



# SHAFTESBURY ESTATE

## ENVIRONMENTAL AUDIT

WORKING DOCUMENT  
FOR COMMENT 26/11/2020

NOVEMBER 2020

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The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

## **Executive Summary**

This report sets out the findings of various ecological monitoring surveys undertaken on the Shaftesbury Estate from 1980 until 2020. Many ecologists and groups have been involved in these surveys over the years, together with Stewart Hand (formerly Shaftesbury Estate, now Upper Allen Fisheries), Dorset Environmental Records Centre (DERC) (and the recorders/groups that contribute records to their database), Dorset Wildlife Trust (DWT) and The Environment Agency. Recorders and Ecologists include; Major Nigel Lewis (Barn owls), Dr Roger Ransome (Bats), Colin Morris (Bats), Dr Katie Pollard (Bats & Barn owls), Ian Sibsey (Birds), Mark Hardaker & Arthur Bryant (Butterflies), Bryan Edwards (Botany) and Sophie Smith (Dormice).

Dorset Environmental Records Centre (DERC) have produced data sheets and maps on habitats and species dating back to 1980 and Dorset Wildlife Trust information on the Sites of Nature Conservation Importance (SNCIs) and Dorset Wildlife Trust Reserves on the Estate. The Multi-Agency Geographic Information for Communities (MAGIC) website, maintained by the Department of the Environment, Farming & Rural Affairs (DEFRA) was also used for information on protected sites.

Much of the Estate is also in Environmental Stewardship and information on this has been provided by Lord Shaftesbury and Andy Meecham (Farm Manager). The Estate is also part of Cranborne Chase Farm Cluster, which currently includes 18 farms, whose aims are to protect and enhance the landscape, habitats and biodiversity of the areas they occupy on Cranborne Chase.

With regards to protected habitats there are; two Special Sites of Scientific Interest (SSSIs), 16 Sites of Nature Conservation Interest (SNCIs), five Ancient Semi-Natural Woodlands (ASNWs), one Dorset Wildlife Trust (DWT) Reserve, one Veteran Tree Site, two veteran London plane trees, eight ancient Yew trees and one ancient Horse chestnut, c. 16 different habitat types and six priority habitats. All the land on the Estate is within the Cranborne Chase & Wiltshire Downs Area of Outstanding Natural Beauty (AONB). Many of these habitats are protected by law.

In addition there are a total of c. 865 different species of flora and fauna. These include; 608 flowering plant species, 120 lichen species, 47 moss species, 424 moth species, 209 beetle species, 44 butterfly species, 103 bird species, 36 mammal species and 13 damselfly and dragonfly species. Out of these, 20% of species are protected, rare and/or threatened and as such are protected by various wildlife legislation.

These results provide an environmental baseline of the ecological assets of the Shaftesbury Estate, which will in turn assist in achieving the aspirations for the future biodiversity of the site through sustainable management of the land.

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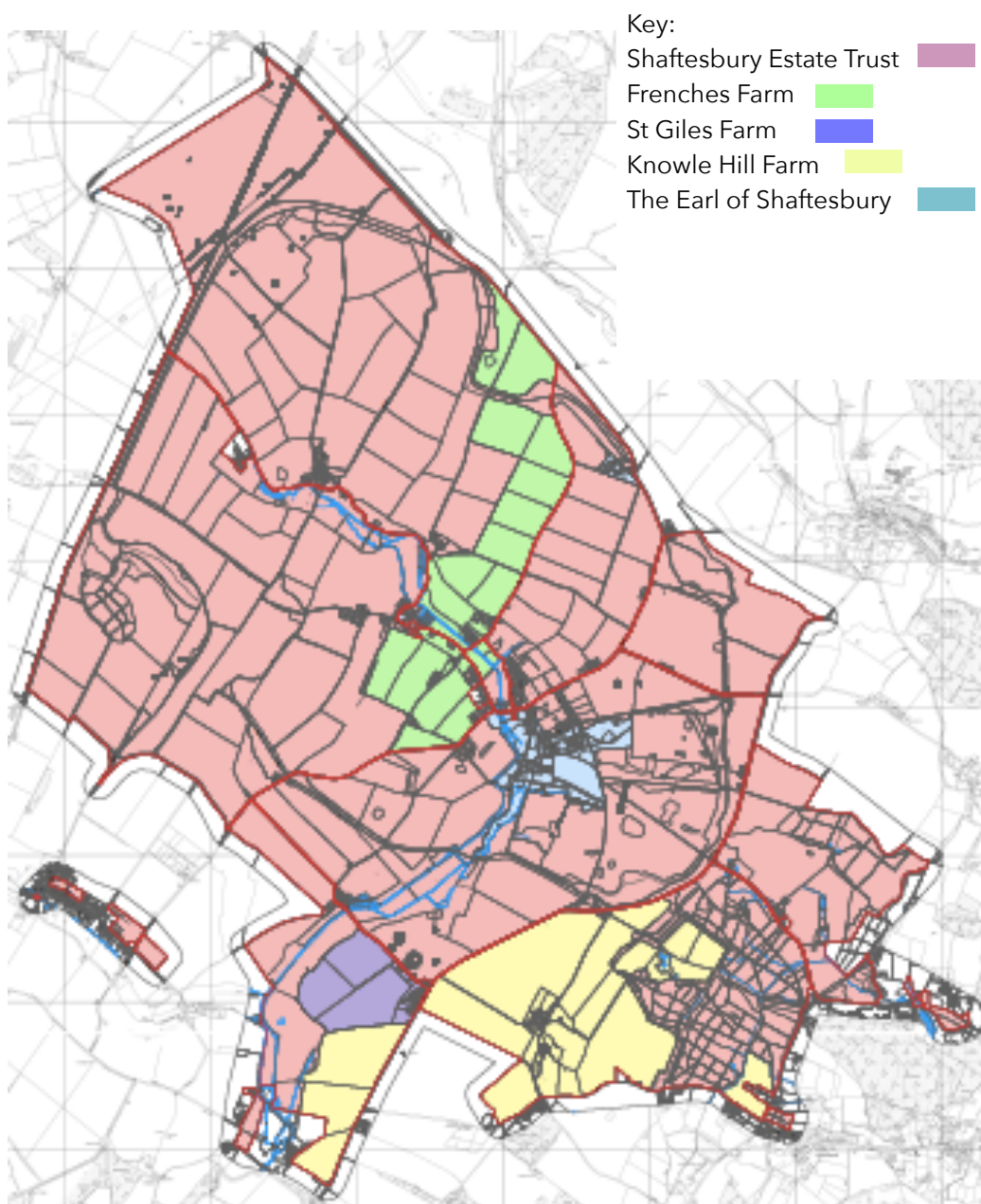
## 1.0. Introduction

1.1. This document provides an assessment of the ecological resources on the Shaftesbury Estate.

1.2. The Shaftesbury Estate is also referred to as the 'Estate'.

1.3. The whole Estate is large 2225 Ha (Fig. 1) and is ecologically complex as it includes a variety of European and nationally protected sites and/or species, as well as various other habitats and species assemblages of nature conservation interest. The Estate is split in to land owned by The Earl of Shaftesbury (St Giles Park) 30 Ha and The Shaftesbury Estate Trust 2195 Ha. The Trust land comprises; Parks and Buildings 317 Ha, Woodland 323.04 Ha and three farms, St Giles Farms 1209.8 Ha, Frenches Farm 144.92 Ha and Knowle Hill Farm 199.84 Ha.

Figure 1. Ownership Plan



The report has been prepared to collate all available ecological information to provide a baseline for the Estate and to ensure, going forward, that all rare/scarce/protected habitats and species will be considered by the Estate during planning of any works and, protected and enhanced respectively.

## 2.0. Biodiversity legislation

Key wildlife legislation for protected sites and protected species relevant to this report are summarised as follows:

- Conservation of Habitats and Species Regulations 2017 (as amended)
  - European Sites - Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar Sites
  - European Protected Species (EPS) eg, Bats, Great Crested Newts, Otter, Hazel Dormouse, Butterflies, Birds, Moths
- Wildlife and Countryside Act 1981 (as amended)
  - Sites of Special Scientific Interest (SSSI)
  - Schedule 1 Birds
  - Schedule 5 Fauna
- Natural Environment and Rural Communities Act 2006 (NERC 2006)
  - Biodiversity Duty for Section 41 (S.41) listed habitats, flora and fauna. Species "of principal importance for the purpose of conserving biodiversity". Habitats & Species that need to be taken into consideration by a public body when performing any of its functions and to further the conservation of the species and types of habitat included in any list published under this section.
- Protection of Badgers Act 1992
  - Protecting badgers in the UK
- UK BAP Priority Species and Habitats - Species and habitats originally identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP, 1994). The 'UK Post-2010 Biodiversity Framework', published in July 2012, succeeds the UK BAP.

N.B. Much of the work previously carried out under the UK BAP is now focussed at a country level. The UK BAP lists of priority species and habitats remain, however, important and valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats. In England, as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England).

### 3.0. Assessment Methodology

#### 3.1. Desk Study

- The collation and review of desk information was carried out in June 2020. The aim was to collate local records of protected or notable species and habitats, (including S.41 species [see above]) for the whole Estate from 1980 to present day (2020).
- In addition to desk records from the Shaftesbury Estate, additional records were requested from and provided by:
  - Lord Shaftesbury
  - Andy Meecham (Estate Manager)
  - Stewart Hand (formerly Shaftesbury Estate, now Upper Allen Fisheries)
  - Dorset Environmental Records Centre (DERC)
  - Dorset Wildlife Trust (DWT)
  - Recorders/Ecologists: Dr Roger Ransome (Bats), Colin Morris (Bats), Dr Katie Pollard (Bats & Barn owls), Ian Sibsey (Birds), Arthur Bryan & Mark Hardaker (Butterflies), Major Nigel Lewis (Barn owls), Bryan Edwards (Botany), Sophie Smith (Dormice)
  - Environment Agency
- Information on Multi-Agency Geographic Information for the Countryside (MAGIC) website was reviewed (hosted by Department of the Environment, Food & Rural Affairs (Defra) [magic.defra.gov.uk](http://magic.defra.gov.uk))
- Existing ecological reports and strategies covering the Estate were also appraised. These included:
  - Chris Burnett Associates (2010) St Giles Parkland Plan.
  - Fowler & Fortescue
  - Roger Ransome (July, 2019) EPS Mitigation Licence Beer Cellar of St Giles House. Final Second Annual Report. Bat Pro Ltd.
  - KP Ecology Ltd. Various Ecology Reports
  -

#### 3.2. Ecological Valuation Assessment

The approach to ecological valuation has followed guidance by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2006). The nature conservation value of areas of land, species and taxa have been categorised as follows:

- International (eg, Special Areas of Conservation, Special Protection Areas, Ramsar sites)
- National (eg, Sites of Special Scientific Interest and National Nature Reserves)
- Regional/County/District/Local or Parish (eg, Sites of Nature Conservation Interest (SNCIs), Dorset Wildlife Trust Reserves (DWTRs), Local Nature Reserves (LNRs), Veteran Trees, Priority Species and Priority Habitats.

## **4.0. Baseline Conditions**

### **4.1. Introduction - Lord Shaftesbury**

Shaftesbury Estate sits at the southern end of the Cranborne Chase and West Wiltshire Area of Outstanding Natural Beauty (AONB), approximately 10 miles north of Wimborne. It extends as far as the A354 to the North-West, Cranborne to the North-East and Horton to the South (Fig. 1).

Numerous Neolithic burial and ritual monuments, such as the Knowlton Henge (managed by English Heritage), and large groupings of Bronze Age round barrows, as on Wyke Down are located within the Estate. There is also later prehistoric and Romano-British earthworks including Ackling Dyke, part of the Roman road that runs from Old Sarum to Badbury Rings.

The Estate encompasses the village of Wimborne St.Giles, located in the upper valley of the River Allen. The village is designated as a Conservation Area and is attractive both in its setting and because of its wealth of traditional 18th and 19th Century brick cottages, as well as an impressive group of earlier buildings, such as the Almshouses, St. Giles Church and the Mill House. The character of the village today is a product of the tight control and skilled husbandry by the Estate over many years. Despite its small size, it still supports a church, a school, a shop and post office, a village hall and a public house.

At a short distance from the village is St. Giles House, the home of the Earl's of Shaftesbury, listed Grade 1 on Historic England's National Heritage List for England (NHLE) and the surrounding parkland, St Giles Park, listed Grade II\* on Historic England's Register of Parks and Gardens of Special Historic Interest in England. The manorial estate around St Giles House has not changed ownership by purchase since the Norman Conquest.

The Shaftesbury family places great importance on its role as stewards of the landscape and natural environment. The 10th Earl planted over a million trees on the Estate, restoring woodland and creating habitats for specific species of birds and insects. In 1992 he was joint-winner of the Royal Forestry Society's National Duke of Cornwall's Award for Forestry and Conservation. Butterflies were a particular passion, and he was vice-president of the British Butterfly Conservation Society, as well as president of the Hawk and Owl Trust.

In recent years the 12<sup>th</sup> Earl undertook a large restoration of St.Giles House and St.Giles Park which has won several national awards, such as 2015 Royal Institute of Chartered Surveyors (RICS) Award for Building Conservation, the 2015 Historic Houses Association/Sotheby's Restoration Award and the Historic England Angel Award, Best Rescue of a Historic Building or Site.

In 2011, as part of Natural England's Environmental Stewardship Scheme, a Parkland Plan was put together to restore the key elements of the landscape which are of historic value and safeguard the nature conservation interest of the Estate. Many of the important parkland features within St.Giles Park were repaired or restored, including the Grotto, the Lake, parts of the River Allen, The Castellated Arch and the Beech Avenue. The farm entered into a 10 year Higher Level Stewardship Agreement with Natural England to protect important environmental and archaeological objectives around the estate.



It is the Estate's intention to continue the work of enhancing and protecting the natural environment, wildlife, and important heritage, whilst promoting the rural economy through agriculture, tourism and the enhancement of the Estate's property interests. Below is a summary of its activities:

#### Agriculture

Approximately 1554 Ha of land is in arable cultivation with crops including wheat, barley and oats. The majority is farmed in hand St.Giles Farms. Grassland and the meadows are cut for hay or grazed by cattle.

#### Forestry

The estate manages approximately 323 Ha of woodland, which is informed by a Woodland Management Plan from 2015. Timber is sold or harvested for the Estate's own biomass system, which services 26 properties on the estate including St.Giles House. The woodland is made up of primarily Beech, Ash, Sycamore and Western Red Cedar. Work is undertaken in accordance with usual silvicultural practices of thinning and pruning.

#### Game management

The estate lets the pheasant and partridge shooting to a tenant who runs it for private use. Vermin are controlled by trapping. This includes tunnel traps for squirrels and rats and snares for foxes. Deer stalking is let and the deer population carefully managed.

#### Fish

The estate lets brown trout fishing on approximately two miles of the River Allen downstream from the road bridge in Wimborne St Giles. Much of the northern section of the river is wooded on both banks. A programme of bank side clearance has recently begun from Brockington. The river is stocked annually with brown trout which supplement existing stocks of wild brown trout.

## **4.2. Designated Sites**

### 4.2.1. International Sites

There are no European designated sites on the Estate, ie, no Special Areas of Conservation, Special Protection Areas or Ramsar Sites.

### 4.2.2. National Sites

- Special Sites of Scientific Interest (SSSI) (Appendix 1) - SSSIs represent the UK's best sites for wildlife and geology and are designated by Natural England under the Wildlife and Countryside Act 1981 (as amended). There are currently 139 SSSIs in Dorset. There are two SSSIs present on the Estate; Sutton Meadows SSSI and Pentridge Down SSSI.
- Sutton Meadows SSSI - The meadows lie on drift deposits over London Clay and have been traditionally managed for hay for many years. As such, they support a rich community of plants typical of damp neutral to mildly acid hay meadows. This type of grassland, once widespread, is now very uncommon due to agricultural improvement. The whole site is 4.96 Ha, only 0.56 Ha is within the Estate boundary.

- Pentridge Down SSSI - Pentridge Down is the largest surviving area of unimproved chalk downland in eastern Dorset lying midway between Blandford and Salisbury, close to Martin Down National Nature Reserve (NNR). The smaller outliers such as Oakley Down and Blackbush Down are relicts of a once continuous tract of downland, the majority of which has been lost to forestry and arable agriculture. The site is 62.32ha, only 2.1 Ha is within the Estate boundary.
- Sites listed on the Provisional Inventory of Ancient Woodland - Ancient woods are areas that have been continuously wooded in England since 1600. Ancient woods have been used by humans for centuries, providing timber and grazing for livestock.

There are also Ancient Semi-Natural Woodland (ASNWs) on the Estate - native trees and shrubs, though it may have been previously managed; Bolehays Copse, Harley Wood & Burtt's Harley, Lodge Copse, Boneacre & Park Copses, Pert Copse & Maldry Wood. All of these woodlands are also Sites of Nature Conservation Interest (SNCl)s (Ref. Table 1).

#### 4.2.3. Local Sites

- Sites of Nature Conservation Interest (SNCl)s - These sites have regional or local conservation value and in Dorset are designated by Dorset Wildlife Trust. There are 16 SNCl)s on the Estate (Table 1).
- Dorset Wildlife Trust Reserve - There is one DWT Reserve - Sutton Holm which is a small reserve with an impressive range of species-rich habitats, most notable being the unimproved neutral-acid grassland. Priority Habitats on the site are: Lowland meadow (0.3 Ha) & Purple moor-grass rush pasture (0.2 Ha), Lowland mixed deciduous woodland (0.3 Ha) and a fresh water pond.
- Veteran Tree Sites - Sutton Common. Veteran trees can be any age, but it is a tree which shows ancient characteristics, such as; a low, fat and squat shape - because the crown has retrenched (reduced in size) through age, a wide trunk compared with others of the same species, hollowing of the trunk (not always visible).
- The Greenwood Tree Project - The Dorset Greenwood Tree Project is a Dorset Biodiversity Partnership Initiative focussed on the county's veteran trees. Dorset Wildlife Trust maintain the project database. Two veteran London plan trees have been identified on the Estate, eight ancient Yew trees and one ancient Horse chestnut tree (Table 2).

#### 4.2.4. Other Designations

- AONBs - An Area of Outstanding Nature Beauty (AONB) is designated for its landscape and scenic beauty and but are designated by Natural England. This means that an AONB is not necessarily an area of high nature conservation value, but in practice it often includes many areas which are. AONBs and National Parks are actually of equal importance. There are two AONBS in Dorset, the Shaftesbury Estate lies within Cranborne Chase & Wiltshire Downs AONB.

Table 1. SNCIs on Shaftesbury Estate

<b>SNCIs</b>	<b>Description of Interest</b>	<b>Area (Ha)</b>	<b>Reason for selection Habitat Type</b>
Bolehay's Copse	Mainly deciduous woodland with a good flora	5.08	2.01 ancient woodland site
Bone Acre Copse & Park Copse	Extensive area of deciduous and plantation woodland	106.22	2.01 ancient woodland site
Bull Field	Neutral meadow with a rich flora including <i>Blysmus compressus</i>	1.6	2.06 neutral grassland
Creech Hill Wood	Planted woodland with fine beech trees, most noted for its orchid population	20.49	2.02 broadleaved woodland
Harley Gap	Long wooded tract, & a relict of unimproved chalk grassland plus a field extension	1.98	2.08 calcareous grassland
Harley Wood	Two areas of mainly deciduous woodland over chalk with a rich flora	30.33	2.01 ancient woodland site 2.02 broadleaved woodland 2.08 GC calcareous grassland
Knowlton Church	Unimproved chalk grassland on an ancient earthwork with a rich flora	0.98	2.08 calcareous grassland
Lodge Copse	Deciduous woodland with a typical flora	1.49	2.01 ancient woodland site
Pert Copse & Maldry Wood	Semi-natural & plantation woodland with a rich flora	34.56	2.01 ancient woodland site
Rye Hill	Neutral & acid grassland with some rush-pasture	10.54	2.06 neutral grassland
St Giles Park	Old water meadow being managed sympathetically	4.46	2.06 neutral grassland 2.11 fen meadow/rush pasture
South Monkton Farm	Area of rank damp neutral grassland	4.61	2.06 neutral grassland
Stanbridge Mill	Neutral grassland and tall herb	10.09	2.02 wet woodland 2.06 neutral grassland
Sutton Common	Damp grassland and ancient woodland on a clay soil	6.66	2.02 broadleaved woodland
Sutton Holms	Deciduous woodland on an acid soil	3.17	2.02 broadleaved woodland
Tenantry Down	Remnants of chalk downland, with semi-improved & unimproved chalk grassland, scrub & arable land	3.98	2.08 calcareous grassland

Table 2. Veteran/Ancient Trees on Shaftesbury Estate

Common name	Scientific name	Location	Veteran Status
London Plane	<i>Platanus x hispanica</i>	Village Green	Veteran
London Plane	<i>Platanus x hispanica</i>	Village Green	Veteran
Yew	<i>Taxus baccata</i>	All Hallows	Ancient
Yew	<i>Taxus baccata</i>	All Hallows	Ancient
Yew	<i>Taxus baccata</i>	All Hallows	Ancient
Yew	<i>Taxus baccata</i>	Knowlton Church	Ancient
Yew	<i>Taxus baccata</i>	Knowlton Church	Ancient
Yew	<i>Taxus baccata</i>	St Giles Church	Ancient
Yew	<i>Taxus baccata</i>	near Rye Hill	Ancient
Horse Chestnut	<i>Aesculus hippocastanum</i>	Mill House (WSG)	Ancient
Yew	<i>Taxus baccata</i>	Park Copse	Ancient

#### 4.3. Habitats on the Estate

Habitats on the Estate (Table 3) have been classified according to the JNCC's (2010) Phase I Habitat Survey protocols and the Integrated Habitat System (IHS). IHS represents an integration of existing classifications used in the UK with particular emphasis on Biodiversity Broad Habitat Types, Biodiversity Priority Habitat Types, Annex 1 of the Habitats Directive and Phase 1 (NCC/RSNC) [www.ceh.ac.uk/IHS](http://www.ceh.ac.uk/IHS). The Estate supports a spectrum of habitats and plant communities, ranging from five types of woodland, to calcareous grassland, to open/running water. This rich pattern of vegetation provides conditions that support many plants species, including many protected, rare and threatened species.

There are six Priority Habitats on the Estate; Wet woodland, Lowland mixed deciduous woodland, Lowland calcareous grassland, Lowland meadows, Purple moor grass & Rush pasture and Hedges (Table 4).

The hedges were surveyed by Nick Rymer in XXXX. The total length of hedges on the Estate is 58,797m. In addition there are 16,100m of gaps in the hedges and 2,477 hedgerow trees. Hedge species and trees species were not recorded.

Table 3. Habitats on the Estate

Habitat	Area (ha)	Area m2	Proportion of Total Estate Land (%)
Broadleaved woodland - semi-natural	123.46	1234600	5.18
Broadleaved woodland - plantation & other	2.12	21200	0.09
Mixed woodland - plantation & other	20.88	208800	0.88
Wet woodland	0.27	2700	0.01
Coniferous woodland	47.84	478400	2.01
Dense Scrub	2.02	20200	0.08
Calcareous - semi-improved - species-rich	0	0	0.00
<i>Calcareous - semi-improved - moderate interest</i>	1.5	15000	0.06
<i>Calcareous - semi-improved - species poor</i>	0.47	4700	0.02
<i>Calcareous - semi-improved - unknown</i>	2	20000	0.08
Lowland meadows	1.87	18700	0.08
Semi-improved & other neutral grassland	16.82	168200	0.71
Dry acid grassland	0.93	9300	0.04
Improved grassland	3.29	32900	0.14
Arable & Horticultural	136.64	1366400	5.73
Purple moorgrass & Rush pasture	2.54	25400	0.11
Open water - running & standing	0.16	1600	0.01
Swamp, reedbeds & marginal vegetation	1.32	13200	0.06
Other habitat & features	3.48	34800	0.15
Hedges = 58,979m		0	

Table 4. Priority Habitats - Integrated Habitat System (IHS)

Priority habitat	Area (ha)	Area m2	Proportion of Total Estate Land (%)
Wet woodland	0.27	2700	0.01
Lowland calcareous grassland	3.15	31500	0.13
Lowland mixed deciduous woodland	124.95	1249500	5.24
Lowland meadows	1.87	18700	0.08
Purple moorgrass & Rush pasture	2.54	25400	0.11
Hedges = 58,979m		0	

#### 4.4. Ecological Networks

Ecological networks are the basic, joined up infrastructure of existing and future habitat needed to allow populations of species and habitats to survive in fluctuating conditions. As a short term benefit, a landscape that species can move through easily allows re-colonisation of areas after disturbance events, preventing local extinctions.

In the long term, as our climate begins to change, well connected habitats offer opportunities for populations to move as conditions become more or less suitable. The movement of individuals between populations in a connected landscape maintains genetic diversity which allows populations to adapt to future changes in environmental conditions.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services ([assets.publishing/government/BS2020](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/431123/biodiversity_2020_strategy.pdf)) sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. It also features a number of priority actions, which include 'establishing more coherent and resilient ecological networks on land that safeguards ecosystem services for the benefit of wildlife and people'.

In Dorset, the Dorset Local Nature Partnership (LNP), working with Dorset Environmental Record Centre (DERC) and its partners, Dorset Area of Outstanding Natural Beauty, Dorset Council, BCP Council, Dorset Wildlife Trust and Natural England have published a suite of maps setting out Dorset's Ecological Networks and Potential Ecological Networks ([dorsetlnp.org.uk/Ecological Networks/2020](http://dorsetlnp.org.uk/EcologicalNetworks/2020)). The Dorset Ecological Network is made up of the national sites, local sites, wildlife corridors, stepping-stones and buffer areas that together create a functioning ecological network.

Some areas of valuable habitat, such as species-rich hedgerows, road verges, ponds and veteran trees, are often too small in area to be shown on the maps. However they are part of the fabric of the ecological network as corridors and stepping stones or in their own right, and where they occur they should be considered part of the network even if they are not shown on the maps. There may also be other locations of good habitat, of which DERC are unaware, as they do not have the data, which could be considered part of the Network whether or not shown on the Network maps. The ecological network maps will continue to evolve as new data becomes available.

On the Shaftesbury Estate there are both existing and potential ecological networks. These have been mapped by DERC.

Existing Ecological Networks = 430.61 Ha (18.07% of Estate Land)

Potential Ecological Networks = 372.41 Ha (15.62% of Estate Land).

#### 4.5. Fauna

A vast array of faunal species on the Estate, with a wide range of habitat specifications have been recorded on the Estate over the past 40 years. There are 16 different groups of invertebrates, fish, amphibians, reptiles, birds and mammals (Table 5). These include a large number of protected/rare/threatened species, incl. bats, birds and butterflies.

Table 5. All Fauna Species and Protected/Rare/Threatened Fauna

<b>Invertebrates</b>	<b>No. of records</b>	<b>No. of protected/rare/threatened species</b>
Molluscs	24	0
Spiders	24	1
Millipedes	2	0
Centipedes	1	0
Crustaceans	4	0
Dragon & Damselflies	13	1
Grasshoppers	1	0
True Bugs	52	0
Beetles	209	17
Moths	424	47
Butterflies	44	19
True Flies (incl. Hoverflies)	81	8
Bees	5	0
Wasps	1	0
Ants	7	0
Sawflies	0	0
<b>Fish (bony)</b>	7	3
<b>Amphibians</b>	3	2
<b>Reptiles</b>	3	3
<b>Birds</b>	103	55
<b>Mammals</b>	36	16

#### 4.5.1. Mammals

There are 36 mammal species on the Estate, 16 of which are protected/rare/threatened species of mammals (Table 6). Some groups/species are highlighted below in more detail.

- Bats

Bats account for just over 50% of the protected mammal species on the Estate. The nine species are; Greater horseshoe, Serotine, Daubenton's, Natterers, Noctule, Common pipistrelle, Soprano pipistrelle, Brown long-eared and Whiskered. There are 17 breeding bat species in the UK, and 16 species in Dorset.

All bats and their roosts are protected under The Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats & Species Regulations 2017 (as amended).

There are four known bat roosts in Wimborne St Giles and one in Sutton Holm. Two of these are of national significance/importance; the maternity Greater horseshoe (GHS) bat roost and the GHS hibernation roost within the grounds of St Giles Park and surrounding buildings. These have been monitored for over 20 years by Colin Morris (formerly of Vincent Wildlife Trust) and now as an independent bat specialist.

Work to restore Grooms Cottage was carried out under a European Protected Species Licence (EPSL) for the GHS bats, as required by law. There is also another EPSL in place for work to another building on the Estate where there is a Natterer's and Soprano pipistrelle roost.

- Wolverines

The records from DERC only go up to 2018, but in 2020 three Water voles were observed on the River Allen (nr. Brockington) (S. Hand, pers. comm.). This is the first time they have been sighted on this stretch of river for many years. One explanation is that no mink were caught in the mink traps in 2020, but it also could be due to change in river management due to the work done by Upper Allen Fisheries.

Wolverines are protected under The Wildlife & Countryside Act 1981 (as amended).

- Hazel Dormice

This species is monitored on certain parts of the Estate, under the National Dormouse Monitoring Programme. Woodlands Copse has been monitored since 2017 by Sophie Smith.

Hazel dormice are protected under The Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats & Species Regulations 2017 (as amended).

- Otter

A family of otters and one female otter have been observed this year along the River Allen (S. Hand, pers. obs.).

Otter are protected under The Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats & Species Regulations 2017 (as amended).

N.B. Key to Tables 6 - 17 in Appendix 2.



Table 6. Protected/Rare/Threatened Mammals

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Greater Horseshoe	<i>Rhinolophus ferrumequinum</i>	w/in St Giles Park (SGP) - Grooms Cottage (GC) & Hibernation Roost (HBR)	EPS, WCA, PS	1999 - 2020	44
Serotine	<i>Eptesicus serotinus</i>	Wimborne St Giles (WSG)	EPS, WCA, Vu-Eng	2009	1 (Acoustic only) (AO)
Daubenton's	<i>Myotis daubentonii</i>	WSG, River Allen (RA), Bull Bridge (BB)	EPS, WCA, PS	2007 & 2009	3 (AO)
Whiskered	<i>Myotis mystacinus</i>	WSG	EPS, WCA, PS DD-GB	2005	1 (AO)
Natterer's	<i>Myotis nattereri</i>	WSG & SGP - Home Barn (HB)	EPS, WCA	2004/2005 2018	2 (AO) + 1 Roost (R)
Noctule	<i>Nyctalus noctula</i>	WSG	EPS, WCA, PS	2009	1 (AO)
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	WSG, Gussage All Saints (G), Horton Rd (EPS) & HB	EPS, WCA	2005, 2014, 2016, 2017	2 (AO) + 2 R (1 & 6)
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	EPS & WSG	EPS, WCA, PS	2009, 2016	1(AO) + 1 R (1)
Brown long-eared	<i>Plecotus auritus</i>	G, WSG, Woodlands (W)	EPS, WCA, PS	1986, 1996, 2006,	2(AO) + 1 R (17)
European Otter	<i>Lutra lutra</i>	R. Allen incl, Brockington Lane (BL) & Stanbridge Mill (SM)	EPS, WCA, PS NT-GB	1999 - 2015 & 2020 (SH)	11 1 sighting of family, 10 evidence (E)
Eurasian Badger	<i>Meles meles</i>	Roads - B3081 & B3078, Acklington Dyke (AD), Monkton Up Wimborne (MU), WSG, Sixpenny Handley (SPH), Tenantry Down (TD) SNCI, Harley Gap (HG) SNCI	PBA	1998 - 2005	22 3 setts, 10 dead & E
European Water Vole	<i>Arvicola amphibius</i>	Sutton Holms (SH) DWTR, Sutton Meadows (SM), RA, SM, BL, Crichel Mill (CM), nr. Verwood (VW)	WCA, PS EN- Eng	1981 - 2018 & 2020 (SH)	16
Hazel Dormouse	<i>Muscardinus avellanarius</i>	SH (DWT), SM, WSG, SGP, nr. Woodlands Copse (WC)	EPS, WCA, PS Vu-GB	1981 - 2018	32
Harvest Mouse	<i>Muscardinus avellanarius</i>	Sovell Down (SD), WSG	PS, NT-Eng	2007 - 2011	8
West European Hedgehog	<i>Erinaceus europaeus</i>	B3018, WSG, Horton (H), Woodlands (W, Cranborne)	PS, Vu-Eng	1980 - 2018	10
Brown Hare	<i>Lepus europaeus</i>	More than 20 locations	PS	1982 - 2016	146

Key to Table 6: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, NT-GB - Nationally Threatened, EN-GB - Endangered, Vu - Vulnerable, PBA - Protection of Badgers Act 1992

#### 4.5.2. Birds

Birds have been monitored on the Estate since 1994 by Ian Sibsey. There are c.103 birds species, nearly 50% of which are protected/rare/threatened (Table 7). Some species are highlighted below in more detail.

##### Barn Owls

There are 80 records of Barn owls on the Estate on the DERC database between 2000 and 2011. The Barn owls have been monitored by Major Nigel Lewis and Stewart Hand for over 20 years and a number of Barn owl boxes have been put up along the river corridor on the Estate, which are successfully used. There are a total of 10 Barn owl boxes, all of which are used and five known roosting sites in buildings on the Estate.

##### Honey Buzzard and Montagu's Harrier

There are records of Honey buzzard and Montagu's Harrier on the Estate, but from the early 2000s. These records are confidential and will not be shared outside of the Estate, as the eggs of these two species are highly sought after by egg collectors.

Need to add a highlight a few more species of interest here.

Table 7. Protected/Rare/Threatened Birds

Common name	Scientific name	Location	Status	Records	No. of Records
Mute Swan	<i>Cynus olor</i>	Wimborne St Giles (WSG)	Amber	2000	13
Shelduck	<i>Tadorna tadorna</i>	Monkton Up Wimborne (MU)	Amber	2008	1
Gadwall	<i>Anas strepera</i>	MU, WSG, Horton Inn (HI)	Amber	2000 - 2008	14
Mallard	<i>Anas platyrhynchos</i>	WGS	Amber	2000	15
Garganey	<i>Anas querquedula</i>	WSG	WCA, Amber	2004	1
Little Egret	<i>Egretta garzetta</i>	River Allen (RA), WSG, MU, Gussage All Saints (G), Horton (H), Bowerswain (B)	EPS, WCA S1	2000 - 2008	19
Grey Partridge	<i>Perdix perdix</i>	WSG, Ackling Dyke (AD), Sixpenny Handley (SPH), Knowlton (K), MU	PS, Red	1999 - 2008	30
Quail	<i>Coturnix coturnix</i>	AD, WSG, SPH	WCA, Amber	2001 - 2008	6
Red Kite	<i>Milvus milvus</i>	Nine locations	EPS, WCA, NT-GB	2000 - 2011	14
Hen Harrier	<i>Circus cyaneus</i>	Six locations, incl. Wyke Down (WD)	EPS, WCA S1, PS, Red	2000 - 2008	15
Osprey	<i>Pandion haliaetus</i>	WSG	EPS, WCA S1, Amber	2005	1
Kestrel	<i>Falco tinnunculus</i>	12 locations incl. SPH, WD & WSG	Amber	2000 - 2015	12
Merlin	<i>Falco columbarius</i>	SPH & AD	EPS, WCA S1, Red	2000 - 2015	5
Hobby	<i>Falco subbuteo</i>	Nine locations, incl. HI, SPH, WSG	WCA S1	2000 - 2008	9
Peregrine	<i>Falco peregrinus</i>	Four locations; SPH, HI, WD, MU	EPS, WCA S1		5
Honey Buzzard	<i>Pernis apivorus</i>	ask DERC	EPS, WCA S1, Amber	2000s	6?
Montagu's Harrier	<i>Circus pygargus</i>	ask DERC	EPS, WCA S1, Amber	2000s	6?

Key to Table 7: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA S1 - Schedule 1 of Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, Amber - Amber Listed, Red - Red Listed

Table 7. Protected/Rare/Threatened Birds (cont.)

Common name	Scientific name	Location	Status	Records	No. of Records
Golden Plover	<i>Pluvialis apricaria</i>	Two locations; HI & WD	EPS	2000	2
Lapwing	<i>Vanellus vanellus</i>	Eleven locations; incl. WSG, Brockington (BK), MU, Frenchs Farm (FF)	PS, Red		55
Snipe	<i>Gallinago gallinago</i>	Four locations; incl. Stanbridge Mill (SM), WSG, All Hallows (AH), MU	Amber	2000 - 2013	5
Whimbrel	<i>Numenius phaeopus</i>	Brockington Down (BKD)	WCA, Red	2008	1
Green Sandpiper	<i>Tringa ochropus</i>	Two locations; WSG & MU	WCA, Amber		6
Lesser Black-backed Gull	<i>Larus fuscus</i>	Two locations; WD & SPH (300 present)	Amber	2008 & 2015	2
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	Down Farm (DF) & WD (3000 present)	Amber	2008	1
Stock Dove	<i>Columba oenas</i>	Three locations; Tenantry Down (TD), AD & WSG	Amber	2004 - 2008	5
Turtle Dove	<i>Streptopelia turtur</i>	Eight locations incl. WSG, MU, G	PS, Red	2000 - 2007	41
Cuckoo	<i>Cuculus canorus</i>	Six locations incl; WSG, BK, G	PS, Red	2005 - 2011	9
Barn Owl	<i>Tyto alba</i>	Fifteen locations incl. AH, Sovell Down (SD), AD, Harley Down (HD)	WCA S1		80
Tawny Owl	<i>Strix aluco</i>	Four locations incl. WSG, MU	Amber	2004 - 2016	12
Short-eared Owl	<i>Asio flammeus</i>	Four locations incl. MU, SPH, The Drive Plantation (TDP)	EPS, WCA S1, Amber	2004 - 2015	7
Swift	<i>Apus apus</i>	Three locations; Bull Field (BF) SNCI, SPH, G	Amber		3

Key to Table 7: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA S1 - Schedule 1 of Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, Amber - Amber Listed, Red - Red Listed

Table 7. Protected/Rare/Threatened Birds (cont.)

Common name	Scientific name	Location	Status	Records	No. of Records
Kingfisher	<i>Alcedo atthis</i>		EPS, WCA S1, Amber	1990 - 2011	9
Cetti's Warbler	<i>Cettia cetti</i>	One location - MKU	WCA		1
Grasshopper Warbler	<i>Locustella naevia</i>	One location - Stanbridge Mill	PS, Red		1
Willow Warbler	<i>Phylloscopus trochilus</i>	One location - WSG	Amber		1
Woodlark	<i>Lullula arborea</i>	Two locations - Brockington Farm, WSG	EPS, WCA S1, PS	2003 - 2008	3
Skylark	<i>Alauda arvensis</i>	Ten locations, incl; WSG, AD, WD, SPH, HI, DF, B, WLB	PS, Red	1999 - 2016	26
House Martin	<i>Delichon urbicum</i>	Two locations; HI & SH DWTR	Amber	1982 & 2002	2
Meadow Pipit	<i>Anthus pratensis</i>	Three locations; TDP, WSG & Rye Hill SNCI	Amber	2004 & 2015	3
Yellow Wagtail	<i>Motacilla flava subsp. flavissima</i>	One location; Cranborne Estate??	PS, Red	2018	1
Grey Wagtail	<i>Motacilla cinerea</i>	Four locations; HI, SB, G, WSG	Red	2001 - 2004	6
Dunnock	<i>Prunella modularis</i>	One location - Boys Wood	PS, Amber	2014	1
Nightingale	<i>Luscinia megarhynchos</i>	Two locations - SM, Kings Wood	Red	2002 - 2008	2
Whinchat	<i>Saxicola rubetra</i>	Three locations - WD, AD, WSG	Red	2002 - 2008	3
Fieldfare	<i>Turdus pilaris</i>	Five locations - HI, WD, SPH, The Warren & WSG	WCA, Red	2001 - 2015	11
Song Thrush	<i>Turdus philomelos</i>	Six - Bolehays Copse SNCI, SH DWTR, WD, WSG, BW	PS, Red	1999 - 2014	16
Redwing	<i>Turdus iliacus</i>	WSG	WCA, Red	2004, 2009	2
Mistle Thrush	<i>Turdus viscivorus</i>	Five - HI, BW, HG, WdD, WSG	Red		5

Key to Table 7: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA S1 - Schedule 1 of Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, Amber - Amber Listed, Red - Red Listed

Table 7. Protected/Rare/Threatened Birds (cont.)

Common name	Scientific name	Location	Status	Records	No. of Records
Spotted Flycatcher	<i>Muscicapa striata</i>	Four - MU, WD, SM, WSG	PS, Red	2001 - 2008	4
Marsh Tit	<i>Poecile palustris</i>	Three - SH DWTR, WSG, BW	PS, Red	2005 - 2014	5
Starling	<i>Sturnus vulgaris</i>	Five - WD, TW, WSG, BW, SH DWTR	PS, Red	1983 - 2011	12
House Sparrow	<i>Passer domesticus</i>	Two - BW, WSG	PS, Red	1999 - 2014	10
Linnet	<i>Linaria cannabina</i>	Three - WSG, BBD, AD	PS, Red	1999 - 2017	13
Brambling	<i>Fringilla montifringilla</i>	None recorded	WCA S1	1999	2
Bullfinch	<i>Pyrrhula pyrrhula</i>	Five - MU, G, SD, WSG, DP	PS, Amber	2000 - 2017	9
Yellowhammer	<i>Emberiza citrinella</i>	Ten - WSG, SC, WD, SPH, WF, AD, Rye Hill SNCI, SH, W of C	PS, Red	1999 - 2011	62
Reed Bunting	<i>Emberiza schoeniclus</i>	One - WSG	PS, Amber	2008	1
Corn Bunting	<i>Emberiza calandra</i>	Seven - HI, DF, WD, AD, WSG, BBD	PS, Red	1999 - 2015	49

Key to Table 7: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA S1 - Schedule 1 of Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, Amber - Amber Listed, Red - Red Listed

#### 4.5.3. Butterflies

Records for butterflies are provided by DERC for the whole Estate and by Arthur Bryant and Mark Hardaker for the woodlands and St Giles Park. There are 45 butterfly records for the Estate and 15 of those are of protected/rare/threatened species (Table 8).

From Bryant & Hardaker (2000 - 2020) the average number of butterflies counted each year is 1554 individuals. Meadow Brown and Ringlet are the most common butterflies recorded (three times) than any other species, followed by Gatekeeper, Marbled White, Green-veined White and Brimstone.

Of the 15 protected/rare/threatened species nine have not been recorded by B&H in the past 10 years; Dingy Skipper, Wall, Small Heath, Grayling, Small Pearl-bordered Fritillary, White Admiral, Marsh Fritillary, White-letter Hairstreak, Small Blue. Grizzled Skipper hasn't been recorded since 2012 and there have been no Duke of Burgundy butterflies recorded since 2015. From 2010 - 2020 there were an average of 15 individuals per year.

In 2020, the total number of butterflies recorded in the woodlands in May - September was 2389, the highest in the last 10 years. The first six weeks were missed due to coronavirus. Of note in 2020 are; Large skipper, Meadow brown, Gatekeeper, Green-veined white and Large white for numbers recorded, the recording again of Essex skipper and Small copper, albeit in small numbers, but of most note is perhaps the sighting of the Small heath recorded for the first time since 2011.

#### 4.5.4. Moths

There are c.424 species of moths on the Estate of which 47 are protected/rare/threatened species.

Table 8. Protected/Rare/Threatened Butterflies

Common name	Scientific name	Location	Status	Records	No.
Dingy Skipper	<i>Erynnis tages</i>	Three - Sovell Down (SD) DWT, Burt's Harley (BH) , AD	PS, Vu-GB, DN	1989 - 2004	14
Grizzled Skipper	<i>Pyrgus malvae</i>	Seven - SD, HD, AD, WSG, Six Acre Copse (SAC), TDP, Castleman Trailway/Uddens Plantation (CT/UP)	PS, Vu-GB, DN	1990 - 2014	31
Wall	<i>Lasiommata megera</i>	WSG & Sutton Holms (SH) DWTR	PS, Vu-GB	1883 - 2011	2
Small Heath	<i>Coenonympha pamphilus</i>	Eight - SD, AD, F, WSG, DF, WD, SH DWTR, Great Rough Copse (GRC)	PS, NT-GB	1998 - 2013	37
Grayling	<i>Hipparchia semele</i>	SD DWTR, WSG	PS, Vu-GB, DN	1985 - 2011	3
Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	WSG	WCA, Dorset PS, EN-GB	1990 & 1997	2
Small Pearl-bordered Fritillary	<i>Boloria selene</i>	SH DWTR	PS, NT-GB	1981 & 1984	4
White Admiral	<i>Limenitis camilla</i>	SAC, Woodlands Copse (WC), Harley Wood (HW), AD, TD, Farringdon Copse (FC, GRC, Maldry Wood (MW)	PS, Vu-GB, DN	1996 - 2014	22
Purple Emperor	<i>Apatura iris</i>	Woodlands Park & Boy's Wood, Bagman's Copse, WSG	WCA, NT-GB	1985, 2010	3
Marsh Fritillary	<i>Euphydryas aurinia</i>	SH DWTR, AD	EPS, WCA, PS, Vu-GB	1984 & 1985	5
Duke of Burgundy	<i>Hamearis lucina</i>	SGP, Six Acre Copse (SAC), WSG, TDP, SD, GAS, AD	EPS, WCA, PS, EN-GB	1984 - 2014	40
White-letter Hairstreak	<i>Satyrrium w-album</i>	GAS & WSG	EPS, WCA, PS, EN-GB	1995 - 2013	5
Small Blue	<i>Cupido minimus</i>	Littledown, SD, AD, HW, WSG	EPS, WCA, PS, EN-GB, DN	1983 - 2004	8
Adonis Blue	<i>Polyommatus bellargus</i>	SD & Knowlton Church & Circles	WCA, NT-GB	2003 - 2014	7
Chalk Hill Blue	<i>Polyommatus coridon</i>	SD, AD, SAC, BBD	WCA, NT-GB, DN	1984 - 2003	11

Key to Table 8: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, NT-GB - Nationally Threatened, DN - Dorset Notable, EN-GB - Endangered, Vu-GB - Vulnerable



Table 9. Protected/Rare/Threatened Moths

Common name	Scientific name	Location	Status	Records	No.
Oak Hook-tip	<i>Watsonalla binaria</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	PS	2004, 2005	3
Poplar Lutestring	<i>Tethea or</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	DR	2004	1
Oak Lutestring	<i>Cymatophorin a diluta</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	PS	2004	1
Lackey	<i>Malacosoma neustria</i>	Bottlebrush Down, WSG	PS, Web spinner	1984 - 2010	4
Small Egar	<i>Eriogaster lanestris</i>	Horton Inn	Vu-GB, Web spinner		1
Lesser Cream Wave	<i>Scopula immutata</i>	WSG	DR	2008 & 2009	3
Blood-vein	<i>Timandra comae</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG	PS		19
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	WSG	PS	2008	1
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	WSG	PS	2008 - 2010	8
Royal Mantle	<i>Catarhoe cuculata</i>	Bottlebrush Down	DR	1997	2
Small Phoenix	<i>Ecliptopera silaceata</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG	PS	2004 - 2010	6
Dingy Shell	<i>Euchoeca nebulata</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	DR	1997	1
Brown Scallop	<i>Philereme vetulata</i>	Bottlebrush Down	DR	2005	1
Pretty Chalk Carpet	<i>Melanthia procellata</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG	PS	2004 - 2010	4
Plain Pug	<i>Eupithecia simpliciata</i>	WSG	DR	2008	1
Dusky Thorn	<i>Ennomos fuscantaria</i>	WSG	PS	2008 - 2010	8
Small Brindled Beauty	<i>Apocheima hispidaria</i>	WSG	DR	2010	1
Brindled Beauty	<i>Lycia hirtaria</i>	WSG	PS	2008, 2009	2

Key to Table 9: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, NT-GB - Nationally Threatened, DN - Dorset Notable, EN-GB - Endangered, Vu-GB - Vulnerable

Table 9. Protected/Rare/Threatened Moths

Common name	Scientific name	Location	Status	Records	No.
Small Emerald	<i>Hemistola chrysoprasaria</i>	WSG	PS	1988, 2009	3
Buff Ermine	<i>Spilosoma lutea</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG, Sutton Holms DWT	PS	1980 - 2010	43
White Ermine	<i>Spilosoma lubricipeda</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG, Sutton Holms DWT	PS	1980 - 2010	23
Garden Tiger	<i>Arctia caja</i>	Bottlebrush Down, WSG	PS	1997 - 2010	14
Cinnabar	<i>Tyria jacobaeae</i>	WSG, Sutton Holms DWT	PS	1980, 2010	5
Grey Dagger	<i>Acronicta psi</i>	WSG	PS	2010	5
Knot Grass	<i>Acronicta rumicis</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG, Monkton Up Wimborne	PS		8
Mouse Moth	<i>Amphipyra tragopoginis</i>	WSG	PS	2008	8
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	WSG	PS	2008, 2010	6
Mottled Rustic	<i>Caradrina morpheus</i>	WSG, Bottlebrush Down	PS	1997, 2008 - 2010	13
Rustic	<i>Hoplodrina blanda</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood, WSG, Bottlebrush Down	PS	2004 - 2010	23
Rosy Rustic	<i>Hydraecia micacea</i>	WSG	PS	2010	13
Butterbur	<i>Hydraecia petasitis</i>	Monkton Up Wimborne	DR	1984	1
Large Wainscot	<i>Rhizedra lutosa</i>	WSG	PS	2010	1
Dusky Brocade	<i>Apamea remissa</i>	WSG	PS	2009 - 2010	7
Rosy Minor	<i>Litoligia literosa</i>	WSG	PS	2010	1
Sallow	<i>Cirrhia icteritia</i>	WSG	PS	2010	4
Beaded Chestnut	<i>Agrochola lychnidis</i>	WSG	PS	2010	11
Brown-spot Pinion	<i>Agrochola litura</i>	WSG	PS	2010	9

Key to Table 9: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, NT-GB - Nationally Threatened, DN - Dorset Notable, EN-GB - Endangered, Vu-GB - Vulnerable

Table 9. Protected/Rare/Threatened Moths

Common name	Scientific name	Location	Status	Records	No.
Centre-barred Sallow	<i>Atethmia centrago</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	PS	2004	1
Minor Shoulder-knot	<i>Brachylomia viminalis</i>	WSG	PS	1988	1
Lead-coloured Drab	<i>Orthosia populeti</i>	WSG	DR	2010	1
Powdered Quaker	<i>Orthosia gracilis</i>	WSG	PS	2008 - 2010	5
Hedge Rustic	<i>Tholera cespitis</i>	WSG	PS	2008, 2010	2
Feathered Gothic	<i>Tholera decimalis</i>	WSG	PS	2010	1
Dot Moth	<i>Melanchra persicariae</i>	Bottlebrush Down, WSG	PS	1988 - 2010	4
Shoulder-striped Wainscot	<i>Leucania comma</i>	Bone Acre Copse and Park Copse SNCI, Rye Hill Wood	PS	2004 - 2010	12
Small Square-spot	<i>Diarsia rubi</i>	Monkton Up Wimborne, Ackling Down, WSG	PS	1984 - 2010	22
Autumnal Rustic	<i>Eugnorisma glareosa</i>	WSG	PS	2008 - 2010	2

Key to Table 9: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), PS - Priority Species, NT-GB - Nationally Threatened, DN - Dorset Notable, EN-GB - Endangered, Vu-GB - Vulnerable

#### 4.5.5. Other Invertebrates

In addition to butterflies and moths, there are many other invertebrates on the Estate, incl. flies (Table 10), beetles (Table 11), dragonfly and damselfly (Table 12), spiders (Table 13) and grasshoppers (Table 14).

##### White-clawed crayfish

There are no DERC records of White-clawed crayfish on the River Allen that runs through the Estate. There were however, c. 10 taken and put back into the lake, under licence, when it was dredged in 2010.

Table 10. Protected/Rare/Threatened Flies

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Fungus Gnat	<i>Palaeodocosia flava</i>	Sutton Common SNCI	NT-GB	1990	1
Fungus Gnat	<i>Ectrepesthoneura colyeri</i>	Sutton Common SNCI	NS	1990	1
Phantom Hoverfly	<i>Doros profuges</i>	Harley Down Wood	PS, NT-GB	2000	1
Pine Field Hoverfly	<i>Eupeodes nielsenii</i>	Harley Down Wood	NS	2000	1
Hoverfly	<i>Leucozona laternaria</i>	Harley Wood SNCI	DN	2001	1
Hoverfly	<i>Platycheirus angustatus</i>	Harley Down	DN	1988	1
Ramsons Hoverfly	<i>Portevinia maculata</i>	Harley Down	DN	1989	1
Hoverfly	<i>Cheilosia cynocephala</i>	Harley Down Wood	NS	2000	1

Key to Table 10: PS - Priority Species, NT-GB - Nationally Threatened, DN - Dorset Notable

Table 11. Protected/Rare/Threatened Beetles

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Weevil	<i>Ellescus bipunctatus</i>	Sutton Holm	NS	1997	1
Weevil	<i>Coeliodes transversealbofasciatus</i>	Sutton Holm	NS(B)	1983	2
Weevil	<i>Polydrusus flavipes</i>	Sandy's Hill Meadow	NS(B)	1983	1
Weevil	<i>Trachyploeus digitalis</i>	Sovell Down SNCI	NS(B)	1988	1
Weevil	<i>Cathormiocerus spinosus</i>	Sovell Down SNCI	NS(A)	2002	1
Weevil	<i>Lasiorhynchites cavifrons</i>	WSG	NS(A)	2002	1
Rove Beetle	<i>Pseudomedon obscurellus</i>	WSG	NS	1997	1
Rove Beetle	<i>Quedius longicornis</i>	WSG	NS(B)	1995 & 1997	2
European Stag Beetle	<i>Lucanus cervus</i>	On Shaftesbury Estate Check DERC record	EPS, WCA, NS(B)	?	?
Marsh Beetle	<i>Elodes minuta</i>	Sutton Holms DWTR	NS	2012	1
Wood-boring Beetle	<i>Agrilus viridis</i>	Sandy's Hill Meadow	NS	1988	1
Ground-Ivy Jewel Beetle	<i>Trachys scrobiculatus</i>	Sovell Down SNCI	NS	2002	1
Ladybird	<i>Scymnus schmidtii</i>	Sovell Down SNCI	NS(B)	2002	1
Ant Flower Beetle	<i>Omonadus bifasciatus</i>	WSG	NS	1995	1
Leaf Beetle	<i>Longitarsus nigrofasciatus</i>	Sutton Holms DWTR	NR	2012	1
Black Oil-beetle	<i>Meloe proscarabaeus</i>	Ackling Dyke, WSG	PS	2008, 2011	2
Violet Oil-beetle	<i>Meloe violaceus</i>	Burt's Harley, Ackling Dyke	PS	2011, 2017	3

Key to Table 11: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, WCA - Wildlife & Countryside Act 1981 (UK Protected Species), NS - Nationally Scarce, NR - Nationally Rare

Table 12. Protected/Rare/Threatened Damselflies &amp; Dragonflies

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Beautiful Demoiselle	<i>Calopteryx virgo</i>	River Allen	DN	1998	1

Key to Table 12: DN - Dorset Notable

Table 13. Protected/Rare/Threatened Spiders

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Southern Crablet	<i>Ozyptila claveata</i>	Sovell Down SNCI	PS	2002	1

Key to Table 13: PS - Priority Species

Table 14. Protected/Rare/Threatened Grasshoppers

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Woodland Grasshopper	<i>Omocestus rufipes</i>	Woodlands, Verwood	DN	1997	1
Stripe-winged Grasshopper	<i>Stenobothrus lineatus</i>	Knowlton Church	NS	2014	1

Key to Table 14: DN - Dorset Notable, NS - Nationally Scarce

#### 4.5.6. Fish

Seven species of fish have been recorded along the section of the River Allen, that runs through the Estate. One of these, three, are protected/rare/threatened.

Table 15. Protected/Rare/Threatened Fish

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Bullhead	<i>Cottus gobio</i>	River Allen	EPS	1995	18
European Eel	<i>Anguilla anguilla</i>	River Allen	CR-GB, PS	1995	20
Brown Trout	<i>Salmo trutta</i>	River Allen	NS, PS	N/S	N/S

Key to Table 15: EPS - European Protected Species under Conservation of Habitats & Species Regulations 2017, NS - Nationally Scarce, PS - Priority Species, CR-GB - Critically Rare

4.5.7. Amphibians

Three amphibian species have been recorded on the Estate and two of these are protected/rare/threatened.

Table 16. Protected/Rare/Threatened Amphibians

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Common Frog	<i>Bufo bufo</i>	Wimborne St Giles (WSG), Frenchs Farm (FF), Sutton Meadows (SM)	WCA, PS	1995	4
Common Toad	<i>Rana temporaria</i>	Wimborne St Giles (WSG), Sutton Meadows (SM)	WCA	1995	4

Key to Table 16: PS - Priority Species, WCA - Wildlife & Countryside Act 1981

4.5. 8. Reptiles

Three reptile species have been recorded on the Estate and all three are protected/rare/threatened.

Table 17. Protected/Rare/Threatened Reptiles

Common name	Scientific name	Location(s)	Status	Records	No. of Records
Common Lizard	<i>Zootoca vivipara</i>	Ackling Dyke (AD), WSG, St Giles Park (SGP)	WCA, PS	2010 - 2012	3
Slow Worm	<i>Anguis fragilis</i>	Sovell Down (SD), AD, SGP, B3018	WCA, PS	1985 - 2010	5
Adder	<i>Vipera berus</i>	Rye Hill	WCA, PS	2010	1 (dead)

Key to Table 17: PS - Priority Species, WCA - Wildlife & Countryside Act 1981

#### 4.6. Lichens, Fungi, Lower & Higher Plants

In addition to the wide range of fauna on the Estate, there is also a great diversity of lichens, fungi and floral species that contribute to the range of habitats on the Estate.

##### 4.6.1. Lichens

There are 120 lichen species recorded on the Estate, with 37 of these protected/rare/threatened lichen species on the Estate, incl. Eagle's claw *Anaptychia ciliaris subsp. ciliaris* found on English Oak *Quercus robur* in WSG. This lichen is a Priority Species. Records late 1996 - 2000.

[www.britishlichensociety.org.uk/Eagle's claw/Species Information](http://www.britishlichensociety.org.uk/Eagle's%20claw/Species%20Information)

##### 4.6.2. Fungi

There are 12 species of fungi, but none are protected/rare/threatened species.

##### 4.6.3. Lower Plants

###### Mosses

A total of 47 moss species have been recorded, with 10 protected/rare/threatened species. Six records are from Ackling Dyke. All records from 1980s/1990s with exception one from 2000.

###### Liverworts & Stoneworts

There are five Liverworts and one Stonewort. There are two protected/rare/threatened species; the Wall scalewort and the Pointed stonewort. The latter found in Sutton Meadows. Both records 1998 and 1999 respectively.

##### 4.6.4. Higher Plants

###### Horsetails

There are five Horsetail species, with two species protected/rare/threatened species, the Marsh horsetail and Wood horsetail. However, none have been observed in the past 10 years, incl. on St Giles Park SNCI, Bull Field SNCI, Sutton Common & Sutton Holms DWT.

###### Ferns

There are 19 fern species, four; Narrow Buckler-fern Scaly Male-fern, Intermediate polypody, Adder's-tongue are all protected/rare/threatened species.

###### Conifers

There are eight conifer species, two are protected/rare/threatened species, Juniper and Common juniper were recorded on Ackling Dyke and in St Giles Park, but there are no new records in past 10 years.



#### 4.7. Flowering Plants

There are c. 608 flowering plants on the Estate, incl. trees and grasses. Over 200 of these are protected/rare/threatened species. Of these, only one species, Bluebell *Hyacinthoides non-scripta*, is protected under the Wildlife & Countryside Act 1981 (as amended) and all the others are rare or threatened species. The majority of these records have been provided by Bryan Edwards, (DERC), recorders for SNCI project at DWT, Dorset Flora Group and Natural England.

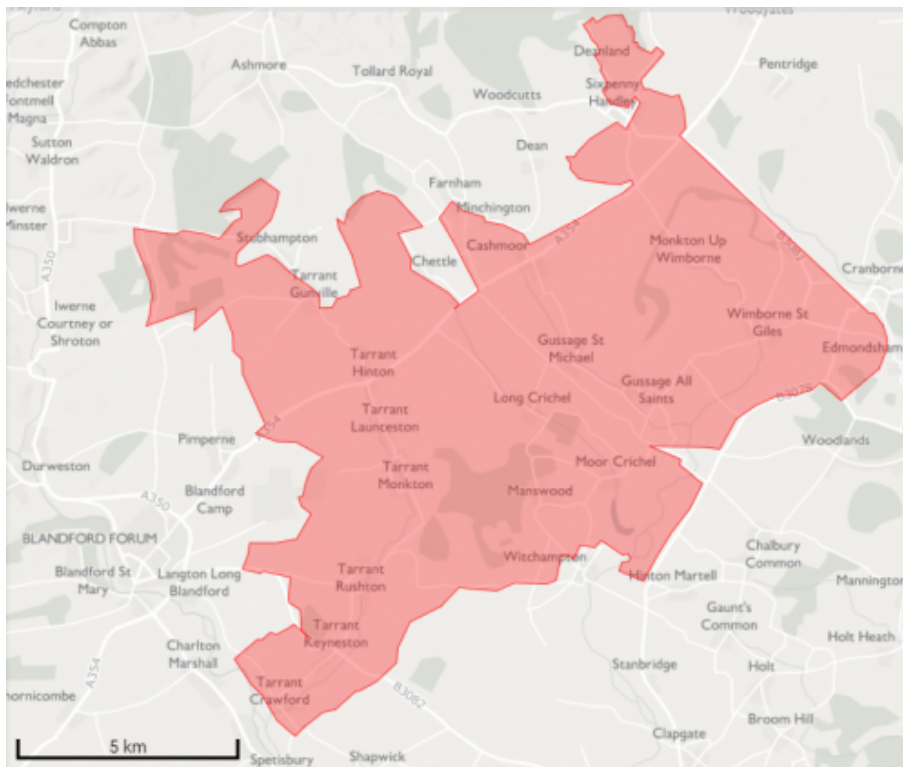
Priority species recorded are; Frog orchid *Coeloglossum viride*, White helleborine *Cephalanthera damasonium*, Fly orchid *Ophrys insectifera*, Flat sedge *Blysmus compressus*, Red Hemp Nettle *Galeopsis angustifolia*, Bastard Balm *Melittis melissophyllum*, Basil Thyme *Clinopodium acinos*, Cornflower *Centaurea cyanus*.

There are 182 Dorset Notables, 23 Vulnerable Species, 36 Nationally Threatened Species, 4 Endangered, 1 Critical and, 33 on DRPR Dorset Rare Plant Register.

All full list is available on the electronic data sheets provided by DERC (2020).

#### 4.8. Cranborne Chase Farm Cluster

Figure 2. Area of Cranborne Chase Farm Cluster



The farm cluster group was first formed in May 2019 with around eight farms. To date there are 18 members covering close to 8000ha of farmland.

The clusters aims are to protect and enhance the landscape, habitats and biodiversity of the area we occupy on Cranborne Chase. Priority habitats incl. lowland calcareous grasslands and meadows, arable field margins, ancient and native woodland, and riparian habitats associated with the priority rivers of the Allen and the Tarrant Valleys.

Priorities include:

- Monitoring and protecting hare populations
- Monitoring and protecting hedgehog populations
- Farmland birds including Corn Buntings, Nightingales, English Partridge and Barn Owls
- Invertebrate populations
- Soil health, soil organic matter and soil carbon sequestration
- Rare arable plant species
- Invasive species such as Himalayan Balsam and Giant Hogweed in the rivers

In partnership with the Game & Wildlife Conservation Trust and independent consultants, Cranborne Chase AONB launched the Cranborne Chase AONB Environmental Land Management Scheme Test in January 2020, with the aim to co-design Land Management Plans (LMPs) with six selected farms within the AONB, building on existing farm plans and incorporating information such as soils, water, access and historic environment. The LMP creation process will look to highlight current issues and opportunities in relation to the government's 25-Year Plan objectives and will help form the basis of agreed actions and outcomes.

The new Environmental Land Management Scheme (ELMs), which is to replace Countryside Stewardship and the Basic Payment Scheme, is currently being designed through various tests around the country, commissioned by Defra. The tests will work with farmers and land managers on the ground to continually feed into national pilots, to co-design the scheme and understand how new features of ELMs would work in real-life environments.

The National Association of Areas of Outstanding Natural Beauty was chosen to develop an ELMs test and trial called 'Farming for the Nation', as the 12 Areas of Outstanding Natural Beauty (AONB) in the UK cover several geographies and sectors, enabling a series of objectives to be brought together.

'Farming for the Nation' is testing and trialling the following:

- How 'ownership' of ELMs can be achieved by existing and new audiences.
- What are the barriers to scheme participation and how to incentivise greater up take.
- How the scheme could widen its scope, by incorporating health and wellbeing and business objectives, alongside environmental goals.
- How Natural Capital can be utilised to set targets and achieve the government's objectives set out in its 25-Year Plan.
- How the scheme will work and be delivered on the ground, within different farming situations.

## 5.0. Recommendations

5.1. A database will be set up with all biological recorders to ensure that all records are sent annually to the Estate via email in November.

5.2. An annual report of all records will be prepared each December. This will be followed by an annual meeting to review the scope, frequency and timing of the various monitoring surveys, so that improvements can be made to the overall efficiency and effectiveness of the monitoring programme.

5.3. The results of the monitoring can also be used to inform future work and priorities within Farmland Cluster and will be given to the farmland advisor.

5.3. Suggestions for future monitoring include;

- Recording hedgerow species when hedges are assessed/cut.
- Recording length of hedge planted for gapping up.
- Survey river through Estate for Water voles, Otters and White-clawed crayfish.
- Discuss with farmland advisor any areas of Estate where monitoring needed to fit in with the aims of the Farmland Cluster and contribute to stewardship schemes moving forward (and ELMS).
- Investigate other groups that are keen to come on to Estate to carry out biological recording.
- Look at management of certain habitats and how this could benefit Priority/Protected Species.
  
- To be added to -

**6.0. References**

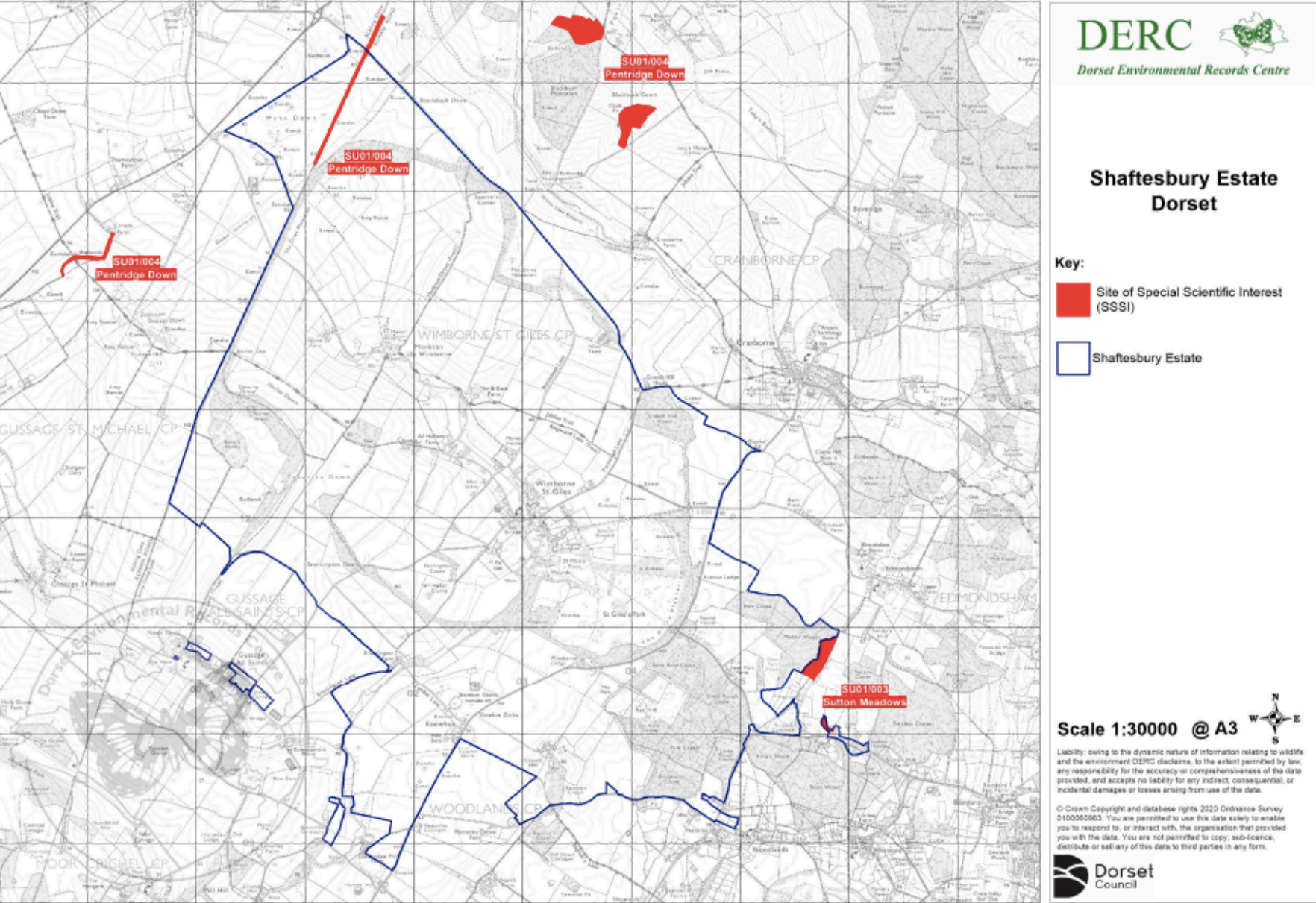




Figure 4. Local Sites Map

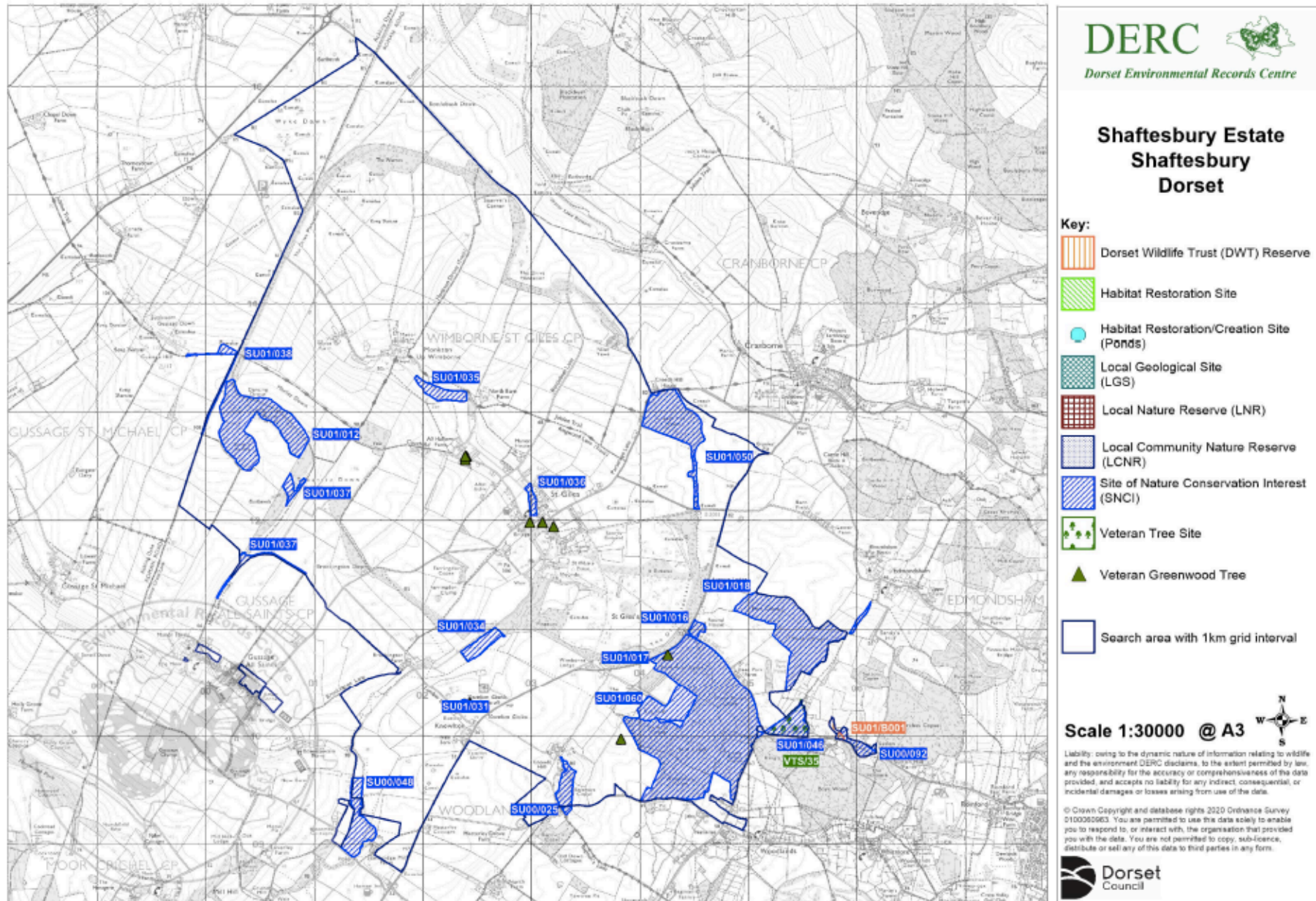




Figure 6. Dorset Habitat Map

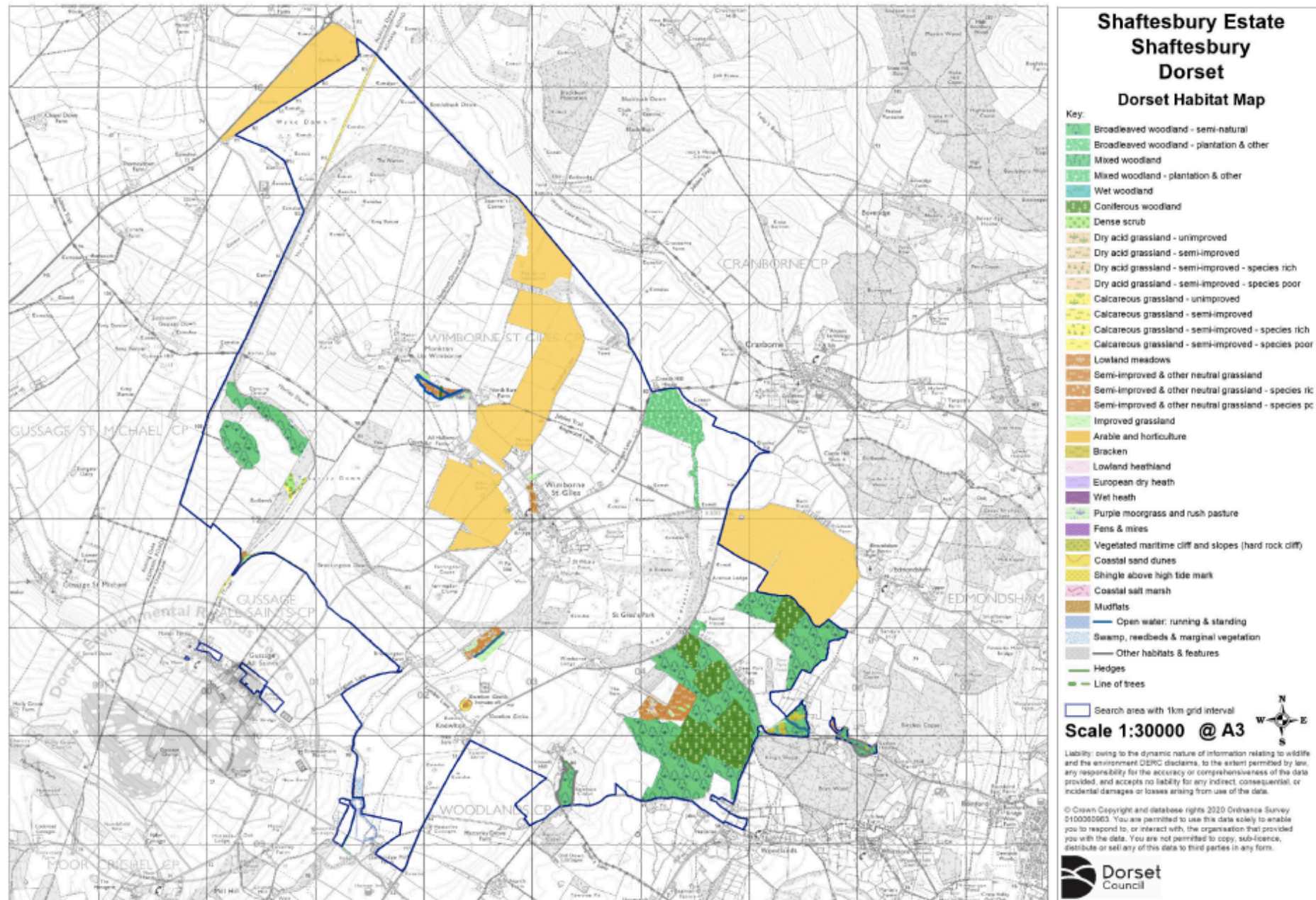




Figure 7. Priority Habitats

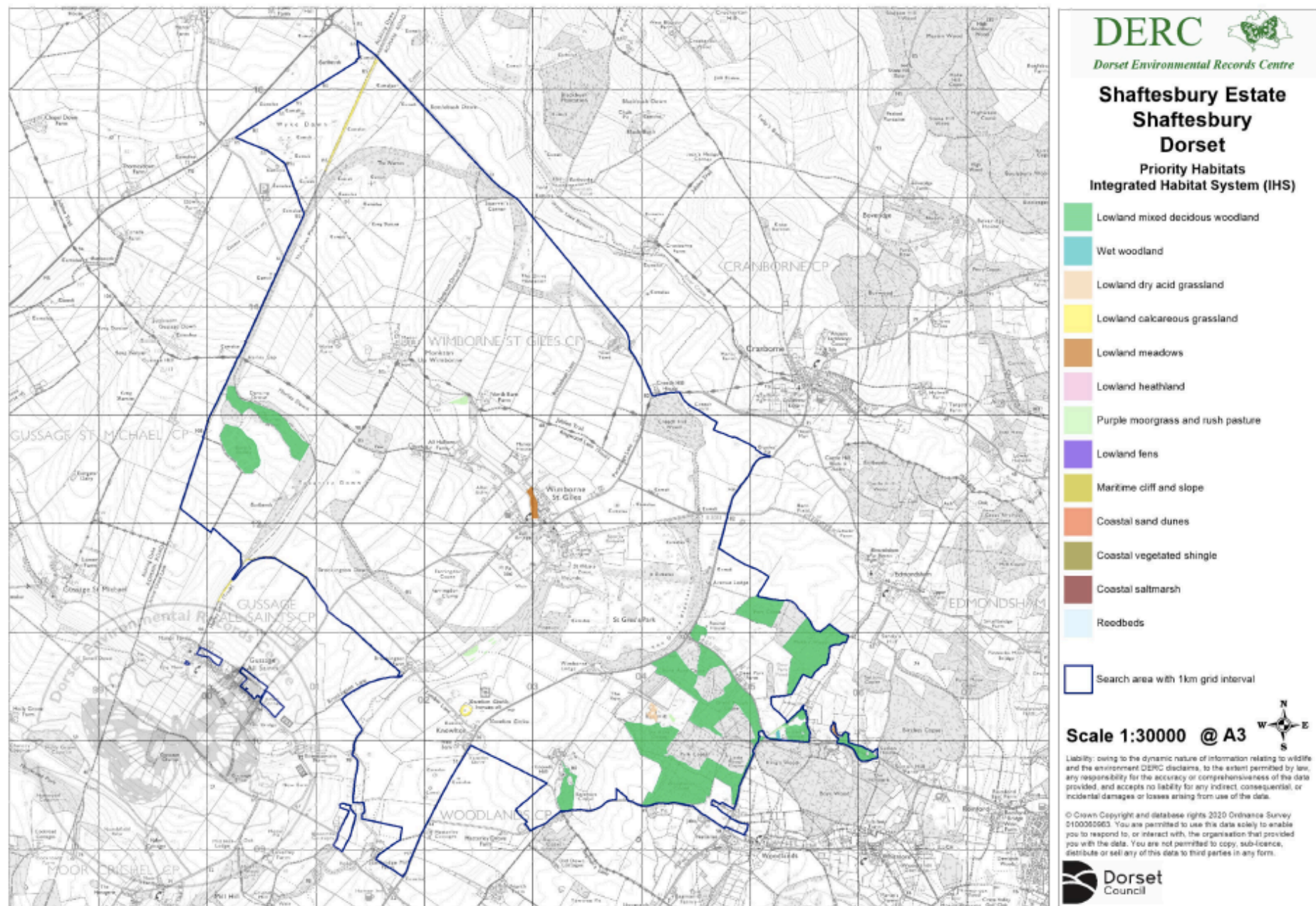
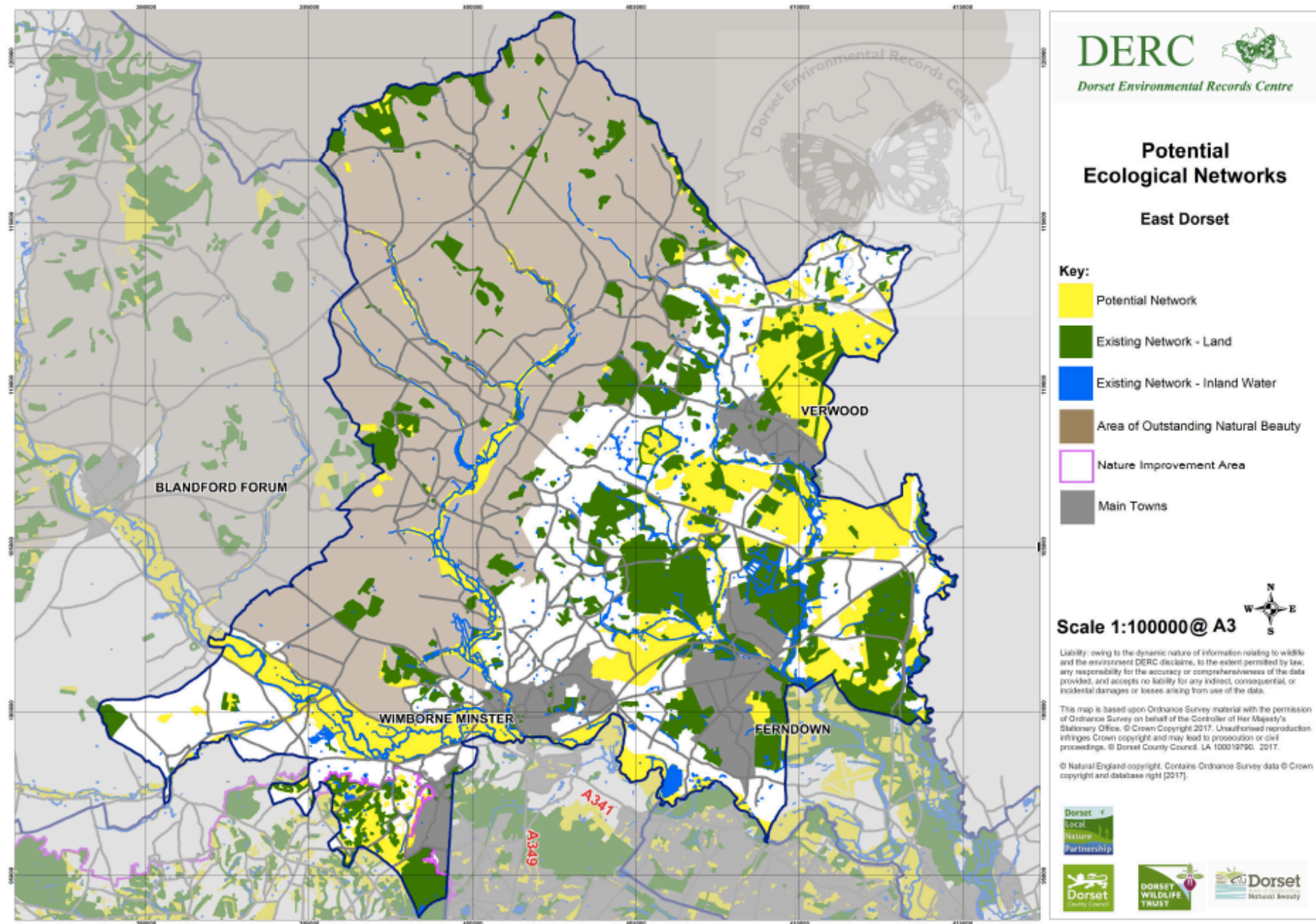


Figure 8. Existing and Potential Ecological Networks

Shaftesbury Estate

Environmental Audit





## Appendix 2. Data

Table 18. Data Sources from DERC

Data Sources	Data Sources
Arable Survey	Dorset Macromoths pre 2000
Biodiversity Mitigation Plans (to 2018)	Dorset Mammal Records
BSBI v.c.9 recorder	Dorset Mammals from Living Record
BugLife Projects	Dorset Micromoths 2000-2009
Butterfly Conservation Millennium Project	Dorset Micromoths pre 2000
Butterfly Conservation Records 2000-2004	Dorset Moths 2017 onwards
Butterfly Conservation Records 2005-2009	Dorset Otter Survey
Butterfly Conservation Records 2010-present	Dorset Plants from Living Record
Churchyard Lichens	Dorset Reptiles from Living Record
Consultants records from Living Record	Dorset Weevils
Cranborne Farm Clusters	Dorset Wildlife Trust Reserves Database
DEFRA hedgerows	Dorset Wildlife Trust Reserves Database - off-reserve records
DERC contract surveys	Dorset Wildlife Trust Reserves Database recent records
DERC General Records 1980-1989	DWT Projects
DERC General Records 1990-1999	DWT Rivers and Wetlands Project
DERC General Records 2000-2009	EN Batdata
DERC General Records 2010 - present	Environment Agency extracted data
DERC General Records pre 1980	Invasive Plants Survey
Dorset Aculeates	Invertebrate Site Register - amended version
Dorset Bat Group	iRecord
Dorset Beetles	JAN Personal Records
Dorset Bird Club 2000-2009	Natural England extracted data
Dorset Birds from Living Record	PAC/MC Personal Records
Dorset Bryophytes	PTES Dorset records
Dorset Butterflies from Living Record	RSPB farmland bird data
Dorset County Council	Sites of Nature Conservation Interest 1995-1999
Dorset Dragonfly Group	Sites of Nature Conservation Interest 2000-2009
Dorset Flora Group	Sites of Nature Conservation Interest 2010-2014
Dorset Fungi Records	Sites of Nature Conservation Interest 2015-present
Dorset General Fungi Records	Sites of Nature Conservation Interest pre 1995
Dorset Invertebrates	
Dorset Invertebrates from Living Record	
Dorset Lichen Records	
Dorset Macromoths 2000-2010	

Table 19. Species Status (other than those protected under Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats & Species Regulations 2017 (as amended) and The Protection of Badgers Act 1992.

FOR ALL GROUPS	
<b>Threat status</b>	follows lists from JNCC website. Status codes incl. -GB (GB Red List) or -Eng (England Red List)
CR	National Red Data Book Critically Endangered
EN	National RDB Endangered
VU	National RDB Vulnerable
NT	National RDB Lower Risk including Near Threatened (NT)
DD	Data deficient
<b>Rarity status</b>	follows lists from JNCC website
NR	Nationally Rare - occurring in less than sixteen 10km squares nationwide
NS	Nationally Scarce - occurring in sixteen to one hundred 10km squares nationwide
IR	International Responsibility
<b>Dorset Status</b>	
DR	Dorset Rare - species found in three or less sites in Dorset since 01/01/1990
DS	Dorset Scarce - species found in four to ten sites in Dorset since 01/01/1990 & species showing a strong decline in numbers of sites since 1945.
DRPR	Species listed in the Dorset Rare Plant Register ( <i>Edwards &amp; Pearman, 2004</i> )
<b>Habitat Quality Indicators (positive and negative)</b>	
DN	Dorset Notable - these species are chosen as indicators of good unimproved or semi-improved habitat to assist in the selection of Sites of Nature Conservation Interest. Dorset Notable lists by habitat are available from DERC or via the DERC website.
Neg	An indicator of poor quality habitat. These are used in the monitoring assessment of SNCIs and are habitat specific.
<b>Invasive Species</b>	
IAS	Invasive Animal Species - listed in DEFRA (2010)
IPS	Invasive Plant Species - V06 species listed in the Higher Level Stewardship: Farm Environment plus Giant Hogweed and New Zealand Pygmyweed.
<b>Other codes</b>	
Web Spinner	Web spinning moths and mites, easily confused with some pest species.
Web Spinner Pest	Used for Brown-tail Moth and Oak Processionary, two web-spinning moths
NNA/NNP	Non-native Animal or Non-native Plant listed in DEFRA (2010)
<b>INVERTEBRATES</b>	
<b>Threat status</b>	follows lists from JNCC website
NR	Red listed on pre 1994 criteria
<b>Rarity status</b>	follows lists from JNCC web-site
NS(A) or Notable(Na)	Nationally Scarce invertebrate species found in 16-30 10km squares nationwide
NS(B) or Notable(Nb)	Nationally Scarce invertebrate species found in 31-100 10km squares nationwide
<b>BIRDS</b>	
<b>Threat status</b>	follows <i>Eaton et al (2008)</i>
RED	Red List species - birds of high conservation concern in Europe
AMBER	Amber List species - birds of medium conservation concern in Europe
<b>AMPHIBIANS, REPTILES and MAMMALS</b>	
<b>Rarity status</b>	follows <i>Arnold (1993), Arnold (1995), Mathews et al (2018)</i>
NR	Nationally Rare - occurring in fewer than sixteen 10km squares nationwide, and listed in the <i>National Red Data Book</i>
NS	Nationally Scarce Species - occurring in sixteen to one hundred 10km squares nationwide