angmering CP, Angmering	1 Present	Positive Breeding
<i>Locustella naevia</i>	Grasshopper Warbler	08/04/2010 - 21/04/2010	TQ00W	Ferring Rife		Positive Breeding
<i>Alauda arvensis</i>	Skylark	03/07/2015	TQ0802	Ferring East Kingston	6 Present	Date, Positive Breeding
		05/04/2015	TQ0802	Ferring Rife	15 Present	Date, Positive Breeding
		08/06/2010	TQ00W	Ferring	1 Present	Date, Positive Breeding
		21/04/2010	TQ00W	Ferring Rife	3 Present	Date, Positive Breeding
		27/02/2010	TQ00W	Ferring Rife	1 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	2 Present	Date, Positive Breeding
		24/04/2009	TQ00S	Angmering	1 Present	Date, Positive Breeding
		08/06/2008	TQ00W	Ferring	3 Present	Date, Positive Breeding
		27/04/2008	TQ00W	Ferring	3 Present	Date, Positive Breeding
		04/06/2006	TQ0802	Ferring, Ferring East Kingston	7 Present	Date
<i>Hirundo rustica</i>	Swallow	03/07/2015	TQ0802	Ferring East Kingston	12 Present	Positive Breeding
		07/06/2010 - 26/06/2010	TQ00W	Ferring Rife	12 Present	Positive Breeding
		21/06/2009	TQ00W	Ferring	4 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	4 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	2 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	5 Present	Positive Breeding
		01/06/2006	TQ0703	Angmering CP, Angmering	3 Present	Positive Breeding
<i>Delichon urbicum</i>	House Martin	17/06/2009	TQ00S	Angmering	7 Present	Positive Breeding
		01/06/2001	TQ0604	Angmering CP, Angmering	4 Present	Positive Breeding
		01/06/1999	TQ0603	Angmering CP, Angmering	5 Present	Positive Breeding
<i>Prunella modularis</i>	Dunnock	03/07/2015	TQ0802	Ferring East Kingston	2 Present	Positive Breeding

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
		05/04/2015	TQ0802	Ferring Rife	17 Present	Positive Breeding
		11/04/2013	TQ0703	Angmering	1 Present	Positive Breeding
		26/06/2010	TQ00W	Ferring Rife	5 Present	Positive Breeding
		31/05/2010	TQ00W	Ferring Rife	4 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	5 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	20 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	11 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	9 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	6 Present	Positive Breeding
		27/04/2008	TQ00W	Ferring	9 Present	Positive Breeding
		26/12/2007	TQ00W	Ferring	1 Present	Positive Breeding
<i>Phoenicurus phoenicurus</i>	Redstart	12/05/2014	TQ0802	Ferring East Kingston	1 Present	Date
		15/04/2014	TQ0802	Ferring East Kingston	1 Present	Date
		14/04/2014	TQ0802	Ferring East Kingston	2 Present	Date, Positive Breeding
		18/04/2010 - 20/04/2010	TQ00W	Ferring Rife		Date
		18/04/2010	TQ00W	Ferring Rife		Date
		27/04/2008	TQ00W	Ferring	1 Present	Date
<i>Saxicola rubetra</i>	Whinchat	21/05/1995	TQ0802	Ferring Kingston	1 Present	Date
<i>Turdus philomelos</i>	Song Thrush	05/04/2015	TQ0802	Ferring Rife	5 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	4 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	6 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	4 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	5 Present	Positive Breeding
		27/04/2008	TQ00W	Ferring	5 Present	Positive Breeding
<i>Turdus viscivorus</i>	Mistle Thrush	20/04/2015	TQ0704	Angmering	1 Present	Positive Breeding
<i>Sylvia communis</i>	Whitethroat	03/07/2015	TQ0802	Ferring East Kingston	4 Present	Positive Breeding
		13/08/2014	TQ0802	Ferring East Kingston	12 Present	Positive Breeding
		26/06/2010	TQ00W	Ferring Rife		Positive Breeding
		08/06/2010	TQ00W	Ferring	1 Present	Positive Breeding
		19/04/2010 - 27/04/2010	TQ00W	Ferring Rife	8 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	3 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	1 Present	Positive Breeding
		02/06/2009	TQ0802	Ferring, Ferring East Kingston	2 Present	Positive Breeding

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
		25/04/2009	TQ00R	East Preston	2 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	1 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	6 Present	Positive Breeding
		01/06/2008	TQ00W	Ferring	2 Present	Positive Breeding
		27/04/2008	TQ00W	Ferring	5 Present	Positive Breeding
<i>Regulus ignicapilla</i>	Firecrest	19/09/2014	TQ0604	Angmering	1 Present	Positive Breeding
<i>Poecile palustris</i>	Marsh Tit	03/04/1985	TQ0603	Angmering CP, Angmering	1 Present	Date, Positive Breeding
<i>Sturnus vulgaris</i>	Starling	03/07/2015	TQ0802	Ferring East Kingston	30 Present	Positive Breeding
		17/06/2009	TQ00S	Angmering	52 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	18 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	17 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	60 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	21 Present	Positive Breeding
		27/04/2008	TQ00W	Ferring	66 Present	Positive Breeding
<i>Passer domesticus</i>	House Sparrow	03/07/2015	TQ0802	Ferring East Kingston	50 Present	Positive Breeding
		05/04/2015	TQ0802	Ferring Rife	44 Present	Positive Breeding
		11/04/2013	TQ0703	Angmering	6 Present	Positive Breeding
		10/06/2010	TQ00W	Ferring Rife	10 Present	Positive Breeding
		07/06/2010 - 10/06/2010	TQ00W	Ferring Rife		Positive Breeding
		17/06/2009	TQ00S	Angmering	50 Present	Positive Breeding
		14/06/2009	TQ00R	East Preston	48 Present	Positive Breeding
		25/04/2009	TQ00R	East Preston	38 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	35 Present	Positive Breeding
		08/06/2008	TQ00W	Ferring	36 Present	Positive Breeding
<i>Linaria cannabina</i>	Linnet	27/04/2008	TQ00W	Ferring	25 Present	Positive Breeding
		03/07/2015	TQ0802	Ferring East Kingston	2 Present	Positive Breeding
		05/06/2010	TQ00W	Ferring Rife	1 Present	Positive Breeding
		25/05/2010 - 26/05/2010	TQ00W	Ferring Rife	1 Present	Positive Breeding
		24/04/2009	TQ00S	Angmering	2 Present	Positive Breeding
<i>Emberiza schoeniclus</i>	Reed Bunting	27/04/2008	TQ00W	Ferring	1 Present	Positive Breeding
		05/04/2015	TQ0802	Ferring Rife	1 Present	Positive Breeding
		02/06/2010 - 07/06/2010	TQ00W	Ferring Rife	2 Present	Positive Breeding

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Taxon name	Common name	Date	Grid reference	Location name	Abundance	Basis of selection
		19/05/2010 - 20/05/2010	TQ00W	Ferring Rife		Positive Breeding
		11/04/2010	TQ00W	Ferring Rife		Positive Breeding
		18/03/2010 - 22/03/2010	TQ00W	Ferring Rife		Positive Breeding
		01/06/2008	TQ00W	Ferring	2 Present	Positive Breeding

Table 7: Summary invasive non-native species records

This table summarises records from 1980 onwards. See table 8 for detailed records.

Maximum abundance = highest total number of species recorded at one time.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	Invasive Non-Native Designation	Date of earliest record	Date of latest record	No. of records	Max. abundance
Birds						
<i>Psittacula krameri</i>	Ring-necked Parakeet	W&CA Sch 9 INNS	13/03/1993	13/03/1993	1	1
Higher Plants - Flowering Plants						
<i>Allium triquetrum</i>	Three-cornered Garlic	W&CA Sch 9 INNS	13/03/2010	13/03/2010	1	1
<i>Centranthus ruber</i>	Red valerian	Sussex INNS	2005	2006	3	1
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	W&CA Sch 9 INNS	06/12/2006	21/02/2011	3	1
<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	W&CA Sch 9 INNS	09/05/2009	01/01/2010 - 31/12/2010	2	1
<i>Elodea nuttallii</i>	Nuttall's Waterweed	W&CA Sch 9 INNS	06/12/2006	06/12/2006	1	1
<i>Fallopia japonica</i>	Japanese Knotweed	W&CA Sch 9 INNS	05/01/2005	09/05/2009	3	1
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	Hybrid bluebell	Sussex INNS	21/06/2005	21/06/2005	1	1
<i>Lamiasrum galeobdolon</i> subsp. <i>argentatum</i>	Yellow Archangel	W&CA Sch 9 INNS	06/12/2006	21/02/2011	2	1
<i>Myriophyllum aquaticum</i>	Parrot's-feather	W&CA Sch 9 INNS	26/05/2007	26/05/2007	1	Present
<i>Petasites fragrans</i>	Winter Heliotrope	Sussex INNS	21/06/2005	03/11/2012	3	1
<i>Prunus laurocerasus</i>	Cherry Laurel	Sussex INNS	01/01/2005	01/01/2005	1	1
<i>Quercus ilex</i>	Evergreen Oak	Sussex INNS	2005	2005	3	1
<i>Rhododendron ponticum</i>	A Flowering Plant	W&CA Sch 9 INNS	22/10/2009	22/10/2009	1	1
Invertebrates - Beetles						
<i>Harmonia axyridis</i>	Harlequin Ladybird	Sussex INNS	08/08/2013	22/05/2017	13	9

Table 8: Invasive non-native species records

Records in this table are from 1980 onwards.

N.B. Where 'Present' appears in abundance column, no single numerical figure for abundance was provided with the record.

Taxon name	Common name	Date	Grid reference	Location name	Abundance
Birds					
<i>Psittacula krameri</i>	Ring-necked Parakeet	13/03/1993	TQ0802	Ferring Kingston	1 Present
Higher Plants - Flowering Plants					
<i>Allium triquetrum</i>	Three-cornered Garlic	13/03/2010	TQ00R	Rustington/East & West Preston area	Present
<i>Centranthus ruber</i>	Red valerian	2005	TQ00R	Ham Manor Close, Angmering	Present
		01/05/2005	TQ00S	Angmering CP, Angmering	Present
		2006	TQ00W	Ferring/E.Kingston area	Present
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster	21/02/2011	TQ00R	Rustington, West Preston, East Preston	Present
		29/09/2010	TQ00S	Angmering CP, Angmering	Present
		12/06/2006	TQ00W	Ferring Rife,	Present
<i>Crocasmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>	Montbretia	01/01/2010 - 31/12/2010	TQ00R	Rustington/East & West Preston area	Present
		05/09/2009	TQ00W	Ferring	Present
<i>Elodea nuttallii</i>	Nuttall's Waterweed	12/06/2006	TQ00W	Ferring Rife,	Present
<i>Fallopia japonica</i>	Japanese Knotweed	2006	TQ00R	West Preston area	Present
		01/05/2005	TQ00S	Angmering CP, Angmering	Present
		05/09/2009	TQ00W	Ferring	Present
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	Hybrid bluebell	21/06/2005	TQ00R	Angmering CP, Angmering	Present
<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>	Yellow Archangel	21/02/2011	TQ00R	Rustington, West Preston, East Preston	Present
		12/06/2006	TQ00W	Ferring,	Present
<i>Myriophyllum aquaticum</i>	Parrot's-feather	26/05/2007	TQ065025	East Preston parish, Church Field (a garden), East Preston	
<i>Petasites fragrans</i>	Winter Heliotrope	21/06/2005	TQ00R	Angmering CP, Angmering	Present
		05/09/2009	TQ00W	Ferring	Present
		11/03/2012	TQ00W	Ferring	Present
<i>Prunus laurocerasus</i>	Cherry Laurel	Jan-05	TQ00R	Rustington/East Preston area	Present
<i>Quercus ilex</i>	Evergreen Oak	2005	TQ00R	Ham Manor Close	Present
		01/05/2005	TQ00S	Angmering CP, Angmering	Present
		07/06/2005	TQ00W	Ferring,	Present
<i>Rhododendron ponticum</i>	A Flowering Plant	22/10/2009	TQ00S	North Angmering	Present

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Taxon name	Common name	Date	Grid reference	Location name	Abundance
Invertebrates - Beetles					
<i>Harmonia axyridis</i>	Harlequin Ladybird	22/05/2017	TQ068041	Angmering CP, Angmering	Present Adult
		03/07/2014	TQ06990410	Angmering Allotments	1 Present
		08/08/2013	TQ06990410	Angmering Allotments	1 Adult
		09/06/2014	TQ06990410	Angmering Allotments	9 Immature
		09/08/2013	TQ06990410	Angmering Allotments	4 Present
		10/08/2013	TQ06990410	Angmering Allotments	2 Present
		11/07/2015	TQ06990410	Angmering Allotments	1 Present
		12/10/2014	TQ06990410	Angmering Allotments	1 Present
		18/06/2016	TQ06990410	Angmering Allotments	2 Present
		19/06/2014	TQ06990410	Angmering Allotments	1 Immature
		19/06/2015	TQ06990410	Angmering Allotments	3 Adult
		21/05/2015	TQ06990410	Angmering Allotments	Present
		26/06/2015	TQ06990410	Angmering Allotments	3 Present

Map Citation Sheets

Any citations currently available for designated sites within the search area can be seen on the following pages.

LOCAL WILDLIFE SITE (LWS)

West Sussex

Site Name:	Ferring Rife and Meadows		
Site Ref:	Ar12	Owner:	Private
District:	Arun	Size (ha):	9.5
Parish:	Kingston & Ferring	Date:	Identified May 1994
National Grid Ref:	TQ090022	Author:	Graham Roberts
Habitat:	Stream and neutral grassland		

Summary

This site consists of 1.3km of rife, plus several hectares of rough grassland. Situated adjacent to the urban area of Ferring it is of great local importance. It supports a nationally rare snail, *Monacha cartusiana* and a large proportion of a locally uncommon plant, Parsley Water-dropwort *Oenanthe lachenalii*. A good diversity of birds, butterflies and dragonflies have also been recorded.

Site description

Ferring Rife consists of a wide channel between two high grassy banks. The clear, shallow flowing water supports a fairly sparse aquatic flora. This includes submerged species such as Curled Pondweed *Potamogeton crispus*, Fringed Water-lily *Nymphoides peltata* and Canadian Waterweed *Elodea canadensis*. The marginal flora is more diverse and includes Water-plantain *Alisma plantago-aquatica*, Branched Bur-reed *Sparganium erectum*, Grey Club-rush *Schoenoplectus tabernaemontani*, Water Figwort *Scrophularia auriculata* and Water Cress *Nasturtium officinale*.

There is an interesting area of moderately species-rich rough grassland to the west of the rife. The presence of Parsley Water-dropwort is particularly notable. Other interesting plants include Pepper-saxifrage *Silaum silaus*, Strawberry Clover *Trifolium fragiferum*, Yellow Loosestrife *Lysimachia vulgaris*, Marsh Woundwort *Stachys palustris*, Meadow Vetchling *Lathyrus pratensis*, Common Spike-rush *Eleocharis palustris*, Meadowsweet *Filipendula ulmaria*, Wild Carrot *Daucus carota* and Carnation Sedge *Carex panicea*.

There are several small, shallow ponds within the area of rough grassland. Some of the marginal flora, such as Common Reedmace *Typha latifolia* and Yellow Iris *Iris pseudacorus*, has presumably been introduced.

The grassland supports a good colony of the nationally rare snail, *Monacha cartusiana*. Grey Wagtail and Kingfisher have been seen by the rife, and Meadow Pipit, Skylark and Snipe are known to frequent the rough grassland. Butterflies recorded include Small Copper, Common Blue, Orange-tip, Green-veined White, Ringlet and Wall Brown. The Common Darter dragonfly has been observed in large numbers along the rife.

Management recommendations

The rife vegetation is likely to require periodic clearance. A careful balance is required in order to maintain water flow without denuding it of vegetation.

LOCAL WILDLIFE SITE (LWS)

West Sussex

Site Name:	Highdown Hill & the Miller's Tomb		
Site Ref:	Ar16 / W02	Owner:	National Trust & Worthing Borough Council
District:	Arun & Worthing	Size (ha):	22.9
Parish:	Ferring & Worthing	Date:	Identified May 1992. Revised May 1997
National Grid Ref:	TQ095042	Author:	Simon Curson
Habitat:	Chalk grassland, scrub and chalk pits		

Summary

The Miller's Tomb SNCI, identified in 1992, comprises a small area of species-rich chalk grassland. The SNCI was extended in 1997 to include Highdown Hill. The whole site comprises relatively unimproved chalk grassland and scrub on the south facing scarp of a small outlier of the South Downs near Worthing. Although heavily used for informal recreation, the site supports several uncommon plants and animals.

Site description

The grassland has received fertiliser in the past when a hay crop was taken and is now mostly grass dominated with species such as Upright Brome *Bromus erectus*, Red Fescue *Festuca rubra* and Tall Fescue *Festuca arundinacea* prominent. Despite this some typical chalk grassland herbs are present including Hairy Violet *Viola hirta*, Fairy Flax *Linum catharticum*, Glaucous Sedge *Carex flacca*, the rare Round-headed Rampion *Phyteuma tenerum* and large quantities of Sainfoin *Onobrychis viciifolia*, especially on the reservoir. On the areas of deeper soil Bulbous Buttercup *Ranunculus bulbosa*, Salad Burnet *Sanguisorba minor*, Ribwort Plantain *Plantago lanceolata* and Rough Hawk's-beard *Crepis biennis* occur.

Chalk scrub is found around the old chalk pits and site boundaries, typically comprising Hawthorn, Ash, Dogwood, Elder, Privet, Buckthorn and Traveller's Joy *Clematis vitalba*. Associated with the scrub are patches of taller grassland containing False Oat-grass *Arrhenatherum elatius*, Hoary Ragwort *Senecio erucifolius*, Wild Parsnip *Pastinaca sativa*, Common Knapweed *Centaurea nigra* and Hemp Agrimony *Eupatorium cannabinum*. A clump of trees including Beech, Holm Oak, Ash and Scots Pine is present on the hill fort.

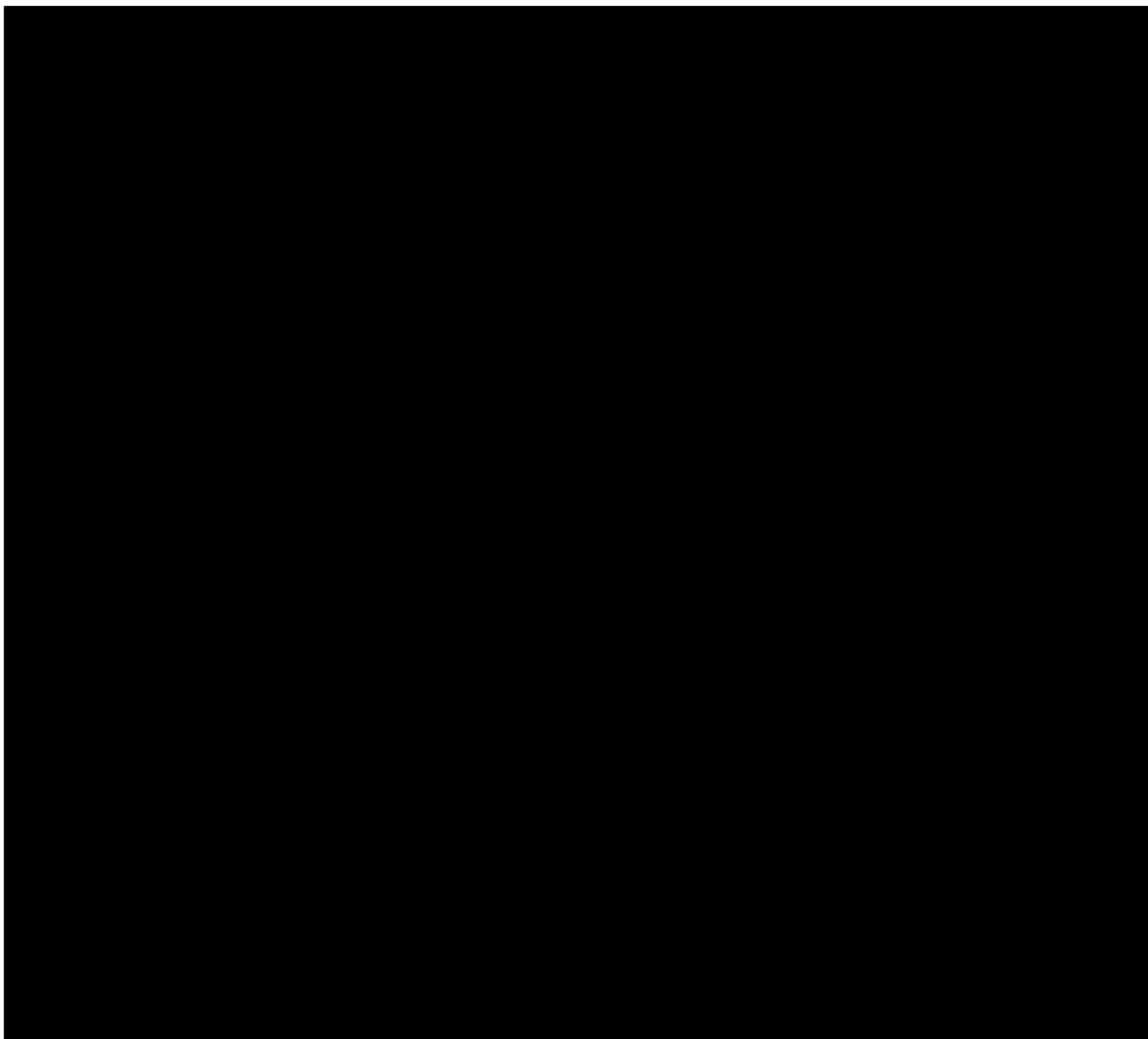
The mosaic of short turf, taller herbs and scrub makes the site a valuable habitat for birds and invertebrates. Fauna recorded here include Carthusian snail, a Red Data Book species, Long-winged Cone-head, Common Lizard, Glow-worm, the scarce Chalkhill Blue and 17 commoner butterfly species and a range of birds including Long-tailed Tit, Whitethroat, Chiffchaff, Linnet, Bullfinch and occasional Nightingales.

Management recommendations

Grazing the site would be the most beneficial management for the site, however this may not be practical due to the high recreational pressure. Cutting the grassland areas annually and removing the cuttings may be the most practical method of maintaining the grassland. The areas of tall herb and scrub would benefit most if left to develop naturally. However it would be best to control any further spread of the scrub.

Useful Contacts

Please use the following contacts for further advice or interpretation of the data in this report.



The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.

Annex – Supporting Information

Statutory site designations

Non-statutory site designations

Species designations

Sussex invasive non-native report

Statutory site designations

Site of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act 1981, as being of special interest for nature conservation. They represent the finest sites for wildlife and natural features supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific scientific criteria. *The Guidelines for the Selection of Biological SSSIs*, published in 1989 by the Joint Nature Conservation Council, set down the selection criteria for both biological and geological SSSIs.

There are over 4,000 SSSIs in England of which just under 150 are in Sussex. Natural England is responsible for identifying and protecting these sites. This is achieved, primarily, in partnership with SSSI owners and managers.

Under the Countryside and Rights of Way Act 2000 (CROW) anyone who intentionally or recklessly destroys or damages any of the flora, fauna or geological or physiological features of an SSSI is guilty of an offence. They are liable, on summary conviction, of a fine of up to £20,000.

Special Area of Conservation (SAC)

Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a European network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at a European level. There are 12 SAC sites in Sussex.

Special Protection Area (SPA)

Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided. All SPAs are also designated as SSSIs. There are six SPA sites in Sussex.

Ramsar

Ramsar sites are designated under the Convention on Wetlands of International Importance. Under the Convention, each government must select its best wetlands according to very clear criteria, which include: a wetland that regularly supports 20,000 or more waterbirds; a wetland that regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Wetlands are broadly defined to include marsh, fen, peatland and water. All designated Ramsar sites are also designated as SSSIs. There are four Ramsar sites in Sussex.

National Nature Reserve (NNR)

National Nature Reserves are statutory reserves established under the Wildlife and Countryside Act 1981. NNRs may be owned by the relevant national body (e.g. Natural England in England) or established by agreement. A few are owned and managed by non-statutory bodies, for example the Sussex Wildlife Trust. NNRs cover a selection of the most important sites for nature conservation in the UK. There are six NNRs in Sussex.

National Park

National Parks are beautiful, spectacular and often dramatic expanses of countryside. In the UK people live and work in the National Parks and the farms, villages and towns are protected along with the landscape and wildlife. They differ from Areas of Outstanding Natural Beauty (AONBs) in that each National Park has its own authority for planning control and other services.

The creation of the South Downs National Park (SDNP) was confirmed on 12th November 2009 and it came into being on 1st April 2010.

Area of Outstanding Natural Beauty (AONB)

Areas of Outstanding Natural Beauty are areas of high scenic quality that have statutory protection in order to conserve and enhance the natural beauty of their landscapes. They differ from National Parks in their more limited opportunities for extensive outdoor recreation and by the way they are managed. AONBs are designated by Natural England under the Countryside and Rights of Way Act 2000.

There are two AONBs in Sussex covering approx. 114,000 hectares: Chichester Harbour and the High Weald. Each has an associated body concerned with the area's conservation.

Marine Conservation Zone (MCZ)

Marine Conservation Zones can be established to protect nationally important marine wildlife, habitats, geology and geomorphology and can be designated anywhere in English and Welsh inshore and UK offshore waters. They are established under the Marine and Coastal Access Act (2009). MCZs will be one of six designations contributing to an ecologically coherent network of marine protected areas.

Local Nature Reserve (LNR)

Local Nature Reserves may be declared by local authorities under the National Parks and Access to the Countryside Act 1949. LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature. Some LNRs are also SSSIs. There are 36 LNRs in Sussex.

Country Park

Country Parks are statutorily declared and managed by local authorities in England and Wales under the Countryside Act 1968. They are primarily intended for recreation and leisure opportunities close to population centres and do not necessarily have any nature conservation importance. However, many are in areas of semi-natural habitat and so form a valuable network of locations at which informal recreation and the natural environment coexist. There are 11 Country Parks in Sussex, the details of which can be obtained from the local authorities.

Non-statutory site designations

Local Wildlife Site (LWS)

Formerly known as Sites of Nature Conservation Importance (SNCI), Local Wildlife Sites are identified at a county level. They typically form a network of sites that are recognised to be of local conservation importance and are often included in Local Authority development plans.

There are many sites within East and West Sussex and Brighton and Hove that are not recognised under the national designation of SSSI (Site of Special Scientific Interest) but are of considerable wildlife value due to the special interest of their flora or fauna. In May 1990 a Sussex-wide project was instigated to identify which non-designated sites were important for wildlife. The selected sites are now known as Local Wildlife Sites. The aim of this project was to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance.

Sites within both rural and urban areas were considered but the evaluation process considers two types of site under slightly different criteria:

- **Rural sites**, that may contain habitats such as heathland or ancient woodland, must be of county-wide importance.
- **Urban sites** should recognise the importance of safeguarding important urban wildlife sites, to link all significant greenspaces and to ensure that people in towns have easy access to wildlife areas.

After extensive survey work, the selection of LWS was made by a panel of expert ecologists. This panel included representatives from the relevant County Council, English Nature (now Natural England) and the Sussex Wildlife Trust. A range of specialists with either specific species knowledge or a sound knowledge of the county's ecology were also involved with the selection process. Assessment and identification of LWS is a continuing process with new sites being identified and others deleted as ecological knowledge of the total resource and specific sites increase.

In West Sussex LWS selection is steered by the SxBRC, whereas in East Sussex it is steered by East Sussex County Council in partnership with the district and borough councils. Currently there are over 600 LWS in Sussex.

Although LWS have no statutory protection they need to be considered in the planning process through Planning Policy Guidance such as PPG9 which refers to the Town & Country Planning Act 1990 Section 30. This states that nature conservation issues should be included in the surveys of local authority areas to ensure that the plans are based on fully adequate information about local species, habitats, geology and landform. Plans should be concerned not only with designated areas but also with other land of conservation value and the possible provision of new habitats.

LWS citations outline the characteristics of the area based on its semi-natural vegetation and the underlying geology and are in three main sections :-

- **Summary** which highlights the nature conservation importance of the site
- **Site description or site notes** which gives further descriptive details about the site and its associated species
- **Management recommendations** which give a brief indication of the type of management that would best maintain the nature conservation interest of the site.

Local Geological Site (LGS)

Previously known as Regionally Important Geological/Geomorphological Sites (RIGGS), Local Geological Sites have been identified by local geodiversity groups as being of importance. There are over 120 LGS in Sussex which have been assessed by the Sussex Geodiversity Partnership. The features identified as being important

become a material consideration in any future development, and should be taken into account by the relevant local authority.

A selection of LGS with public access in Sussex can be viewed on the [Sussex Geodiversity Partnership's website](#).

Notable Road Verge (NRV)

Notable Road Verges (NRVs) are areas of roadside verge that have been designated for their special wildlife interest. They can hold spectacular displays of wild flowers, including rare orchids and other plant species indicative of old meadows, and can be of great importance to invertebrates and fungi. There is no statutory protection for road verges, but they can be found within both non-statutory and statutory designations.

As linear features, road verges naturally traverse a wide range of habitat types, soils and geology. The species composition of NRVs can therefore be varied. Swathes of cow parsley, cuckoo flower, primroses and orchids can be found. Downland herbs, meadow flowers and heathers support a range of insects, as do the areas of bare ground which are used by nesting bees and wasps. Reptiles, amphibians and mammals can find shelter along these verges and use them as valuable green corridors.

As the Highway Authorities, the County Councils are responsible for the cutting and management of roadside verges, and they also have a responsibility to conserve biodiversity. Where health and safety measures allow, this is achieved by restricting cutting to certain times of the year (usually when wild flowers have set seed in late summer) and using different techniques to standard verge cutting.

The initiatives for designating and managing NRVs differ between East and West Sussex. NRVs in West Sussex are identified by short oak posts with red discs. In East Sussex they are marked by posts with yellow metal flowers.

In West Sussex, the following guidelines are used to help identify NRVs:

- 1) Site supports locally rare, notable or protected species of flora or fauna** e.g. the plant coralroot. This type of bittercress is only found in two localised areas of the UK; the Sussex Weald and the Chilterns.
- 2) Site is a good example of an uncommon, remnant or declining habitat** e.g. species of sandy grassland along Rock Road in the Parish of Washington.
- 3) Site has good overall species diversity** e.g. Mallions Lane near Cuckfield.
- 4) The assemblage of wild flowers has high aesthetic value** e.g. Franklyn Road outside Haywards Heath hospital with a wonderful display of common spotted orchids in early summer.
- 5) Site has wildlife value that is regarded as important by the local community** e.g. Barnham Road at Eastergate.

Marine Site of Nature Conservation Importance (MSNCI)

Marine Sites of Nature Conservation Importance are non-statutory sites identified on account of the special interest of their marine habitats, the fauna and flora, or for unusual geological and geomorphological features. The identification of these sites is to highlight their importance for marine wildlife and to emphasise the risks of certain operations damaging their interest. There are 23 MSNCIs off the Sussex coast.

Species designations

International legislation

Birds Directive

The European Union meets its obligations for bird species under the Bern Convention and Bonn Convention and more generally by means of Directive 2009/147/EC (Birds Directive) on the conservation of wild birds. The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe.

Annex 1

Birds which are in danger of extinction; vulnerable to specific changes in their habitat; considered rare because of small populations or restricted local distribution; requiring particular attention for reasons of the specific nature of habitat. Their most suitable territories are protected by the designation of Special Protection Areas (SPA).

Habitats Directive

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora, known as the Habitats Directive, was adopted in 1992. The Directive is the means by which the European Union meets its obligations under the Bern Convention. The Directive is transposed into UK law through the The Conservation of Habitats and Species Regulations 2010 (see below).

Annex 2

Species considered to be most in need of conservation at a European level (excluding birds). Special Areas of Conservation (SACs) are strictly protected sites designated under the Habitats Directive and provide a network of important high-quality conservation sites that will make a significant contribution to conserving Annex 2 species.

Priority species - Species which are endangered, the conservation of which the European Community has a particular responsibility in view of the proportion of their natural range which falls within the territory of the Community.

Non-priority species - Species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) whose conservation requires the designation of special areas of conservation.

Annex 4

Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat.

National legislation

The Conservation of Habitats and Species Regulations 2010

This is a transposition of the Habitats Directive into UK legislation. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. Under the Regulations, government departments and public bodies have a general duty, in the exercise of any of their functions, to have regard to the Habitats Directive.

Schedule 2 lists European protected species of animals

Schedule 5 lists European protected species of plants

Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981 (WCA) remains one of the most important pieces of wildlife legislation in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds (79/409/EEC) and Natural Habitats and Wild Fauna and Flora (92/43/EEC) are implemented. The Act is divided into four parts; Part I is concerned with the protection of wildlife and is split into 27 Sections. Schedules of species relevant to the planning process are detailed as follows:

Schedule 1 Part 1	Birds protected by special penalties at all times.
Schedule 5 Section 9.1 (killing/injuring)	Animals which are protected from intentional killing or injuring.
Schedule 5 Section 9.1 (taking)	Animals which are protected from taking.
Schedule 5 Section 9.4a	Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection.
Schedule 5 Section 9.4b	Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.
Schedule 8	Plants which are protected from intentional picking, uprooting or destruction (Section 13 Part 1a); selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) (Section 13 Part 2a); advertising (any of these) for buying or selling (Section 13 Part 2b).
Natural Environment & Rural Communities (NERC) Act Section 41 Species Also known as 'Species of Principle Importance in England' and the 'England Biodiversity List', this list was developed to meet the requirements of Section 40 of the NERC Act (2006). The list is derived from the 2007 revised list of UK BAP Priority Species. It is used to guide decision-makers, such as public bodies, in implementing their duty under Section 40 of the Act 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.	
Section 41	Lists species " <i>of principal importance for the purpose of conserving biodiversity</i> ".

Other species designations

IUCN Red List of Threatened Species

The IUCN Red List categories are intended to be an easily and widely understood system for classifying species at high risk of global extinction. The list is divided into nine categories, of which the following are used in this report:

Extinct	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
Extinct in the wild	A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
Critically endangered	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.
Endangered	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.
Vulnerable	A taxon is Vulnerable when the best available evidence indicates that it meets any of

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	the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of extinction in the wild.
Near threatened	A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
Least concern	A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.
Data deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.
Nationally rare/scarse species	
Nationally rare	Occurring in 15 or fewer hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Nationally rare marine	Occurring in eight or fewer 10km x 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
Nationally scarce	Occurring in 16-100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria. This category replaces Notable, Notable A and Notable B.
Nationally scarce marine	Occurring in nine to 55 10km x 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
Nationally Notable A	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less-well recorded groups, within seven or fewer vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nationally Notable B	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups, between eight and twenty vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nationally Notable	Species which are estimated to occur within the range of 16 to 100 10km squares. (subdivision into Notable A and Notable B is not always possible because there may be insufficient information available). Superseded by Nationally Scarce, and therefore no longer in use.
Birds of Conservation Concern 4: Red list	Birds that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery
Birds of Conservation Concern 4: Amber list	Birds with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined

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	historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
UK Biodiversity Action Plan Priority Species	The UK List of Priority Species contains 1150 species that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP).
Local inventories	
Sussex Rare Species Inventory	The Sussex Rare Species Inventory contains over 3,400 species. These species are selected according to strict criteria of rarity associated with their occurrence in Sussex. It includes species which fall into the above categories of rarity as well as county rarities.
Sussex Notable Bird List	The Sussex Notable Bird List consists of species that are particularly scarce or vulnerable to development. See next page for full details.

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Sussex Notable Bird List

The Sussex Notable Bird List consists of species that are particularly scarce or vulnerable to development. It includes species which are either on the Birds of Conservation Concern Red and Amber lists or Schedule 1 species known to have bred in Sussex, or have been recorded in summer and may breed in the future. Table 6 of the report will show records of these species based on selection criteria decided on by the Sussex Ornithological Society (SOS).

These records are not available to the general public due to the sensitivity of the data. The SOS has kindly shared these records with us, with the view that better planning decisions can be made with their availability.

Below is the list of species and the date ranges/criteria for their inclusion:

Species	Record type treated as notable in Sussex
Mute Swan	Confirmed or probable breeding or late May - early July records
Common Shelduck	Confirmed or probable breeding or late May - early July records
Eurasian Wigeon	Confirmed or probable breeding or late May - early July records
Gadwall	Confirmed or probable breeding or late May - early July records
Eurasian Teal	Confirmed or probable breeding or late May - early July records
Mallard	Confirmed or probable breeding or late May - early July records
Pintail	Confirmed or probable breeding or late May - early July records
Garganey	Confirmed or probable breeding or late May - early July records
Shoveler	Confirmed or probable breeding or late May - early July records
Common Pochard	Confirmed or probable breeding or late May - early July records
Tufted Duck	Confirmed or probable breeding or late May - early July records
Quail	Confirmed or probable breeding or March - August records
Grey Partridge	Confirmed or probable breeding or March - August records
Fulmar	Confirmed or probable breeding records
Eurasian Bittern	All records
Little Egret	Confirmed or probable breeding records + roost
Little Grebe	Confirmed or probable breeding or late May - early August records
Honey-buzzard	Information provided in summary only
Red Kite	Confirmed or probable breeding or March - August records + roost
Marsh Harrier	Information provided in summary only
Hen Harrier	Roost
Montagu's Harrier	Information provided in summary only
Goshawk	Information provided in summary only
Osprey	Mid-May to July records
Spotted Crane	Information provided in summary only
Stone-curlew	Information provided in summary only
Black-winged Stilt	April to August records
Avocet	Confirmed or probable breeding or March - July records
Oystercatcher	Confirmed or probable breeding or late May - early July records
Ringed Plover	Confirmed or probable breeding or late May - early July records
Little Ringed Plover	Confirmed or probable breeding or April - July records
Lapwing	Confirmed or probable breeding or April - June records
Curlew	Confirmed or probable breeding or April - July records
Common Sandpiper	Confirmed or probable breeding or late May - early July records
Common Redshank	Confirmed or probable breeding or April - July records
Woodcock	Confirmed or probable breeding or March - August records
Common Snipe	Confirmed or probable breeding or April - July records
Little Tern	Confirmed or probable breeding records
Sandwich Tern	Confirmed or probable breeding records
Common Tern	Confirmed or probable breeding records
Kittiwake	Confirmed or probable breeding records
Black-headed Gull	Confirmed or probable breeding records
Mediterranean Gull	Confirmed or probable breeding records
Common Gull	Confirmed or probable breeding records

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Lesser Black-backed Gull	Confirmed or probable breeding records
Herring Gull	Confirmed or probable breeding records
Yellow-legged Gull	Confirmed or probable breeding or April - June records
Great Black-backed Gull	Confirmed or probable breeding records
Stock Dove	Confirmed or probable breeding or May - July records
Turtle Dove	Confirmed or probable breeding or May - July records
Common Cuckoo	Confirmed or probable breeding or May - July records
Barn Owl	All records
Tawny Owl	Confirmed or probable breeding or May - July records
Long-eared Owl	Confirmed or probable breeding or March - July records + roost
Short-eared Owl	Confirmed or probable breeding or May - July records
Nightjar	Confirmed or probable breeding or May - July records
Common Swift	Confirmed or probable breeding records
Hoopoe	Confirmed or probable breeding or May - July records
Bee-eater	Confirmed or probable breeding or May - July records
Kingfisher	Confirmed or probable breeding or March - August records
Wryneck	Confirmed or probable breeding or May - July records
Green Woodpecker	Confirmed or probable breeding records
Lesser Spotted Woodpecker	All records
Kestrel	Confirmed or probable breeding or May - July records
Hobby	Confirmed or probable breeding or April - August records
Peregrine	Information provided in summary only
Red-backed Shrike	Information provided in summary only
Firecrest	Confirmed or probable breeding or May - August records
Willow Tit	All records
Marsh Tit	Confirmed or probable breeding or April - July records
Bearded Tit	Confirmed or probable breeding or March - August records
Woodlark	Confirmed or probable breeding or February - August records
Skylark	Confirmed or probable breeding or April - July records
Sand Martin	Confirmed or probable breeding records
Barn Swallow	Confirmed or probable breeding records
House Martin	Confirmed or probable breeding records
Cetti's Warbler	Confirmed or probable breeding or March - August records
Wood Warbler	Confirmed or probable breeding or April - August records
Willow Warbler	Confirmed or probable breeding records
Common Whitethroat	Confirmed or probable breeding records
Dartford Warbler	Confirmed or probable breeding or March - August records
Grasshopper Warbler	Confirmed or probable breeding or May - July records
Savi's Warbler	Information provided in summary only
Marsh Warbler	Information provided in summary only
Common Starling	Confirmed or probable breeding records
Song Thrush	Confirmed or probable breeding records
Mistle Thrush	Confirmed or probable breeding records
Spotted Flycatcher	Confirmed or probable breeding records
Common Nightingale	Confirmed or probable breeding records
Pied Flycatcher	Confirmed or probable breeding or May - July records
Black Redstart	May – July records
Common Redstart	Confirmed or probable breeding or April - July records
Whinchat	Confirmed or probable breeding or May - July records
Northern Wheatear	Confirmed or probable breeding or May - July records
Duncock	Confirmed or probable breeding records
House Sparrow	Confirmed or probable breeding records
Tree Sparrow	All records
Yellow Wagtail	Confirmed or probable breeding or May - June records
Blue-headed Wagtail	Confirmed or probable breeding or May - June records
Grey Wagtail	Confirmed or probable breeding or May - June records
Tree Pipit	Confirmed or probable breeding or May - July records
Meadow Pipit	Confirmed or probable breeding or May - July records

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Hawfinch	All records
Bullfinch	Confirmed or probable breeding records
Linnet	Confirmed or probable breeding records
Lesser Redpoll	Confirmed or probable breeding or May - July records
Common Crossbill	Confirmed or probable breeding or February - June records
Serín	All records
Corn Bunting	All records
Cirl Bunting	All records
Yellowhammer	Confirmed or probable breeding records
Reed Bunting	Confirmed or probable breeding records

Sussex Invasive Non-Native Species (INNS)

The Sussex invasive non-native species (INNS) report is produced in order to help minimise the threat posed by invasive species in Sussex. An invasive non-native species is defined as a species whose introduction and/or spread threatens biological diversity. The INNS table includes records of non-native species listed in Schedule 9 of the Wildlife & Countryside Act 1981 (WCA) and 26 other species not in this Schedule but which pose a particular risk in Sussex. These additional species are:

Scientific name	Common name
<i>Pseudorasbora parva</i>	Topmouth Gudgeon
<i>Leucaspis delineates</i>	Sunbleak
<i>Amsinckia micrantha</i>	Common Fiddleneck
<i>Centranthus ruber</i>	Red Valerian
<i>Gaultheria shallon</i>	Shallon
<i>Hyacinthoides hispanica</i>	Spanish Bluebell
<i>Nymphoides peltata</i>	Fringed Water-lily
<i>Petasites fragrans</i>	Winter Heliotrope
<i>Prunus laurocerasus</i>	Cherry Laurel
<i>Hyacinthoides non-scripta</i> x <i>hispanica</i> = <i>H. x massartiana</i>	Hybrid Bluebell
<i>Lemna minuta</i>	Least Duckweed
<i>Acaena novae-zelandiae</i>	Pirri-pirri-bur
<i>Lysichiton americanus</i>	American Skunk Cabbage
<i>Cortaderia selloana</i>	Pampas Grass
<i>Quercus ilex</i>	Evergreen Oak
<i>Harmonia axyridis</i>	Harlequin Ladybird
<i>Lilioceris lili</i>	Lily Beetle
<i>Cameraria ohridella</i>	Horse-Chestnut Leaf-miner
<i>Campylopus introflexus</i>	Heath Star Moss
<i>Trachemys scripta</i>	Red-eared Terrapin
<i>Lithobates catesbeianus</i>	American Bullfrog
<i>Styela clava</i>	Leathery Sea Squirt
<i>Dreissena polymorpha</i>	Zebra Mussel
<i>Dreissena rostriformis bugensis</i>	Quagga Mussel
<i>Lymantria dispar</i>	Gypsy Moth
<i>Thaumetopoea processionea</i>	Oak Processionary Moth

What's the problem

With no natural predators and a benign climate, INNS can out-compete our native plant and animal species. For example, some invasive plant species can change light levels, decrease dissolved oxygen in water, change soil chemistry and its structure, and increase surface run-off and soil erosion. On a more subtle level, INNS can affect ecosystem processes such as nutrient cycling, pollination and regeneration of soils. Invasive fauna can compete with native species, displace them, consume them, act as parasites or transmit diseases, reduce growth and survival rates, cause the decline or extinction of local populations or even entire species.

Legislation

Section 14 of the Wildlife and Countryside Act 1981 (WCA) is the principal legislation dealing with non-native species. Schedule 9 lists plant and animal species to which Section 14 applies.

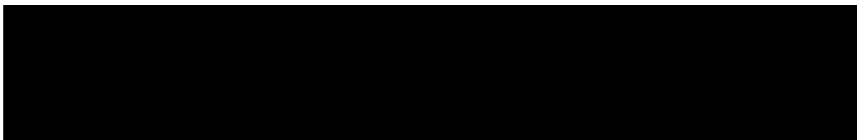
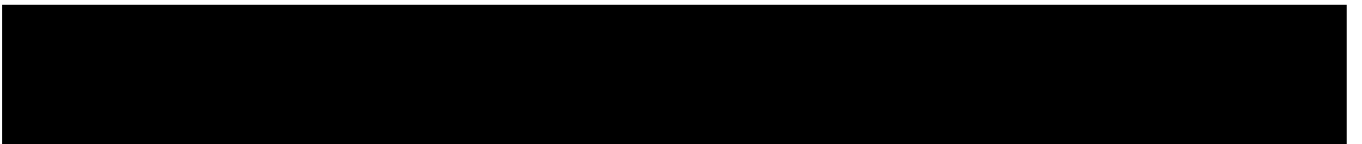
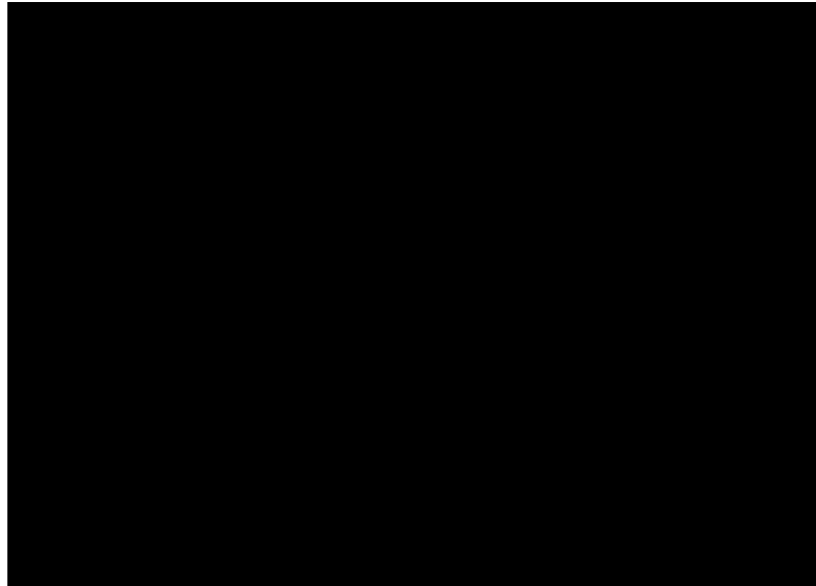
Section 14 makes it illegal to release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state, or is listed in Schedule 9 to the Act. It is also illegal to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 to the Act.

What to do if there is an invasive alien species on your site

If you have any of the species listed in this report on your site, firstly investigate the recommended control for the particular species. You can search by species name on the [GB non-native species secretariat website](#) for further advice.

If there is an invasive non-native species at your site that is not in this report please email us at info@sxbrc.org.uk or call 01273 497570 so that we can update our database.

The Sussex Biodiversity Record Centre must be acknowledged whenever data is cited from this report.



Sussex
Wildlife Trust