



**CHATSMORE FARM (LAND SOUTH OF HIGHDOWN) (SITE 5)
PRELIMINARY ECOLOGICAL SUMMARY REPORT**

Prepared for Worthing Borough Council

by

Hankinson Duckett Associates

HDA ref: 454.2

November 2015

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1 Site summary

- 1.1 Site 5 comprises 28.1ha of land bordered to the north by the A259 (Littlehampton Rd) beyond which lies further arable land and a recreation ground; to the east by A259 and Goring Street with residential development beyond; to the south by a railway line; and to the west by residential development and a small arable field.
- 1.2 In general terms, the site is dominated by two arable fields separated by Ferring Rife, a large stream which flows east to west through the centre of the site bordered by wide grassland buffers strips and scrub. The margins of the arable fields comprise species-poor grassland with fencelines, defunct hedgerows, scrub and ruderal vegetation and occasional trees occurring along the eastern, southern and western site boundaries.
- 1.3 Locations and detailed descriptions of the habitats present at the site are provided in the Phase 1 habitat survey plan and target notes in *Appendix A*.

2 Desk study

- 2.1 No statutory or non-statutory nature conservation designations pertain to the site or adjacent land.
- 2.2 No areas of international importance (i.e. SPA, SAC or RAMSAR) occur within 10km and no areas of national importance (i.e. SSSI or NNR) occur within 5km of the site boundary. There are no Local Nature Reserves (LNRs) located within 2km of the site.
- 2.3 Four Sites of Nature Conservation Importance (SNCIs) occur within 2km of the site. The closest of these is 'Highdown Hill & the Miller's Tomb' SNCI, which is located approximately 550m north of the site and designated for its species-rich chalk grassland.
- 2.4 Protected and notable species records provided for within 2km of the site include bats, Great Crested Newts, Hazel Dormouse, reptiles, Water Vole, and notable birds and invertebrates. Two records of Water Vole dating from 1998 pertain to Ferring Rife within the site. A small number of notable bird records also pertain to the site including Lapwing, Grey Partridge and Little Egret.
- 2.5 The full results of the desk study including plans showing the locations of nearby designated nature conservation sites and complete protected and notable species records for within 2km of the site are provided in *Appendix B*.

3 Constraints and opportunities

- 3.1 The site is dominated by habitats of **negligible** conservation interest in their own right including arable land, species-poor grassland, scrub and defunct hedgerows, and a small numbers of trees

which are generally young and/or comprise non-native species. Linear vegetative features, such as hedgerows and scrub lines with trees do however provide suitable opportunities for movement of wildlife and compliment habitats in the wider area so are considered in combination to be of **local** wildlife value.

3.2 The feature of greatest ecological interest within the site is Ferring Rife and the corridor of semi-natural habitats through which it flows, which in combination are considered to form a significant part of a wider habitat of **district** value.

3.3 Any development proposals at the site should seek to retain features of local and district value and where appropriate enhance these features and the wider site through management and complimentary habitat creation. Ways in which this could be achieved include:

- Enhancement of the Ferring Rife corridor through bank reprofiling, creation of side channels and backwaters, management of scrub to reduce overshading, provision of complimentary native scrub, tree and hedgerow planting, marginal and aquatic planting, and management of non-native invasive species.
- Enhancement of wildlife corridors through appropriate management and complimentary planting to improve existing features, and creation of new linear semi-natural habitats such as species-rich hedgerows and treelines.
- Creation of a range of habitats with high wildlife interest within areas of public open space such as species-rich grassland, native scrub, hedgerows, woodland and wetlands.
- Creation of new opportunities for roosting bats and nesting birds through provision of bird and bat boxes on existing trees and new buildings.
- Use native species typical of the local area in landscape planting where appropriate to do so. Where possible these should be sourced from stock of local provenance.
- Prioritising the use of plants which benefit native wildlife within formal landscaping schemes, including nectar- and pollen-rich and fruit- and nut-producing species.

4 Further information requirements

4.1 In view of the findings of the desk study and/or habitat resource of the site, consideration should be given to the requirement for the following further surveys and assessment work in support of a planning application:

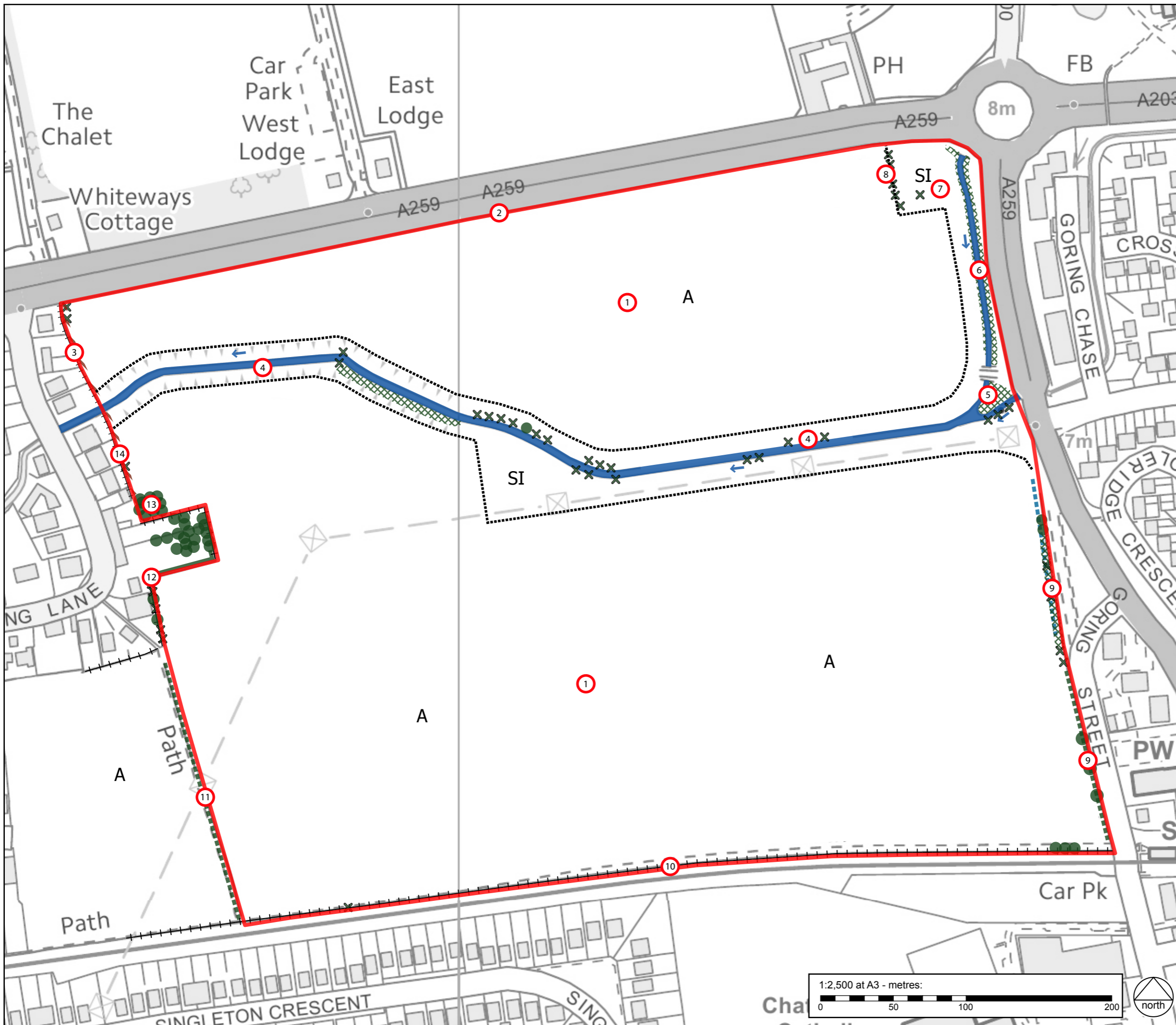
- Phase 1 bat survey (tree scoping inspections)
- Phase 2 emergence surveys (if potential for roosting bats identified during Phase 1 bat survey)
- Phase 2 bat activity survey
- Great Crested Newt survey
- Reptile survey
- Badger survey

- Water Vole/ Otter survey
- Wintering and breeding bird surveys
- Implications of increased recreational pressure on off-site designated areas both alone and in combination with other plans and projects.

4.2 It is recommended that the extended Phase 1 habitat survey and desk study are updated by the applicant prior to submission of a planning application. This is in order to ensure that the assessment of habitats at the site and its potential to support protected and notable species reflect any subsequent changes in the ecological character of the site and its surrounds, and strategic nature conservations objectives. The actual requirements for further work should also take into account the nature and extent of proposed development works.

APPENDIX A

Phase 1 habitat survey: Plan and Target Notes



KEY

- Site boundary
- Scattered mature trees
- Intact species-poor hedgerow
- Defunct species-poor hedgerow
- Dense scrub
- Scattered scrub
- Tall ruderals
- SI Species-poor semi-improved grassland
- A Arable land
- River and direction of flow
- Dry ditch
- Fence
- Habitat boundary
- 1 Target note

CLIENT:
 Worthing Borough Council

PROJECT:
 Worthing Landscape and Ecology Study

TITLE:
 Site 5 - Phase 1 Habitat Survey

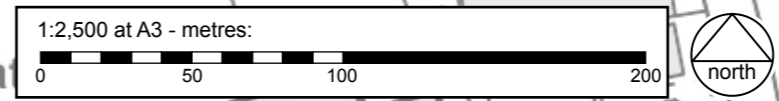
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Landscape Architecture
 Masterplanning
 Ecology

Site 5 - Target Notes

- 1. Arable land:** The two large arable fields dominating the site were sown with a Wheat *Triticum* crop.
- 2. Northern boundary/ field margins:** Northern boundary of the site bordering Littlehampton Road (A259) comprising a narrow rough grassland field margin of approximately 2-3m in width. The margin is dominated by tussocky False Oat-grass *Arrhenatherum elatius* with occasional ruderal vegetation including Dandelion *Taraxacum* agg., Creeping Thistle *Cirsium arvense*, Broadleaved Dock *Rumex obtusifolius*, Common Nettle *Urtica dioica*, Prickly Sow-thistle *Sonchus asper*, Cow Parsley *Anthriscus sylvestris*, Common Mallow *Malva neglecta*, Rapeseed *Brassica napus* and White Dead-nettle *Lamium album*.
- 3. Garden boundary:** Site boundary bordering residential gardens in the north-west of the site comprising fences, garden hedges and abundant ruderal vegetation and occasional scattered scrub along the field margin. The northern section of the boundary comprises a close-board fence and the southern section comprises a managed Leyland Cypress *Cupressus x leylandii* hedge. The field margin is approximately 4m wide and heavily dominated by Nettle, Wild Oat *Avena fatua* and Cleavers, with English Elm *Ulmus procera* and Grey Willow *Salix cinerea* shrubs in the north-western corner of the site.
- 4. Ferring Rife corridor:** Ferring Rife (river) flows east to west through the centre of the site. The channel generally measures around 5m wide with a gentle flow of water approximately 1m deep and an earth and gravel bed. The Rife flows through a cutting approximately 2.5m deep and 12m wide.

The banks comprise rough grass similar to adjacent field margins (TN2) with occasional scrub and young trees. Other grassland and ruderal species include Redshank *Polygonum persicaria*, Common Fleabane *Pulicaria dysenterica*, St. John's Wort *Hypericum* sp., Creeping Cinquefoil *Potentilla reptans*, Great Willowherb *Epilobium hirsutum*, Wild Angelica *Angelica sylvestris*, Meadow Sweet *Filipendula ulmaria*, Marsh Woundwort *Stachys palustris* and Tufted Hair-grass *Deschampsia cespitosa*. Marginal and aquatic species along the Rife include Reed Canary Grass *Phalaris arundinacea*, Hard Rush *Juncus inflexus*, Common Club-rush *Schoenoplectus lacustris*, Pond Sedge *Carex* sp., Yellow Flag Iris *Iris pseudacorus*, Water Mint *Mentha citrata*, Fool's Watercress *Apium nodiflorum*, Water Starwort *Callitriche stagnalis*, Amphibious Bistort *Persicaria amphibia*, Curled Pondweed *Potamogeton crispus*, Great Water Dock *Rumex hydrolapathum* and Canadian Waterweed *Elodea Canadensis*. Scrub and tree species along the bank include Hawthorn, Willow *Salix* sp., Ash *Fraxinus excelsior* and Dogwood *Cornus sanguinea*.

Canadian Waterweed is an invasive aquatic plant species listed under Schedule 9 of the 1981 Wildlife and Countryside Act (as amended).

- 5. Dense scrub:** Area of dense scrub and small trees on the eastern site boundary dominated by Bramble *Rubus fruticosus* agg. with frequent Elm.
- 6. North-eastern channel:** A narrower water channel joining the Ferring Rife from the north-east of the site is much narrower and shallower than the Rife (TN4) and has a strip of dense scrub and young trees along its eastern bank. Scrub and tree species include Dog Rose *Rosa canina*, Grey Willow *Salix cinerea*, Goat Willow *Salix caprea*, Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Field Maple *Acer campestre*, Laurel *Laurus* sp., Sycamore *Acer pseudoplatanus* and Ash. Herbs growing along the western bank comprising rough grassland and scattered scrub include Common Bird's-foot Trefoil *Lotus corniculatus*, Pendulous Sedge *Carex pendula* and Musk Mallow *Malva moschata*.
- 7. Rough grassland:** A small area of rough grassland with ruderal vegetation in the north-east of the site. The species composition is similar to the field margins (TN2) including False Oat-grass, Cocksfoot *Dactylis glomerata*, Black-grass *Alopecurus myosuroides*, Wall Barley *Hordeum murinum*, Perennial Ryegrass *Lolium perenne*, Wild Oat and Soft Brome *Bromus hordeaceus*, with Yarrow *Achillea millefolium*, Common Hogweed *Heracleum sphondylium*, Prickly Sow-thistle *Sonchus asper*, Broadleaved Dock, Creeping Thistle, Common Fleabane, Ribwort Plantain *Plantago lanceolata* and Bramble.
- 8. Scrub margin:** Western and southern boundary of the area of rough grassland in the north-east of the site comprising tall tussocky grasses with occasional scrub including Dogwood and Bramble.

9. **Eastern site boundary:** The eastern boundary of the southern arable field comprises scattered scrub and trees, and a dry ditch on the northern section of this boundary. The dry ditch measures approximately 2-3m wide and up to 1m deep with a base of tussocky grasses and ruderal vegetation. Adjacent scrub and trees include Apple *Malus* sp., Sycamore, Elm and Elder *Sambucus nigra*. Towards the southern end of the boundary the scrub resembles a highly defunct hedgerow dominated by Elm and Bramble with larger early-mature/ mature Sycamore trees.
10. **Southern site boundary:** The southern boundary of the site borders a railway and comprises a tall fence with abundant Bramble and Ivy *Hedera helix* along the railway corridor. There is also very occasional woody shrubs including Hawthorn and Privet, and early-mature Sycamore trees occur near the eastern end.

Species found in the field margins along this boundary include Orache *Atriplex* sp., Meadow Crane's-bill *Geranium himalayense*, Redshank, Curled Dock *Rumex crispus*, Common Couch *Elymus repens*, Creeping Bent *Agrostis stolonifera*, Smooth Sow-thistle *Sonchus oleraceus*, Knotgrass *Polygonum aviculare*, Scarlet Pimpernel *Anagallis arvensis* and Annual Meadow-grass *Poa annua*.

11. **Defunct Hedgerow:** A highly defunct hedgerow along the southern section of the western site boundary dominated by scattered Elder scrub with occasional Blackthorn. The ground flora is dominated by Nettle and Cow Parsley.
12. **Garden boundaries:** Where gardens protrude into the arable field along the western boundary of the site the site boundary comprises fencelines with occasional scrub, Beech *Fagus sylvatica* hedgerow and overhanging trees. Scrub and tree species include Elm, *Prunus* sp., Ash, Elder, Fig *Ficus carica*, Sweet Chestnut *Castanea sativa*, White Willow *Salix alba*, Silver Birch *Betula pendula*, Beech and Plum *Prunus domestica*.
13. **Willow trees:** Small areas along the western boundary of the site supporting mature Crack Willow *Salix fragilis* trees with Elder and Elm in the understorey and a ground flora dominated by Ivy.
14. **Garden boundary:** A section of the western site boundary bordering gardens comprising a fenceline with a small Crack Willow tree, scattered Bramble scrub and a field margin dominated by Nettle.

APPENDIX B
Desk Study Results



Desktop Biodiversity Report

Land south of Highdown, Littlehampton Road, Worthing + 2km radius

ESD/15/562

Prepared for Alex Leishman (Hankinson Duckett Associates)

18th August 2015

Sussex Biodiversity Record Centre
report regarding
land south of Highdown,
Littlehampton Road, Worthing + 2km
radius

Prepared for Alex Leishman
Hankinson Duckett Associates
ESD/15/562

The following information was requested:

Maps	<input checked="" type="checkbox"/>
Sussex Protected Species Register - Excel	<input checked="" type="checkbox"/>
Sussex Bat Inventory - Excel	<input checked="" type="checkbox"/>
Sussex Bird Inventory - Excel	<input checked="" type="checkbox"/>
UK BAP Species Inventory - Excel	<input checked="" type="checkbox"/>
Sussex Rare Species Inventory - Excel	<input checked="" type="checkbox"/>
Sussex Invasive Alien Species - Excel	<input checked="" type="checkbox"/>
Full Species List	<input type="checkbox"/>
Environmental Survey Directory	<input checked="" type="checkbox"/>

SNCI

Ar12 - Ferring Rife & meadows; Ar16 - Highdown Hill & the Miller's Tomb; W04 - Titnore & Goring Woods Complex; W05 - Ham Farm Wood.

SSSI

None

Other Designations/Ownership

Environmental Stewardship Agreement; National Park; National Trust Property.

Habitats

Ancient woodland; Coastal and floodplain grazing marsh; Intertidal mudflat; Lowland calcareous grassland; Lowland fen; Reedbed; Traditional orchard; Wood-pasture and parkland.

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

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 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

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Impartiality

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

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.

Confidential Records

The following species are not included in desktop biodiversity reports

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’, badger records are not included in our species inventory reports, as it has been requested that they remain confidential.

If you need further information about badgers in your enquiry area please contact the Badger Trust Sussex. Contact details can be found on their website: www.badgertrust-sussex.org.uk

Otters

Otters are slowly making a return to Sussex after becoming extinct in the 1960s, 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 need to find out if otters have been recorded in your enquiry area, please get in touch with the Record Centre.

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

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. If you need to know if any confidential records have been recorded in your enquiry area, please get in touch with the Record Centre.

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 or immediate area. Below is a list of all layers which we currently show on our maps, with details of the data source. Citation sheets and further information on each layer can be found towards the back of the pdf report.

Designated sites	
Statutory	
Area of Outstanding Natural Beauty (AONB)	Downloaded from NE website.
Country Park	Downloaded from NE website.
Local Nature Reserve (LNR)	Downloaded from NE website.
Marine Conservation Zone (MCZ)	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.
Ramsar	Downloaded from NE website.
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.
Non-Statutory	
Local Geological Site (LGS)	Originally supplied as hand drawn maps by the Booth Museum (Brighton) in 2009, LGS boundaries were digitised by SxBRC. Site boundaries are now administered by SxBRC and the Sussex Geodiversity Partnership and have been further improved as a result of ground surveys between 2010 to 2012.
Notable Road Verge	Owned and provided by ESCC and WSCC.
Site of Nature Conservation Importance (SNCI)	Supplied by WSCC, ESCC & BHCC.
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 stream	Created and owned by SWLP and SxBRC.
Coastal & floodplain grazing marsh	Downloaded from NE website.
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. Administered by SxBRC.
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	Created by SxBRC.
Traditional orchard	Downloaded from NE website.
Wood-pasture & parkland	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. Downloadable from their website.
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

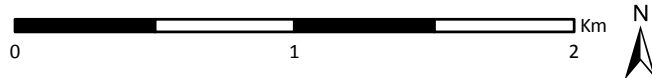
Natural England datasets

These are available for anyone to download and use in their own Geographical Information System (GIS). Visit www.gis.naturalengland.org.uk for more information and register as a user.





Designated Site Map (ESD/15/562)

Land south of Highdoen, Littlehampton Road, Worthing + 2km radius

Prepared for Alex Leishman (Hankinson Duckett Associates) - 18/08/2015



Key to Map:

-  Enquiry area
-  Species search area
-  SNCI
-  National Park

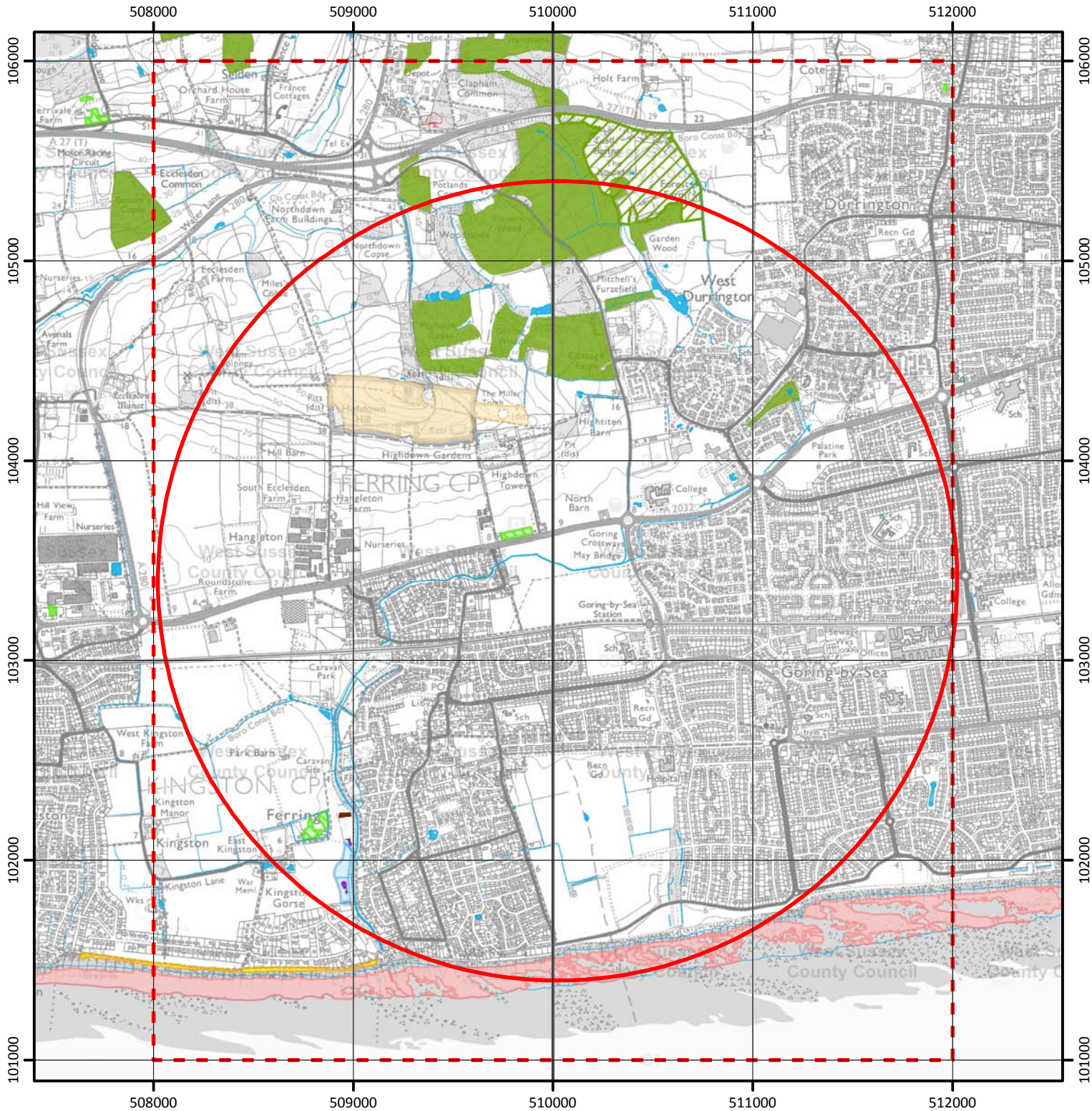
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RAMSAR, Special Area of Conservation (SAC), Special Protection Area (SPA), National Park, Area of Outstanding Natural Beauty (AONB), National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI), Local Nature Reserve (LNR) and Country Park data reproduced with permission of Natural England. 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 2015.

Habitat & Natural Features Map (ESD/15/562)

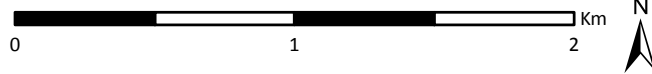
Land south of Highdoen, Littlehampton Road, Worthing + 2km radius

Prepared for Alex Leishman (Hankinson Duckett Associates) - 18/08/2015



Key to Map:

-  Enquiry area
-  Species search area
-  Ancient/veteran tree
-  Lowland fen
-  Reedbed
-  Intertidal mudflat
-  Coastal vegetated shingle
-  Open Water
-  Traditional orchard
-  Lowland meadow
-  Wood-pasture & parkland
- Ancient woodland
- Lowland calcareous grassland
- Coastal & floodplain grazing marsh



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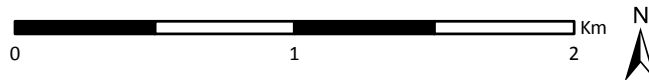
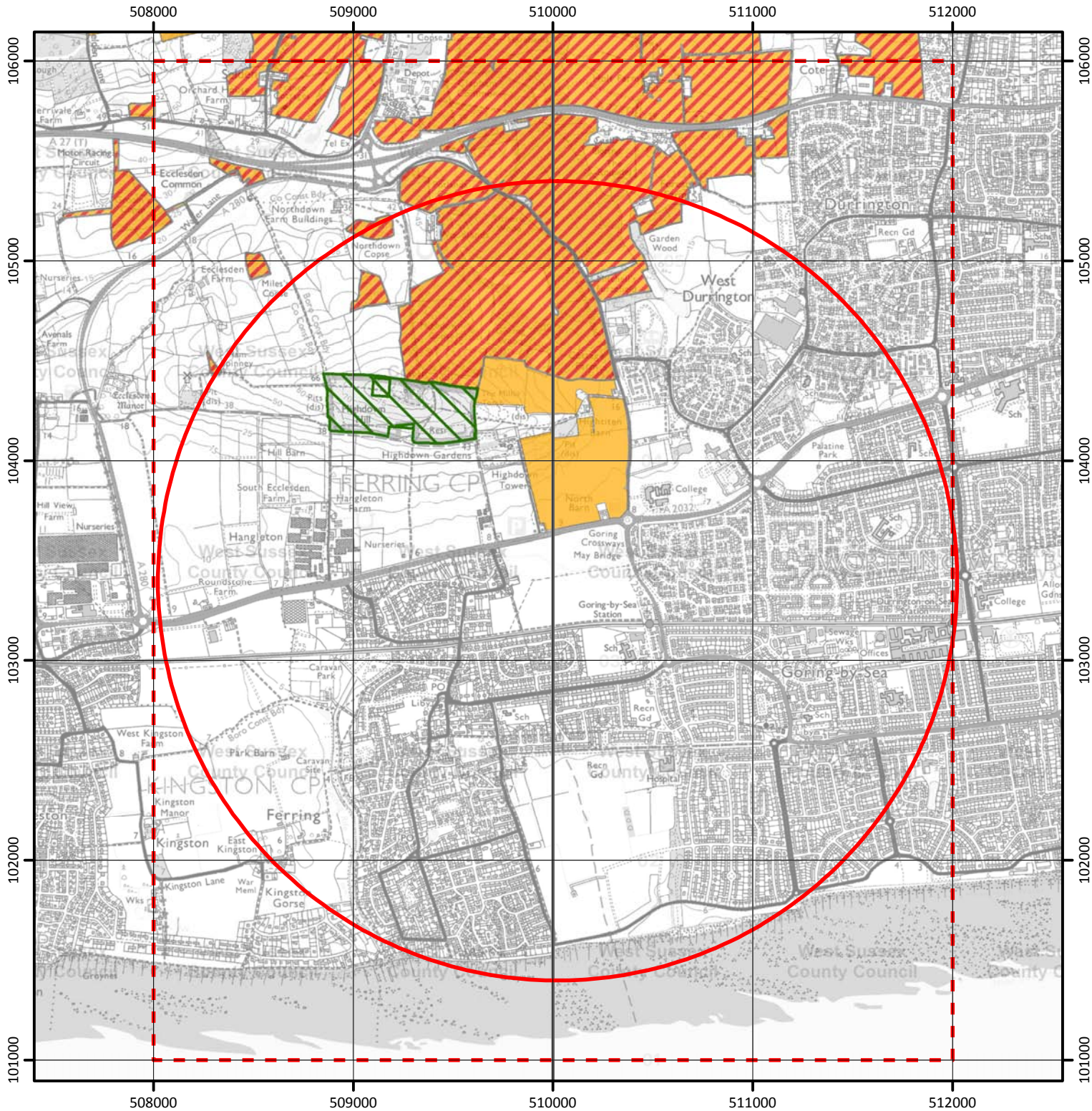
Ancient woodland, traditional orchards, woodpasture and parkland, vegetated shingle and saline lagoon data reproduced with permission of Natural England. Revised coastal and floodplain grazing marsh data remains provisional and is also reproduced with permission of Natural England. Chalk grassland data supplied by Natural England and South Downs Conservation Board. Black Poplar data supplied by Sussex Wetland Landscapes Project. 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 2015.

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/15/562)

Land south of Highdoen, Littlehampton Road, Worthing + 2km radius






Prepared for Alex Leishman (Hankinson Duckett Associates) - 18/08/2015



Key to Map:

-  Enquiry area
-  Species search area
-  National Trust property

Environmental Stewardship Agreements:

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

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Sussex Environmental Survey Directory

Report on behalf of Alex Leishman (Hankinson Duckett Associates) regarding land south of Highdown, Littlehampton Road, Worthing + 2km radius.

Our Ref: ESD/15/562

Date: 18-Aug-15

The Sussex Environmental Survey Directory (ESD) was initiated in 1990 as a tool to report on biological surveys that had taken place in Sussex. The directory now contains information on over 2,000 surveys covering over 22,000 sites. This report details what surveys have been carried out on specific sites and directs the enquirer to where this information is held. The Record Centre does not hold copies of all the reports that it refers enquirers to, but simply directs the enquirer to organisations or individuals who do.

The directory is updated on a weekly basis and also contains summary data on the county's ornithological data, (courtesy of the Sussex Ornithological Society) and on the county's geological sites (courtesy of the Booth Museum).

Survey Name	The Ferring Rife - (3661)	
Survey Author	MP Hall	
Survey Comment	The Ferring Rife is a small waterway running from Durrington in NW Worthing to the sea. The waterway is bounded on the east mainly by small gardens and on the west by farmland with large gardens.	
Date	June 1986	
Site Name	Ferring Rife & Meadows, Ferring - SNCI Ar12	TQ090022
Site Comment	A wide channel between two high grassy banks which is 1.3km. Also some of the grassy field adjacent to the rife.	
Copies Available	SxBRC Digital	

Survey Name	Management Plan for Whitebeam Woods, Durrington - (3668)
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Survey Author	BRITISH TRUST CONSERVATION VOLUNTEERS
Survey Comment	An Area of semi natural woodland surrounded by recently built housing, with an area of open parkland on its Eastern boundary. Dominated by oak, English oak and Turkey Oak with Ash, Field Maple and English Elm.
Date	March 1995
Site Name	Ham Farm Wood - SNCI W05 TQ112044
Site Comment	An ancient woodland within the built up area of Worthing. It consists of ash, field maple and english elm over hazel and sweet chestnut and sycamore coppice. An old pond to the south has abundant crack willow. It is owned by Worthing BC.
Copies Available	SxBRC Digital

Survey Name	Brief Survey of Land at Old Manor Cottages, Sea Lane, Ferring - (162)
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Survey Author	GRIFFITHS, Ann
Survey Comment	A brief visit to the site with an evaluation and plant species list. Not a comprehensive survey.
Date	1.92
Site Name	Land at Old Manor Cottages, Sea Lane, Ferring TQ097025
Site Comment	An area of old buildings and open scrub with developing Elm and Sycamore woodland in the west of the site.
Copies Available	WSCC

Survey Name	Titnore Lane Realignment - Vegetation Survey - (256)
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Survey Author	ANDREWS, John
Survey Comment	A detailed botanical survey of the area of woodland affected by the proposed lane realignment. (Phase II)
Date	6.96
Site Name	Titnore Road/Lane (Realignment Scheme Section) TQ100050
Site Comment	The area of woodland along Titnore Lane is damp and one of the more floristically rich areas of the wood.
Copies Available	WSCC

Survey Name	Bryophytes and Lichens in Chalk Grassland in West Sussex. - (283)		
Survey Author	ROSE, Francis (Dr).		
Survey Comment	A detailed survey of the Bryophytes (mosses and liverworts) on West Sussex chalk grassland. Areas were identified from Graham Steven's chalk grassland report of 1992. Each area is given a grading according to how rich it is in Bryophytes. Much information was gathered during spring 1993, but information from previous years is also included. (Phase II). [SxBRC (2 copies) filed in G1-3 Box].		
Date	1.93-4.93		
Site Name	Highdown Hill NT		TQ095042
Site Comment	Relict area of chalk grassland some degraded through fertiliser application and hay cutting. Highdown Hill owned by NT. The scrub is confined to narrow strips along the boundary hedgerows and to the old chalk pits. Hill-fort on summit with a clump of trees planted in 1890's. A rich and varied molluscan fauna, including scarce and RDB species.		
Copies Available	SxBRC Boxes, WSCC, EN/LEWES/LIB		

Survey Name	Report on the Molluscs of the West Sussex Chalk Downs 1993 - (293)		
Survey Author	WILLING, Martin J		
Survey Comment	Land molluscs were surveyed at 68 chalk grassland sites in West Sussex (plus 2 further sites reported to the author following completion of the main text). At each site field searches were undertaken and bulk samples of vegetation were taken to record smaller species. Species found are given an abundance rating at sites being newly surveyed for molluscs. The report also contains notes on selected species. (Phase II). [SxBRC copies held in G8 Molluscs box].		
Date	8.92-4.93		
Site Name	Highdown Hill SE Corner		TQ096042
Site Comment			
Copies Available	SxBRC Digital, WSCC, EN/LEWES/LIB		

Survey Name	Conservation of Riparian Habitats - (299)		
Survey Author	HAES, E. C. M., CHELMICK, David		
Survey Comment	A collation of the recorders' knowledge and records of the sites. The sites included are freshwater and brackish waters thought to be the most important in Sussex. Further information on sites can be gained from the recorders. [Held at SxBRC in Rivers Box H6a].		
Date	n/a		
Site Name	Ferring Rife (South of Railway)		TQ089026
Site Comment	A small stream with grassland and a few willow bushes. Meadow Rue and scarce grasshoppers occur here.		
Copies Available	WSCC, SxBRC Boxes		

Survey Name	National Trust Biological Survey/Nature Conservation Evaluation - (324)	
Survey Author	NATIONAL TRUST	
Survey Comment	A comprehensive, ongoing, ecological survey covering stratigraphy, sedimentology and Petrology. Management Prescriptions were written for some of the sites. Species lists for some sites are held at Cirencester. (Phase II/III).	
Date	1983-	
Site Name	Highdown Hill NT	TQ095042
Site Comment	Relict area of chalk grassland some degraded through fertiliser application and hay cutting. Highdown Hill owned by NT. The scrub is confined to narrow strips along the boundary hedgerows and to the old chalk pits. Hill-fort on summit with a clump of trees planted in 1890's. A rich and varied molluscan fauna, including scarce and RDB species.	
Copies Available	, SxBRC Digital, SxBRC Digital	

Survey Name	Amphibians in Sussex - A Site Inventory - (334)	
Survey Author	BANKS, Brian, ELLIOTT, M.	
Survey Comment	A survey of many ponds in Sussex for their breeding amphibians. Data taken from a summary report entitled 'Amphibians in Sussex - A Site Inventory'. [SxBRC copy held in box G6].	
Date	1980-1989	
Site Name	Northbrook Pond / Durrington Pond	TQ106042
Site Comment		
Copies Available	EN, SxBRC Archive, WSCC	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Kingston Fields & Ditches (pSNCI)	TQ086025
Site Comment	Potential SNCI. Improved fields separated by ditches, a small area of scrub and a patch of storm-damaged woodland. Includes most of SNCI Ar12.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Fields & Drains East of Ferring (pSNCI)	TQ100020
Site Comment	Potential SNCI. Arable fields separated by ditches and hedges.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Patching Pond & Stream Area (pSNCI)	TQ088057
Site Comment	Potential SNCI. The site includes a large pond, the land surrounding and a stream which feeds it.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Kingston & Ferring Vegetated Shingle	TQ090016
Site Comment	Area of vegetated shingle.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Potlands Copse (pSNCI)	TQ093054
Site Comment	Potential SNCI. A woodland on gently sloping north facing slopes dominated by oak standards about 100yrs old with ash, birch and a few conifers. Hazel coppice on lower slopes, sweet chestnut coppice on upper slopes. A well managed coppice wood with boundary banks.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	The Miller's Tomb (Part of SNCI W02)	TQ097043
Site Comment	An area of species rich chalk grassland with a chalk pit. The pit has much scrub.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Shaw, South of A27 at Clapham (Part of SNCI W04)	TQ097057
Site Comment	A small strip of regenerated ancient or old secondary woodland.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Titnore Wood & Goring Woods (Part of SNCI W04)	TQ100052
Site Comment	The largest area of ancient woodlands in Worthing in 1992. Most is even aged oak standards over hazel coppice with a rather sparse ground flora.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	West Lodge Copse, Goring Wood (pSNCI)	TQ100056
Site Comment	Potential SNCI. A highly modified area of secondary woodland much of which has been cleared leaving standards over rye grass. The remaining woodland is oak over hazel coppice.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Goring Wood & Street's Copse (Part of SNCI W04)	TQ100046
Site Comment	A large block of ancient woodland on east facing slopes. Oak standards over hazel coppice. Much clearance has been undertaken.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Mitchell's Furzefield (Part of SNCI W04)	TQ101048
Site Comment	A possibly ancient wood on gentle south facing slopes leading down to a damp area and ditch in the SE corner.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Hightiten Barn Pond (pSNCI)	TQ101043
Site Comment	Potential SNCI. Set within an arable field about 20m away from Goring Wood. A pond about 5m wide with good scrubby banks. Water looking unpolluted and it is deeper and more permanent than a dew pond.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
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Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	South Lodge Plantation, Goring (Part of SNCI W04)	TQ103049
Site Comment	Old secondary or possibly ancient woodland. A roadside boundary is formed by a characteristically medieval bank/ditch boundary.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)		
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Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Shaw, Goring Gap (pSNCI)		TQ104022
Site Comment	Potential SNCI. A small strip of secondary woodland with a small area of coppice and a ditch bank boundary. It is set among arable fields.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
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Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Wood East of Titnore Road - (pSNCI) (Developed)		TQ104047
Site Comment	Potential SNCI. Most of this area has been cleared leaving only the northern edge and stream, the eastern edge and a strip along Titmore Road. These areas are ancient woodland.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
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Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	The Plantation, Ferring (pSNCI)		TQ106020
Site Comment	Potential SNCI. A secondary woodland running north in a strip from the coast into arable land. A small stream runs through the site.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Upper Northbrook Farm Pond (Part of SNCI W04)	TQ106048
Site Comment	A pond which merges into damp woodland on its northern edge. It has shrubby areas, large patches of marginal flora and aquatic flora. Included in the Titmore and Goring Woods complex SNCI	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Small Pond in Field, Upper Northbrook Farm (pSNCI)	TQ106049
Site Comment	Potential SNCI. A small pond set in an arable field with a margin of shrub and tall grass.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Northbrook Pond & Nature Area (pSNCI) (Developed)	TQ106041
Site Comment	Potential SNCI. This site consists of a small pond and its margins and hedgerow. They are owned by Worthing District Council and managed for nature conservation. There is a Friends of Northbrook Pond group which looks after the site.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Lower Northbrook Farm Wood (pSNCI)	TQ106041
Site Comment	Potential SNCI. A secondary woodland with a canopy dominated by sycamore.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	Ilex Way, Goring (pSNCI)	TQ106025
Site Comment	Potential SNCI. Strip of rough, species-poor grassland plus species-rich hedgerow and an area of secondary woodland. Row of Ilex oak between the roads of Ilex Way	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)	
Survey Author	FINCH, Marion, CLARK, Louise	
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.	
Date	1990-3.92	
Site Name	A2032 Shaw, West Durrington (pSNCI)	TQ110040
Site Comment	Potential SNCI. A 10m strip running for about 50m beside the A259 with a ditch forming the NW boundary. It is a remnant of a semi-natural woodland. It is a useful wildlife corridor.	
Copies Available	WSCC, EN/SSSI/SCI	

Survey Name	West Sussex Potential SNCI Project - (397)		
Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Ham Farm Wood - SNCI W05		TQ112044
Site Comment	An ancient woodland within the built up area of Worthing. It consists of ash, field maple and english elm over hazel and sweet chestnut and sycamore coppice. An old pond to the south has abundant crack willow. It is owned by Worthing BC.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Ham Farm Nurseries/Longcroft Park (pSNCI)		TQ113043
Site Comment	Potential SNCI. Predominately an open space with species poor amenity grassland and planted specimen trees. Along the north edge there is an area of planted native trees and shrubs. Owned by Worthing BC. Part of site falls within SNCI W05.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Training Centre, Worthing (pSNCI) (Developed)		TQ117044
Site Comment	Potential SNCI. Most of this site has been built on. The remainder is heavily grazed semi improved calcareous grassland with areas of hawthorn scrub with taller grasses. Building on site is known as Gateway House.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
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Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Courtlands Hospital Grounds (pSNCI) (Developed)		TQ118025
Site Comment	Potential SNCI. The site consists of the amenity grassland, lake and areas of trees and shrubs and two small calcareous hay fields surrounded by hedges.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	West Sussex Potential SNCI Project - (397)		
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Survey Author	FINCH, Marion, CLARK, Louise		
Survey Comment	A survey of potential SNCIs to assess their significance. Incidental records of mammals, birds, butterflies and moths, and ferns/bryophytes/lichens were included. ONLY West Sussex covered in the survey. Where relevant, info. In EN/SSSI Files. NB: some sites listed below have since been designated, and are now named accordingly.		
Date	1990-3.92		
Site Name	Swandean Hospital Grounds & Field (pSNCI)		TQ118059
Site Comment	Potential SNCI. The site consists of the hospital grounds and a 100m.sq. field in the north-west of the site. The hospital grounds have amenity grassland and landscaping shrubs and trees. The field is used for grazing.		
Copies Available	WSCC, EN/SSSI/SCI		

Survey Name	Invertebrate Site Register - (480)		
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Survey Author	WILLING, Martin J, PARSONS, M.		
Survey Comment	The Invertebrate Site Register is a document listing sites which are important for invertebrates. It is regularly updated and revised. Information for each site usually includes a site description, the main invertebrate interest and some general comments. This is a collation of information from a variety of sources. (Phase II)		
Date	-		
Site Name	Highdown Hill NT		TQ095042
Site Comment	Relict area of chalk grassland some degraded through fertiliser application and hay cutting. Highdown Hill owned by NT. The scrub is confined to narrow strips along the boundary hedgerows and to the old chalk pits. Hill-fort on summit with a clump of trees planted in 1890's. A rich and varied molluscan fauna, including scarce and RDB species.		
Copies Available	EN		

Survey Name	Invertebrate Site Register - (480)	
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Survey Author	WILLING, Martin J, PARSONS, M.	
Survey Comment	The Invertebrate Site Register is a document listing sites which are important for invertebrates. It is regularly updated and revised. Information for each site usually includes a site description, the main invertebrate interest and some general comments. This is a collation of information from a variety of sources. (Phase II)	
Date	-	
Site Name	Ferring Grassland & Goring Shore ISR Site	TQ105020
Site Comment	Owned by the local authority. An area of coastal grassland and low cliffs near the sea. I.S.R. - April 82.	
Copies Available	EN	

Survey Name	Invertebrate Site Register - (480)	
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Survey Author	WILLING, Martin J, PARSONS, M.	
Survey Comment	The Invertebrate Site Register is a document listing sites which are important for invertebrates. It is regularly updated and revised. Information for each site usually includes a site description, the main invertebrate interest and some general comments. This is a collation of information from a variety of sources. (Phase II)	
Date	-	
Site Name	Patching Pond Area ISR Site	TQ089059
Site Comment	A pond with redbeds. ISR-April 1982	
Copies Available	EN	

Survey Name	Designated SNCIs (in West Sussex) - (500)	
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Survey Author	WSCC	
Survey Comment	All SNCIs in West Sussex are covered here. All sites have management prescriptions. Each site was surveyed botanically, but additional information on other groups is included where known. (A hand-book 'West Sussex Sites of Nature Conservation Importance' has been produced). (Phase II). In 1998 a further 26 new sites were added. In 2001 a further 23 new sites were added and 1 deleted. [NB: a number of additional sites are also included which are not designated, but which were presumably considered for designation at some stage, or which were at some time designated but which have since be deselected].	
Date	1990-	
Site Name	Ham Farm Wood - SNCI W05	TQ112044
Site Comment	An ancient woodland within the built up area of Worthing. It consists of ash, field maple and english elm over hazel and sweet chestnut and sycamore coppice. An old pond to the south has abundant crack willow. It is owned by Worthing BC.	
Copies Available	EN, SWT, WSCC	

Survey Name	Designated SNCIs (in West Sussex) - (500)	
Survey Author	WSCC	
Survey Comment	All SNCIs in West Sussex are covered here. All sites have management prescriptions. Each site was surveyed botanically, but additional information on other groups is included where known. (A hand-book 'West Sussex Sites of Nature Conservation Importance' has been produced). (Phase II). In 1998 a further 26 new sites were added. In 2001 a further 23 new sites were added and 1 deleted. [NB: a number of additional sites are also included which are not designated, but which were presumably considered for designation at some stage, or which were at some time designated but which have since be deselected].	
Date	1990-	
Site Name	Titnore & Goring Woods Complex - SNCI W4 (Old Boundaries)	TQ100050
Site Comment	This woodland is the largest in Worthing Borough; much of it is ancient. Site has boundaries prior to 1994 revision.	
Copies Available	EN, SWT, WSCC	

Survey Name	Designated SNCIs (in West Sussex) - (500)	
Survey Author	WSCC	
Survey Comment	All SNCIs in West Sussex are covered here. All sites have management prescriptions. Each site was surveyed botanically, but additional information on other groups is included where known. (A hand-book 'West Sussex Sites of Nature Conservation Importance' has been produced). (Phase II). In 1998 a further 26 new sites were added. In 2001 a further 23 new sites were added and 1 deleted. [NB: a number of additional sites are also included which are not designated, but which were presumably considered for designation at some stage, or which were at some time designated but which have since be deselected].	
Date	1990-	
Site Name	Ferring Rife & Meadows, Ferring - SNCI Ar12	TQ090022
Site Comment	A wide channel between two high grassy banks which is 1.3km. Also some of the grassy field adjacent to the rife.	
Copies Available	EN, SWT, WSCC	

Survey Name	Designated SNCIs (in West Sussex) - (500)	
Survey Author	WSCC	
Survey Comment	All SNCIs in West Sussex are covered here. All sites have management prescriptions. Each site was surveyed botanically, but additional information on other groups is included where known. (A hand-book 'West Sussex Sites of Nature Conservation Importance' has been produced). (Phase II). In 1998 a further 26 new sites were added. In 2001 a further 23 new sites were added and 1 deleted. [NB: a number of additional sites are also included which are not designated, but which were presumably considered for designation at some stage, or which were at some time designated but which have since be deselected].	
Date	1990-	
Site Name	Highdown Hill & The Miller's Tomb - SNCI W2	TQ095042
Site Comment		
Copies Available	EN, SWT, WSCC	

Survey Name	Wintering Waterfowl Count Scheme - (506)	
Survey Author	Various	
Survey Comment	WWT covers inland sites and some coastal areas and sites are counted for waterfowl, rails, herons and Kingfishers every month over the winter. A summary of the results combined with BTO's Estuary counts are published in "Wildfowl and Wetland Counts" each year. Information on sites can be obtained via the above contact.	
Date	various	
Site Name	Patching Pond	TQ088056
Site Comment		
Copies Available	As contact	

Survey Name	Wintering Waterfowl Count Scheme - (506)	
Survey Author	Various	
Survey Comment	WWT covers inland sites and some coastal areas and sites are counted for waterfowl, rails, herons and Kingfishers every month over the winter. A summary of the results combined with BTO's Estuary counts are published in "Wildfowl and Wetland Counts" each year. Information on sites can be obtained via the above contact.	
Date	various	
Site Name	Ferring Duck Pond	TQ081027
Site Comment	A small pond between Ferring and Kingston.	
Copies Available	As contact	

Survey Name	Botanical Survey of Unimproved Grassland on South Downs in West Sussex 1992 - (549)	
Survey Author	STEVEN, Graham	
Survey Comment	Areas of long-established grassland were surveyed botanically. Areas excluded were under 1ha., pioneer communities on bare chalk in pits, road cuttings and areas recently re-established following scrub clearance. (Phase II). NB: since survey aimed to record area of unimproved grassland on the downs, some sites are identified in report (and included below in site list) even if they were not surveyed as part of this study. [SxBRC (2 copies) held in H3 box].	
Date	05-10.92	
Site Name	Highdown Hill NT	TQ095042
Site Comment	Relict area of chalk grassland some degraded through fertiliser application and hay cutting. Highdown Hill owned by NT. The scrub is confined to narrow strips along the boundary hedgerows and to the old chalk pits. Hill-fort on summit with a clump of trees planted in 1890's. A rich and varied molluscan fauna, including scarce and RDB species.	
Copies Available	EN, SxBRC Boxes, WSCC	

Survey Name	English Nature Woodland Information - (602)	
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Survey Author	Various	
Survey Comment	This is a collation of data on woodlands throughout Sussex. It consists of mostly botanical data, and other information which varies from site to site. (It is held in the woodland cabinet at EN in grid reference order). (Phase II). Woodland Record Cards also held in SxBRC Archive. Recorders include A Whitbread.	
Date	-	
Site Name	Highdown Copse & Goring Wood South Complex	TQ095046
Site Comment	Some parts of this wood are ancient and almost all of it is coppice some of which is still managed. Oak and Birch are the most frequent trees.	
Copies Available	EN, SxBRC Archive	

Survey Name	Vegetated Shingle Survey of the Sussex Coast - (603)	
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Survey Author	WILLIAMS, P. R., COOKE, R. J.	
Survey Comment	A survey to identify all areas of vegetated shingle along the Sussex coast so that the NRA can avoid these during emergency sea defence work. Only the areas of significance were included in this survey and species lists were usually compiled. Only the non-SSSI's were actually surveyed. (Phase II). [SxBRC copy held in H7b box].	
Date	07.93	
Site Name	Kingston Vegetated Shingle	TQ083014
Site Comment	A 1.5km strip along the beach containing a basis shingle pioneer community. It should be protected from disturbance.	
Copies Available	EN, SxBRC Boxes, WSCC	

Survey Name	Survey of Unimproved Grassland in West Sussex (Vol 2) - (618)	
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Survey Author	ALLWRIGHT, R.	
Survey Comment	These sites were surveyed, classified and a grassland recording card filled out. These original results on each site are not included in the final published report. Details of four sites in E Sussex that were also surveyed are also in the same box in a separate envelope. (At EN they are in the W Sussex Grassland Survey box in the library). (Phase II). [SxBRC copy held in H7a	
Date	6.88-8.88	
Site Name	Patching Pond (Swamp SW of)	TQ086055
Site Comment	An area of swamp and inundated grassland just south of Patching Pond.	
Copies Available	EN, SxBRC Boxes, WSCC	

Survey Name	Birds of Estuarine Enquiry - (654)	
Survey Author	Various	
Survey Comment	A summary of the results of surveys, combined with WWT's wintering waterfowl counts, are published annually in 'Wildfowl and Wader Counts'. Information on sites can be obtained via the above contact. BTO covers estuaries and sites are counted each month in the winter for waders.	
Date	NOV-MARCH	
Site Name	Goring to Kingston (incl Ferring) Beach & Intertidal Zone	TQ100020
Site Comment		
Copies Available	As contact	

Survey Name	Titnore Road Proof of Evidence. Appendix 2: Woodland Context. - (690)	
Survey Author	CHRIS BLANDFORD ASSOC.	
Survey Comment	Brief site visits to ancient woodland in the proposed landfill site area. The principle features and species were recorded on a presence/absence basis. Appendix 2 of the Titnore Road Proof of Evidence for the public enquiry. (Phase I)	
Date	3.90-5.90	
Site Name	Goring Wood 2/Catle Goring Woods	TQ100053
Site Comment	Predominantly Hazel coppice under Oak with Silver Birch present and some Ash and Field	
Copies Available	WSCC	

Survey Name	WSCC Areas of Nature Conservation Value - (700)	
Survey Author	GRIFFITHS, Ann	
Survey Comment	Brief descriptions of areas of conservation value. Records habitats present and selected species lists - mostly botanical with casual records of other groups. (Phase I)	
Date	1970-1980	
Site Name	Titnore & Goring Woods Complex - SSCI W4 (Old Boundaries)	TQ100050
Site Comment	This woodland is the largest in Worthing Borough; much of it is ancient. Site has boundaries prior to 1994 revision.	
Copies Available	WSCC	

Survey Name	WSCC Areas of Nature Conservation Value - (700)	
Survey Author	GRIFFITHS, Ann	
Survey Comment	Brief descriptions of areas of conservation value. Records habitats present and selected species lists - mostly botanical with casual records of other groups. (Phase I)	
Date	1970-1980	
Site Name	Hightiten Barn Wood (ex-Quarry) AoNCV	TQ100041
Site Comment	A derelict chalk quarry which is very overgrown with secondary woodland.	
Copies Available	WSCC	

Survey Name	Brief Survey of (Upper) Northbrook Farm - (746)		
Survey Author	ROBERTS, Graham		
Survey Comment	Written notes from a site visit, which are fairly detailed.		
Date	7.91		
Site Name	Upper Northbrook Farm & Land to NE (Developed)	TQ107046	
Site Comment	An area of meadow and fields with hedgerows and some ponds.		
Copies Available	WSCC		

Survey Name	Assessors Report on Trees and Woodland - (852)		
Survey Author	BURLEY, P. F.		
Survey Comment	A report dealing with trees and woodland and the more general ecological considerations relevant to the development of the site. It was carried out in relation to a planning application for a landfill site. It gives some details of the character and the species composition of the woodland on the site. Given as evidence at public enquiry. (File No.:APP/P3800/A/90/168282 and 168601).		
Date	1991		
Site Name	Titnore & Goring Woods Complex - SNCI W4 (Old Boundaries)	TQ100050	
Site Comment	This woodland is the largest in Worthing Borough; much of it is ancient. Site has boundaries prior to 1994 revision.		
Copies Available	WSCC		

Survey Name	Titnore Road Proof of Evidence - (853)		
Survey Author	MASTERS, Phillip John		
Survey Comment	A botanical survey with notes on birds and invertebrates seen during the survey and in one night's light trapping in July 1990. This is Appendix 1 to the proof of evidence. Appendix 2 has the woodland context of the lease area (see No.690, Appendix 3 is the management proposals and Appendix 4 is the nature conservation impact.		
Date	1989-1991		
Site Name	Titnore & Goring Woods Complex - SNCI W4 (Old Boundaries)	TQ100050	
Site Comment	This woodland is the largest in Worthing Borough; much of it is ancient. Site has boundaries prior to 1994 revision.		
Copies Available	WSCC		

Survey Name	Titnore Road: WSCC Proof of Evidence - (854)	
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Survey Author	GRIFFITHS, Ann	
Survey Comment	A summary of botanical survey data, a completed woodland record card, photographs of the site and the loss of woodland in the area. The appendices have a description of the wood broken up into six areas, a report on invertebrates seen on a site visit in August 1990 and species lists of lichens, liverworts, mosses and ancient woodland indicators present.	
Date	-	
Site Name	Titnore & Goring Woods Complex - SNCI W4 (Old Boundaries)	TQ100050
Site Comment	This woodland is the largest in Worthing Borough; much of it is ancient. Site has boundaries prior to 1994 revision.	
Copies Available	SxBRC Digital	

Survey Name	Sussex Churchyard Survey - (916)	
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Survey Author	DONOVAN, Pat	
Survey Comment	Botanical survey of most of the churchyards in Sussex. The majority will have just a species list, but the ones with ecological significance have more detail. (Phase II). NB: Results held at SxBRC for some of sites covered (with details for each site filed according to grid squares), including ESD site nos. 841[TQ33], 1370 [TQ32], 4470 [TQ32], 4341 [SU90]., 4382 [TQ01]. [SxBRC also holds documents in BRC box H2b].	
Date	1980-	
Site Name	St Andrew's Churchyard, Ferring	TQ095026
Site Comment		
Copies Available	As contact, SxBRC File Cabs, SxBRC Boxes	

Survey Name	Sussex Churchyard Survey - (916)	
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Survey Author	DONOVAN, Pat	
Survey Comment	Botanical survey of most of the churchyards in Sussex. The majority will have just a species list, but the ones with ecological significance have more detail. (Phase II). NB: Results held at SxBRC for some of sites covered (with details for each site filed according to grid squares), including ESD site nos. 841[TQ33], 1370 [TQ32], 4470 [TQ32], 4341 [SU90]., 4382 [TQ01]. [SxBRC also holds documents in BRC box H2b].	
Date	1980-	
Site Name	St Mary's Churchyard, Goring	TQ111026
Site Comment		
Copies Available	As contact, SxBRC File Cabs, SxBRC Boxes	

Survey Name	Sussex Churchyard Survey - (916)	
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Survey Author	DONOVAN, Pat	
Survey Comment	Botanical survey of most of the churchyards in Sussex. The majority will have just a species list, but the ones with ecological significance have more detail. (Phase II). NB: Results held at SxBRC for some of sites covered (with details for each site filed according to grid squares), including ESD site nos. 841[TQ33], 1370 [TQ32], 4470 [TQ32], 4341 [SU90]., 4382 [TQ01]. [SxBRC also holds documents in BRC box H2b].	
Date	1980-	
Site Name	St Symphorian's Churchyard, Durrington	TQ118053
Site Comment		
Copies Available	As contact, SxBRC File Cabs, SxBRC Boxes	

Survey Name	Mollusc Survey with RIGS - (935)	
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Survey Author	MILLAR, Amanda J.	
Survey Comment	Mollusc surveys carried out on sites visited in the course of regionally important geological/geomorphological sites (RIGS) survey. [SxBRC copy held in G8 Molluscs box].	
Date	1993-1995	
Site Name	Highdown Hill (Disused Pits W of Summit)	TQ089042
Site Comment	National Trust property. Scrub and woodland on the lower slopes with improved grassland on top. Cattle grazed. Well used by public.	
Copies Available	As contact, SxBRC Boxes	

Survey Name	Ecological Survey of Highdown Hill - (940)	
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Survey Author	WORTHING NATURAL HISTORY SOCIETY	
Survey Comment	Worthing Natural History Society are monitoring this site approximately every 15-20 years. They produce reports which detail geography, geology, history, plants and birds. Each year's monitoring involves several regular visits. (Phase II)	
Date	1958-59, 1982-83, 1996	
Site Name	Highdown Hill NT	TQ095042
Site Comment	Relict area of chalk grassland some degraded through fertiliser application and hay cutting. Highdown Hill owned by NT. The scrub is confined to narrow strips along the boundary hedgerows and to the old chalk pits. Hill-fort on summit with a clump of trees planted in 1890's. A rich and varied molluscan fauna, including scarce and RDB species.	
Copies Available	As contact	

Survey Name	Ecological Appraisal of Sites in Arun District - (945)	
Survey Author	SPIERS, Tony, RYLAND, Kate	
Survey Comment	A habitat survey of Arun District was undertaken using aerial photographs. The more significant sites were then visited by a survey team and plant species indicated on a present/absent basis. (Phase II). [SxBRC copy held in S1 box].	
Date	1988	
Site Name	Ferring Rife & Surrounds: S of Railway to Kingston Gorse	TQ090021
Site Comment	The rife water is remarkably clean and contained various flora and fauna. The rest of the area is rough grassland with quite a good range of plants.	
Copies Available	SxBRC Boxes, As contact	

Survey Name	Ecological Appraisal of Sites in Arun District - (945)	
Survey Author	SPIERS, Tony, RYLAND, Kate	
Survey Comment	A habitat survey of Arun District was undertaken using aerial photographs. The more significant sites were then visited by a survey team and plant species indicated on a present/absent basis. (Phase II). [SxBRC copy held in S1 box].	
Date	1988	
Site Name	Patching Pond & Drain to North	TQ088057
Site Comment	The pond is maintained for anglers and has a good aquatic habitat with plenty of aquatic plants.	
Copies Available	SxBRC Boxes, As contact	

Survey Name	Water Vole Survey - West Sussex - (1059)	
Survey Author	KEELING, Chris	
Survey Comment	Survey concentrated on the Adur catchment and the Chichester Rifes.	
Date	17.8.98 - 6.9.98	
Site Name	Ferring Rife Water Vole Site, E of Ferring Lane	TQ099035
Site Comment	Water vole tunnel below water level - possible feeding remains in immediate area of tunnel (Aug 1998).	
Copies Available	WSCC	

Survey Name	West Durrington Ecological Appraisal - (1080)	
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Survey Author	COUNTRYSIDE PLANNING AND MANAGEMENT	
Survey Comment	A detailed survey of the area identifying the habitats and giving some plant species. A map grading the ecological value of the site is included. Conducted for Heron Homes Ltd. See also Survey no. 2753.	
Date	6.92	
Site Name	West Durrington Proposed Urban Extension Site	TQ105054
Site Comment	Site proposed for development, in vicinity of Titnore Lane & Castle Goring, Worthing.	
Copies Available	SxBRC Digital	

Survey Name	Survey of Land at Chatsmore Farm, Worthing - (1442)	
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Survey Author	HELLIWELL, D. R.	
Survey Comment	Survey, by Reading Agricultural Consultants, of arable farmland prior to proposed development.	
Date	14.9.99	
Site Name	Chatsmore Farm (Arable Land S of Ferring Rife), Worthing	TQ101033
Site Comment	Site is flat, surrounded by housing and a dual carriageway. Mostly intensively cultivated with canalised stream.	
Copies Available	SxBRC Digital	

Survey Name	Biodiversity Audit of West Sussex Mineral Sites - (1516)	
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Survey Author	RYLAND, Kate	
Survey Comment	Data collation exercise to assess biodiversity and earth science interest of 58 mineral sites. Gives current status of each site and suggests future programme of site visits and surveys.	
Date	-	
Site Name	Clapham Clay Pit TPA (incl Brick Works) - AR24	TQ093059
Site Comment	Landfilled - restored to agricultural use. Probably no current ecological interest.	
Copies Available	WSCC	

Survey Name	Vegetated Shingle Survey - Kingston and Ferring Beaches - (1541)	
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Survey Author	TANNER, Michael	
Survey Comment	Survey of vegetated shingle on Kingston and Fering beaches with species list. [SxBRC copy filed under TQ00].	
Date	24.7.01	
Site Name	Kingston & Ferring Vegetated Shingle	TQ090016
Site Comment	Area of vegetated shingle.	
Copies Available	As Author, SxBRC File Cabs, WSCC	

Survey Name	Ecological survey of the proposed site of a croquet lawn, Ferring. - (1586)	
Survey Author	DOLPHIN ECOLOGICAL SURVEYS	
Survey Comment	Survey includes spp. lists for two areas with distinct plant communities: the western area comprising woodland, the eastern area scrubland. Abundances of plant species are included, and the ecological importance of the site is discussed. Species lists reflect only those plants visible in March: many others may be present but not evident until later in the year. [SxBRC copy filed under TQ00].	
Date	6.3.95	
Site Name	Land at Old Manor Cottages, Sea Lane, Ferring	TQ097025
Site Comment	An area of old buildings and open scrub with developing Elm and Sycamore woodland in the west of the site.	
Copies Available	SxBRC Digital	

Survey Name	Botanical lists for Whitebeam Wood (Ham Farm Wood SNCI) & Grass Bank (Ham Farm Nurseri	
Survey Author	CURSON, Simon	
Survey Comment	Botanical species lists for grass bank in NW of Longcroft Park, plus incomplete list for Whitebeam Wood (Ham Farm Wood SNCI). NB: Grass Bank is within "Ham Farm nurseries, now Longcroft Park".	
Date	25.6.98	
Site Name	Ham Farm Wood - SNCI W05	TQ112044
Site Comment	An ancient woodland within the built up area of Worthing. It consists of ash, field maple and english elm over hazel and sweet chestnut and sycamore coppice. An old pond to the south has abundant crack willow. It is owned by Worthing BC.	
Copies Available	WSCC	

Survey Name	Botanical lists for Whitebeam Wood (Ham Farm Wood SNCI) & Grass Bank (Ham Farm Nurseri	
Survey Author	CURSON, Simon	
Survey Comment	Botanical species lists for grass bank in NW of Longcroft Park, plus incomplete list for Whitebeam Wood (Ham Farm Wood SNCI). NB: Grass Bank is within "Ham Farm nurseries, now Longcroft Park".	
Date	25.6.98	
Site Name	Ham Farm Nurseries/Longcroft Park (pSNCI)	TQ113043
Site Comment	Potential SNCI. Predominately an open space with species poor amenity grassland and planted specimen trees. Along the north edge there is an area of planted native trees and shrubs. Owned by Worthing BC. Part of site falls within SNCI W05.	
Copies Available	WSCC	

Survey Name	Ecological Survey of Ferring Rife - (1625)	
Survey Author	RYLAND, Kate	
Survey Comment	Botanical surveys, casual observations of fauna + river corridor and habitat surveys. Management recommendations. Report covers area owned by Environment Agency. [SxBRC copy filed under TQ00].	
Date	05.96, 07.96	
Site Name	Ferring Rife River Corridor	TQ090020
Site Comment	Ferring Rife extends from the shore to Lower Northbrook Farm.	
Copies Available	SxBRC Digital	

Survey Name	West Durrington Proposed Urban Extension - Environmental Statement Technical Appendix - (27)	
Survey Author	COUNTRYSIDE PLANNING AND MANAGEMENT	
Survey Comment	Describes the ecology of land at West Durrington and sets out an impact assessment of development proposed at the site. Information in report mostly derived from a number of site visits undertaken by CPM ecologists over a number of years. Includes a Phase 1 habitat survey conducted in 1992. Flora and fauna observed or heard during general site visits also recorded. Specialist hedgerow and amphibian surveys were also carried out. Further ecological information was sought from a variety of sources, including BTO, EN, EA, SBRS, SWT WSCC and others. Report prepared on behalf of Heron Land Developments Ltd, Persimmon Homes and Bryant Homes Southern Ltd. See also Survey No. 1080, which contains some of the same information, but which was published several years earlier.	
Date	various: 06.92 - 11.00	
Site Name	West Durrington Proposed Urban Extension Site	TQ105054
Site Comment	Site proposed for development, in vicinity of Titnore Lane & Castle Goring, Worthing.	
Copies Available	SxBRC Digital	

Survey Name	Land at Lower Northbrook Farm, Titnore Lane, Worthing - Ecological Survey - (2807)	
Survey Author	MICHAEL WOODS ASSOCIATES	
Survey Comment	Extended Phase 1 habitat survey of land subject to development proposals. A search for Badger setts was conducted, as well as an assessment of potential bat roosting sites. Casual sightings of birds and other species were also noted. Survey commissioned by Marshall Clark LLP on behalf of Chandlers Garage Holdings Ltd. [species data extracted].	
Date	02.02.05	
Site Name	Land at Lower Northbrook Farm, Worthing	TQ104040
Site Comment	A greenfield site 2.2ha in area lying east of Titnore Lane, just north of Goring Crossways. To the south of the site is Northbrook College, to the north houses, gardens and stables. The site is used for grazing horses and is typical of unkempt urban fringe land.	
Copies Available	SxBRC Digital	

Survey Name	Bat & Barn Owl Survey at Forest Farm, Castle Goring - (2851)	
Survey Author	LOVE, Martin	
Survey Comment	The survey was a requirement of a planning application to demolish buildings to erect a number of residential units. A bat and barn owl survey was necessary as part of the planning process. [spp data extracted].	
Date	30.12.04	
Site Name	Forest Farm Buildings Area, Durrington	TQ107053
Site Comment	Area immediately surrounding farm buildings.	
Copies Available	SxBRC Digital	

Survey Name	Ecological Assessment - Site of Proposed Smock Mill, Highdown Hill - (2884)	
Survey Author	CPM Env Planning & Design Ltd.	
Survey Comment	Report to assess ecological impacts arising from construction of an 8m diameter, 19.2m high "smock mill" and associated access road and car park. Includes collated data from National Trust biological surveys as well as extracts from other sources. CPM also surveyed site to identify main habitat types in the development site and its surroundings, to describe obvious plant species present, and to check for animal activity, particularly protected species. [spp data extracted].	
Date	17.04.02	
Site Name	Proposed "Smock Mill" Site, Highdown Hill	TQ092041
Site Comment	Proposed development site within an old chalk pit.	
Copies Available	SxBRC Digital	

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.

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

Sites of Nature Conservation Importance (SNCIs) are non-statutory designations which are identified at a county level. They typically form a network of sites that are recognised to be of local conservation importance and are often included in Local Authority development plans. In other areas of the country they are sometimes called SINCs (Sites of Importance for Nature Conservation) or County Wildlife sites.

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

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

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

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

In West Sussex SNCI selection is steered by the County Council, whereas in East Sussex it is steered by the District Councils. Currently there are over 600 SNCIs in Sussex.

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

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

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

It is important to realise that classification as an SNCI in no way reduces the value of other wildlife sites. Sites of SNCI quality may not have been surveyed for various reasons. All areas of semi-natural vegetation are important to wildlife. Many rare plants and animals occur in seemingly otherwise uninteresting sites and may be overlooked by the survey.

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

West Sussex

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

Summary

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

Site description

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

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

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

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

Management recommendations

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

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

West Sussex

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

Summary

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

Site description

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

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

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

Management recommendations

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

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

West Sussex

Site Name:	Titnore & Goring Woods Complex		
Site Ref:	W04	Owner:	Private
District:	Worthing	Size (ha):	78.6
Parish:	N/A	Date:	Identified May 1992. Revised May 1994.
National Grid Ref:	TQ100050	Author:	Jill Barton
Habitat:	Semi-natural woodland and pond		

Summary

This woodland complex is the largest in Worthing Borough. Much of it is ancient in origin, although its structure and species composition vary considerably, due to management. The site is of outstanding importance as a large area of semi-natural habitat close to a heavily built-up area.

Site description

The majority of the woodland is dominated by Oak with Ash, Elm, Birch and Beech. The shrub layer is very variable, with area of Hazel or Sweet Chestnut coppice or a mixture of Holly, Hawthorn, Blackthorn, Willow and Elder. The ground flora is predominantly Bramble *Rubus fruticosus*, Bluebell *Hyacinthoides non-scripta* and Bracken *Pteridium aquilinum*, with Wood Sage *Teucrium scorodonia*, Male Fern *Dryopteris filix-mas* and Honeysuckle *Lonicera periclymenum* also typical. It tends to be sparse in dense shade. Ash occurs where the ground is damp and base-enriched, with Hazel and some Field Maple and Wild Privet under, and a ground flora of sedges *Carex* spp, ferns, Yellow Flag *Iris pseudacorus* and Dog's Mercury *Mercurialis perennis*.

Old boundary banks support a rich flora, including ancient woodland indicators such as Primrose *Primula vulgaris* and Hart's-tongue Fern *Phyllitis scolopendrium*. Parts of the woodland have been thinned to occasional Oak standards over sown Rye-grass *Lolium perenne*. Scots Pine is very occasional in parts of the wood.

Management recommendations

Much of the site is well-managed coppice with standards. Re-coppicing should be encouraged to maintain the diversity of the ground flora and wildlife value of the woodland. The conversion of woodland to occasional trees over improved pasture destroys the character and value of the site and should be discouraged.

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

West Sussex

Site Name:	Ham Farm Wood	Owner:	Worthing Borough Council
Site Ref:	W05	Size (ha):	2.3
District:	Worthing	Date:	Identified May 1992
Parish:	N/A	Author:	Jill Barton
National Grid Ref:	TQ112044		
Habitat:	Semi-natural woodland		

Summary

The site represents the only area of ancient woodland within the built-up area of Worthing. Despite its proximity to housing it is remarkably undisturbed and is a valuable urban wildlife site.

Site description

The wood is surrounded by recently-built housing with an open area of parkland on its eastern boundary. The canopy is dominated by Oak, with Ash, Field Maple and English Elm. The shrub layer is mainly Hazel and Sweet Chestnut coppice, with some multi-stemmed Ash and Sycamore. Holly and Hawthorn are also present, and there are some very large old Field Maple coppice stools scattered. The ground flora is dominated by Bramble *Rubus fruticosus*, Bluebell *Hyacinthoides non-scripta* and Bracken *Pteridium aquilinum*, with Wood Sage *Teucrium scorodonia*, Honeysuckle *Lonicera periclymenum* and Male Fern *Dryopteris filix-mas*. A small, dry pond in the north-east part of the wood supports Tufted Hair-grass *Deschampsia caespitosa*, Yorkshire Fog *Holcus lanatus* and thistles *Cirsium* spp. The ponds in the southern part of the wood are surrounded by Crack Willow, Grey Willow, Goat Willow and Hazel coppice over lush grasses and Yellow Flag *Iris pseudacorus*.

The wood provides nesting sites and cover for a variety of birds.

The site is crossed by a surfaced path which is well used.

Management recommendations

Management appears to be sympathetic, and the amount of disturbance slight. Dead wood has been left in place, which provides a habitat for invertebrates and fungi in particular. The site would benefit from re-coppicing, to open up the canopy and encourage growth of the ground flora.

KEY NATIONAL AND INTERNATIONAL SITE DESIGNATIONS

National Nature Reserve (NNR)

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

Special Area of Conservation (SAC)

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

Special Protection Area (SPA)

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

Ramsar

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

National Park

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

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

Further information can be found on the [SDNP Authority website](#).

Area of Outstanding Natural Beauty (AONB)

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

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

Chichester Harbour Conservancy www.conservancy.co.uk

High Weald AONB Unit www.highweald.org

Marine Conservation Zone (MCZ)

MCZs protect a range of nationally important marine wildlife, habitats, geology and geomorphology. In November 2013 27 MCZs were designated in English inshore and English and Welsh offshore waters in the first tranche of sites. Three of these sites were designated off Sussex; Kingmere, Beachy Head West and Pagham Harbour. More MCZs will be designated in future rounds or 'tranches', although it is uncertain how many.

Further information can be found on the [JNCC website](#).

Local Nature Reserve (LNR)

Local Nature Reserves are for both people and wildlife. All district and county councils have powers to acquire, declare and manage LNRs. To qualify for LNR status, a site must be of importance for wildlife, geology, education or public enjoyment. Some are also SSSIs. There are 36 LNRs in Sussex.

Country Park

Country Parks were established as a result of the 1968 Countryside Act to provide a wide range of opportunities for recreation, health, education and improve the quality of life for local communities. Natural England recognises Country Parks as significant places that contribute to England's accessible natural green space. There are 11 Country Parks in Sussex, the details of which can be obtained from the local authorities.

Local Geological Site (LGS)

Previously known as Regionally Important Geological/Geomorphological Sites (RIGGS), LGS are non-statutory designations that have been identified by local geodiversity groups as being of importance. There are over 120 LGS in Sussex which have been assessed by the Sussex Geodiversity Partnership. The features identified as being important become a material consideration in any future development, and should be taken into account by the relevant local authority.

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

Marine Site of Nature Conservation Importance (MSNCI)

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

Environmental Stewardship

Environmental Stewardship is an agri-environment scheme managed by Natural England that provides funding to farmers and other land managers to deliver effective environmental management.

There are four elements to Environmental Stewardship, three of which are relevant in Sussex:

Entry Level Stewardship (ELS) goes beyond the Single Payment Scheme requirement to maintain land in good agricultural and environmental condition.

Organic Entry Level Stewardship (OELS) is the organic strand of ELS. It is geared to organic and organic/conventional mixed farming systems and is open to all farmers not receiving Organic Farming Scheme aid.

Higher Level Stewardship (HLS) involves more complex types of management where agreements are tailored to local circumstances.

Further information can be found on the [Natural England website](#).

Further information on many of the designations listed above can be found on the [Natural England website](#).

ANCIENT WOODLAND

Ancient woodland is defined by Natural England as an area that has had a continuous woodland cover since at least 1600 AD.

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 split into two broad categories:-

Ancient semi-natural woodland - is composed predominantly of trees and shrubs native to the site that do not obviously originate from planting. However, woodlands with small planting of trees native to the site would still be included in this category. The stands may have been managed by coppicing or pollarding in the past or the tree and shrub layer may have grown up by natural regeneration.

Plantations on ancient woodland sites - are areas of ancient woodland where the former native tree cover has been felled and replaced by planted trees, predominantly of species not native to the site. These will include conifers such as Norway spruce or Corsican pine, and also non-native broadleaves such as sweet chestnut. These sites often retain some ancient woodland features such as soils, ground flora, fungi, and woodland archaeology and as such they can respond well to restoration management.

The importance of ancient woodland

Ancient woodland is of prime ecological and landscape importance, providing a vital part of a rich and diverse countryside. In particular, ancient woodland:

- is exceptionally rich in wildlife, and supports many rare and threatened species
- may contain surviving descendants and features from the original natural forests
- acts as reservoirs from which wildlife can spread into new woodlands
- has valuable soils due to their undisturbed nature
- is an integral part of England's historic landscapes and the biological and visual functioning of a landscape
- contains a wealth of features of historical and archaeological importance little altered by modern cultivation or disturbance

Ancient Woodland Inventory

The Ancient Woodland Inventory was set up in 1981 by the Nature Conservancy Council (now Natural England). It originally only included sites over two hectares in size. Advances in digital mapping techniques mean it is now possible to map woodlands under two hectares with greater 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.

Further information about the Ancient Woodland Inventory can be found on the [Natural England website](#).

(Illustration courtesy of Natural England.)

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.

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.



Lapwing

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
- Sussex Wetland Landscapes Project: www.sussexotters.org

(Illustration courtesy of Natural England.)

INTERTIDAL MUDFLAT

Mudflats are sedimentary intertidal habitats created by deposition in low energy coastal environments particularly estuaries and other sheltered areas.

Why are they important?

- Mudflats are part of a habitat sequence between open water and saltmarsh, and have an important role in reducing the impact of waves upon saltmarshes, damage to coastal defences and flooding of low-lying land.
- A wide range of invertebrates is supported including molluscs, annelids and lugworms.
- Mudflats are highly productive, making them important feeding areas for birds. They support internationally important populations of migrant and wintering waders.
- Due to their sheltered nature mudflats are important areas for fish, in particular flatfish, which use them as nursery areas.



Golden plover

Intertidal mudflats in Sussex

Sussex has just over 1,100 hectares of intertidal mudflats. Much of this occurs in a mosaic with saltmarsh and seagrass beds.

What are the threats?

- Sea level rise is expected to result in the loss of up to 10,000 hectares of intertidal mudflat by 2013, with much of this in southern England.
- Land claim for development, and industry including hard flood defences.
- Pollution from agricultural, industrial and urban sources.
- Human disturbance from fishing and bait digging can have adverse impacts.
- Introduction of invasive species such as cord grass.

Some associated species

- Golden plover *Pluvialis apricaria*
- Atlantic salmon *Salmo salar*
- Lugworm *Arenicola marina*
- Mud shrimp *Corophium volutator*
- Glasswort *Salicornia europaea*
- Spiral wrack *Fucus spiralis*

(Illustrations courtesy of Natural England.)

LOWLAND CALCAREOUS GRASSLAND

Lowland calcareous grasslands develop on shallow lime-rich soils generally overlying limestone rocks - in Sussex it occurs exclusively on chalk.

Why is it important?

- Chalk grassland can support over 50 species of flowering plant per square metre, including a number of nationally scarce species.
- Many species of rare invertebrates are found including hoverflies, molluscs and moths.
- Rare assemblages of mosses and lichens can be found on some chalk grasslands.
- The grasslands and associated patches of scrub provide breeding and feeding habitat for many birds including scarce species such as stone curlew.



Round-headed rampion

Lowland calcareous grassland in Sussex

The South Downs represents one of the major areas of chalk grassland in the UK. It is estimated that the habitat now covers only around 3% of the South Downs, where it is predominantly confined to steeper slopes. It continues to support a rich diversity of animals and plants including many rare species.

What are the threats?

- Agricultural intensification by use of fertilisers, liming, reseeding and ploughing.
- Lack of grazing stock results in dominance of coarse grasses and scrub, and a decline in overall botanical diversity.
- Recreation effects including disturbance of wildlife, compaction of soil, trampling and increased nutrients in soil. High public access can also cause conflicts where grazing animals are present.
- Isolation and fragmentation of sites reduces dispersal opportunities making species more susceptible to extinction.
- Losses can result from development including redevelopment of abandoned chalk quarries which can develop good quality grassland.

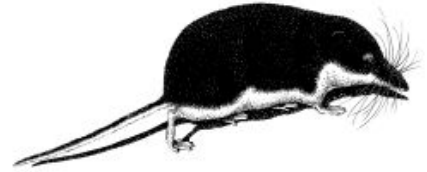
Some associated species

- Linnet *Carduelis cannabina*
- Whitethroat *Sylvia communis*
- Adonis blue *Polyommatus bellargus*
- Glow-worm *Lampyrus noctiluca*
- Round-headed rampion *Phyteuma orbiculare*
- Yellow-wort *Blackstonia perfoliata*

(Illustration courtesy of Natural England.)

LOWLAND FEN

Lowland fens are permanently waterlogged wetlands which receive water and nutrients from soil, rock and groundwater as well as rainfall.



Water shrew

Why are they important?

- Lowland fen has declined dramatically and the UK has a large proportion on the European resource.
- They have a mosaic of plant communities and some fens contain up to 550 species of higher plants.
- Lowland fen is important for invertebrates including aquatic beetles and dragonflies.

Lowland fens in Sussex

Current estimates put the total hectareage of fen in Sussex at under 100 hecatres. It is often found alongside other wetland habitats such as marshy grassland and carr woodland.

What are the threats?

- Drainage and conversion to intensive agriculture.
- Lack of management resulting in succession to scrub and woodland.
- Changes to hydrology resulting from excessive water abstraction and development.
- Isolation and fragmentation.
- Nutrient enrichment which can affect species composition.

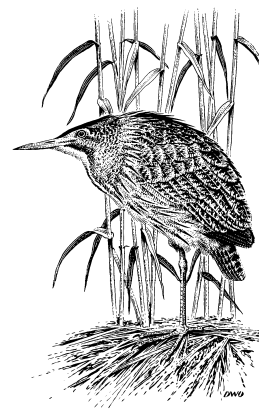
Some associated species

- Water shrew *Neomys fodiens*
- Reed bunting *Emberiza schoeniclus*
- Fen wainscot *Arenostola phragmitidis*
- Scarce chaser *Libellula fulva*
- Sphagnum moss *Sphagnum* spp.
- Gypsywort *Lycopus europaeus*

(Illustrations courtesy of Natural England.)

REEDBED

Reedbeds are wetlands dominated by stands of common reed where the water table is at or above ground level for most of the year. They tend to incorporate open water and ditches, and areas of wet grassland and carr woodland may also be associated with them.



Bittern

Why are they important?

- They provide important breeding and roosting habitat for birds including rare species such as bearded tit and Cetti's warbler.
- A number of invertebrates are recorded from reedbeds including moths, snails and beetles. Many of the species found are now uncommon.
- Reedbeds provide a refuge for shoals of fish, which in turn provide food for other species.

Reedbeds in Sussex

The majority of reedbeds in Sussex are less than five hectares in size. The largest reedbed in Sussex is at Filsham, which is around 17 hectares.

What are the threats?

- Drainage for farming and development, and over-abstraction of water.
- Water pollution can cause a loss of diversity and dominance by a few species.
- Flood defence measures can contribute to loss of reedbeds.
- A lack of management.

Some associated species

- Bittern *Botaurus stellaris*
- Grass snake *Natrix natrix*
- Swollen spire snail *Mercuria confusa*
- Flame wainscot *Mythimna flamma*
- Common reed *Phragmites australis*
- Reed sweet-grass *Glyceria maxima*

Further information

- Sussex Wetland Landscapes Project: www.sussexotters.org

(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

Orchard Network: www.orchardnetwork.org.uk

WOOD-PASTURE & PARKLAND

Many parks were established in medieval times for aesthetic reasons, to provide grazing for farm animals or deer and to provide wood from pollarded trees. In later centuries, new landscaped parks were created from these medieval parks or by enclosing ordinary farmland. Wood-pasture and parkland is therefore the result of a distinctive, historic land-use system, and represents a vegetation structure rather than being a particular plant community.

Typically this structure consists of veteran trees with wide, spreading crowns growing in a matrix of grazed grassland or heathland. It is a habitat of cultural and historical significance and can also be of great ecological importance due to the wide range of species it supports. For these reasons, and due the threats facing the habitat, it is a UK Biodiversity Action Plan (BAP) habitat.



Pedunculate Oak

Current status and distribution

There are no reliable statistics on the extent of this habitat in the UK, but it is most common in southern Britain. Sussex is particularly rich in wood-pasture and parkland with several large old deer parks, such as Petworth Park and Parham Park.

Ecological significance

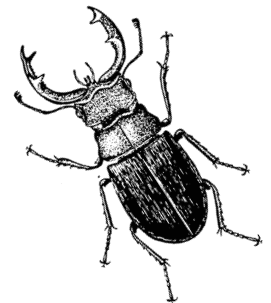
Wood-pasture and parkland is important for wildlife for a number of reasons:

- The mosaic of habitats together with the presence of veteran trees provides the conditions needed by certain species for every stage of their life cycle.
- There is often a continuity of old trees over hundreds of years, or even in some cases back to the post ice-age 'wildwood'. The trees have often been pollarded; this management technique extends their life and creates rot holes and crevices which are used by bats, hole-nesting birds and invertebrates.
- Sussex has the majority of the UK's mature English Elms following the loss of millions to Dutch Elm Disease.
- Rotten wood within ancient tree trunks supports saproxylic invertebrates (those that rely on dead wood for all or part of their life cycle) and are amongst the most threatened group of species in Europe. One such species is the click beetle *Lacon querceus*, which develops in dry red-rotten oak wood in veteran trunks and fallen boughs. The Stag Beetle is another saproxylic beetle often associated with pasture parkland.
- The old tree trunks also support unique communities of lichens, mosses and liverworts which depend on the stability of the surface provided by veteran trees. Two BAP Priority Species of lichen found on old trees include *Bacidia incompta* and *Enterographa sorediata*.

Threats facing the habitat include:

- Isolation and fragmentation of the remaining parklands.
- Inappropriate grazing resulting in the loss of plant diversity and habitat structure.
- Agricultural intensification including reseeding, ploughing and use of fertilisers.
- Neglect and loss of veteran trees, and over-tidying of deadwood.

(Illustrations courtesy of Natural England.)



Stag Beetle

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