

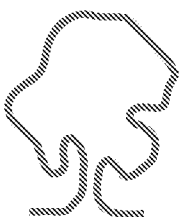
MR & MRS P VOLLER



TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

Phase 1 Habitat Survey

July 2013



eas ltd
Environmental Assessment Services Ltd

REPORT DATA SHEET

Requirement	Data
Report Reference	Voller/TarsBuildings/Eco
Date	July 2013
Client	Mr & Mrs P Voller
Report type	Phase 1 Habitat Survey
Purpose	Submission to planning
Revisions	N/A
Prepared by	Lucy Monday BSc (Hons)  Signed
Approved by	Eur Ing Malcolm McKemey BSc (Hons), CEng, CEnv, MICE, MIEAust, MCIWEM, MIEnvSc  Signed

MR & MRS P VOLLER

TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

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MR & MRS P VOLLER

TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

Phase 1 Habitat Survey

July 2013

NON TECHNICAL SUMMARY

Environmental Assessment Services Limited has been appointed to prepare a Phase 1 Habitat Survey in relation to the proposed redevelopment of redundant agricultural buildings and yard area for residential use with stables, garaging and stores at Tars Farm, Church Lane, Barnham.

The site (as existing) comprises a small cluster of redundant agricultural buildings with a central, unsurfaced yard and access road extending northeast from the buildings a short distance before heading southeast where it joins Church Lane. The Ordnance Survey map reference for the centre of the site is SU 9565 0420.

The aim of the report is to collate preliminary, baseline information on the conservation and ecological status of the site in terms of habitats and species, within the framework of current environmental legislation.

The assessment comprised consultation with the Sussex Biodiversity Record Centre to obtain records of protected, rare and notable species within 1 km of the site, consultation with Arun District Council regarding Tree Protection Orders for trees within and adjacent to the site and a site walkover assessment undertaken on 6 March 2013 to identify features of ecological value and the site's likely potential to support protected and other notable species.

Consultation with Arun District Council has confirmed that there are no trees protected by Tree Preservation Orders within or adjacent to the site and the site does not lie within a conservation area. Assessment of the site, along with a review of consultation data, provided by Sussex Biodiversity Record Centre, found the site to: be used by barn owls; to have high potential for breeding/nesting birds; and medium potential for badgers, bats and reptiles.

Recommendations for further surveying have been made in relation to bats, barn owls and badgers and protection measures have been provided for nesting birds and reptiles. Where all protection, mitigation and compensation measures (presented in this report and in further protected species survey reports prepared for the site) are implemented, the potential impacts of the proposals should have a minimal impact on the biodiversity value of the site. Where some or all of the enhancement recommendations are implemented there may be an overall increase in biodiversity at the site.

MR & MRS P VOLLER

TARS FARM, CHURCH LANE, BARNHAM, BOGNOR REGIS PO22 0DB

Phase 1 Habitat Survey

July 2013

1. INTRODUCTION

- 1.1 The following report, prepared by Environmental Assessment Services Limited, is a preliminary assessment of the baseline status of the ecology of the site at Tars Farm, Church Lane, Barnham, West Sussex. See Appendix A Figure 1: Site Location Plan.
- 1.2 The site comprises a small cluster of redundant, agricultural buildings with a central, unsurfaced yard and access track extending northeast from the buildings before heading southeast where it joins Church Lane. The Ordnance Survey map reference for the centre of the site is SU 9565 0420.
- 1.3 The proposed application is for the redevelopment of existing redundant agricultural buildings and yard area to residential use with stables, garaging and stores access via the existing track. See Appendix A Figure 2: Proposed Development Plan.
- 1.4 **Aim of the Report**

The aim of the report is to collate preliminary, baseline information on the conservation and ecological status of the site in terms of habitats and species, within the framework of current environmental legislation.

The report also evaluates the potential of the site to support protected species, in particular for the presence of:

- Animals and plants listed under Schedule 5 and Schedule 8, respectively, of the Wildlife and Countryside Act 1981 (as amended) and those listed under Schedule 2 and 4 of The Conservation (Natural Habitats, &c.) Regulations 1994 (amended).
- Plants and animals with Red Data Book¹ or Notable² status.
- Plants and animals identified as priority species in the UK Biodiversity Action Plan (UK BAP)³.

¹ The World Conservation Union Red List of threatened species provides taxonomic, conservation status and distribution information on taxa (species or group of related species) evaluated to determine their relative risk of extinction.

² Notable (or Nationally Scarce) species occur in 16 – 100 10 km squares in Britain.

³ The target of the UK BAP is to establish measurable outcomes that address the needs of species and habitat types of most concern to biodiversity conservation.

1.5 Legislation

The legislation relevant to this study is:

- i. Wildlife and Countryside Act 1981 (as amended), which transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (known as the “Bern Convention”) and the Birds Directive 2009.
- ii. The Countryside and Rights of Way Act (CROW) 2000, which strengthens the legal protection for threatened species.
- iii. The Natural Environment and Rural Communities Act (NERC) 2006, which through Section 41 provides a list of habitats and species of principal importance for biodiversity conservation in England.
- iv. The Conservation of Habitats and Species Regulations 2010 (as amended). These consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994, which transposed the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into national law.
- v. Protection of Badgers Act 1992, which safeguards both the animals and their setts.

1.6 Assessment method

The assessment was undertaken in two stages:

- a) Consultation: comprising data searches by Sussex Biological Record Centre (SxBRC) and Arun District Council.
- b) Walk-over site assessment carried out on 6 March 2013 to:
 - Assess the baseline status of the site.
 - Identify its use by species of flora and fauna protected or controlled under the Wildlife and Countryside Act, 1981 and associated European legislation.
 - Identify notable features of interest that should or could be retained and/or enhanced as part of the proposals.

2. CONSULTATION AND BASELINE DATA SEARCH

2.1 Sussex Biodiversity Record Centre (SxBRC) Data Search

2.1.1 Data obtained from Sussex Biodiversity Record Centre (SxBRC) provided information on statutory and non-statutory designated sites and records of notable species within the search area. The search was conducted for a 1 km radius surrounding the Ordnance Survey grid reference SU 9567 0412.

2.1.2 There are no statutory designated sites or non-statutory designated sites within 1 km of the study site.

2.1.3 Records of protected and rare species have been identified within 1 km of the site. These records are discussed under the protected species headings in Section 3.

2.1.4 See Appendix B for full details of the SxBRC data search.

2.2 Arun District Council

2.2.1 Arun District Council was contacted regarding Tree Preservation Orders (TPOs) and conservation areas within and adjacent to the site. We were informed on 19 July 2013 by Arun District Council that there are no TPOs within or adjacent to the site and the site does not lie within a conservation area.

2.3 Non-native Invasive Species

2.3.1 Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) lists those non-native species that are established in the wild, but which pose a conservation threat to native biodiversity and habitats. Schedule 9 aims to regulate further release of these species by making it a criminal offence to release into the wild.

2.3.2 Sussex Biodiversity Records Centre has records of nine Schedule 9 plant species within 1 km of the site:

- Plant species include three-cornered garlic (*Allium triquetrum*), red valerian (*Centranthus ruber*), wall cotoneaster (*Cotoneaster horizontalis*), montbretia (*Crosomia pottsii x aurea* = *C. x crocosmiiflora*), Japanese knotweed (*Fallopia japonica*), hybrid bluebell (*Hyacinthoides non-scripta x hispanica* = *H. x massartiana*), False Virginia creeper (*Parthenocissus inserta*), winter heliotrope (*Petasites fragrans*) and cherry laurel (*Prunus laurocerasus*).

2.3.3 SxBRC holds no records of invasive animal species within 1 km of the site.

2.3.4 All non-native invasive species should be appropriately dealt with to restrict their spread into the wild. For example, the disposal of any non-native invasive species should be carefully considered to avoid causing an offence.

3. SITE ASSESSMENT

The site walkover was carried out on 6 March 2013. The following is based on the findings of that assessment along with a review of information provided by the SxBRC and Arun District Council. Habitat features, as observed during the site walkover, have been laid over the existing site plan, see Appendix A Figure 3: Habitat Plan, and photographs taken during the site survey are provided in Appendix C.

3.1 Habitat Assessment

3.1.1 The site is located to the south of Barnham. The development area is set within a large field (under the same ownership). To the east and south of the site are dwellings with large gardens and to the west large, open, commercial, agricultural fields (see Appendix B, SxBRC Habitat Map).

- 3.1.2 The site comprises a small cluster of redundant agricultural buildings surrounding a central yard, and an access track heading northeast from the buildings and then southeast where it joins Church Lane. See Photograph 1.
- 3.1.3 The redundant, agricultural buildings, comprise;
- two modern concrete block barns, one located to the northwest and one to the east of the central 'yard'
 - the remnants of what is thought to have been a piggery located to the north of the yard
 - a brick and flint barn or lodge (probably built ca 1900) to the east of the yard
 - a lean-to type shelter between one of the modern barns and the outer walls of former brick and flint barn (probably built ca 1800) along the western side of the yard
 - the remnants of a newer concrete block barn/out-building within the southwest corner of the central yard.
- 3.1.4 The modern barns are of concrete block construction with a pitched roof (one clad in corrugated fibre-cement roofing sheets over a metal frame (see Photograph 2) and the other with concrete tiles over a wooden frame). Evidence of the presence of birds was apparent within the eastern of the two modern barns. A single barn swallow nest and a small number of white streaks (faecal waste) were observed on the wooden roof trusses (see Photograph 3). The flooring within the barn to the east of the yard was covered by a thick layer of manure (see Photograph 4). The modern barn to the west of the yard was locked and access could not be gained at the time of our visit. However, pictures taken under the barn door show a relatively clean chalk floor (see Photograph 5). Bird access into this barn would be possible along the top and bottom of the door.
- 3.1.5 The former piggery is of concrete block construction. This building is in a significant state of disrepair, with no roof (see Photograph 6). Mature elder and ivy cover the building providing potential nesting opportunities for birds.
- 3.1.6 The brick and flint barn/lodge to the east of the yard has a pitched slate roof (see Photograph 7). Evidence of use by barn owls was apparent within the building. This comprises staining (white streaks) from faecal waste on a large wooden roof truss and on the walls plus a large number of barn owl pellets on the manure covered floor (see Photograph 8). It is clear that this building is used by resting barn owls but no evidence of nesting nor any suitable nesting features were identified within this barn.
- 3.1.7 The lean-to type shelter, located between the southern wall of the modern barn and the northern wall of the remnants of a brick and flint barn, has a sloping, corrugated iron roof over a timber frame. The lean-to is in a significant state of disrepair. The remnants of a former brick and flint barn (probably built ca 1800), comprises three walls (in part) with arrow slots (see Photograph 9). The slots were checked for signs of nesting birds and bats.

- 3.1.8 The newer concrete block walls within the southwest corner of the yard are thought to have been part of a former barn/out building. This area is littered with demolition waste and is overgrown with nettles. See Photograph 10.
- 3.1.9 The central yard area is accessed from Church Lane via a hardcore surfaced track, which runs from Tars Farm House along a former field boundary and then drops south to the northeast corner of the yard (See Figure 3 Habitat Plan). The yard is unsurfaced, occupied by some 'rubble', a soil mound (see Photograph 9) and is overgrown with nettles in the southwest corner (within the footprint of former barns/out-buildings). See Photographs 10 and 11.
- 3.1.10 A number of small mammal holes were identified within the southwest corner of the yard and on the opposite side of the remaining brick and flint outer wall. Some of the holes had been dug out by a larger mammal, possibly fox or badger. Well-walked mammal paths crossed this area and along the outside edge of the brick and flint wall.
- 3.1.11 The buildings are set within a large, irregular shaped, open field. The field comprises tussocky, improved grassland, with the exception of a small area between the agricultural buildings and Tars Farm House (to the east of the site), which is being used as temporary paddocks for a small number of ponies.
- 3.1.12 The field is likely to have once been divided by hawthorn hedgerows and drainage ditches. Remnants of these hawthorn hedgerows remain in the form of veteran trees in sparse lines and the odd hawthorn remaining along both sides of the access track and the vegetated ditches within the surrounding field to the north and south of the barns.
- 3.1.13 Plant species observed within the development area during the site walkover are listed in Appendix D.

3.2 Protected and Controlled Species

3.2.1 Flora

3.2.1.1 *Trees and Hedgerows*

We are informed that there are no TPOs within or adjacent to the site and the site does not lie within a conservation area.

There are a number of veteran hawthorns, thought to be the remnants of former hedgerows within and along the boundaries of the field surrounding the development site. These include four hawthorns dotted along the length of the access road. Other tree/shrubs within the development area include mature elder, which have grown uncontrolled around the redundant buildings.

Veteran trees are irreplaceable. They can be an important resource for a variety of notable invertebrates, bats and birds. However, the hawthorns along the access road are small and isolated, limiting their value to other wildlife.

3.2.1.2 *Plants*

No notable or protected plant species were identified during the site walkover. Whilst it is acknowledged that the assessment of the site was made at a sub-optimal time for vegetation recording, it is not thought likely that the development area supports any notable, rare or protected species.

There are no records of protected or notable plant species within 1 km of the site. Plant species observed during the site walkover are listed in Appendix D.

The proposed development would see the loss of plants established within the yard area.

3.2.2 **Fauna**

3.2.2.1 *Invertebrates*

Large blue butterfly, fisher's estuarine moth and lesser whirlpool ramshorn snail are protected under Schedule 2 of the Conservation Regulations 2010. Other protected invertebrates are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

There are no records of protected or notable invertebrates within 1 km of the site.

Notable invertebrate habitat identified within the site may include the large number of small mammal holes, identified in and around the southwest corner of the yard area, which may be utilised by ground nesting invertebrates such as bumblebees.

Development of the yard area may result in a decrease in the number of mice holes available for use by invertebrates in and around the yard.

3.2.2.2 *Amphibians*

Great crested newts (GCN) and natterjack toads are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 making them a European Protected Species. Both the individual and its place of shelter or protection are protected.

There are no records of protected amphibians within 1 km of the site. There is one record of common toad (*Bufo bufo*) within 1 km of the site. This is a UK and Sussex Species of Principle Importance.

There are no ponds within the site and very few ponds within 1 km of the site. A slow flowing chalk stream lies along the eastern boundary of the field, however, this is considered unlikely to be used by protected amphibians.

There is some potential for toads to use the redundant buildings and yard area to shelter and forage, however the proposed redevelopment of the buildings and change of use is not considered likely to adversely affect this or any other local amphibian population.

3.2.2.3 Reptiles

The more widespread reptiles, grass snake (*Natrix natrix*), slow-worm (*Anguis fragilis*), viviparous lizard (*Zootoca vivipara*) and adder (*Vipera berus*), are protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). It is an offence, amongst other things, to intentionally kill or injure any individual. The more restricted species, sand lizard and smooth snake, are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 making them European Protected Species.

Grass snake, slow-worm, viviparous lizard and adder have been recorded within close proximity to the site. Grass snake, slow-worm and viviparous lizard have been recorded at Barnham Station (immediately north of the site) and adder has been recorded east of the site off Hill Lane. The site is considered to have some potential for foraging, resting and hibernation opportunities for each of these species of reptile, in and around the redundant buildings (and the wider area). Key features likely to be used by reptiles include the soil/organic waste mound and building waste, which will provide shelter. Reptiles may also use the disused mammal burrows to overwinter.

Whilst it is considered that the proposed development is unlikely to significantly effect the local reptile population, protection measures will be required to ensure that no reptiles are harmed during the redevelopment of the site. Some compensation measures should also be implemented to compensate for the loss of potential reptile habitat. See recommendation in Section 4.

3.2.2.4 Birds

All wild birds, their nests and eggs are protected by UK law. It is an offence to take, kill or injure any wild bird, or to take, damage, destroy any nest (whilst being built or in use) or egg of any wild bird under Part 1 of the Wildlife and Countryside Act 1981. In addition to this protection, those birds and their young listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) must not be disturbed at the nest. Part I birds are protected at all times and Part II during the closed season only.

A summary of the notable bird species recorded within 1 km of the site and their protection status is provided in Table 3.2 below.

Table 3.2 Bird Species and Protection Status

Bird species	Sch 1	Local BAP	UK BAP	NERC	Red	Amber
Barn owl <i>Tyto alba</i>	X					X
Barn swallow <i>Hirundo rustica</i>						X
Cetti's warbler <i>Cettia cetti</i>	X					
Corn bunting <i>Emberiza calandra</i>			X		X	

Eurasian curlew <i>Numenius arquata</i>			X	X		X
Eurasian hobby <i>Falco subbuteo</i>	X					
Gadwall <i>Anas strepera</i>						X
Grey partridge <i>Perdix perdix</i>			X			
Lesser spotted woodpecker <i>Dendrocopos minor</i>			X	X	X	
Little egret <i>Egretta garzetta</i>						X
Northern lapwing <i>Vanellus vanellus</i>			X	X	X	
Osprey <i>Pandion haliaetus</i>	X					X

Sch 1 - Schedule 1 birds, provided an additional tier of protection under the WCA 1981; Local BAP - Biodiversity Action Plan Species of regional importance; UKBAP - Biodiversity Action Plan Species (either Priority or of Conservation Concern), having a dedicated action plan which seeks to reverse their declines; NERC - species of principal importance for the purpose of conserving biodiversity covered under section 41 of the Act; Red - Red List, globally threatened species; Amber - Amber List, species of unfavourable conservation status.

Barn owl foraging habitat and evidence of the use of the site by barn owls was identified during the site walkover. A large number of pellets were identified within the brick and flint barn to the east of the yard. This indicates that the barn is being used by barn owls to rest. The tussocky grassland within the surrounding field and the yard area are considered likely to provide good foraging habitat. Barn owls feed predominantly on field voles and, usually to a lesser extent, other small mammals. A large number of small mammal holes were identified in and around the yard and barns.

Barn owls are a Schedule 1 Part 1 bird. In addition to the level of protection offered to all wild birds, it is an offence to disturb this species and its young at the nest. No evidence of barn owl nesting was observed within the barns and no flat ledges thought to be large enough to support nesting barn owls, or any old water tanks or other suitable features were identified within the barns. Access could not be gained to one of the modern barns located to the northwest of the central yard and this should be checked before any future work is undertaken on this barn.

Old barn swallow nests were observed within the modern barn to the east of the yard.

3.2.2.5 Bats

All species of bat are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 (meaning all species of bat are European Protected Species).

It is illegal to:

- Kill, injure or capture (take) bats
- Deliberately disturb bats (whether in a roost or not)
- Damage, destroy or obstruct access to a bat roost.

There are records of serotine (*Eptesicus serotinus*), pipistrelle (*Pipistrellus sp*) and long-eared (*Plecotus*) bats within the local area.

There is some potential for roosting or resting bats within the redundant agricultural buildings, in particular the brick and flint barn or lodge. A bat daylight and emergence survey would be required prior to the redevelopment of the agricultural buildings.

3.2.2.6 *Badgers*

Badgers are protected in the UK under the Protection of Badgers Act, 1992 (as amended). It is an offence, amongst other things, to take, injure or kill a badger or interfere with a badger sett (this includes intentionally or recklessly disturbing a badger when it is occupying a badger sett). To avoid committing an offence a permit must be obtained to damage, destroy, obstruct or disturb a badger when it is occupying a badger sett.

No badger records have been obtained for this site.

A number of larger mammal burrows were identified to the southwest of the yard area, along the veteran hawthorn line to the north of the agricultural buildings and along the site boundaries. However, no active setts were identified. Worn paths were observed which may indicate badger foraging within the site and therefore a sett may be present within the local area (or within the site but not observed). It is considered possible that badgers may move into the site at any time.

3.2.2.7 *Common/Hazel Dormice*

The common (or hazel) dormouse is protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 making common dormice a European Protected Species.

There are no records of common dormouse within 1 km of the site.

The site is not considered likely to support common dormice. No further assessment is recommended in this case.

3.2.2.8 *European Water Vole*

European water vole (*Arvicola terrestris*) and their resting places are fully protected in England, under the Wildlife and Countryside Act 1981 (as amended). It is an offence to deliberately, capture, injure or kill water vole, to disturb them in their breeding or resting places or to damage, destroy or obstruct their breeding or resting places.

European water vole have been recorded at three locations within 1 km of the site. The most recent record (from 2003) was at Barnham Court Farm, which shares a boundary with Tars Farm along the chalk stream.

The chalk stream is considered to have potential for water vole, however, a sewage leak may be affecting the use of the waterway at this time. The proposed development does not include any works to the waterway or the banks of the waterway, and the proposed redevelopment and change of use should not adversely impact on the chalk stream.

3.2.2.9 *Other Protected and Notable Species*

There are three records of brown hare (*Lepus europaeus*) and a number of records for West European hedgehog (*Erinaceus euroaeus*) within 1 km of the site. These are UK Species of Principle Importance. The site is considered to have suitable foraging habitat and shelter for both species. The proposed redevelopment and change of use of the agricultural buildings to residential use is considered unlikely to adversely impact hedgehogs or brown hare (if present).

4. **RECOMMENDATIONS**

The walkover site assessment identified some features of ecological value and habitat types that may potentially be used by protected species. The following recommendations have been made based on the findings of the walkover assessment and consultation data in relation to the proposed development.

4.1 **Protection and/or further surveys**

4.1.1 *Reptiles and amphibian*

Protection measures will be required to ensure that no reptiles are harmed as a result of the proposed development activity.

It is recommended that existing features including the piles of building waste, soil and other organic matter are cleared by hand, as much as is possible, to reduce the potential of harm or injury to reptiles. Clearance work should be undertaken during the active season (March – September) under the guidance of an ecological watching brief and any reptiles (or amphibians) found should be captured and moved from the development area to a safe alternative location within the wider site.

It is not considered likely that great crested newts would be found during this work, however, should this species be encountered, all work should stop and advice should be sought from a suitably qualified ecologist.

4.1.2 *Birds*

Building clearance, including the removal of trees/shrubs within the yard and buildings, plus any obstructive works (likely to limit bird access to a nesting site) should be undertaken outside of the bird-nesting season (which is February –

August inclusive) to avoid causing an offence under the Wildlife and Countryside Act 1981 (as amended). Where these works are scheduled during the breeding season a nesting bird survey will be required. No clearance work that will affect nesting birds may commence until all birds have fledged and left the nest.

A barn owl survey should be undertaken at the site to check the locked barn for any signs of barn owl use and check to check all the buildings for any new signs of nesting.

4.1.3 *Bats*

A bat daylight and emergence survey will be required to ascertain the likely impact of the proposed development on bats. Should bats be identified to be using the site, a Licence from Natural England may be required before any site clearance or development work may proceed. Protection, mitigation and enhancement measures may be required where bats are identified to use the site.

4.1.4 *Badgers*

Whilst there were no signs of recent activity at the time of our visit, badgers are likely to be present within the local area and may move in at any time. It is recommended that a further check of the site is made closer to the time of site clearance and development works to check for signs of recent badger activity.

4.1.5 *Other*

If any new evidence of protected species is discovered during site clearance and construction work, Natural England should be informed immediately and appropriate advice on how to deal with the situation should be sought from a qualified ecologist.

4.2 **Mitigation and/or compensation**

The proposed redevelopment of the existing agricultural buildings and yard area is considered likely to impact reptiles, birds, bats and badgers where these species are found to be using the site (further surveying has been recommended for barn owls, bats and badgers, see section 4.1 above).

Mitigation and compensation in the form of provisions for barn owls, bats (as required under the Local Plan Policy DEV2) and badgers will be provided based on the findings of further assessment.

Compensation for the potential loss of reptile habitat within the yard should be provided prior to clearance works within the yard. This may include the creation of a log pile and an organic waste heap/composting area outside the development zone but within the surrounding field. Any reptiles found within the development area may be moved to these alternative features within the wider site.

Compensation should be provided for the loss of barn swallow nesting places within the existing buildings. Artificial swallow nesting cups should be provided

within the open storage building to the east of the yard. The birds should have permanent free access into/out of the building to come and go freely from the nest.

Compensation should also be provided for invertebrates. This may be provided in the form of an invertebrate 'hotel' which is designed with a range of materials (wood, brick, clay tiles, straw, bamboo, hair, fur, wool, etc.) to provide space for nesting and shelter. The hotel should be located within a sheltered position where it will not be disturbed (by people or animals).

4.3 Enhancement

Some ecological enhancement should be included within the development site to secure biodiversity improvement beyond that of the existing site. Ecological enhancements may include:

- New hedging, incorporating the existing hawthorns, along the access track (and within the wider site). Single species hedgerows should be avoided in favour of mixed species, native hedgerows. Suitable hedgerow species may include hawthorn, blackthorn, field maple, hazel, elder, dogwood, oak and ash (as already present within the site) plus elm, beech, dog rose, wild cherry, guelder rose, wayfaring tree, spindle, crab apple, sweet chestnut, sycamore, holly, willows and more.
- Bird boxes to encourage other birds to the site such as house martins and sparrows (in addition to the swallow nesting cups as recommended for compensation).
- New planting should be incorporated within and/or surrounding the development area to include a variety of flowering plants that will provide nectar and pollen for a range of invertebrate species. Try to include flowering plants with different flower shapes (e.g. daisy, bell, trumpet). Flowering area may be maximised by using planters and by growing climbers over walls and fencing etc.

Enhancement for barn owls, bats and badgers will be provided based on the findings of further assessment.

5. CONCLUSIONS

- 5.1 The site has potential ecological value for invertebrates, reptiles, birds (including barn owls), bats and badgers. Protection measures and/or further assessment plus mitigation and/or compensation have been recommended for these species prior to development (see section 4.1 and 4.2 above).
- 5.2 In the absence of protection, mitigation and/or compensation it is considered that the proposed redevelopment of the former agricultural buildings and yard area would have a negative impact on the ecological value of the site. However, where our recommendations and the recommendation from further survey information are implemented, any potential adverse impacts from the proposed development should be minimised.

- 5.3 Subject to the implementation of some or all of the enhancement measures given in section 4.3 (in addition to our other recommendations), it is likely that there could be an enhancement to the overall ecological value of the site.



APPENDIX A

Figure 1: Site Location Plan

Figure 2: Proposed Development Plan

Figure 3: Habitat Plan



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MR & MRS P VOLLER

Scale 1:25000

TARS FARM, CHURCH LANE, BARNHAM, WEST SUSSEX

Figure 1: Site Location

July 2013

NOTES
DO NOT SCALE OFF THIS DRAWING
CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS COMMENCED
ALL GOODS MATERIALS AND WORKMANSHIP MUST CONFORM WITH CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE
COPYRIGHT OF THIS DRAWING IS RETAINED BY THE ARCHITECT AND IT MUST NOT BE REPRODUCED WITHOUT WRITTEN CONSENT

A	05.07.13	ec	amendments to plans following clients comments
REV	DATE	BY	AMENDMENT



folkes architects

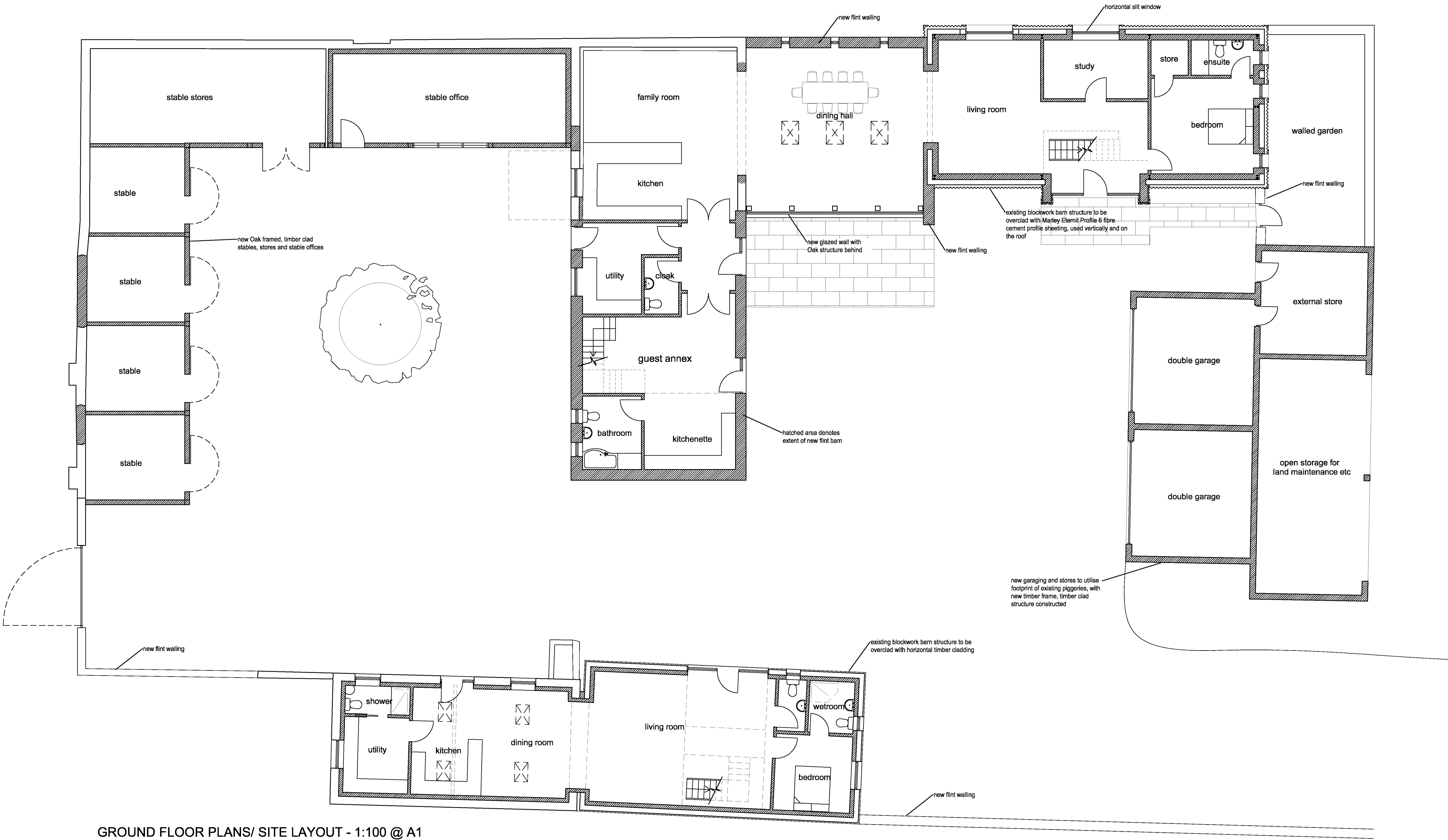
THE DESIGN STUDIO
84 High Street
Barnham
Wiltshire
BA14 5SD
info@folkesarchitects.co.uk

CLIENT
Mr. P. Voller

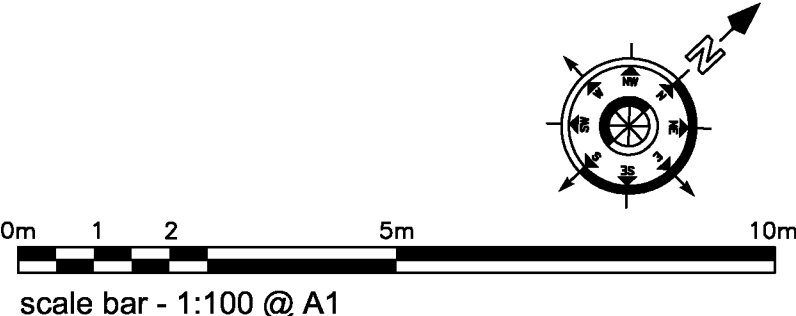
JOB TITLE
Tars Farm
Church Lane
Barnham

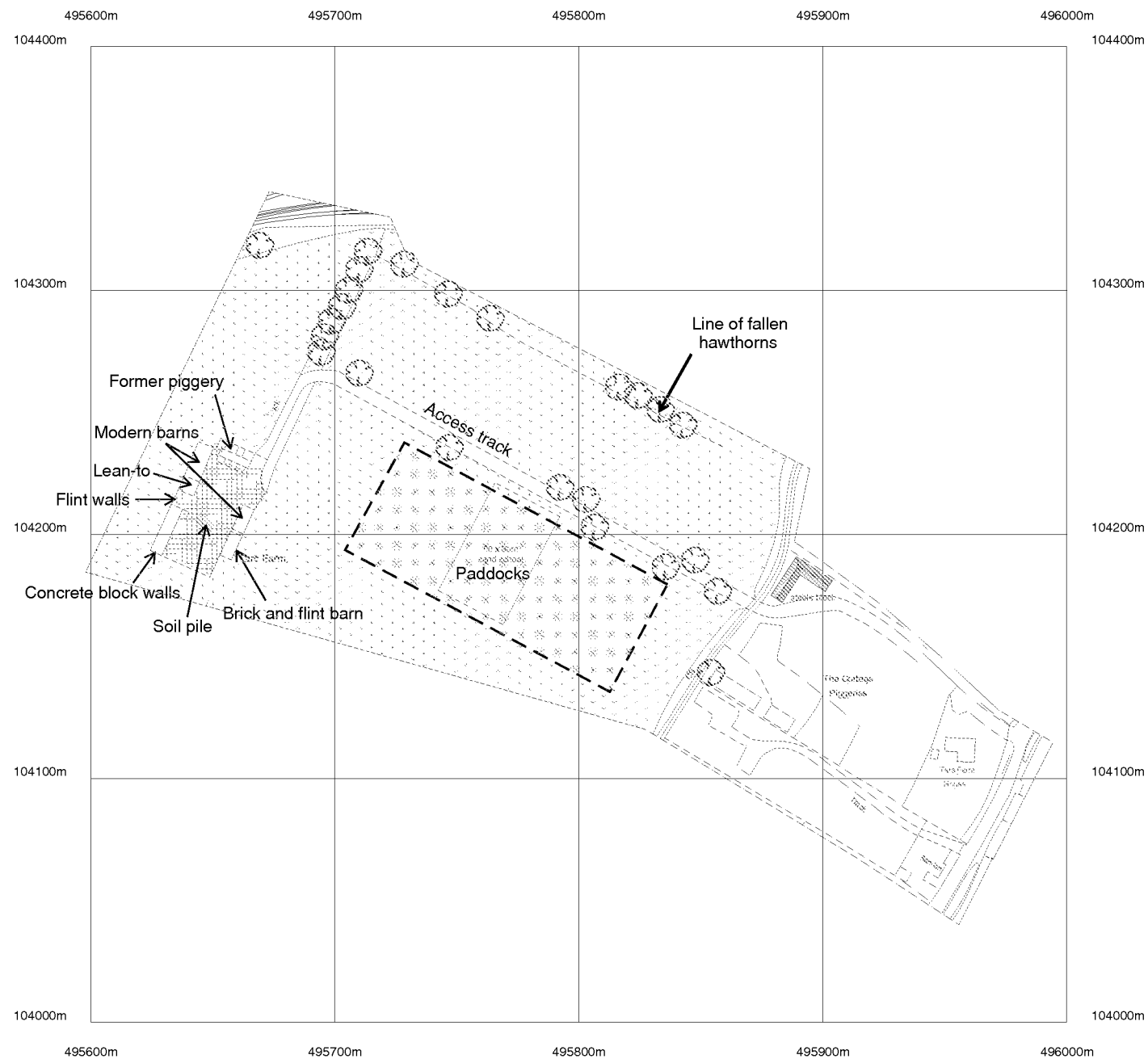
DRAWING TITLE
Ground Floor/ Site Plans As Proposed

DATE	SCALE	DRAWN BY	EC
June '13	1:200	CHECKED BY	MF
JOB NO.	DRAWING NO.	REVISION	
1309	2.01	A	



GROUND FLOOR PLANS/ SITE LAYOUT - 1:100 @ A1





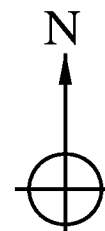
Client: MR & MRS P VOLLER

Site: TARS FARM, CHURCH LANE,
BARNHAM, WEST SUSSEX

Figure 3: HABITAT PLAN

KEY

-  Loose surfaced yard
-  Temporary paddocks
-  Improved, tussocky grassland
-  Tree(s)

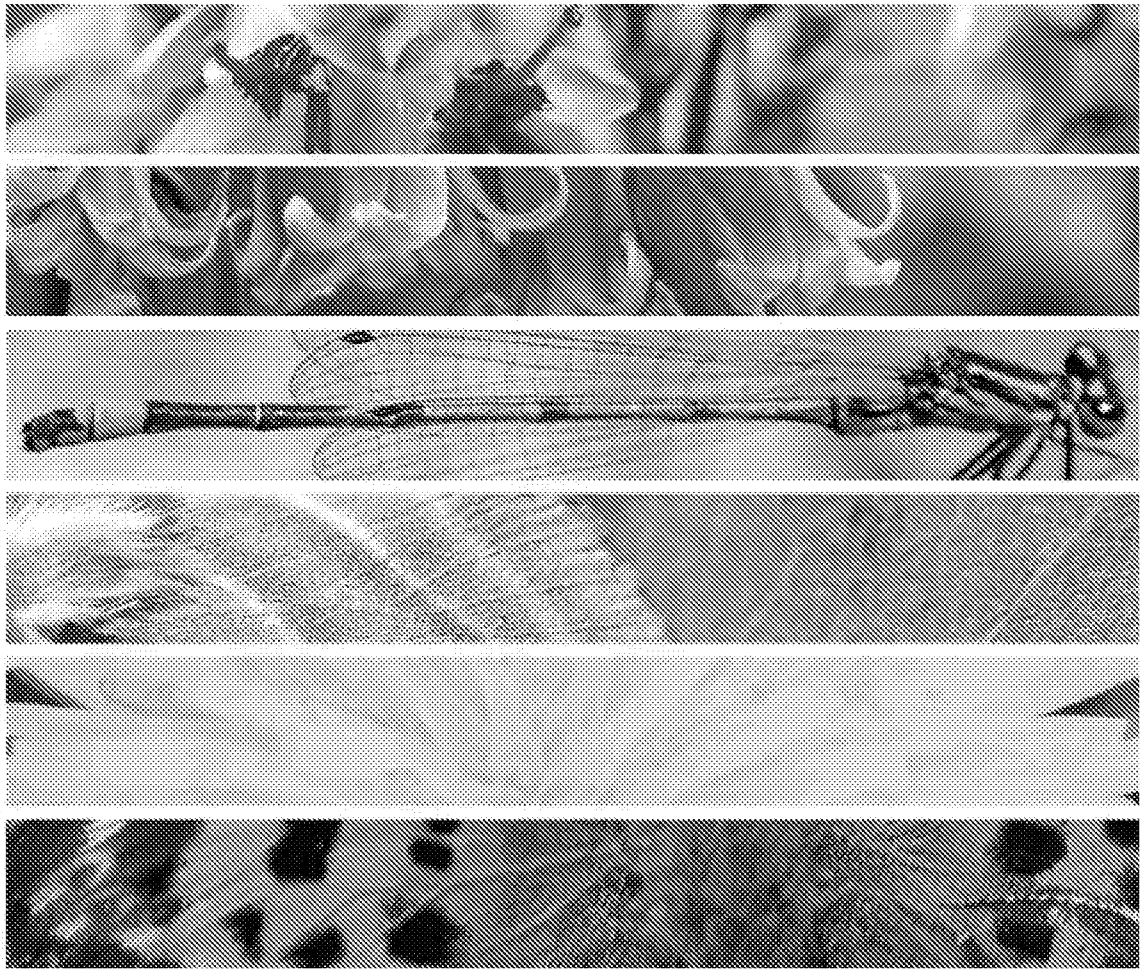


Scale 1:2500 at A4



July 2013

APPENDIX B
Sussex Biodiversity Record Centre (SxBRC) Data Search



Desktop Biodiversity Report

Land at Tars Farm, Barnham + 1km radius

ESD/13/122

Prepared for Lucy Monday (EAS Ltd)

5th March 2013



**Sussex Biodiversity Record Centre
report regarding
land at Tars Farm + 1km radius
05/03/2013**

**Prepared for Lucy Monday
Environmental Assessment Services Ltd
ESD/13/122**

The following information is enclosed within this report:

Maps	☒
Sussex Protected Species Register	☒
Sussex Bat Inventory	☒
Sussex Bird Inventory	☒
UK BAP Species Inventory	☒
Sussex Rare Species Inventory	☒
Sussex Invasive Alien Species	☒
Full Species List	☒
Environmental Survey Directory	☒

SNCI

None

SSSI

None

Other Designations/Ownership

None

Habitats

Ancient tree; Ancient woodland; Chalk stream; Coastal and floodplain grazing marsh; Traditional orchard.

Important information regarding this report

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

The species data held by the Sussex Biodiversity Record Centre (SxBRC) is 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 desktop biodiversity report from the SxBRC will give the user a clear indication of what biological recording has taken place within the area of their enquiry. 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 the SxBRC at the time of printing. The SxBRC takes data validation very seriously, but cannot be held responsible for the accuracy of data included in this report.

Copyright

The Sussex Biodiversity Record Centre must be acknowledged in all documents containing any part of the information contained in this report. You can also use the whole of a SxBRC report (unedited) as an appendix in your own report.

The 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 desktop biodiversity reports.

Data usage

The data contained within this report is for use in the project for which the data was requested. It is not to be shared with third parties for use in other projects, unless permission is granted from the SxBRC.

The data may be used for 12 months, after which a replacement SxBRC report must be requested. This ensures the most up-to-date information is being used.

Ordnance Survey maps

Members of the public wishing to reproduce maps made by the SxBRC under East and West Sussex County Council or Brighton and Hove City Council licences must use copying facilities that have been authorised by the Ordnance Survey (OS). Please see advisory document from OS for further information:

<http://www.ordnancesurvey.co.uk/oswebsite/docs/licences/publishing-licensing-information.pdf>

Impartiality

The SxBRC functions as custodian of biological data. Our role is to collect, manage and disseminate wildlife 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.

Supplying records

Our desktop biodiversity reports are only as good as the data we hold. We rely on the continuous submission of records to keep our database up-to-date. We are always grateful to receive records from ecological consultants and members of the public alike. We accept records in many different formats – please see our website for more details: <http://sxbrc.org.uk/biodiversity/recording/#sending-records>

Confidential Records

Badgers

Badgers are one of our most recognisable native British mammals. They are not considered rare but are protected along with their setts under The Protection of Badgers Act 1992 and schedule 6 of the Wildlife and Countryside Act (1981, as amended).



It is an offence to kill, injure, or take a badger or interfere with a badger sett.

"Interference" is defined by section 3 of The Protection of Badgers Act and includes damaging or destroying a badger sett, obstructing any entrance to a sett and also disturbing a badger when it is occupying a sett. If you need to do any work near to a sett (within 30m) you must contact Natural England for guidance as your activities may require a licence.

With continued persecution of badgers, often for the most cruel and barbaric 'sport', detailed badger records are not included in our species inventory reports, as it has been requested that they remain confidential. However, the total number of badger records within the enquiry area is given in the full species list, if this has been requested.

If you need further information about badgers in your enquiry area please call the Badger Trust Sussex on 07910 198720 or visit their website: www.badgertrust-sussex.org.uk

The following species are not included in desktop biodiversity reports, but are flagged up as confidential at the end of the separate species inventories.

Otters

Otters are slowly making a return to Sussex after becoming extinct in the 1960's, but are nowhere near their former numbers and remain very vulnerable.



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

Otters are protected by European and UK law. It is an offence under the Wildlife and Countryside Act 1981 to kill, injure or take an otter from the wild without a licence; to damage or obstruct a holt; or disturb an otter in its resting place. Licences are required for checking holts or for carrying out work that may disturb otters, such as the management of trees that are known to be used as resting sites. Natural England are responsible for issuing these licences in England.

If you require further information about otters in your enquiry area, please contact the SxBRC. Permission to release record details will be required from the Sussex Wetland Landscapes Project and the SxBRC will liaise with the project officer on the enquirer's behalf.

Wood White and Duke of Burgundy butterflies

These two rare butterfly species have a very restricted range in Sussex and records have been made confidential based on advice given from Butterfly Conservation Sussex Branch.

Other confidential records

The SxBRC holds records of other species that are confidential. Confidentiality can be for a variety of reasons but is usually to benefit the site or the species. Full details of these records are not disclosed but the enquirer is referred back to the SxBRC if further information is needed.

Any confidential records for your enquiry area will be flagged up at the end of the Rare Species Inventory, Protected Species Register and BAP Species Inventory.

Birds

The SxBRC holds approximately one million bird records provided by the Sussex Ornithological Society (SOS). Non-commercial enquiries will not include breeding season records of 15 Schedule 1 birds and three other species which are classed as sensitive in Sussex. Commercial enquiries will automatically include a Notable Bird Report, which is based on a list of birds that are particularly scarce or vulnerable to development in Sussex. This has been created with ecological consultants in mind.

MAPS

There are three maps included in a standard desktop biodiversity report which show designated sites (statutory and non-statutory); habitats and natural features; and ownership and management.

The key on a map only shows those layers which are located within the enquiry area. Below is a list of all layers which we currently use in our maps, with details of their origin.

Designated sites	
Area of Outstanding Natural Beauty (AONB)	Downloaded from NE website.
Country Park	Downloaded from NE website.
Local Geological Site (LGS)	Supplied by the Booth Museum, Brighton and digitised by SxBRC in April 2009. LGS boundaries are digitised from hand-drawn maps and in some instances are approximate.
Local Nature Reserve (LNR)	Downloaded from NE website.
Marine Site of Nature Conservation Importance (MSNCI)	Supplied by ESCC in 2005.
National Nature Reserve (NNR)	Downloaded from NE website.
National Park	Downloaded from NE website.
Notable Road Verge	Owned and provided by ESCC and WSCC.
Ramsar	Downloaded from NE website.
Site of Nature Conservation Importance (SNCI)	Supplied by WSCC, ESCC & BHCC.
Site of Special Scientific Interest (SSSI)	Downloaded from NE website.
Special Area of Conservation (SAC)	Downloaded from NE website.
Special Protection Area (SPA)	Downloaded from NE website.
Habitats and natural features	
Ancient/veteran tree	Merged dataset created in July 2009. Data from Ancient Tree Hunt (national survey carried out in 2007/2008) and Tree Register of the British Isles (a charity which collates and updates data on notable trees).
Ancient woodland	Downloaded from NE website.
Black poplar	Created by SxBRC based upon species records arising from Sussex Wetland Landscapes Project.
Chalk streams	Created and owned by SWLP and SxBRC.
Coastal & floodplain grazing marsh	Created by SxBRC for upload to NE national inventory. Data remains provisional until this has occurred.
Coastal saltmarsh	Supplied by EA, based on data from the SRCMP Habitat Mapping Project.
Coastal sand dune	Supplied by EA, based on data from the SRCMP Habitat Mapping Project.
Coastal vegetated shingle	Downloaded from NE website.
Ghyll woodland	Boundaries drawn on paper maps by Dr Francis Rose which were then digitised by SxBRC. Not ground-truthed.
Intertidal chalk	Supplied by EA, based on data from the SRCMP Habitat Mapping Project.
Intertidal mudflat	Supplied by EA, based on data from the SRCMP Habitat Mapping Project.
Lowland calcareous grassland	Merged dataset from NE and SDJC sources, created in 2005.

Lowland fen	Created by SxBRC in June 2011. Layer is an amalgamation of all the fen data currently available to SxBRC.
Lowland heathland	High Weald Heathland data created by the High Weald Unit in 2006. The rest of Sussex Heathland data was created by SxBRC, with funding from WSCC and RSPB in 2007.
Lowland meadow	Downloaded from NE website.
Maritime cliff and slope	Supplied by EA, based on data from the SRCMP Habitat Mapping Project.
Open water	Derived from OS mapping. This includes inland and tidal, running and standing water.
Reedbed	Created by SxBRC in June 2011. Layer is an amalgamation of all the reedbed data currently available to SxBRC.
Saline lagoon	Downloaded from NE website.
Traditional orchard	Downloaded from NE website.
Ownership and management	
Environmental Stewardship Agreement	Downloaded from NE website.
National Trust property	Owned and provided by National Trust.
RSPB reserve	Owned and provided by RSPB.
Sussex Wildlife Trust reserve	Created and maintained by SxBRC on behalf of SWT.
Woodland Trust site	Owned and provided by the Woodland Trust.

Abbreviations

BHCC	Brighton and Hove City Council
EA	Environment Agency
ESCC	East Sussex County Council
NE	Natural England
PTES	People's Trust for Endangered Species
RSPB	Royal Society for the Protection of Birds
SDJC	South Downs Joint Committee
SRCMP	Strategic Regional Coastal Monitoring Programme
SxBRC	Sussex Biodiversity Record Centre
SWLP	Sussex Wetland Landscapes Project
SWT	Sussex Wildlife Trust
WSCC	West Sussex County Council

For further information on GIS datasets downloaded from the Natural England website, visit:
www.gis.naturalengland.org.uk

Designated Site Map (ESD/13/122)

Land at Tars Farm, Barnham + 1km radius

Prepared for Lucy Monday (EAS Ltd) - 05/03/2013



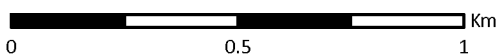
**Sussex
Biodiversity
Record Centre**

Woods Mill, Henfield,
West Sussex BN5 9SD
sxbrc@sussexwt.org.uk
01273 497 558/557
www.sxbrc.org.uk



Key to Map:

-  Enquiry area
-  Species search area
-  Notable road verge



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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. Site of Nature Conservation Importance (SNCI) 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 2013.

Habitat Map (ESD/13/122)

Land at Tars Farm, Barnham + 1km radius

Prepared for Lucy Monday (EAS Ltd) - 05/03/2013



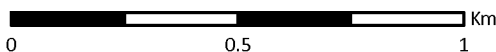
**Sussex
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West Sussex BN5 9SD
sxbrc@sussexwt.org.uk
01273 497 558/557
www.sxbrc.org.uk



Key to Map:

- Enquiry area
- Species search area
- Ancient/veteran tree
- Ancient woodland
- Chalk Stream
- Coastal & floodplain grazing marsh
- Open Water
- Traditional orchard



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Ancient woodland, traditional orchards, vegetated shingle and saline lagoon data reproduced with permission of Natural England. Revised coastal and floodplain grazing marsh data remains provisional and is also reproduced with permission of Natural England. Chalk grassland data supplied by Natural England and South Downs Conservation Board. Black Poplar data supplied by Sussex Otters & Rivers Partnership. Ghyll woodland data supplied by Dr Francis Rose. Reedbed data funded by Environment Agency and West Sussex County Council is provided by Sussex Biodiversity Record Centre and maintained by RSPB. Heathland data funded by West Sussex County Council, RSPB and High Weald AONB Unit. Ancient/veteran tree data derived from results of the Ancient Tree Hunt Project and the Tree Register of the British Isles (TROBI). South East Coastal Habitat Mapping data reproduced with permission of Environment Agency. © Crown Copyright. All rights reserved 2013.

This map contains ancient woodland data revised under the Weald and Downs Ancient Woodland Program (2010) on behalf of Natural England. Whilst every effort has been made to make this revision as accurate as possible, the inventories contain limitations and remain provisional. Further revisions are also pending within East Sussex. 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.

Ownership & Management Map (ESD/13/122)

Land at Tars Farm, Barnham + 1km radius

Prepared for Lucy Monday (EAS Ltd) - 05/03/2013



**Sussex
Biodiversity
Record Centre**

Woods Mill, Henfield,
West Sussex BN5 9SD
sxbrc@sussexwt.org.uk
01273 497 558/557
www.sxbrc.org.uk

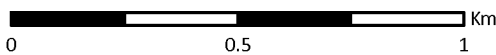


Key to Map:

- Enquiry area
- Species search area

Environmental Stewardship Agreements:

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



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Environmental Stewardship Agreement data reproduced with permission of Natural England. Other datasets reproduced respectively with permission of the Woodland Trust, National Trust, Sussex Wildlife Trust and Royal Society for the Protection of Birds. © Crown Copyright. All rights reserved 2013.

SUSSEX PROTECTED SPECIES REGISTER

The Protected Species Register does not include bat, bird, badger or otter records.

Bat and bird records are included in separate inventories, while badger and otter records are not included in SxBRC reports.

The Sussex Protected Species Register (PSR) consists of species of plants, fungi and animals that are protected under Schedules 5, 6 and 8 of the Wildlife and Countryside Act 1981 and other legislation.

Records of these species and where they have been recorded are held on the Record Centre's database and are included in desktop biodiversity reports. PSR data are updated weekly.

Some species are both protected and rare and therefore show up in the PSR and the Rare Species Inventory (RSI) reports. Reports to enquirers may reflect this relationship between rarity and protection, with records for the same species at a given location appearing in both reports.

Please note the following limitations to the PSR:

- PSR records are labelled so that only one record per species per grid reference is included in a SxBRC report. This will usually be the most up to date record. Some sites however are part of the National Dormouse Monitoring Programme (NDMP) and therefore we are likely to hold historic records/more detailed information. If NDMP is mentioned in the location name of a record and you would like the historic dormouse data for that site, please contact the SxBRC.
- If a protected species record appears in a SxBRC biodiversity report it does not mean that the species is still present. It means that the protected species was recorded last at that time and place by the recorder listed. The implications of the record should be further evaluated, and a survey to establish the current status of the species might be required.
- If there is no record of any particular protected species, this does not confirm that the species is absent from the site in question. It may mean that it has not been recorded, that the site has not been surveyed for this species, or that the Record Centre has not been informed of its presence.

Wildlife Protection Legislation in England

Legislation that protects wildlife in England exists at the European and national level.

European law

The Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) was aimed at ensuring conservation and protection of all wild plants and animals, increasing cooperation between states, and affording special protection to the most vulnerable or threatened species. It is implemented by the EU Birds Directive (Council Directive 79/409/EEC) and the EU Habitats Directive (Council Directive 92/43/EEC).

ANNEX II lists animal and plant species whose conservation requires the designation of special areas of conservation.

ANNEX IV lists animal and plant species in need of strict protection.

ANNEX V lists animal and plant species whose taking in the wild and exploitation may be subject to management measures.

National law

The Wildlife and Countryside Act (WCA) 1981 (as amended), strengthened by the Countryside and Rights of Way Act 2000, are together the most important legislation aimed at protecting wildlife in England. The Wildlife and Countryside Act is divided into four parts details of which are available from:

www.naturenet.net/law/wcagen.html

For the most up to date information on all species protection please visit

www.naturalengland.org.uk/conservation/wildlife-management-licensing or www.defra.gov.uk/wildlife-countryside/ewd/

Species protection is provided under Schedules 1, 5, 6 and 8 of the WCA:

Schedule 1: Birds – Please refer to the Sussex Bird Inventory results and explanation sheet in your SxBRC biodiversity report.

Schedule 5: Protected animals (other than birds)

Intentional or reckless killing, injuring, taking, possessing, disturbing and selling (including parts and derivatives) as well as damaging, destroying or obstructing access to any structure or place of refuge etc. are prohibited. N.B. Protection of some species is limited to certain sections of the Act, which are indicated in the lists as follows:

- S9(1)** Protection limited to intentional killing, injury or taking.
- S9(2)** Protection limited to possessing and controlling
- S9(4a)** Protection limited to damaging, destroying or obstructing access to any structure or place used by the animal for shelter or protection.
- S9(4b)** Protection limited to disturbing the animal while it is occupying any structure or place which it uses for shelter or protection.
- S9(5)** Protection limited to selling, offering for sale, possessing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from such an animal. This includes Common Frogs, Pool Frogs, Common Toads and both Smooth and Palmate Newts. Records of these species are not kept on the Protected Species Register.

Schedule 6: Animals which may not be killed or taken by certain methods

Methods include traps and nets, poisons, automatic weapons, electrical devices, smokes/gases and various others. Even humane trapping for research requires a licence.

Schedule 8: Protected plants and fungi

Intentional picking, uprooting, destroying, trading (including parts and derivatives), *etc.* are prohibited. Under the Wildlife and Countryside Act, all wild plants in Britain are protected from intentional uprooting by an unauthorised person. Land owners, land occupiers, persons authorised by either of these, or persons authorised in writing by the Local Authority for the area are however exempt from this, except for Schedule 8 species which you can see on this website: www.naturenet.net/law/sched8.html

Legislation protecting bats

Please refer to the explanation sheet of the Sussex Bat Inventory within your SxBRC biodiversity report, or visit our website: www.sxbrc.org.uk/biodiversity/speciesinventories

Legislation protecting birds

Please refer to the explanation sheet of the Sussex Bird Inventory within your SxBRC biodiversity report, or visit our website: www.sxbrc.org.uk/biodiversity/speciesinventories

Legislation protecting badgers and otters

Please refer to the information sheets at the start of the report for information on badger and otter records in Sussex.

Protected species (excluding birds) found in Sussex

Unless indicated, all parts of the section apply

8	<i>Buellia asterella</i>	Starry Breck-lichen	5	<i>Gryllus campestris</i>	Field Cricket
8	<i>Caloplaca luteoalba</i>	Orange-fruited Elm lichen	5	<i>Hydrochara caraboides</i>	Lesser Silver Water Beetle
8	<i>Catapyrenium psomoroides</i>	Tree Psoromoides	5	<i>Papilio machaon</i>	Swallowtail Butterfly
8	<i>Cladonia convoluta</i>	a lichen	5	<i>Argynnis adippe</i>	High Brown Fritillary
8	<i>Gyalecta ulmi</i>	Elm Gyalecta	5	<i>Thalera fimbrialis</i>	Sussex Emerald
8	<i>Heterodermia leucomelos</i>	Ciliate Strap-lichen	5	<i>Chirocephalus diaphanus</i>	Fairy Shrimp
8	<i>Lecanactis hemisphaerica</i>	Churchyard Lecanactis	5	<i>Gammarus insensibilis</i>	Lagoon Sand Shrimp
8	<i>Squamarina lentigera</i>	Scaly Breck-lichen	5 * \$	<i>Austropotamobius pallipes</i>	Freshwater Crayfish
8	<i>Teloschistes flavicans</i>	Golden Hair-lichen	5	<i>Dolomedes plantarius</i>	Fen Raft Spider
8	<i>Hericium erinaceum</i>	a basidiomycete fungus	5	<i>Triturus cristatus</i>	Great Crested Newt
8	<i>Lamprothamnium papulosum</i>	Foxtail stonewort	5 * \$	<i>Anguis fragilis</i>	Slow-worm
8	<i>Acaulon triquetrum</i>	Triangular Pygmy-moss	5	<i>Coronella austriaca</i>	Smooth Snake
8	<i>Barbula glauca</i>	Glauconous Beard-moss	5	<i>Lacerta agilis</i>	Sand Lizard
8	<i>Bartramia stricta</i>	Rigid Apple-moss	5 * \$	<i>Lacerta vivipara</i>	Viviparous Lizard
8	<i>Drepanocladus vernicosus</i>	Slender Green Feather-moss	5 * \$	<i>Natrix natrix</i>	Grass Snake
8	<i>Micromitrium tenerum</i>	Millimetre Moss	5 * \$	<i>Vipera berus</i>	Adder
8	<i>Rhynchostegium rotundifolium</i>	Round-leaved Feather-moss	5 x	<i>Barbastella barbastellus</i>	Barbastelle
8	<i>Trichomanes speciosum</i>	Killarney Fern	5 x	<i>Eptesicus serotinus</i>	Serotine
8	<i>Ajuga chamaepitys</i>	Ground-pine	5 x	<i>Myotis bechsteini</i>	Bechstein's Bat
8	<i>Althaea hirsuta</i>	Rough Marsh-mallow	5 x	<i>Myotis brandti</i>	Brandt's Bat
8	<i>Alyssum alyssoides</i>	Small Alison	5 x	<i>Myotis daubentoni</i>	Daubenton's Bat
8	<i>Bupleurum baldense</i>	Small Hare's-ear	5 x	<i>Myotis myotis</i>	Greater Mouse-eared Bat
8	<i>Chenopodium vulvaria</i>	Stinking Goosefoot	5 x	<i>Myotis mystacinus</i>	Whiskered Bat
8	<i>Crepis foetida</i>	Stinking Hawk's-beard	5 x	<i>Myotis nattereri</i>	Natterer's Bat
8	<i>Dianthus armeria</i>	Deptford Pink	5 x	<i>Nyctalus leisleri</i>	Leisler's Bat
8	<i>Eryngium campestre</i>	Field Eryngo	5 x	<i>Nyctalus noctula</i>	Noctule
8	<i>Filago lutescens</i>	Red-tipped Cudweed	5 x	<i>Pipistrellus nathusii</i>	Nathusius' Pipistrelle
8	<i>Filago pyramidata</i>	Broad-leaved Cudweed	5 x	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle
8	<i>Fumaria reuteri</i>	Martin's Ramping-fumitory	5 x	<i>Pipistrellus pygmeus</i>	Soprano Pipistrelle
8	<i>Gentianella anglica</i>	Early Gentian	5 x	<i>Plecotus auritus</i>	Brown Long-eared Bat
8 x #	<i>Hyacinthoides non-scripta</i>	Bluebell	5 x	<i>Plecotus austriacus</i>	Grey Long-eared Bat
8	<i>Lactuca saligna</i>	Least Lettuce	5 x	<i>Rhinolophus ferrumequinum</i>	Greater Horseshoe Bat
8	<i>Lythrum hyssopifolia</i>	Grass-poly	5 x	<i>Vespertilio murinus</i>	Parti-coloured Bat
8	<i>Melampyrum arvense</i>	Field Cow-wheat	5	<i>Arvicola terrestris</i>	Water Vole
8	<i>Mentha pulegium</i>	Pennyroyal	5	<i>Muscardinus avellanarius</i>	Common Dormouse
8	<i>Orobancha artemisiae-campestris</i>	Oxtongue Broomrape	5	<i>Balaenoptera physalus</i>	Fin Whale
8	<i>Petrorhagia nanteuilii</i>	Childing Pink	5	<i>Delphinus delphis</i>	Common Dolphin
8	<i>Phyteuma spicatum</i>	Spiked Rampion	5	<i>Globicephala melaena</i>	Pilot Whale
8	<i>Polygonum maritimum</i>	Sea Knotgrass	5	<i>Lagenorhynchus acutus</i>	White-Sided Dolphin
8	<i>Pulicaria vulgaris</i>	Small Fleabane	5	<i>Orcinus orca</i>	Killer Whale
8	<i>Rhinanthus angustifolius</i>	Greater Yellow-rattle	5	<i>Stenella caeruleoalba</i>	Blue-White Dolphin
8	<i>Salvia pratensis</i>	Meadow Clary	5	<i>Stenella coeruleoalba</i>	Striped Dolphin
8	<i>Cephalanthera rubra</i>	Red Helleborine	5	<i>Tursiops truncatus</i>	Bottle-Nosed Dolphin
8	<i>Damasonium alisma</i>	Starfruit	5	<i>Phocoena phocoena</i>	Common Porpoise
8	<i>Himantoglossum hircinum</i>	Lizard Orchid	5 x	<i>Lutra lutra</i>	Otter
8	<i>Leersia oryzoides</i>	Cut-grass	5 x	<i>Meles meles</i>	Badger
8	<i>Ophrys sphegodes</i>	Early Spider-orchid			
8	<i>Schoenoplectus triquetar</i>	Triangular Club-rush			
5	<i>Clavopsella navis</i>	Brackish Hydroid			
5	<i>Edwardsia ivelli</i>	Ivell's Edwardsia			
5	<i>Nematostella vectensis</i>	Starlet Sea Anemone			
5	<i>Alkamaria romijini</i>	Tentacled lagoon-worm			
5	<i>Hirudo medicinalis</i>	Medicinal Leech			
5	<i>Decticus verrucivorus</i>	Wart Biter			
5	<i>Gryllotalpa gryllotalpa</i>	Mole Cricket			

x Records not included in PSR report

* Sch.5 section 9 (part 1)

\$ Sch.5 section 9 (part 5)

Sch.8 section 13 (part 2)

For the most up to date information on all species protection please visit

www.naturalengland.org.uk/conservation/wildlife-management-licensing or www.defra.gov.uk/wildlife-countryside/ewd/

SUSSEX PROTECTED SPECIES REGISTER REPORT

Please note that bat, bird, badger and otter records are not included in this report.

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area: SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Anguis fragilis

Slow-worm

A legally protected legless lizard resembling a small snake. Slow-worms are widespread in southern England and found in open habitats such as rough grassland, heath and on road and railway embankments. They are often common in urban and suburban areas. Like most reptiles and amphibians they have declined considerably and need protection wherever they occur.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU9504	SARG Sussex Amphibian & Reptile Grp	01/01/1995	Elm Grove South, Barnham, West Sussex (VC13)
SU952049	Sophie Miller	23/09/2010 - 30/09/2010	Brooks Nursery, Barnham, West Sussex (VC13)
SU953047	Anon @ RAUK website	22/07/2009	Elm Grove, Barnham
SU953048	Elaine Sturgess	2009	Hook Lane area, Aldingbourne, West Sussex (VC13)
SU955046	SARG recorder	14/05/2001	Elm Grove South, Barnham, Barnham
SU956050	SARG 2002 Leaflet	2002	West Sussex, West Sussex (VC13)
SU960043	Libby Crew	28/09/2005	Barnham Station, Barnham
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex (VC13)
SU967045	Recorder @ The Ash Partnership	April 2007	Eric Wall Nursery, Lake Lane, Barnham

Zootoca vivipara

Common Lizard

The most abundant British lizard and widespread in Sussex in the Weald and along the coast. Probably under-recorded and increasingly confined to small areas of open sunny habitat. A legally protected species due to concern about its overall decline.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU9505	SARG Sussex Amphibian & Reptile Grp	01/01/1998	70 Elm Grove, South Barnham, West Sussex (VC13)
SU952049	Sophie Miller	23/09/2010 - 30/09/2010	Brooks Nursery, Barnham, West Sussex (VC13)
SU960043	Libby Crew	28/09/2005	Barnham Station, Barnham

Natrix natrix

Grass Snake

A widespread, but legally protected, snake with a normally olive body flecked with black and a distinctive yellow collar. Frequent in Sussex near places where its food, largely frogs, is readily available. Like most reptiles and amphibians, grass snakes have declined considerably and need protection wherever they occur.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU9504	SARG Sussex Amphibian & Reptile Grp; Dennis Dey	25/05/1996	17, Elm Grove South, Barnham, West Sussex (VC13)
SU952049	Sophie Miller	24/09/2010 - 24/09/2010	Brooks Nursery, Barnham, West Sussex (VC13)
SU953048	Elaine Sturgess	2009	Hook Lane area, Aldingbourne, West Sussex (VC13)
SU955046	SARG recorder	14/05/2001	Elm Grove South, Barnham, Barnham
SU960043	Libby Crew	14/09/2005	Barnham Station, Barnham
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex (VC13)
SU964052	SARG recorder	01/08/2001	1a Downview Rd, Barnham, Bognor, Bognor Regis

Vipera berus

Adder

Britain's only venomous snake, though incidences of snakebite involving man or domestic animals are relatively uncommon. Adders have a distinctive zig zag pattern of black or brown and white. They occur in open areas on downs, heaths and in heathy woods. Grass snakes and slow-worms are often misidentified as adders. Though widespread in Britain and found in suitable areas across Sussex, the adder, like all our native reptiles has declined substantially through habitat loss and other factors. The adder is a protected species and it is illegal to intentionally kill or injure them.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex (VC13)

Arvicola terrestris

European Water Vole

The fastest declining native British mammal, the water vole was 'Ratty' in Wind in the Willows. Water voles prefer slow flowing streams, rivers and dykes with steep earth banks and luxuriant emergent vegetation. They have been in decline for over a century mainly due to loss of habitat while the presence of American mink has greatly hastened this decline. In many areas of mainland Britain water voles are already extinct but there are still some strong populations in Sussex. A legally protected species, listed on the Sussex Rare Species Inventory and the subject of a Sussex Species Action Programme.

terrestrial mammal

Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU942034	Anon	1996	Lidsey Rife, West Sussex (VC13)
SU955034	Bill Force	2003	Barnham Court Farm
SU968049	Mark Elliott	1998	Barnham, nursery at end of Park Road, West Sussex (VC13)

0 Confidential records exist for this enquiry area. Please contact the record centre if you require further information.

Bat species

There are 18 species of bat in the UK (17 of which are known to be breeding here), all of which have been recorded in Sussex, although some more frequently than others and at different times of the year:

Barbastella barbastellus **Barbastelle**

Eptesicus serotinus **Serotine**

Myotis alcathoe **Alcathoe**

Myotis bechsteinii **Bechstein's**

Myotis brandtii **Brandt's**

Myotis daubentonii **Daubenton's**

Myotis myotis **Greater mouse-eared**

Myotis mystacinus **Whiskered**

Myotis nattereri **Natterer's**

Nyctalus leisleri **Leisler's**

Nyctalus noctula **Noctule**

Pipistrellus nathusii **Nathusius's pipistrelle**

Pipistrellus pipistrellus **Common pipistrelle**

Pipistrellus pygmaeus **Soprano pipistrelle**

Plecotus auritus **Brown long-eared**

Plecotus austriacus **Grey long-eared**

Rhinolophus ferrumequinum **Greater horseshoe**

Rhinolophus hipposideros **Lesser horseshoe**

Three other bat species have been recorded in Sussex as migrants or vagrants: Savi's pipistrelle (*Hypsugo savii*), Kuhl's pipistrelle (*Pipistrellus kuhlii*) and parti-coloured bat (*Vespertilio murinus*).

Five species are included in Annex II of the EU Habitats Directive: Barbastelle, Bechstein's, greater mouse-eared, greater horseshoe and lesser horseshoe. All 18 species are included in Annex IV.

Seven species are included in the UK Biodiversity Action Plan: Barbastelle, Bechstein's, brown long-eared, greater horseshoe, lesser horseshoe, noctule and soprano pipistrelle.

Background

Bats are the only mammals capable of true flight. Those found in the UK feed exclusively on insects and use a sophisticated form of sonar to navigate and catch their prey at night. In late spring and summer, female bats form maternity colonies to raise their young. This is when they are most obvious to us, as they leave the roost at or after sunset in search of food. Bats hibernate during the winter when insects are scarce, usually at a different site to the maternity roost where a constant cool temperature can be found i.e. in underground sites or within deep crevices in trees or buildings. **Bats return to the same roost sites every year, so even if the animals themselves are not present, the roost is still legally protected.**

Unfortunately there are many misconceptions about bats. They are in fact sociable, intelligent, clean animals that rarely come into contact with humans. They do not build nests and very rarely cause structural damage to buildings.

Current status and threats

Bat populations have suffered huge declines in the last century. The common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) remain the most abundant and widespread species of bat, but are thought to have suffered from a huge reduction in numbers. Estimates from a National Bat Colony Survey suggest a population decline of around 70% between 1978 and 1993.

This reduction in bat numbers is largely due to their roosts being disturbed or destroyed, a loss of suitable feeding and flightline habitat (e.g. hedgerows) and a reduction in insect numbers (e.g. through farming intensification and the use of pesticides). A number of species are now included in the National Bat Monitoring Programme, run by the Bat Conservation Trust (BCT), which gives up-to-date information on population trends.

Bats are also particularly vulnerable to human interference for the following reasons:

- They have a low reproductive rate; generally one baby a year.
- They require specific conditions for each of their roost types.
- They are very secretive and often go unnoticed until discovered by building works or home improvements.

Consequently, bats and their roosts receive some of the highest levels of legal protection.

Bats and the law

All species of bat and their roosts are protected by UK and European law; under the Wildlife & Countryside Act 1981 (WCA) in the UK (to implement the Berne Convention) and the Habitats Directive in the EU, which is implemented in the UK through the The Conservation of Habitats and Species Regulations 2010. Bats and their roosts may also be protected by site designations, for example if their roost site or feeding grounds are notified as a Special Area of Conservation (SAC) or a Site of Special Scientific Interest (SSSI).

You could be committing a criminal offence if you:

1. Deliberately capture, injure or kill a bat
2. Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
3. Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
4. Intentionally or recklessly obstruct access to a bat roost
5. Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat

It is not illegal to:

Tend/care for a bat solely for the purpose of restoring it to health and subsequent release. (This should always be done by an experienced bat handler, contact details of which can be found through the Sussex Bat Group.)

Licensing

If you have a bat roost in your property, it does not necessarily mean that building work cannot take place. Work can be planned so as not to interfere with the roost and at a time that bats may be absent. If you are planning any sort of work that may interfere with bats, advice must be sought first from Natural England (see contact details below). Similarly, if you discover bats after work has begun, you must stop and contact Natural England for their advice before continuing.

Licences to permit illegal activities relating to bats and their roost sites can be issued for specific purposes. It is an offence not to comply with the terms and conditions of such a licence. If you carry out work affecting bats or roosts without a licence, you will be breaking the law.

Further advice and information:

Bat Conservation Trust

The national charity working for bat conservation.

Website: www.bats.org.uk

Bat helpline: 0845 1300 228

Email: enquiries@bats.org.uk

Natural England

The government body responsible for issuing licences for work that may affect bats or their roosts.

Website: www.naturalengland.org.uk

General and licensing enquiries. Tel: 0845 601 4523 (local rate).

Sussex Bat Group

A local voluntary group working for the conservation of bats in Sussex.

Website: www.sussexbatgroup.org.uk

Tel: 01903 816298

Email: contact@sussexbatgroup.org.uk

SUSSEX BAT INVENTORY REPORT SUMMARY

Please note that all species of bat and their roosts are protected by UK and European law, under the Wildlife and Countryside Act 1981 (WCA) in the UK and the Habitats Directive in the EU. Bats and their roosts may also be protected by site designations, for example if their roost site or feeding grounds are notified as Special Area of Conservation (SAC) or a Site of Special Scientific Interest (SSSI).

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Key to Indicators

M/S	Mating/Swarming
H	Hibernaculum
FR	Feeding Roost
MR	Maternity Roost
UR	Unspecified Roost
D	Droppings

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area: SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Common Name	Latin Name	No of Records	M/S	H	FR	MR	UR	D
Bat sp.	<i>Chiroptera</i>	1	☐	☐	☐	☐	☐	☐
Long-eared sp.	<i>Plecotus</i>	2	☐	☐	☐	☐	☒	☒
Pipistrelle sp.	<i>Pipistrellus</i>	2	☐	☐	☐	☐	☒	☐
Serotine	<i>Eptesicus serotinus</i>	2	☐	☐	☐	☐	☒	☒



Woods Mill, Henfield, West Sussex BN5 9SD



SUSSEX BAT INVENTORY REPORT

Please note that all species of bat and their roosts are protected by UK and European law, under the Wildlife and Countryside Act 1981 (WCA) in the UK and the Habitats Directive in the EU. Bats and their roosts may also be protected by site designations, for example if their roost site or feeding grounds are notified as Special Area of Conservation (SAC) or a Site of Special Scientific Interest (SSSI).

You could be committing a criminal offence if you :

1. Deliberately capture, injure or kill a bat. 2. Intentionally or recklessly disturb a bat in the roost or deliberately disturb a group of bats. 3. Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time). 4. Intentionally or recklessly obstruct access to a bat roost. 5. Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.

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D	Droppings

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area:

SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Chiroptera

Bat sp.

Chiroptera (from the ancient Greek for 'wing hand') is the natural group, or order, that covers all the bats. In Britain we have 18 bat species and all have the highest level of legal protection. Many people simply record bats in general when they are not able to assign them to a particular species and these are then included under Chiroptera in our reports.

Date	Location	Grid Reference	Recorder	Sampling Method	M/S	H	FR	MR	UR	D	Abundance	Notes
13/07/2007	Barnham, West Sussex (VC13)	SU959047	BCT Surveyor	Sunrise Survey	☐	☐	☐	☐	☐	☐	Bats Present	

*Eptesicus serotinus***Serotine**

A large bat that frequents pasture, parklands and gardens as well as the wider countryside. It forms summer roosts in buildings where it also probably hibernates. A widespread southern species in the UK, though often only present in small numbers. Its British strongholds are in the south east (widespread in Sussex) and parts of the West Country.

Date	Location	Grid Reference	Recorder	Sampling Method	M/S	H	FR	MR	UR	D	Abundance	Notes
03/11/2007	Highground House, Highground Lane, Barnham, PO22 0BU, West Sussex (VC13)	SU955037	NE Bat Worker	Building Inspection	☐	☐	☐	☐	☒	☒		Species identified by droppings alone.
04/02/2004	53 Elm Grove, Barnham, West Sussex (VC13)	SU956051	NE Bat Worker	Building Inspection	☐	☐	☐	☐	☒	☒		

*Pipistrellus***Pipistrelle sp.**

There are three species of Pipistrelle bat found in the UK; common (*Pipistrellus pipistrellus*), soprano (*P. pygmaeus*) and Nathusius (*P. Nathusii*). Common and soprano pipistrelles were previously recorded as one species, but they are now recognised as separate species, with a peak frequency echolocation at 45 kHz and 55 kHz respectively. The following records refer to an aggregate of the two species, where the audio frequency or specific species is undetermined. Little is known about the Nathusius pipistrelle, but the other two species are found in all types of countryside (except very exposed areas) as well as in towns and suburbs. Summer roosts are usually in buildings, though tree holes and bat boxes are also used. Hibernation sites are in buildings and tree holes. Both common and soprano pipistrelles are widespread in Sussex, while Nathusius' is much rarer.

Date	Location	Grid Reference	Recorder	Sampling Method	M/S	H	FR	MR	UR	D	Abundance	Notes
01/07/1992 - 31/07/1992	Kiff House, 59 Barnham Road, Barnham, Chichester, West Sussex (VC13)	SU956046	NE Bat Worker	Visual	☐	☐	☐	☐	☐	☐	2 In flight	Seen flying in the vicinity of the farm buildings. No droppings found. Bats seen every summer for years.
01/07/1984 - 31/07/1984	Forest Point, Elm Grove, Barnham, West Sussex (VC13)	SU90M	NE Bat Worker	Building Inspection	☐	☐	☐	☐	☒	☐		Behind hanging tiles of 17 year old house.

*Plecotus***Long-eared sp.**

It is difficult to distinguish the rare grey long-eared bat from the much more common brown long-eared bat without studying in the hand. This also applies to identifying the species from their droppings.

Date	Location	Grid Reference	Recorder	Sampling Method	M/S	H	FR	MR	UR	D	Abundance	Notes
03/11/2007	Highground House, Highground Lane, Barnham, PO22 0BU, West Sussex (VC13)	SU955037	NE Bat Worker	Building Inspection	☐	☐	☐	☐	☒	☒		Species identified by droppings.
04/02/2004	53 Elm Grove, Barnham, West Sussex (VC13)	SU956051	NE Bat Worker	Building Inspection	☐	☐	☐	☐	☒	☒		

SUSSEX NOTABLE BIRD REPORT



The Sussex Notable Bird Report is based on a list of birds that are particularly scarce or vulnerable to development in Sussex. This report has been created with ecological consultants in mind, to help sort the more sensitive bird species from the more common. These records are only available to ecological consultants due to the sensitivity of the data. The Sussex Ornithological Society (SOS) has kindly shared this data with us, with the view that better planning decisions can be made with the availability of this data.

Please note that you will not need to contact the SOS for further information.

Please see the appended list of species included in this report and the date ranges/criteria for each species' inclusion. The information below provides explanations to the icons used in the list.

Birds, their statuses and the law

Wildlife and Countryside Act

All British birds, their nests and eggs are protected by UK Law. It is an offence to take, kill or injure any wild bird or to take, damage, destroy any nest or egg of any wild bird under Part 1 of the Wildlife and Countryside Act 1981. Details of Schedule 2 and Schedule 3 can be found on:

www.rspb.org.uk/ourwork/policy/wildbirdslaw/birdsandlaw/wca/schedules.asp

Schedule 1 birds

Schedule 1 of the Wildlife and Countryside Act 1981 provides an additional tier of protection so that rare species are specially protected by increased penalties and cannot be intentionally or recklessly disturbed when nesting. **Schedule 1 status also infers a right of arrest** by a police officer if someone is suspected of committing certain offences against one of these species.

Nesting birds

It is an offence under Section 1 of the Wildlife and Countryside Act of 1981 to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.

Hedgerow removal and birds

It is advisable not to trim, cut or remove hedgerows during the bird nesting season. You will be violating the Wildlife and Countryside Act if there are birds nesting within it due to the disturbance or destruction of their habitat whilst nesting (see **nesting birds** section above). The Hedgerows Regulations were introduced in 1997 to protect important hedgerows in the countryside. The regulations state that it is a criminal offence, unless an exception applies, to deliberately remove or otherwise destroy a hedgerow without permission. Please apply to your local planning authority for a Hedgerow Removal Application. Domestic hedges are not included in this regulation, however it is still illegal to cut or remove any hedges if birds are suspected to be nesting in it.

Birds in roofs

There are various species that may nest in roofs. Unless they are causing a health hazard, the nests, eggs and chicks are protected by law. The parent birds must not be prevented from gaining access to their nest. Many of the birds that use roof spaces are now species of conservation concern because of their population decline over the past 25 years. Starlings and House Sparrows are Red listed, and Barn Owls, House Martins and Swallows are Amber listed (see overleaf for details). Roofs are also important for Swifts.

For further information about birds and the law contact the RSPB: www.rspb.org.uk or phone 01767 680551.

Environmental Stewardship Target Species

Farmland birds are one of the key targets of which a landowner can be awarded points through the Higher Level Stewardship scheme. Each Joint Character Area (e.g. High Weald, South Downs, South Coast Plain etc.) has specific key bird species whose populations must be maintained or enhanced to gain points as part of the land owner's 'Farm Environment Plan'. This can be done through a combination of management practices which should provide year round habitat requirements, in locations where these birds are known to be present or within 2km of such sites. If a key farmland bird species appears in your report, it will show to which Joint Character Area it is linked.

For more information about agri-environment schemes visit:

www.rspb.org.uk/ourwork/farming/policy/index.asp

Biodiversity Action Plan Species (UK BAP)

Twenty-six species of bird are identified as Priority Species in the UK Biodiversity Action Plan (UK BAP), each the subject of a dedicated action plan which seeks to reverse their declines and protect vulnerable populations. Any Priority Species recorded within your enquiry area will be indicated in the species information of the bird report.

Natural Environment & Rural Communities (NERC) Act

- There are 49 bird species on the England Biodiversity List which was drawn up to meet the requirements of Section 41 of the Act. Further details of the NERC Act can be found at: www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

Birds of Conservation Concern 3 (2009)

Every five years the leading governmental and non-governmental conservation organisations in the UK review the population status of the 247 species of bird that are regularly found in the UK. There are three lists – Red, Green and Amber into which each of the species has been placed. Forty species are Red-listed, 121 are Amber-listed and 86 are Green-listed. You will see an icon next to a species within the bird report indicating which category it is in. The status decisions are based on several factors which include: the species' global and European conservation status; recent and historical decline; whether it is a rare breeder; if it is only confined to a few sites in the UK; and if the species is of international importance (if we get over 20% of a European species' population breeding in the UK for example).

-  **Red List** species are those 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.

-  **Amber List** species are those with **Unfavourable Conservation Status** in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.

Green List species are those that do not fulfil any of the above criteria. Some of these species are however protected by law and the list includes some Schedule 1 species which have the highest level of protection. Please see the Schedule 1 birds section on page 1. A green icon will not appear in our reports but the status will be listed with any bird records.

This information has been obtained from '**Birds of Conservation Concern 3**' (**BoCC3**) which can be downloaded from the RSPB website: www.rspb.org.uk/wildlife/birdguide/status_explained.asp

EU Birds Directive

The Birds Directive addresses the conservation of all wild birds throughout the European Union, including marine areas, and covers their protection, management, control and exploitation. It applies to the birds, their eggs, nests and habitats. It places a broad requirement on Member States to take necessary measures to maintain the populations of all wild birds at levels determined by ecological, scientific and cultural needs. In doing so, Member States must also consider economic and recreational needs. For more information about the EU Birds Directive and its annexes please visit: http://www.birdlife.org/eu/EU_policy/Birds_Habitats_Directives/Birds_Directive_species.html

The Directive divides into two main parts: **habitat conservation** and **species protection**. In summary, it requires Member States to preserve, maintain and re-establish sufficient diversity and area of habitats for all wild birds.

Annex 1:

Species listed in Annex 1 of the Birds Directive are the subject of special conservation measures concerning their habitat to ensure their survival and reproduction. This includes the designation of areas as Special Protection Areas (SPAs).

Annex 2:

Annex 2 of the Birds Directive lists birds that can be hunted under the legislation of the Member States. The Directive bans certain non-selective methods of hunting and defines the limits within which Member States can set the hunting season.

IUCN Red List

The World Conservation Union (IUCN) has been assessing the conservation status of species, subspecies, varieties and even selected sub-populations on a global scale in order to highlight taxa threatened with extinction, and therefore promote their conservation. The IUCN Red List (different from the previously mentioned Red List) is the world's most comprehensive inventory of the global conservation status of plant and animal species. It uses a set of criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. With its strong scientific base, the IUCN Red List is recognized as the most authoritative guide to the status of biological diversity.

For more information about the Red List visit: www.redlist.org



SUSSEX BIRD INVENTORY REPORT SUMMARY

Land at Tars Farm, Barnham + 1km radius

05 March 2013 ESD/13/122 **Search Area:** SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Common Name	Latin Name	First Date	Last Date	No. of Rec's	Total Abundance	Max. Abundance
Mute Swan	<i>Cygnus olor</i>	06/12/1993	20/10/2010	28	176	29
Greater Canada Goose	<i>Branta canadensis</i>	26/04/2010	-	1	0	0
Brent Goose	<i>Branta bernicla</i>	18/12/1991	06/12/1993	2	3700	1900
Common Shelduck	<i>Tadorna tadorna</i>	15/03/1995	02/04/1997	2	4	2
Eurasian Wigeon	<i>Anas penelope</i>	01/01/2008	31/12/2010	5	535	260
Gadwall	<i>Anas strepera</i>	03/01/1996	31/05/2008	3	31	19
Eurasian Teal	<i>Anas crecca</i>	21/02/1996	31/12/2010	7	58	45
Mallard	<i>Anas platyrhynchos</i>	14/03/1996	31/12/2010	30	467	72
Northern Pintail	<i>Anas acuta</i>	03/01/2010	-	1	0	0
Northern Shoveler	<i>Anas clypeata</i>	03/01/1996	03/01/2010	8	13	3
Tufted Duck	<i>Aythya fuligula</i>	15/03/1995	26/05/2010	10	147	127
Red-legged Partridge	<i>Alectoris rufa</i>	22/11/2002	-	1	1	1
Grey Partridge	<i>Perdix perdix</i>	13/04/2008	-	1	1	1
Common Pheasant	<i>Phasianus colchicus</i>	01/04/2004	15/08/2010	14	24	5
Golden Pheasant	<i>Chrysolophus pictus</i>	31/12/2009	-	1	0	0
Little Grebe	<i>Tachybaptus ruficollis</i>	21/02/1996	15/08/2010	6	9	3
Little Egret	<i>Egretta garzetta</i>	07/02/2002	02/12/2010	10	13	3
Grey Heron	<i>Ardea cinerea</i>	05/04/2001	15/08/2010	17	18	2
White Stork	<i>Ciconia ciconia</i>	18/10/2010	-	1	1	1

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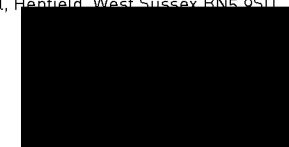
Common Name	Latin Name	First Date	Last Date	No. of Rec's	Total Abundance	Max. Abundance
European Honey-buzzard	<i>Pernis apivorus</i>	01/09/1993	-	1	1	1
Eurasian Marsh Harrier	<i>Circus aeruginosus</i>	15/05/2003	-	1	1	1
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	05/11/1990	03/01/2010	14	15	2
Common Buzzard	<i>Buteo buteo</i>	23/08/1999	16/08/2010	39	58	5
Osprey	<i>Pandion haliaetus</i>	04/07/1992	-	1	1	1
Common Kestrel	<i>Falco tinnunculus</i>	08/08/1990	02/11/2010	29	26	2
Water Rail	<i>Rallus aquaticus</i>	03/01/1996	-	1	1	1
Common Moorhen	<i>Gallinula chloropus</i>	14/03/1996	31/12/2010	40	215	22
Common Coot	<i>Fulica atra</i>	14/03/1996	31/12/2010	27	58	14
European Golden Plover	<i>Pluvialis apricaria</i>	05/11/1990	24/02/1992	9	1776	460
Northern Lapwing	<i>Vanellus vanellus</i>	25/11/1990	20/02/2010	14	1731	420
Ruff	<i>Philomachus pugnax</i>	21/02/1996	-	1	3	3
Common Snipe	<i>Gallinago gallinago</i>	06/02/1992	03/01/2010	5	26	21
Black-tailed Godwit	<i>Limosa limosa</i>	21/11/2007	03/01/2010	2	30	27
Whimbrel	<i>Numenius phaeopus</i>	07/05/2001	07/08/2006	4	13	9
Eurasian Curlew	<i>Numenius arquata</i>	08/04/1991	04/11/2007	13	231	50
Common Redshank	<i>Tringa totanus</i>	03/01/1996	21/02/1996	2	3	2
Green Sandpiper	<i>Tringa ochropus</i>	29/01/1997	19/01/2008	2	2	1
Common Sandpiper	<i>Actitis hypoleucos</i>	12/08/2006	-	1	1	1
Black-headed Gull	<i>Larus ridibundus</i>	08/01/1997	31/12/2010	21	6043	4500
Mew Gull	<i>Larus canus</i>	08/01/1997	-	1	20	20
Lesser Black-backed Gull	<i>Larus fuscus</i>	25/10/2009	-	1	4	4
Herring Gull	<i>Larus argentatus</i>	08/01/1997	31/12/2010	33	434	125
Great Black-backed Gull	<i>Larus marinus</i>	08/01/1997	-	1	115	115
Rock Pigeon	<i>Columba livia</i>	25/09/2007	19/01/2008	3	7	4
Stock Pigeon	<i>Columba oenas</i>	15/08/2010	-	1	1	1
Common Wood Pigeon	<i>Columba palumbus</i>	06/02/1992	31/12/2010	60	1668	350
Eurasian Collared Dove	<i>Streptopelia decaocto</i>	30/11/1990	31/12/2010	16	577	147
Common Cuckoo	<i>Cuculus canorus</i>	06/09/1995	13/04/2010	3	3	1
Barn Owl	<i>Tyto alba</i>	30/01/1996	20/12/2010	3	3	1
Little Owl	<i>Athene noctua</i>	09/06/1992	-	1	1	1
Tawny Owl	<i>Strix aluco</i>	19/03/1997	26/09/2005	4	4	1
Short-eared Owl	<i>Asio flammeus</i>	01/02/1993	-	1	1	1
European Nightjar	<i>Caprimulgus europaeus</i>	02/06/2006	-	1	1	1
Common Swift	<i>Apus apus</i>	02/05/1995	26/05/2010	21	213	62
Common Kingfisher	<i>Alcedo atthis</i>	30/11/2010	-	1	1	1
Green Woodpecker	<i>Picus viridis</i>	06/02/1995	02/11/2010	38	49	5
Great Spotted Woodpecker	<i>Dendrocopos major</i>	06/08/1993	09/12/2010	31	34	3
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	14/04/1993	15/05/1993	3	3	1

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Common Name	Latin Name	First Date	Last Date	No. of Rec's	Total Abundance	Max. Abundance
Sky Lark	<i>Alauda arvensis</i>	20/03/2005	12/06/2010	15	47	7
Barn Swallow	<i>Hirundo rustica</i>	24/09/2004	15/08/2010	26	385	70
House Martin	<i>Delichon urbicum</i>	08/05/1995	12/09/2010	15	216	50
Meadow Pipit	<i>Anthus pratensis</i>	20/03/2005	20/10/2010	6	7	2
Grey Wagtail	<i>Motacilla cinerea</i>	05/12/1990	04/02/2009	11	15	3
Pied Wagtail	<i>Motacilla alba</i>	03/01/1993	31/12/2010	47	726	90
Winter Wren	<i>Troglodytes troglodytes</i>	10/06/2000	31/12/2010	68	152	9
Hedge Accentor	<i>Prunella modularis</i>	06/06/2000	31/12/2010	53	114	6
European Robin	<i>Erithacus rubecula</i>	22/03/1998	31/12/2010	77	241	13
Common Redstart	<i>Phoenicurus phoenicurus</i>	14/08/2006	-	1	1	1
Whinchat	<i>Saxicola rubetra</i>	29/04/1990	08/08/1990	2	2	1
Stonechat	<i>Saxicola torquata</i>	05/12/1990	23/02/2008	6	10	2
Northern Wheatear	<i>Oenanthe oenanthe</i>	21/08/2005	-	1	2	2
Common Blackbird	<i>Turdus merula</i>	27/04/1998	31/12/2010	102	473	38
Fieldfare	<i>Turdus pilaris</i>	12/02/1991	27/12/2010	18	578	250
Song Thrush	<i>Turdus philomelos</i>	13/05/2003	28/12/2010	27	36	4
Redwing	<i>Turdus iliacus</i>	02/02/2005	10/01/2010	10	36	8
Cetti's Warbler	<i>Cettia cetti</i>	04/02/2009	26/04/2010	2	2	1
Common Grasshopper Warbler	<i>Locustella naevia</i>	22/04/1998	-	1	1	1
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	14/05/2006	25/04/2009	8	14	3
Eurasian Reed Warbler	<i>Acrocephalus scirpaceus</i>	18/05/2008	12/06/2010	11	19	3
Blackcap	<i>Sylvia atricapilla</i>	08/01/1994	12/06/2010	12	21	4
Garden Warbler	<i>Sylvia borin</i>	30/04/2008	-	1	1	1
Lesser Whitethroat	<i>Sylvia curruca</i>	23/05/2008	12/06/2010	3	2	1
Common Whitethroat	<i>Sylvia communis</i>	01/06/2002	12/06/2010	8	12	4
Common Chiffchaff	<i>Phylloscopus collybita</i>	14/03/1996	31/12/2010	42	86	7
Willow Warbler	<i>Phylloscopus trochilus</i>	08/08/2004	03/09/2010	8	6	1
Goldcrest	<i>Regulus regulus</i>	18/10/2002	30/11/2010	23	39	4
Spotted Flycatcher	<i>Muscicapa striata</i>	14/09/1996	03/09/2002	2	2	1
Long-tailed Tit	<i>Aegithalos caudatus</i>	03/07/1993	29/12/2010	34	180	20
Blue Tit	<i>Cyanistes caeruleus</i>	13/04/2005	02/11/2010	49	97	6
Great Tit	<i>Parus major</i>	13/04/2005	02/11/2010	39	86	7
Coal Tit	<i>Parus ater</i>	11/07/2006	16/03/2009	4	7	4
Wood Nuthatch	<i>Sitta europaea</i>	29/06/2010	05/07/2010	2	1	1
Eurasian Treecreeper	<i>Certhia familiaris</i>	22/12/2010	-	1	1	1
Eurasian Jay	<i>Garrulus glandarius</i>	18/09/2005	15/08/2010	11	14	2
Black-billed Magpie	<i>Pica pica</i>	19/06/2005	02/11/2010	42	77	5
Eurasian Jackdaw	<i>Corvus monedula</i>	07/03/2005	-	1	250	250
Rook	<i>Corvus frugilegus</i>	20/04/1991	02/11/2010	59	1832	800

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Common Name	Latin Name	First Date	Last Date	No. of Rec's	Total Abundance	Max. Abundance
Carrion Crow	<i>Corvus corone</i>	27/08/2006	31/12/2010	35	76	6
Common Starling	<i>Sturnus vulgaris</i>	08/01/1997	31/12/2010	32	1194	500
House Sparrow	<i>Passer domesticus</i>	29/03/2003	10/12/2010	24	312	70
Chaffinch	<i>Fringilla coelebs</i>	07/03/2005	31/12/2010	44	181	16
European Greenfinch	<i>Carduelis chloris</i>	13/02/2004	30/11/2010	29	65	9
European Goldfinch	<i>Carduelis carduelis</i>	31/03/2007	24/12/2010	19	59	13
Common Linnet	<i>Carduelis cannabina</i>	19/11/1997	30/06/2008	4	66	60
Common Crossbill	<i>Loxia curvirostra</i>	29/10/2001	-	1	5	5
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	13/06/1993	17/12/2010	13	13	3
Yellowhammer	<i>Emberiza citrinella</i>	05/12/1990	12/09/2010	22	198	51
Reed Bunting	<i>Emberiza schoeniclus</i>	01/03/2006	20/06/2010	8	13	6
Corn Bunting	<i>Emberiza calandra</i>	05/12/1990	04/07/2010	9	138	73



SUSSEX NOTABLE BIRD REPORT

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area: SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Anas strepera

Gadwall

A grey-coloured dabbling duck which is a scarce breeder, fairly common winter visitor and passage migrant. Breeds in small numbers throughout south and south east England and East Anglia on still inland waters such as reservoirs and flooded gravel pits. Feeds on stems, leaves and seeds.

Bird Population Status - amber; Birds Directive Annex 2.1; Convention on Migratory Species; Appendix 2

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9403	BTO Birdtrack data	31/05/2008	Lidsey Sewage Works	3 Present	Date

Perdix perdix

Grey Partridge

A medium-sized gamebird with a distinctive orange face, which is a scarce and decreasing resident species that has suffered a major decline nationally. It was formerly widespread on the South Downs but is now very scarce there. Found in arable areas where it feeds on leaves, seeds and insects. However, it continues to be recorded in larger numbers in the far East of the county around Rye Bay.

Bird Population Status - red; Birds Directive Annex 2.1; Environmental Stewardship Target Species (High Weald); Environmental Stewardship Target Species (Low Weald); Environmental Stewardship Target Species (Pevensy Levels); Environmental Stewardship Target Species (Romney Marsh); Environmental Stewardship Target Species (South Downs); Environmental Stewardship Target Species (Wealden Greensand); Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU954042	Sussex Ornithological Society	13/04/2008	North Barnham	1 Present	Date

Egretta garzetta

Little Egret

A medium-sized white heron with characteristic bright yellow feet which is formerly rare but now breeds and is a fairly common autumn and winter visitor. It overwinters in Britain primarily on estuaries in the south and west and it has been breeding at a few southern sites since 1996. The Little Egret has been recorded from many places along Sussex coasts and estuaries and Chichester and Langstone Harbours are one of the best British locations. It feeds on fish.

Bern Convention Appendix 2; Bird Population Status - amber; Birds Directive Annex 1; EC CITES Annex A

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU966031	Sussex Ornithological Society	13/06/2009	Yapton Drove Lane Farm	1 Present	Date

Ardea cinerea

Grey Heron

A fairly common resident, the Grey Heron is increasing in numbers and can be found in most wetland areas standing silently at the water's edge waiting for fish prey. Breeds colonially in tall trees near to plentiful fish supplies.

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9403	BTO Birdtrack data	26/05/2010	Lidsey Sewage Works		Date
SU956032	Sussex Ornithological Society	09/04/2006	Barnham	1 Present	Date
SU958050	Sussex Ornithological Society	05/04/2001	North Barnham	1 Present	Date
SU960030	Sussex Ornithological Society	10/04/2005	Barnham Lidsey Rife	1 Present	Positive Breeding

Pandion haliaetus

Osprey

This impressive black and white bird of prey is a scarce passage migrant, identified by its uniquely shaped wings which kink at the wrist to make an "M" shape. This is a species that has increased steadily over the last fifty years with records from the coast and reservoirs inland. It can be seen hovering over water before it plunges in, feet first, to catch its fish prey.

Bird Population Status - amber; Birds Directive Annex 1; Convention on Migratory Species; Appendix 2; EC CITES Annex A; Wildlife and Countryside Act 1981 (Schedule 1 Part 1)

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU957050	Sussex Ornithological Society	04/07/1992	Barnham	1 Present	Date

Falco subbuteo

Eurasian Hobby

Scarce breeding summer visitor and regular passage migrant. An agile species which feeds on insects and small birds, associated with heathlands that is now also found on farmland with pine clumps and woodland. Widely recorded in Sussex.

Bern Convention Appendix 2; Convention on Migratory Species; Appendix 2; EC CITES Annex A; Wildlife and Countryside Act 1981 (Schedule 1 Part 1)

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU958050	Sussex Ornithological Society	05/05/2005	North Barnham	1 Present	Date
SU958050	Sussex Ornithological Society	19/06/2005	North Barnham	1 Present	Date
SU969036	Sussex Ornithological Society	08/08/1990	Barnham	1 Present	Date

Vanellus vanellus

Northern Lapwing

A large wader which is a familiar farmland and wetland bird, is a scarce breeder and very common winter visitor that is widespread in Sussex. The bird declined markedly in South East England at the end of the last century. The favoured breeding habitat is mixed farmland and suitable habitats have been in short supply. Its diet consists of worms and insects.

Bird Population Status - red; Birds Directive Annex 2.2; Convention on Migratory Species; Appendix 2; Environmental Stewardship Target Species (Pevensy Levels); Environmental Stewardship Target Species (Romney Marsh); Environmental Stewardship Target Species (South Downs); Environmental Stewardship Target Species (Wealden Greensand); Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU955030	Sussex Ornithological Society	15/05/2003	Barnham	3 Present	Date

Numenius arquata

Eurasian Curlew

Formerly a very scarce breeder; this large wader is a common passage migrant and winter visitor. Mainly recorded from marshes, mudflats and saltmarsh, but sometimes elsewhere. Easily recognisable by its long down-curved bill which it uses to catch worms, shellfish and shrimps, and its distinctive bubbling call.

Bird Population Status - amber; Birds Directive Annex 2.2; Convention on Migratory Species; Appendix 2; Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9504	Sussex Ornithological Society	08/04/1991	Barnham	15 Present	Date
SU9505	Sussex Ornithological Society	14/04/1995	North Barnham	20 Present	Date
SU9505	Sussex Ornithological Society	12/04/1996	North Barnham	6 Present	Date

Tyto alba**Barn Owl**

A distinctive and much loved bird of the countryside, this scarce breeding resident declined substantially during the last century mainly due to loss of habitat, particularly areas of rough grassland where it hunts for mice, voles and shrews. The position has been improving recently with many nest boxes being erected, although the conversion of barns in Sussex has had a negative impact on potential breeding sites.

Bern Convention Appendix 2; Bird Population Status - amber; EC CITES Annex A; Wildlife and Countryside Act 1981 (Schedule 1 Part 1)

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU947034	Sussex Ornithological Society	04/06/2006	Lidsey Sewage Works	1 Present	All records
SU948041	Tracy Rowlands	15/07/2001	West Sussex (VC13)	Present	All records
SU9505	Sussex Ornithological Society	09/01/1997	North Barnham	1 Present	All records
SU958050	Sussex Ornithological Society	08/06/2006	North Barnham	1 Present	All records
SU958050	Sussex Ornithological Society	20/12/2010	North Barnham	1 Present	All records
SU9603	Sussex Ornithological Society	30/01/1996	Yapton Drove Lane Farm	1 Present	All records

Dendrocopos minor**Lesser Spotted Woodpecker**

The size of a sparrow, this is Europe's smallest woodpecker and it is a scarce Sussex resident that favours damp, open, broad leaved woodland. It feeds on insects, especially larvae, spiders and wood-boring insects. It requires decaying wood in which it makes a new nest chamber each year. Its population is scattered across Sussex in suitable areas; the county holds a significant proportion of the national population.

Bern Convention Appendix 2; Bird Population Status - red; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9503	Sussex Ornithological Society	14/04/1993	Barnham	1 Present	All records
SU9503	Sussex Ornithological Society	07/05/1993	Barnham	1 Present	All records
SU9503	Sussex Ornithological Society	15/05/1993	Barnham	1 Present	All records

Hirundo rustica**Barn Swallow**

Our familiar swallow with long tail streamers is a common summer visitor and abundant passage migrant. They are agile in flight and spend most of their time on the wing hunting. They often breed in quiet farm buildings with nearby ponds and open pasture especially near cattle where they can feed on plentiful insects. Reedbeds are used as pre-migration roosts in late summer and early autumn.

Bern Convention Appendix 2; Bird Population Status - amber

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9503	Sussex Ornithological Society	16/08/2009	Barnham	4 Present	Positive Breeding
SU957037	Sussex Ornithological Society	28/06/2008	Barnham	3 Present	Positive Breeding

Cettia cetti**Cetti's Warbler**

A small, but loud, skulking bird that is a scarce but increasing resident; passage migrant and winter visitor. First recorded from Sussex in 1962 and slowly increasing. Most records are from coastal locations where it's favoured habitat of thick, damp overgrown vegetation is most common.

Wildlife and Countryside Act 1981 (Schedule 1 Part 1)

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9403	BTO Birdtrack data	26/04/2010	Lidsey Sewage Works	1 Present	Date

Emberiza calandra**Corn Bunting**

A non-descript brown bunting that is a fairly common but decreasing resident with most records from the Downs and the east of East Sussex. One of the few UK bird species largely dependent on cropped land and it seems particularly to like barley. It feeds on seeds and insects. It can also be found on heathland and open countryside. It has had a dramatic population decline in the UK.

Bird Population Status - red; Environmental Stewardship Target Species (Romney Marsh); UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality	Abundance	Selection Based On
SU9403	Sussex Ornithological Society	03/01/1996	Lidsey Sewage Works	7 Present	All records
SU951049	Sussex Ornithological Society	06/02/1992	Barnham	73 Present	All records
SU955032	Sussex Ornithological Society	23/06/2007	Barnham	1 Present	All records
SU960036	Sussex Ornithological Society	05/12/1990	Barnham	18 Present	All records
SU9603	Sussex Ornithological Society	06/02/1992	Yapton Drove Lane Farm	7 Present	All records
SU9603	Anon @ Corn Bunting Survey 93-94	01/06/1993	Barnham	1 Present	All records
SU965033	Sussex Ornithological Society	04/07/2010	Barnham	1 Male	All records
SU968030	Sussex Ornithological Society	12/01/1995	Yapton	29 Present	All records
SU969031	Sussex Ornithological Society	05/06/2010	Yapton Drove Lane Farm	1 Male	All records

BIODIVERSITY ACTION PLAN SPECIES INVENTORY

The BAP Species Inventory does not include bat, bird or otter records.
Bat and bird records are included in separate inventories, while otter records are not included in SxBRC reports.

The background

In 1992 the UK and 159 other governments signed the Convention on Biological Diversity (CBD) at the Earth Summit in Rio de Janeiro. The CBD called for signatories to develop national strategies and action plans to conserve biodiversity, and the UK responded with the UK Biodiversity Action Plan (UK BAP). This was first published in 1994 and included specific plans for species and habitats afforded priority conservation action. These plans set out the threats faced by species and habitats as well as the actions being taken or to be taken to help tackle the threats.

The UKBAP list was updated in 2007 and now contains **1,149 species** and **65 habitats**. The new list replaces the previous one, with the majority of original species being reselected. 123 species did not meet the new criteria (at least 13 have met their UK BAP targets).

Further information on the UKBAP and details of the species and habitat action plans can be found at: www.ukbap.org.uk

Given the importance of the UK BAP in stimulating action and mobilising resources, it is important that the list is reviewed periodically. The 2007 list was a result of such a review made by the Biodiversity Reporting and Information Group (BRIG), with JNCC as chair and secretariat. The aim was to ensure a focus on the correct priorities for action by considering emerging priorities, conservation successes, new drivers and the large amount of new information.

At the local level

An important aspect to the success of the UK BAP is the translation of the national strategy into effective action at the local level. To achieve this, Local Biodiversity Action Plans (LBAP) have been established and there are currently over 160 at some stage of development in the UK. In Sussex, the LBAP is co-ordinated by the Sussex Biodiversity Partnership and contains 473 species, 39 of which are birds. Details of the species and habitats included in the local plan can be found at www.biodiversitysussex.org

(Contact: Laurie Jackson, Conservation Officer. 01273 497551 or email biodiversityofficer@sussexwt.org.uk)

BAP species within this report

- BAP records are labelled so that only one record per species per grid reference is included in a SxBRC report. This will usually be the most up to date record.
- Species which appear in the 'England Biodiversity List' to meet the requirements of Section 41 of the NERC Act (2006) * are labelled with the symbol N.

* Natural Environment & Rural Communities (NERC) Act

The NERC Act (2006) was established with the intention to help ensure that biodiversity becomes an integral consideration in the development of policies, and that decisions of public bodies work with nature and not against it.

The England Biodiversity List has been drawn up to meet the requirements of Section 41 of the Act. The S41 list consists of **943 species** and **56 habitats** of principal importance in England and will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act.

Further details of the NERC Act can be found at: www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

UK BIODIVERSITY ACTION PLAN SPECIES INVENTORY REPORT

Please note that bat, bird and otter records are not included in this report

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area: SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Bufo bufo

Common Toad

N

Still a widespread species in Sussex but declining due to loss of habitat and other factors. Toads tend to have large populations centred on particular breeding sites and they may become locally extinct if these are damaged or destroyed. Common toads are legally protected against sale.

amphibian

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections (9.5a; 9.5b)

Grid Reference	Recorder	Date	Locality
SU9504	SARG Sussex Amphibian & Reptile Grp	01/01/1992	61 Barnham Road, Barnham, West Sussex (VC13)

Anguis fragilis

Slow-worm

N

A legally protected legless lizard resembling a small snake. Slow-worms are widespread in southern England and found in open habitats such as rough grassland, heath and on road and railway embankments. They are often common in urban and suburban areas. Like most reptiles and amphibians they have declined considerably and need protection wherever they occur.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections (9.1 killing/injuring; 9.5a; 9.5b)

Grid Reference	Recorder	Date	Locality
SU9504	SARG Sussex Amphibian & Reptile Grp	01/01/1995	Elm Grove South, Barnham, West Sussex (VC13)
SU952049	Sophie Miller	23/09/2010 - 30/09/2010	Brooks Nursery, Barnham, West Sussex (VC13)
SU953047	Anon @ RAUK website	22/07/2009	Elm Grove, Barnham
SU953048	Elaine Sturgess	2009	Hook Lane area, Aldingbourne, West Sussex (VC13)
SU955046	SARG recorder	14/05/2001	Elm Grove South, Barnham, Barnham
SU956050	SARG 2002 Leaflet	2002	West Sussex, West Sussex (VC13)
SU960043	Libby Crew	28/09/2005	Barnham Station, Barnham
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex (VC13)
SU967045	Recorder @ The Ash Partnership	April 2007	Eric Wall Nursery, Lake Lane, Barnham

Zootoca vivipara**Common Lizard****N**

The most abundant British lizard and widespread in Sussex in the Weald and along the coast. Probably under-recorded and increasingly confined to small areas of open sunny habitat. A legally protected species due to concern about its overall decline.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU9505	SARG Sussex Amphibian & Reptile Grp	01/01/1998	70 Elm Grove, South Barnham, West Sussex [VC13]
SU952049	Sophie Miller	23/09/2010 - 30/09/2010	Brooks Nursery, Barnham, West Sussex [VC13]
SU960043	Libby Crew	28/09/2005	Barnham Station, Barnham

Natrix natrix**Grass Snake****N**

A widespread, but legally protected, snake with a normally olive body flecked with black and a distinctive yellow collar. Frequent in Sussex near places where its food, largely frogs, is readily available. Like most reptiles and amphibians, grass snakes have declined considerably and need protection wherever they occur.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU9504	SARG Sussex Amphibian & Reptile Grp; Dennis Dey	25/05/1996	17, Elm Grove South, Barnham, West Sussex [VC13]
SU952049	Sophie Miller	24/09/2010 - 24/09/2010	Brooks Nursery, Barnham, West Sussex [VC13]
SU953048	Elaine Sturgess	2009	Hook Lane area, Aldingbourne, West Sussex [VC13]
SU955046	SARG recorder	14/05/2001	Elm Grove South, Barnham, Barnham
SU960043	Libby Crew	14/09/2005	Barnham Station, Barnham
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex [VC13]
SU964052	SARG recorder	01/08/2001	1a Downview Rd, Barnham, Bognor, Bognor Regis

Vipera berus**Adder****N**

Britain's only venomous snake, though incidences of snakebite involving man or domestic animals are relatively uncommon. Adders have a distinctive zig zag pattern of black or brown and white. They occur in open areas on downs, heaths and in heathy woods. Grass snakes and slow-worms are often misidentified as adders. Though widespread in Britain and found in suitable areas across Sussex, the adder, like all our native reptiles has declined substantially through habitat loss and other factors. The adder is a protected species and it is illegal to intentionally kill or injure them.

reptile

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; UK Biodiversity Action Plan priority species; Wildlife and Countryside Act 1981 Schedule 5 Sections [9.1 killing/injuring; 9.5a; 9.5b]

Grid Reference	Recorder	Date	Locality
SU963038	SARG Sussex Amphibian & Reptile Grp	01/01/1998	45 Hill Lane, Barnham, Nr. Bognor, West Sussex [VC13]

Erinaceus europaeus

West European Hedgehog

N

The hedgehog is one of our most familiar and endearing small mammals and it is still widespread in Sussex and Britain. However, hedgehog numbers have been adversely affected by changes in agriculture with less permanent pasture and fewer hedgerows. Climate change may also affect the availability of earthworms, one of their main foods, during hot, dry summers. There is some survey evidence that hedgehogs are most common where badgers are rarer and badgers do, of course, prey on them.

terrestrial mammal

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality
SU950053	Neil Mitchell	17/08/1998	B2233 Barnham Road, Barnham, West Sussex (VC13)
SU952049	Neil Mitchell	06/06/2002	Barnham Lane, West Sussex (VC13)
SU952052	Neil Mitchell	06/07/2000	B2233 Barnham, West Sussex (VC13)
SU956046	Neil Mitchell	28/06/2000	B2233 Barnham, West Sussex (VC13)
SU956048	John Knight	June 2003	VC13 West Sussex, West Sussex (VC13)
SU957048	Neil Mitchell	24/07/2003	Orchard Way, Barnham, West Sussex (VC13)
SU958046	Neil Mitchell	03/10/2000	Farnhurst Road, Barnham, West Sussex (VC13)
SU959046	Neil Mitchell	13/07/2000	Farnhurst Road, Barnham, West Sussex (VC13)
SU959047	Neil Mitchell	30/07/2000	15 Woodside, Barnham, West Sussex (VC13)
SU961054	Sophie Miller	16/10/2009	Barnham, north road to Walberton, West Sussex (VC13)
SU962042	John Knight	August 2003	VC13 West Sussex, West Sussex (VC13)
SU962043	Neil Mitchell	24/05/2000	Barnham Lane, West Sussex (VC13)
SU962047	Neil Mitchell	30/06/2001	Barnham Lane, Barnham, West Sussex (VC13)
SU963041	John Knight	08/11/2003	B2132 Walberton, West Sussex (VC13)
SU963046	Neil Mitchell	02/09/2001	Barnham Lane, Barnham, West Sussex (VC13)
SU964040	John Knight	04/09/2003	VC13 West Sussex, West Sussex (VC13)
SU964041	John Knight	08/10/2003	B2233 Barnham, West Sussex (VC13)
SU969040	John Knight	16/08/2003	VC13 West Sussex, West Sussex (VC13)

Arvicola terrestris

European Water Vole

The fastest declining native British mammal, the water vole was 'Ratty' in Wind in the Willows. Water voles prefer slow flowing streams, rivers and dykes with steep earth banks and luxuriant emergent vegetation. They have been in decline for over a century mainly due to loss of habitat while the presence of American mink has greatly hastened this decline. In many areas of mainland Britain water voles are already extinct but there are still some strong populations in Sussex. A legally protected species, listed on the Sussex Rare Species Inventory and the subject of a Sussex Species Action Programme.

terrestrial mammal

Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU942034	Anon	1996	Lidsey Rife, West Sussex (VC13)
SU955034	Bill Force	2003	Barnham Court Farm
SU968049	Mark Elliott	1998	Barnham, nursery at end of Park Road, West Sussex (VC13)

Lepus europaeus**Brown Hare****N**

Widely distributed throughout England and Wales and probably an ancient introduction. Hares occur on a wide range of mainly open farmland and nationally the species is thought to be undergoing a steady decline. Much less common in Sussex than it used to be, but widely recorded.

terrestrial mammal

Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England; Sussex Biodiversity Action Plan Species; UK Biodiversity Action Plan priority species

Grid Reference	Recorder	Date	Locality
SU946032	John Knight	1999	Between Barnahm - Shripney, West Sussex (VC13)
SU961052	Neil Mitchell	08/09/2000	Barnahm Countryside Depot, West Sussex (VC13)
SU969033	John Knight	July 2003	VC13 West Sussex, West Sussex (VC13)

0 Confidential records exist for this enquiry area. Please contact the record centre if you require further information.

SUSSEX RARE SPECIES INVENTORY

The Rare Species Inventory does not include bat, bird or otter records.
Bat and bird records are included in separate inventories, while otter records are not included in SxBRC reports.

The Sussex Rare Species Inventory (RSI) contains over 3,400 species. These species are selected according to strict criteria of rarity associated with their occurrence in Sussex.

The criteria for selection of species are listed below:

- **All species in the British Red Data Books including all Notable fauna and Nationally Scarce flora and British endemic taxa which have ever occurred in Sussex whether extinct or not.**
- **Species included in the UK Biodiversity Action Plan (BAP species).**
- **Internationally rare taxa cited in the Bern Convention, IUCN Red Data lists, or EU Habitats Directive which are not covered by any of the above.**
- **County rarities.**

The Inventory forms part of a larger database of Sussex records (over 3 million records). No attempt is made to include every record for every rare species. The RSI has been designed to be comprehensive for species but representative for records. This is managed in several ways:

- RSI records are labelled so that only one record per species per grid reference gets flagged up. This will usually be the most up to date record.
- Some species are protected and rare and therefore show up in reports on both these categories.
- SxBRC does not hold marine information other than coastal species and cetaceans.
- The following species are relatively common in Sussex but are in the RSI because they are Notable or Nationally Scarce. Only *one* record of these species is labelled per 2km tetrad:

Round-headed Rampion	<i>Phyteuma orbiculare</i>
Frogbit	<i>Hydrocharis morus-ranae</i>
Adonis Blue	<i>Lysandra bellargus</i>
Long-winged Conehead	<i>Conocephalus discolor</i> (syn. <i>C. fuscus</i>)
Door snail	<i>Macrogastra rolphii</i>
Variable Damselfly	<i>Coenagrion pulchellum</i>
Downy Emerald	<i>Cordulea aenea</i>

RSI records are updated weekly with advice and records provided by taxonomic experts.

A full RSI species list is available on request.

Confidential Records

The SxBRC holds a few records that are confidential. Confidentiality can be for a variety of reasons but usually to benefit the site or the species. Full details of these records are not disclosed but the enquirer is referred back to the SxBRC if further information is needed. Please see the end of your RSI report for any reference to confidential records found within your enquiry area.

For records of rare vascular plants, bryophytes and lichens the Record Centre recommends the Sussex Rare Plant Register, compiled by the Sussex Botanical Recording Society. This gives up to date (2001) information on the distribution and status of over 400 Sussex Rare Plants, putting data from RSI reports into a Sussex-wide context. Please look on the publication page of our website for more information:
www.sxbrc.org.uk/biodiversity/publications

IUCN Categories of Rarity

The following is a summary of the IUCN categories of rarity. For a full listing and explanation see www.iucnredlist.org/info/categories_criteria2001

Extinct (EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died.

Extinct in the Wild (EW)

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.

Critically Endangered (CR)

A taxon is Critically Endangered when it is considered to be facing an extremely high risk of extinction in the wild.

Endangered (EN)

A taxon is Endangered when it is considered to be facing a very high risk of extinction in the wild.

Vulnerable (VU)

A taxon is Vulnerable when it is considered to be facing a high risk of extinction in the wild.

Near Threatened (NT)

A taxon is Near Threatened when it is close to qualifying for or is likely to qualify for a threatened category in the near future.

Least Concern (LC)

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.

Data Deficient (DD)

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.

Not Evaluated (NE)

A taxon is Not Evaluated when it has not yet been evaluated against the criteria.

Regionally Scarce (NR)

Occurs in 5 or fewer 10km squares in a particular region of Britain. Locally determined.

Codes and abbreviations used in RSI

VC 13	West Sussex (with the Watsonian boundaries of 1852)
VC 14	East Sussex (with the Watsonian boundaries of 1852)
BBCSSB	British Butterfly Conservation Society, Sussex Branch
SAMLL	Sussex Atlas of Mosses, Liverworts, and Lichens
SPASU	Sussex Plant Atlas and Supplement
SBRS	Sussex Botanical Recording Society

SUSSEX RARE SPECIES INVENTORY REPORT

Please note that bat, bird and otter records are not included in this report

Land at Tars Farm, Barnham + 1km radius

05 March 2013

ESD/13/122

Search Area: SU9403 to SU9604; SU9505 to SU9605

Lucy Monday (EAS Ltd)

Tornabea scutellifera

A lichen that grew on cliffs, old barns and elm trees mainly in coastal districts. Apparently confined to Sussex in the British Isles and not seen since the 19th century, though it was frequently collected then. It is conceivable that it may be refound. Recorded from Bracklesham, Barnham and Portfield in West Sussex and Hastings cliffs and Fairlight Glen, in East Sussex 1804 - pre-1900.

lichen

IUCN (2001) - Extinct; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU9604	SAMLL	1868 - 1901	West Sussex (VC13)

Arum italicum subsp. neglectum

flowering plant

IUCN (2001) - Lower risk - near threatened; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU959049	D Donovan	30/03/2005	Barnham

Polypogon monspeliensis

Annual Beard-grass

An annual grass of barish places by the sea, in damp, cattle-trodden grazing marshes, at the edges of dried-up brackish pools and ditches, and in the uppermost parts of saltmarshes. Also around docks and inland as a casual. Widespread but scarce in East and West Sussex, mostly near the coast.

flowering plant

Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU90S	P. Jones	14/06/2011	Barnham
SU9618404122	D. Donovan	18/08/2010	Barnham

Petroselinum segetum

Corn Parsley

flowering plant

Farm Environment Plan Guidance 007- Table 3; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU954051	D Donovan	03/03/2007	West Sussex (VC13)
SU9650505974	D Donovan	17/06/2007	West Sussex (VC13)

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Chenopodium murale

Nettle-leaved Goosefoot

An inconspicuous plant which has always been rare in Sussex appears to be getting scarcer although it may be overlooked. While it is casual in most sites it has persisted for many years in bare chalky soil, heavily disturbed by rabbits, on the very edge of the cliffs at Seven Sisters.

flowering plant

IUCN (2001) - Vulnerable; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU967038	Nick Sturt;Elizabeth Sturt	11/09/2005	West Sussex (VC13)

Euphorbia platyphyllos

Broad-leaved Spurge

A long-established annual of cultivated and waste ground, the margins of arable fields, and occasionally on roadsides. Decreasing throughout southern England and north-west Europe, but with more than 30 post 1986 records from East and West Sussex.

flowering plant

EC CITES Annex B; Farm Environment Plan Guidance 007- Table 3; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU969047	D Donovan	May 2005	Barnham

Fumaria parviflora

Fine-leaved Fumitory

An introduced scrambling annual found almost exclusively in arable fields on chalky soils. All recent Sussex records for this species are from the Brighton area.

flowering plant

Farm Environment Plan Guidance 007- Table 3; IUCN (2001) - Vulnerable; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU90S	SPASU	1868 - 1986	West Sussex (VC13)

Erodium moschatum

Musk Stork's-bill

An introduced plant of grassy places, usually near the sea, at one time considered to be very rare. It has been found in recent years in several urban locations in West Sussex. Long extinct in East Sussex.

flowering plant

Farm Environment Plan Guidance 007- Table 3; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU95650342	Nick Sturt;Elizabeth Sturt	21/08/2005	West Sussex (VC13)

Helleborus foetidus

Stinking Hellebore

A short-lived perennial of shallow calcareous soils often in woodland glades or open scrub. Always rare in East Sussex, where it is doubtfully native; the only recent records are of garden escapes. In West Sussex most recent records are also of garden origin, but it still occurs as a presumed native in a few chalky woodland areas especially around Arundel and Houghton.

flowering plant

Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU9501405330	D Donovan	24/05/2009	West Sussex (VC13)

Linaria repens**Pale Toadflax**

A long-established introduction of rough and waste ground, stony and cultivated land, grassy banks and along railway tracks, usually on dry, calcareous soils. Once quite widespread in our area but now it has almost completely disappeared from Sussex with only two recent records, both as casual introductions.

flowering plant

Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU957044	D Donovan	15/07/2006	Barnham

Andrena (Poecilandrena) labiata**insect - hymenopteran**

Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU9504	Recorder @ BWARS	03/06/1919	Barnham

Arvicola terrestris**European Water Vole**

The fastest declining native British mammal, the water vole was 'Ratty' in Wind in the Willows. Water voles prefer slow flowing streams, rivers and dykes with steep earth banks and luxuriant emergent vegetation. They have been in decline for over a century mainly due to loss of habitat while the presence of American mink has greatly hastened this decline. In many areas of mainland Britain water voles are already extinct but there are still some strong populations in Sussex. A legally protected species, listed on the Sussex Rare Species Inventory and the subject of a Sussex Species Action Programme.

terrestrial mammal

Sussex Biodiversity Action Plan Species; Sussex Protected Species Register Species; Sussex Rare Species Inventory Species

Grid Reference	Recorder	Date	Locality
SU942034	Anon	1996	West Sussex (VC13)
SU955034	Bill Force	2003	Barnham Court Farm
SU968049	Mark Elliott	1998	West Sussex (VC13)

0 Confidential records exist for this enquiry area. Please contact the record centre if you require further information.

SUSSEX INVASIVE ALIEN SPECIES REPORT

The Sussex Invasive Alien Species Report is produced in order to help minimise the threat posed by invasive alien species in Sussex. Records are labelled so that only one record per species per grid reference is included in a SxBRC report. This will usually be the most up to date record.

Most alien species pose no threat to native species, and indeed many naturalised non natives represent important additions to our flora and fauna. An older record of an alien invasive species may denote that there was once a problem at this site, but it has subsequently been dealt with. However, the problem may still persist but no up to date information is available.

What is an Invasive Alien Species?

The term alien is synonymous with the term non-native. An invasive alien is defined as an alien species whose introduction and/or spread threatens biological diversity. Invasive alien species are referred to by several names, which are often used interchangeably: non-natives, introduced, non-indigenous, exotic, foreign, noxious species, aggressive species, pest species, harmful species.

What's the problem?

With no natural predators and a benign climate invasive alien species can out-compete our native plant and animal species. For example some invasive alien plants 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, invasive alien species 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.

What control is in place?

Section 14 of the Wildlife and Countryside Act prohibits the release to the wild of animals which are listed in Schedule 9 (Part I). It also prohibits planting in the wild of plants listed in Schedule 9 (Part II) or otherwise causing them to grow there.

The spread and control of invasive species are covered by Article 8(h) of the Convention on Biological Diversity. The Global Invasive Species Programme was established to address concerns with alien invasive species, formulated in the Convention on Biological Diversity.

How to combat invasive species

The best way to limit the impact of invasive alien species is to prevent them from invading in the first place. If this fails, complete removal may still be feasible very early in an invasion. Priority, then, should be given to preventing entry; if entry has already taken place, actions should be undertaken to prevent establishment and spread. Where eradication is not feasible or cost-effective, containment and long term control measures should be considered.

The most appropriate response to an invasive alien species is best gauged on a species and site basis.

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

If you have any of the plants listed in this report in your site, make sure that you dispose of them properly. Do not put them into local rivers, canals or ponds. The safest way of disposing of them is by burying, composting or burning. You should also avoid moving anything from one pond to another, including frogspawn, other pond plants or even just pond water. These plants can regenerate from a tiny fragment.

Investigate the recommended control for your species of concern.

If there are invasive alien species at your site that are not in this report please contact us on sxbrc@sussexwt.org.uk or 01273 497521 so that we can amend our records.

SUSSEX INVASIVE ALIEN SPECIES REPORT

Please note that bird records are not included in this report.

Land at Tars Farm, Barnham + 1km radius

05 March 2013 ESD/13/122 **Search Area:** SU9403 to SU9604; SU9505 to SU9605
Lucy Monday (EAS Ltd)

Allium triquetrum

Three-cornered Garlic

This perennial bulbous plant was introduced from the Mediterranean region and established in Britain by the mid 19th C. It spreads rapidly by ant-dispersed seed and is increasing its range here partly in response to milder climatic conditions. It can displace bluebells and other native flora in woodlands and along verges. Widespread and increasing in Sussex.

flowering plant

Grid Reference	Recorder	Date	Locality
SU961048	D Donovan	2005	Barnham

Centranthus ruber

Red valerian

In small quantities this Mediterranean plant is of value to butterflies, moths, bees and other fauna, but it can become invasive and spread across areas like vegetated shingle. It is best, if possible, to remove dead flower heads to prevent seed from spreading. It was first recorded in the wild in Britain in 1763 and is common across Sussex.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90M	Nick Sturt;Elizabeth Sturt	23/08/2004	West Barnham, West Sussex (VC13)
SU90S	D Donovan	2006	Barnham/S.Walberton area, West Sussex (VC13)

Cotoneaster horizontalis

Wall Cotoneaster

A small shrub from western China now widely naturalised in the British Isles and often highly invasive, especially on chalk slopes. Recorded from many places in East and West Sussex. Listed on schedule 9 of the Wildlife & Countryside Act 1981.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90M	Nick Sturt;Elizabeth Sturt	17/07/2006	Eastergate, Eastergate CP

Crocsmia pottsii x aurea = C. x crocosmiiflora

Montbretia

A well-known garden escape with orange flowers from South Africa. Widespread across Sussex. Listed on Schedule 9 of the Wildlife & Countryside Act 1981.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90M	Nick Sturt;Elizabeth Sturt	23/08/2004	West Barnham, West Sussex (VC13)
SU90S	D Donovan	2006	Barnham/S.Walberton area, West Sussex (VC13)

Fallopia japonica

Japanese Knotweed

Listed on Schedule 9 Part II of the Wildlife & Countryside Act (1981). It is an offence to plant or otherwise cause to grow the species in the wild. Described as the most pernicious weed in Britain by Plantlife, Japanese knotweed was introduced in the UK in the mid-19th century as an ornamental plant. It is now a problem invasive perennial throughout Europe. It is an offence to plant, or otherwise cause to grow, the species in the wild. Landowners are liable to prosecution if they allow the plant to spread from their land.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90S	D Donovan	2006	Barnham/S.Walberton area, West Sussex (VC13)
SU959044	D Donovan	June 2005	Barnham station, Barnham

Hyacinthoides non-scripta x hispanica = H. x massartiana

Hybrid bluebell

A species from Spain and Portugal that has been recorded as a garden escape since 1909 and occasionally becomes naturalised. Often confused with its more invasive hybrid with our native bluebell *H. hispanica* x *H. non-scripta*. Widespread in Sussex.

flowering plant

Scottish Biodiversity List of species of principal importance for biodiversity conservation; Wildlife and Countryside Act 1981 (Schedule 8)

Grid Reference	Recorder	Date	Locality
SU90M	D Donovan	01/01/2009 - 31/12/2009	Barnham Road area, West Sussex (VC13)
SU90S	D Donovan	2005	Barnham/Walberton area, West Sussex (VC13)

Parthenocissus inserta

False virginia creeper

A climber from North America widely grown as a garden plant but now becoming increasingly naturalised particularly in urban areas. Frequently confused with the other Virginia creeper, *Parthenocissus quinquefolia*. It has been recorded from Hastings and Possingworth Park in East Sussex and Barham in West Sussex. It is listed on Schedule 9 of the Wildlife & Countryside Act 1981.

flowering plant

Grid Reference	Recorder	Date	Locality
SU9638304119	D Donovan	02/06/2007	Yapton Road, Barnham, West Sussex (VC13)

Petasites fragrans**Winter Heliotrope**

A large-leaved, rampant perennial plant from the Far East spreading by means of underground stems by up to 1 metre per year. Very invasive, often forming large wayside colonies to the exclusion of all other species. Sweet scented mauve pink spikes of flower in winter.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90M	Nick Sturt;Elizabeth Sturt	23/08/2004	West Barnham, West Sussex (VC13)

Prunus laurocerasus**Cherry Laurel**

From eastern Europe and western Asia a now widely planted and often self-sown shrub in many woods in Britain. In some cases it makes up the whole of the lower canopy, effectively shading out any ground flora and preventing the natural regeneration of trees and shrubs. Widespread and increasing in Sussex.

flowering plant

Grid Reference	Recorder	Date	Locality
SU90S	D Donovan	2006	Barnham/S.Walberton area, West Sussex (VC13)

Glossary of Abbreviations

Organisations:

BBCS	British Butterfly Conservation Society (now Butterfly Conservation)	www.sussex-butterflies.org.uk
BMONH	Booth Museum of Natural History	Tel: 03000 290900
BSBI	Botanical Society of the British Isles	www.bsbi.org.uk
BTO	British Trust for Ornithology	Tel: 01842 750050
EA	Environment Agency	Tel: 08708 506506 (Southern Regional Office)
EN	English Nature (now Natural England)	Tel: 03000 600 300 (Sussex Team)
ESCC	East Sussex County Council	Tel: 01273 481621 (County Ecologist)
FC	Forestry Commission	Tel: 01420 23337 (SE England)
FWAG	Farming and Wildlife Advisory Group	Tel: 01273 891190 (Sussex Area)
NCC	Nature Conservancy Council (now NE)	Contact NE
NE	Natural England	Tel: 03000 600 300 (Sussex Team)
NRA	National Rivers Authority (now EA)	Contact EA
NT	National Trust	Tel: 01372 453401 (South East Office)
RSPB	Royal Society for the Protection of Birds	Tel: 01273 775333 (SE Regional Office)
SBRS	Sussex Botanical Recording Society	www.sussexflora.org.uk
SOS	Sussex Ornithological Society	www.sos.org.uk
SxBRC	Sussex Biodiversity Record Centre	Tel: 01273 497521
SxWT/SWT	Sussex Wildlife Trust	Tel: 01273 492630
WSCC	West Sussex County Council	Tel: 01243 756691 (County Ecologist)

Designations:

AONB	Area of Outstanding Natural Beauty
COGS	County Geological/Geomorphological Site
LNR	Local Nature Reserve
NNR	National Nature Reserve
NP	National Park
RAMSAR	RAMSAR (internationally important wetlands)
RIGS	Regionally Important Geological/Geomorphological Site
SAC	Special Area of Conservation
SNCI	Site of Nature Conservation Importance
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Surveys:

Phase I	A broad habitat survey with a dominant species list and land use information.
Phase II	Mapping of vegetation communities with species lists and abundance/distribution.
Phase III	A detailed survey including ecological processes and long term monitoring information.
NVC	National Vegetation Classification.

ANCIENT & VETERAN TREES

Ancient trees form a vital part of our landscape, heritage and biodiversity. They are scattered through most parts of the UK landscape where they are found in exceptionally large numbers compared with north east Europe. Ancient trees can be most easily found in the vestiges of the once extensive Royal Hunting Forests, such as Ashdown Forest, and medieval parks. Others occur in historic parkland, landscaped gardens, woodland, wood pasture and ancient wooded commons. There are also small groups and individual trees scattered around housing estates, urban parks, village greens and churchyards. Some ancient trees are found on farmland, usually in hedgerows or old boundary features.

In Sussex, some of the largest recorded girths belong to: the Queen Elizabeth oak of 12.67m at Cowdray Park, a yew of 8.5m in Wilmington churchyard; a beech of 8.4m on Ashdown Forest; and a sweet chestnut of 7.2m at Herstmonceux Castle.

There are different definitions for mature trees, depending mainly on their stage of life:

Ancient trees

- Biologically, aesthetically or culturally interesting because of their great age.
- In ancient or post-mature stage of life.
- Have a large girth relative to others of the same species.

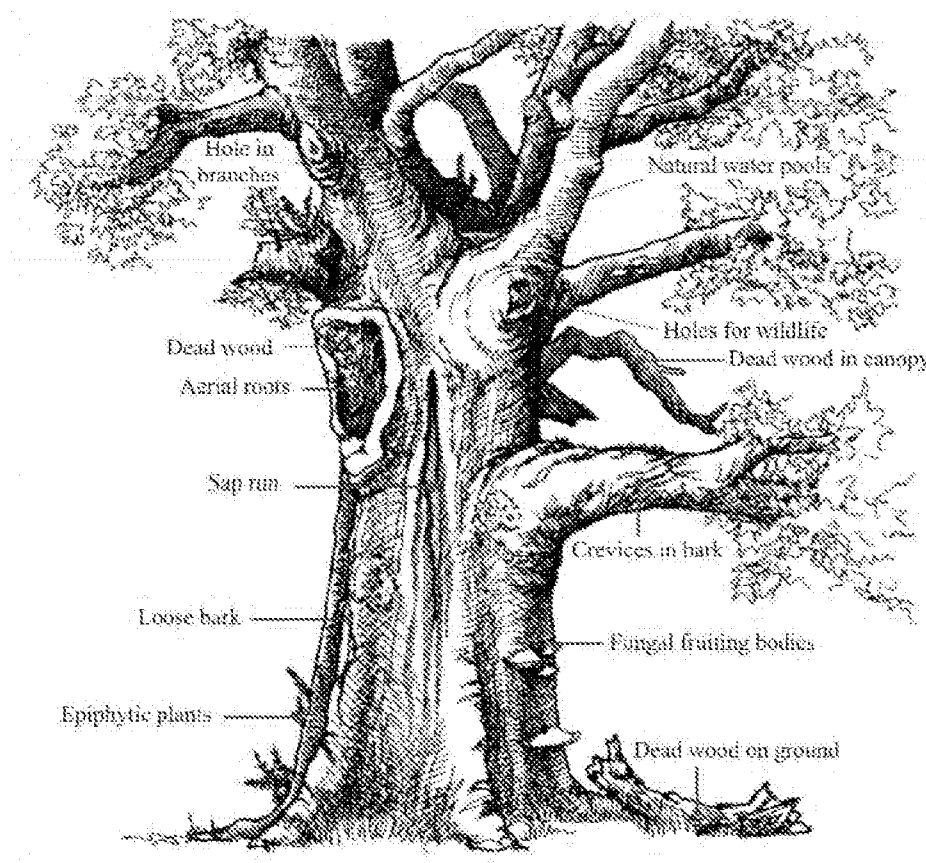
Veteran trees

- Usually in the second or mature stage of life.
- Have important wildlife and habitat features including hollowing or associated decay fungi, holes, wounds and large dead branches.

Notable trees

- Locally important or of significance to the community.
- Specimen trees or considered to be the potential next generation of veteran trees.

Characteristic features of an ancient tree include:



- A reducing crown height but one that is more widely spread through the aging process.
- A large girth by comparison with other trees of the same species.
- A hollowing trunk - this may have one or more openings to the outside.
- Stag headedness i.e. branch dieback and deadwood in the upper canopy.
- Fruit bodies of heart-rot fungi.
- Sap runs or naturally forming water pockets in branch hollows.

Characteristic features of a veteran tree

Source: *Veteran Trees: A guide to good management*. Natural England, 2000.

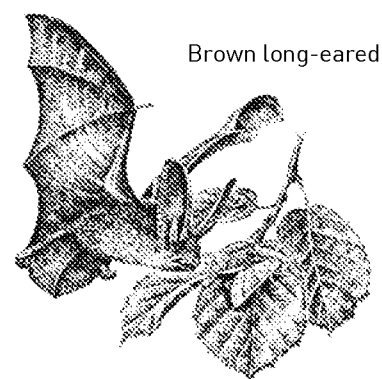
Ancient tree ecology

Ancient trees are unique as a wildlife habitat because of the exceptionally species rich communities associated with wood decay and the bare surfaces of trunks, bough and roots. Clusters of ancient trees are even more important because together they offer a wide range of niche homes for many specialist species in one small area.

In woodland ecosystems, fungi play an important role in recycling nutrients and in individual trees. Fungi can be extremely long lived; some species are known to grow continuously. The two main types of fungi associated with ancient trees are mycorrhizal (which form symbiotic relationships with the roots of trees) and decomposers. Ancient trees support many rare and threatened fungi species, for example *Sulphur polypore* - a specialised wood decay fungus.

Ancient trees are incredibly important to invertebrate life. Approximately 1,700 (6%) invertebrate species in the British Isles are dependent on decaying wood to complete their life cycles. The invertebrate community of a tree often changes as the decay process proceeds. Some invertebrates are more dependent on the type of decay than on the species of tree. Others depend on the species of fungi present.

Insects associated with decaying wood include: rare click beetles such as the violet click beetle *Limoniscus violaceus*, the wasp mimic crane fly *Ctenophora flaveolata* and the oak longhorn beetle *Rhagium mordax*. The black-headed cardinal beetle *Pyrochroa coccinea* is an insect associated with veteran trees and old growth woodland.



Brown long-eared

Bats particularly like woodland because of the abundance of insects and the variety of niches trees offer for bat roosts. All 17 species of bat found in the UK frequent woods, with a few being woodland specialists, such as the rare Bechstein's and Barbastelle bats. Old trees with splits, cracks, loose bark, holes and crevices are especially attractive to bats. Oak and beech trees seem to be preferred, but any tree species can be suitable.

Ancient tree management

Many ancient trees are vulnerable and suffer from neglect or lack of awareness of their great importance to our heritage and wildlife. Threats to old trees include: root compaction from roads, buildings, vehicles and livestock; root severance by cultivation and development; felling for development work and 'safety' reasons; pests and diseases such as rhododendron and Phytophthora; and neglect of traditional techniques such as pollarding.

Active management may not involve actually doing much. Trees need to be checked regularly but management should only be carried out where necessary. When managing ancient trees it is important to think not just about the tree, but also about the management of the land surrounding it.

Planning Policy Statement 9 (PPS9) requires local authorities to avoid the loss of aged and veteran trees. Currently, few veteran trees are granted Tree Preservation Orders (TPO), as a TPO is not usually issued to a tree that is deemed 'dead, diseased, dying or decayed'. A veteran tree, however, may be given indirect protection if it is associated with a rare species.

The Ancient Tree Hunt

The Ancient Tree Hunt is a nationwide search to map all of the old trees in the UK in order to plan for their active conservation. This project, led by the Woodland Trust in partnership with the Ancient Tree Forum and Tree Register of the British Isles, was launched in 2007.

Most of the trees recorded can be viewed on their website: www.ancient-tree-hunt.org.uk

[Illustrations courtesy of Natural England.]

ANCIENT WOODLAND

Ancient woodland is defined by Natural England as a site that has had a continuous woodland cover since at least 1600 AD. It is an irreplaceable, wildlife-rich habitat, and often includes important archaeological features.

Sussex is one of the most wooded parts of lowland Britain with ancient woodland covering approximately 39,000ha (10%) of the county. Bluebell woods associated with coppicing, open wood pasture associated with deer parks and the small Wealden woods in ghyll valleys are a key part of Sussex's distinctive and varied landscape.



Bluebell

The habitat can be placed into two broad categories:-

Ancient semi-natural woodland – woodland that retains a native tree and shrub cover that has not been planted, although it may have been managed by coppicing or felling and allowed to regenerate naturally. This covers all stands of ancient woodland which do not obviously originate from planting.

In terms of its nature conservation value, ancient semi-natural woodland is regarded as an important woodland type due to:

- The variety of native woodland plants and animals it supports, many of which are found only or mainly in ancient woodland.
- The natural and undisturbed water courses.
- The soils, which may never have been ploughed.
- The variety of woodland structure (often including very old trees and dead wood).
- The mosaic of semi-natural habitats such as grassland, heathland and marsh which may survive within the wood, often a result of past management practices.

Plantations on ancient woodland sites – woodland where the original tree cover has been felled and replaced by planting, often with conifers and usually this century.

In ancient replanted woodland the original woodland structure may have been substantially altered, water courses may have been displaced, soils may have been disturbed or drained and natural openings may have been planted up. However, these woods can still be important for nature conservation due to:

- The remnant ancient woodland species, which persist beneath the canopy or in areas where light levels are higher such as woodland rides or glades.
- The soil seed bank, which will often retain dormant ancient woodland plants.
- The potential for restoration to a semi-natural condition.

Other important terms:

Primary woodland constitutes the relicts of the natural tree cover which developed after the retreat of glaciation 10,000 years ago. Such woodland may have been managed by humans, but it has never been completely cleared of trees and converted to another land use.

Ancient secondary woodland is woodland that had developed on land which may have been open ground or farmland at some stage before the year 1600AD. Many ancient woods in West Sussex are likely to be of this type.

Planning Policy Statement 9: Biodiversity & Geological Conservation (2005) states that “ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated.” Many ancient woodlands have some form of statutory protection and local planning authorities are advised to identify unprotected areas of ancient woodland.

Ancient woodland in Sussex can be identified by using the Ancient Woodland Inventory held by Natural England. The Ancient Woodland Inventory was set up in 1981 by the Nature Conservancy Council (now Natural England). Ancient woodland status is determined using information from historic Ordnance Survey and estate maps and information about the name of the wood, its shape, relief, internal boundaries and location relative to other features such as parish boundaries. Ground survey information such as flora and historical features plus aerial photography interpretation is also used when available.

Initially, the original inventory only included sites over two hectares in size. However, the inventory did contain some smaller sites due to the subsequent clearance of parts of larger woods. Furthermore, measuring techniques were less precise and more laborious than the latest digital methods so some smaller woods were accidentally included, whilst some larger woods were overlooked.

The original inventory was produced on a county-by-county basis in the 1980's and 1990's. At first it was a paper-based inventory, which was converted to a digital map in 2000. Subsequent revisions and versions are available as digital maps.

Advances in digital mapping techniques mean that it is now possible to map woodlands under two hectares with greater ease and accuracy. This has led to a revision of the Ancient Woodland Inventory within the South East. The surveys for the revision of the inventory for Sussex were completed in 2010 and have been adopted by Natural England. However, the inventory will always be classed as "provisional" because it is reviewed and updated as new information comes to light.

(Illustrations courtesy of Natural England.)

CHALK STREAM

A chalk river or stream is a watercourse which flows across chalk bedrock, and/or is influenced by local chalk geology. Chalk rivers are usually fed by underground or seasonal springs and often have 'winterbourne' stretches in their headwaters which run dry, or partially dry in late summer because of lack of rainfall recharging the spring. Sites are generally considered to be streams rather than rivers if they are no further than 5km from their source, nor greater than 5m wide (unless they have been artificially widened.)

Why are they important?

All chalk rivers are fed from groundwater aquifers which means they have clean, clear water and relatively stable water temperatures. These unique conditions along with their chalk geology, support a rich diversity of wildlife including important fish populations such as brown trout, native crayfish and many other specialist species. Their rarity means that chalk rivers are recognised as a priority habitat under the UK BAP and many have been designated as SSSI's.

Chalk streams in Sussex

Sussex chalk streams often occur in small gulleys which are much more wooded than most other headwater chalk streams. This results in unusual features including:

- Mini chalk waterfalls which form when chalk water upwellings 'calcify' in the air;
- Dense shade which means that there is naturally less vegetation cover;
- Typical chalk river plants like water crowfoot are often absent – which is more natural;
- Stream channels are diverse because of natural flow restrictions such as tree roots;
- Woody debris is common in the channel and it influences the stream flow;
- The substrate (stream bed) is less frequently made up of flints and mobile gravels.

What are the threats?

- Ditching and removal of natural features
- Weirs and man-made obstructions to flow
- Urbanisation of streams
- Non-native invasive species
- Abstraction of water from groundwater aquifers and streams
- Pollution
- Lack of recognition

Some associated species

- Fool's water-cress *Apium nodiflorum*
- Blunt-fruited water-starwort *Callitriche obtusangula*
- Brook water crowfoot *Ranunculus peltatus*
- Lesser water-parsnip *Berula erecta*
- Brown trout *Salmo trutta*
- White-clawed crayfish *Austropotamobius pallipes*
- Southern damselfly *Coenagrion mercuriale*

COASTAL & FLOODPLAIN GRAZING MARSH

Grazing marsh is periodically inundated pasture, or meadow with ditches that maintain the water levels, containing standing brackish or fresh water. Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities.



Lapwing

Why is it important?

- Wading birds such as redshank feed on invertebrates forced close to the surface by the high water table and shallow surface floods.
- Around 500 species of vascular plant have been recorded from grazing marsh including rare species such as narrow-leaved water-dropwort.
- It supports large numbers of invertebrates including over a thousand nationally notable species.
- Drainage channels and open water associated with grazing marsh support a number of fish species and can provide important spawning areas.
- Water filled ditches are often used by otter, water vole, and various dragonflies.

Coastal and floodplain grazing marsh in Sussex

Sussex has around 14,000 hectares of grazing marsh, with the rivers Arun, Adur, Ouse and Cuckmere all having important areas. Just under half of Sussex's floodplains consist of wet grassland, however much of this has been agriculturally improved decreasing its value for wildlife. Pevensey Levels is one of only three sites in Britain where the large fen raft spider is found, and two rare species of ramshorn snail can also be found in Sussex.

What are the threats?

- Conversion to agriculture through drainage and fertilizer application.
- Drainage and flood defences can disrupt the hydrology of sites.
- Overgrazing, neglect or early grazing, can affect breeding birds.
- Water pollution, which can be exacerbated if concentrated by over-abstraction.
- Floodplain development, aggregate extraction and recreational pressure.
- Isolation and fragmentation of sites reduces dispersal opportunities making species more susceptible to extinction.

Some associated species

- Lapwing *Vanellus vanellus*
- Merlin *Falco columbarius*
- Marsh mallow moth *Hydraecia osseola*
- Desmoulin's whorl snail *Vertigo moulinsiana*
- Greater water parsnip *Sium latifolium*
- Star sedge *Carex echinata*

Further information

- Floodplain Meadows Partnership: www.floodplainmeadows.org.uk/content/home
- Sussex Wetland Landscapes Project: www.sussexotters.org
- Buglife: www.buglife.org.uk/conservation/adviceonmanagingbaphabitats/coastalandfloodplaingrazingmarsh

(Illustration courtesy of Natural England.)

TRADITIONAL ORCHARDS

Traditional orchards are areas of land on which a range of fruit and nut trees are cultivated that are managed in a low intensity way. Permanent grassland beneath the trees was traditionally grazed by livestock.



Why are they important?

- The mosaic of habitats such as hedgerows, dead wood and fruit trees make traditional orchards important for a wide range of species.
- Traditional orchards provide the conditions needed for many bryophytes and lichens.
- Holes and crevices in old trees provide habitat for bats and nest sites for birds such as redstart and bullfinch.
- Dead and decaying wood makes traditional orchards hugely important for invertebrates, lichens and fungi.

Traditional orchards in Sussex

The traditional orchards inventory* lists over 900 sites in Sussex covering an area of approximately 300 hectares. It is estimated that around half of these orchards are currently in a poor condition.

What are the threats?

- Changes in farming policy and markets has led to a decline in income from traditional orchard produce.
- A decline in the skills and knowledge to manage traditional orchards can lead to neglect.
- Loss of orchards can occur as fruit trees dying of old age are not replaced.
- Lack of protection under the current planning system.

Some associated species

- Lesser spotted woodpecker *Picoides minor*
- Noctule *Nyctalus noctula*
- Lichen running-spider *Philodromus margaritatus*
- Noble chafer *Gnorimus nobilis*
- Mistletoe *Viscum album*
- A lichen *Ramonia chrysophaea*

**** The Traditional Orchard Inventory for England***

The traditional orchard data used in Sussex Biodiversity Record Centre reports are the result of a project run by the People's Trust for Endangered Species (PTES) on behalf of Natural England. The resulting inventory is based on combining existing survey data with aerial photograph interpretation, together with ground-truthing survey work by local volunteers. The inventory is provisional, and is still being refined and updated as new data becomes available. The project was completed in March 2011.

For the purpose of the inventory, traditional orchards are defined as sites where at least five fruit trees must be present with no more than 20m between their crown edges.

Further information on traditional orchards can be found here: www.orchardnetwork.org.uk

Sussex Biodiversity Record Centre

Woods Mill
Henfield
West Sussex
BN5 9SD

Tel: [REDACTED]

[REDACTED]

The Sussex Biodiversity Record Centre is managed by the Sussex Wildlife Trust as a partnership project between East and West Sussex County Councils, Brighton and Hove City Council, Natural England, Environment Agency, South Downs National Park Authority , High Weald AONB Unit, Southern Water and Local Authorities throughout Sussex.

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APPENDIX C

Site Photographs



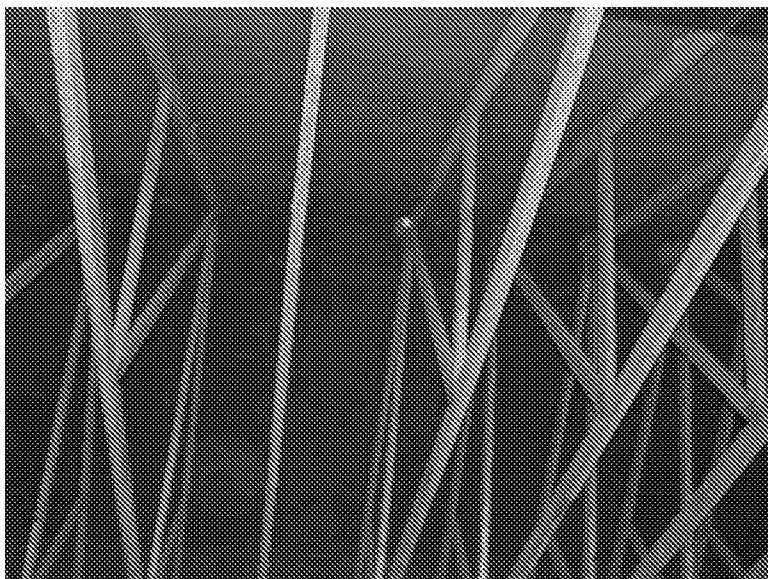
Photograph 1:

View along the access track and across the paddocks towards the redundant agricultural buildings.



Photograph 2:

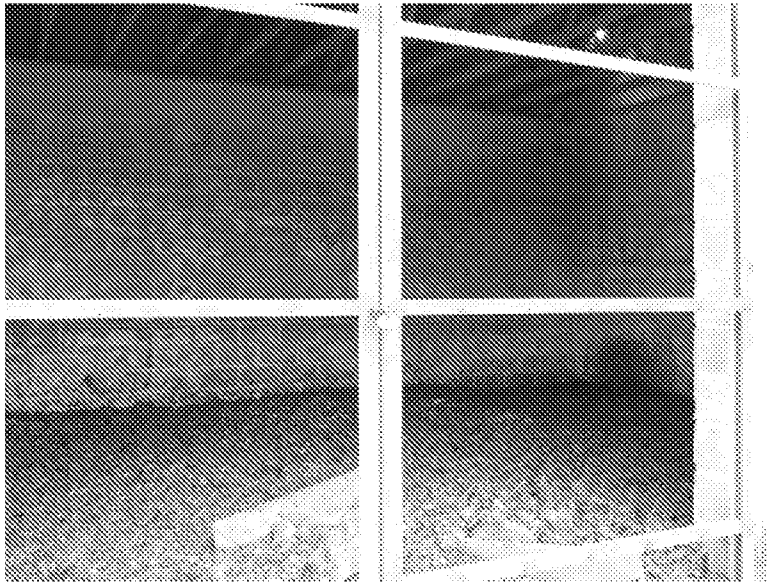
Modern barn located towards the northwest corner of the central yard.



Photograph 3:

Wooden roof trusses within the modern barn to the east of the yard.

A single barn swallow nest and a small number of white streaks (faecal waste) were observed on the wooden roof trusses.



Photograph 4:

The flooring within the modern barn to the east of the yard was covered by a thick layer of manure.



Photograph 5:

The flooring within the modern barn to the northwest of the yard had a relatively clean chalk floor.



Photograph 6:

Former piggery (?) located to the north of the yard.



Photograph 7:

Brick and flint barn/lodge to the east of the yard with pitched slate-tiled roof.



Photograph 8:

Evidence of use by barn owls was apparent within the brick and flint barn/lodge.

This comprises faecal staining plus a large number of barn owl pellets on the (manure covered) floor.



Photograph 9:

Remnants of a brick and flint barn (centre), lean-to type building to the north (right) and remnants of a former concrete block building to the south (left).

A soil mound, located towards the centre of the unsurfaced yard, is also shown.



Photograph 10:

Southwest corner of the yard. Concrete block walls (in part) are all that remain of a former barn/out-building. This end of the yard is overgrown with nettles.



Photograph 11:

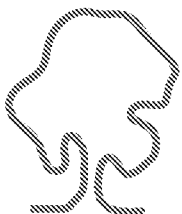
Central yard area, accessed from Church Lane via a hardcore surfaced track.

APPENDIX D

Plant Species List

Plant species list
(as observed on the site on the 6 March 2013)

<i>Latin name</i>	Common name
<i>Apiaceae family</i>	Carrot species
<i>Ballota nigra</i>	Black horehound
<i>Capsella bursa-pastoris</i>	Shepherd's-purse
<i>Cardamine sp</i>	Bittercress
<i>Cerastium species</i>	Mouse-ear
<i>Cirsium arvense</i>	Creeping thistle
<i>Cirsium vulgare</i>	Spear thistle
<i>Crataegus monogyna</i>	Common hawthorn
<i>Galium aparine</i>	Cleavers
<i>Geranium species</i>	Geranium
<i>Hedera helix</i>	Ivy
<i>Lamium album</i>	White dead-nettle
<i>Lamium purpureum</i>	Red dead-nettle
<i>Mentha species</i>	Mint
<i>Myosotis species</i>	Forget-me-not
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rumex species</i>	Dock
<i>Sambucus nigra</i>	Elder
<i>Senecio species</i>	Ragwort
<i>Taraxacum officinale agg</i>	Dandelion
<i>Trifolium repens</i>	White clover
<i>Urtica dioica</i>	Common nettle
<i>Veronica species</i>	Speedwell (field- ?)



eas ltd

Environmental Assessment Services Ltd

London Road, Hickstead, Haywards Heath, West Sussex RH17 5LZ UK

Phone : +44 (0) 1444 882 552

Fax : +44 (0) 1444 882 553

email : info@easltd.co.uk

web site : www.easltd.co.uk