

Parish Biodiversity Audit

for

Shirwell

Consultation draft – August 2009

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Shirwell - Parish Plan Biodiversity Project

This document has been produced as a starting point to help community action for wildlife. By starting to bring together knowledge of the natural assets of the parish, it may go some way to achieving its aim of contributing to - and stimulating ideas for - local action.

It should be emphasised that it is just a beginning. It does not represent a comprehensive account of the parish and is based largely on existing records held by the Devon Biodiversity Records Centre (DBRC). There will be a wealth of local knowledge that can be used to build upon and improve this report. Indeed, it is important that it is seen as a 'living document' and one that belongs to the parish. It is hoped that it will be added to and refined by the people of Shirwell parish in future years.

Did you know...?

The Natural Environment and Rural Communities Act (NERC) 2006

Section 40 of the NERC Act 2006 places the following biodiversity duty on all public bodies:

'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'

The duty applies to all local authorities, including parish and town councils. Its purpose is to raise the profile of biodiversity and make it a 'natural and integral' part of policy and decision making.

The Department of the Environment, Food and Rural Affairs (Defra) has issued guidance for local authorities on implementing this biodiversity duty. It can be downloaded from Defra's website: www.defra.gov.uk/wildlife-countryside/pdf/biodiversity/la-guid-english.pdf

Introduction

Biodiversity is a term that describes all of life on earth, from the smallest micro-organism to the largest mammal, the Blue whale. Life is found almost everywhere on the planet and in huge variety. Even a humble back garden may be home to thousands of species and is therefore an important part of the planet's biodiversity. The Shirwell Parish Biodiversity Audit begins to describe the area's local wildlife and shows how it fits into the wider picture of biodiversity in Devon and the UK.

Shirwell lies in an idyllic position in rural North Devon 7 km north-east of Barnstaple. The parish is crossed in a north to south direction by the main A39 Lynton to Barnstaple road. Shirwell parish is bordered along its eastern and southern boundaries by the River Yeo. Part of the Arlington National Trust estate is in the north east of the parish.

Shirwell village is the main settlement in the centre of the parish. A small part of Muddiford village is also just within the parish on the north west boundary.

The parish's economy was traditionally based on dairy farming. Today although many of the parish's dairy herds have disappeared the economy is still largely based on agriculture and tourism. The population of the parish is approximately 500. Outside of the main settlements the parish is rural and sparsely populated.

The parish rises sharply from the River Yeo valley in the south and east and from the Bradiford Water river valley in the west to over 200 metres above sea level. Shirwell village is on relatively high ground 150 metres above sea level on a knoll in between two tributary valleys west of the River Yeo.

The patchwork of fields covering the parish is surrounded by hedges, with Beech *Fagus sylvatica* hedges dominating the higher ground. The fields include unimproved grassland, semi-improved grassland on the steeper sloping fields and improved grassland or arable land generally on the more gently undulating areas. The parish has areas of parkland including Youlstone Park to the west of Shirwell village and parts of Arlington to the east. Large parts of the Arlington estate have been designated SSSI for its rich lichen flora.

The parish has 10 County Wildlife Sites (CWS). Six sites have been identified as ancient semi-natural woodland (namely; Flatwater Wood CWS, Pudnor Wood CWS, Delves Cleave CWS, Raleigh Wood and Coxleigh Wood CWS, Youlston and Longtimber Woods CWS and Preserve, Viveham and Longcleave Woods CWS). Upcott has been identified as species-rich rush pasture, Woolley Wood Marsh as species-rich rush pasture and unimproved neutral grassland, North Woolley Farm as unimproved neutral grassland and Smythapark Field as unimproved and semi-improved neutral grassland. Other important sites include Plaistow Quarry gSSSI (Geological Site of Special Scientific Interest).

There are a number of pleasant footpaths and other Rights of Way linking Shirwell village and the wider parish to the surrounding countryside.

Notable sites and species recorded with Devon Biodiversity Records Centre (DBRC) within and close to Shirwell parish are given in Appendix 1. The species include those listed in the UK Biodiversity Action Plan (UK BAP), such as the Small pearl-bordered fritillary *Boloria selene*, High brown fritillary *Argynnis adippe* and Song thrush *Turdus viscivorus* and also in the Devon Biodiversity Action Plan (Devon BAP) including Great green bush cricket *Tettigonia viridissima*. Otters *Lutra lutra*, listed in both the UK and Devon BAP

have been recorded in the River Yeo and Bradiford Water. An explanation of the Devon Biodiversity Action Plan is presented on page 33.

The parish audit visit for this report was carried out in early March 2009. It should be borne in mind that this is not the ideal season to carry out biodiversity surveys as many species will not be visible at this time of the year. A full species list recorded during the February audit visit is given in Appendix 2.

Designated Sites

Sites of Special Scientific Interest

Sites of Special Scientific Interest (SSSI) are notified by Natural England (formerly English Nature) because of their plants, animals or geological features (the latter are geological SSSIs or gSSSI). Natural England needs to be consulted before any operations likely to damage the special interest are undertaken. SSSI is a statutory designation with legal implications.

Arlington Site of Special Scientific Interest (SSS)

43 ha of the Arlington National Trust estate close to the north east parish boundary were designated SSSI in 1988. Arlington is important for its rich lichen flora with many rare species. It also supports a good assemblage of invertebrates, including national rarities. Lying within an altitude range of 100 m to 180 m the parkland has a mainly south-westerly aspect and the underlying Devonian slates provide a thin, well drained soil. The most important trees here include Ash *Fraxinus excelsior*, Oak *Quercus* spp., and Beech. The parkland slopes more steeply towards the valley bottom where the river Yeo flows in a southerly direction via a large lake. A dense carr has formed around the northern end of the lake with willows *Salix* spp. and Alder *Alnus glutinosa* dominating the canopy. Further downstream there is an additional area of carr with Ash, Oak and Hazel *Corylus avellana* becoming more frequent. There are several large, mature oaks here, some of which have collapsed, and there is an abundance of well-rotted trunks and limbs.

The diverse conditions of the ancient parkland and willow carr provide for a rich lichen vegetation with some rare western and old-forest indicator species. Of particular note here is the development of *Cetrelia olivetorum* and *Heterodermia obscurata* which is the best in south-west England. Also important is the presence of *Teloschistes flavicans*, one of only two localities for this species in Devon outside the southern coastal area. Rare species include *Bombyliospora pachycarpa*, *Pannaria conoplea*, *Parmelia lacinatula*, *Sticta dufourii* and *Lecidea carrollii*. The Lobarion community is well represented and the site is also noteworthy for an abundance of *Usnea articulata*. Amongst the invertebrate fauna are two nationally scarce beetles *Chrysolina haemoptera* and *Pterostichus oblongopunctatus* and several local

beetles including the Rhinoceros beetle *Sinodendron cylindricum*, *Biphyllus lunatus*, *Cerylon ferrugineum* and *Pediacus dermestoides*.

The nationally rare High brown fritillary butterfly *Argynnis adippe* and the local snail *Zenobiella subrufescens* have also been recorded.

(Source: Natural England SSSI citation)

[Links to Devon, North Devon and UK BAPs](#)

Key habitats:

- Wood-pasture and parkland (North Devon Devon BAP, UK BAP)
- Wet woodland (UK BAP); Alder/willow wet woodland (Devon BAP)
- Rivers, streams, floodplains and fluvial processes (Devon BAP)
- Rivers (UK BAP)
- Flower-rich meadows and pastures (Devon BAP, UK BAP)

Key species:

- High brown fritillary (UK BAP)
- Small pearl-bordered Fritillary (UK BAP)
- Marsh fritillary (Devon BAP, UK BAP)

Plaistow Quarry Geological Site of Special Scientific Interest (gSSSI)

Plaistow Quarry was designated as a gSSSI in 1985 and is located near to the western boundary of the parish next to the main B3230. This 13 ha site is the best locality for the Upper Devonian Baggy Beds flora (plant fossils). This flora consists mainly of *lycopods* and *pteridosperms*, the latter being the oldest known gymnosperms in Britain. No definite seeds are known, but several examples of what are probably empty cupules have been found. There are also some possible equisetete stems, which if their identification is confirmed will also be the oldest British examples of their group. The scarcity of Upper Devonian floras in Britain makes this site of national importance, providing one of the few links between the primitive Middle Devonian floras and the more Advanced Lower Carboniferous floras. In addition to its plant fossils, the site has also yielded a very rich invertebrate fauna. This makes the locality the best shelly fossil site within the late Devonian Baggy Beds (Famennian). (Source: English Nature gSSSI citation).

The local contacts have reported that Peregrine falcon *Falco peregrinus* has been known to nest at Plaistow Quarry.

[Links to Devon, North Devon and UK BAPs](#)

Key habitats:

- Pits, quarries and cuttings (Devon BAP)

Special Areas of Conservation

Special Areas of Conservation (SAC): these are notified by Natural England because they contain species and/or habitats of European importance (listed in the Habitats Directive 1994), and are part of a network of conservation sites set up through Europe known as the Natura 2000 series. On land, all candidate SACs are, or will be notified as SSSIs. Natural England needs to be consulted before any operations likely to damage the special interest are undertaken. SAC is a statutory designation with legal implications.

Shirwell parish lies within the Culm Grasslands SAC. The Culm Grasslands SAC covers large parts of northern and western Devon and takes its name from a type of heath grassland/scrub habitat associated with Purple moor-grass *Molinia caerulea* and unique to Devon and Cornwall. The SAC contains extremely diverse examples of heath type fen-meadow, ranging from short, grazed swards through to stands that are transitional to scrub. Structural diversity accounts for the conservation of a wide range of flora and fauna, particularly of species characteristic of south-western Europe, such as Meadow thistle *Cirsium dissectum* and Whorled caraway *Carum verticillatum*. A full listing of Special Areas of Conservation can be found on the Joint Nature Conservation Committee website: www.jncc.gov.uk

Regionally Important Geological and Geomorphological Sites

Regionally Important Geological and Geomorphological Sites (RIGS) are earth science sites that are of regional or local importance. Like County Wildlife Sites, they are included in Local Plans and referred to under PPG9 (see below). These may represent good examples of local rock formations or landform features or they may contain interesting fossils. There are no RIGS within Shirwell Parish.

County Wildlife Sites

There are 10 County Wildlife Sites (CWS) within Shirwell parish:

- Flatwater Wood CWS
- Pudnor Wood CWS
- Delves Cleave CWS
- Upcott Wood CWS
- Raleigh Wood & Coxleigh Wood CWS
- North Woolley Farm CWS
- Woolley Wood Marsh CWS
- Youlston & Longtimber Woods CWS
- Smythapark Field CWS
- Preserve, Viveham and Longcleave Woods CWS

County Wildlife Sites are sites of county importance for wildlife, designated on the basis of the habitat or the known presence of particular species. This is

not a statutory designation like Sites of Special Scientific Interest (SSSI), and does not have any legal status. County Wildlife Sites are usually included in Local Plans as sites of regional or local biodiversity interest and are covered by Planning Policy Statement 9 (PPS9). CWS recognition does not demand any particular actions on the part of the landowner and does not give the public rights of access. However, it may increase eligibility for land management grants.

Note: 'Planning Policy Statement 9: Biodiversity and Geological Conservation' was published by the Department of the Environment in August 2005. Planning Policy Statements (PPS) set out the Government's national policies on different aspects of planning in England. PPS9 sets out planning policies on protection of biodiversity and geological conservation through the planning system. This PPS replaces Planning Policy Guidance Note 9 (PPG9) on nature conservation published in October 1994.

Records of previous habitat and species surveys for these CWSs are kept with the Devon Biodiversity Records Centre (DBRC), from which the descriptions here are largely derived; conditions may have changed since these surveys. All of the sites are privately owned, some with little or no public access on to them. Some of the sites however can be seen from public roads and footpaths.

Flatwater Wood County Wildlife Site

A survey in 1994 records Flatwater Wood as 3.7 ha of ancient semi-natural woodland. The site lies close to the western boundary of the parish on a steep valley slope adjacent to the B3320 Barnstaple to Ilfracombe road close to Bradiford Water stream. There is no public access to the wood and a large hedge bank running along the main road boundary provides protection from disturbance.

The woodland canopy on the lower slopes of the site is dominated by abundant Sessile oak *Quercus petraea* and frequent Beech with an understorey of Hazel with occasional Holly *Ilex aquifolium* and Rowan *Sorbus aucuparia*. Higher up the slope the canopy is dominated by Ash with a diverse ground flora including Dog's mercury *Mercurialis perennis*, Wood avens *Geum urbanum* and Sanicle *Sanicula europaea*. The adjoining steep slope to the north of the main woodland has been recorded by DBRC as probably being formerly an open area of semi-improved grassland which has been colonised by scrub. Remnant grassland species recorded include Greater bird's-foot trefoil *Lotus pedunculatus*, Cat's-ear *Hypochaeris radicata* and Bugle *Ajuga reptans*. This area also has a woodland influence with frequent Primrose *Primula vulgaris* and Wood sage *Tuecrium scorodina*. There are a total of 11 ancient woodland indicator species recorded at Flatwater Wood including Wood sorrel *Oxalis acetosella* and Bluebell *Hyacinthoides non-scripta*. The site was not surveyed during the audit; however the aerial photographs indicate that the site is in good condition.

Links to Devon, North Devon and UK BAPs

Key habitats:

- Lowland mixed deciduous woodland (UK BAP)
- Oak Woodland (Devon BAP, North Devon BAP)

Key species:

- Primrose (Devon BAP)

Pudnor Wood County Wildlife Site

The site is located in the west of the parish and consists of 18.7 ha of ancient-semi-natural woodland partly replanted with non-native broadleaves. Surveyed in 1994 the site surrounds a steep hill giving it a number of different aspects. The northern section of the site is on a steep east-facing slope. Here the canopy is recorded as being well structured with a good age mix dominated by mature Oak with occasional Sweet chestnut *Castanea sativa* and Ash with a Hazel and Sycamore understorey. The ground flora is recorded as being fern-rich with Bramble *Rubus fruticosus*, Wood sorrel, Bluebell and Red campion *Silene dioica*. To the south of this section an area of abandoned Hazel coppice is recorded with a diminished ground flora due to dense shade. Towards the top of the slope in the less shaded parts a dense cover of Pink purslane *Montia sibirica* is recorded and occasional Red campion. The site was not surveyed during the audit survey. The aerial photograph indicates that the upper slopes of this section have been recently coppiced and/or cleared.

The most western section of the site is recorded as steep sloping neutral grassland adjacent to the wood invaded by Bracken *Pteridium aquilinum*. The sward in this area is recorded as herb-rich with species including abundant Cat's-ear, Black knapweed *Centaurea nigra*, Selfheal *Prunella vulgaris* and Meadow vetchling *Lathyrus pratensis*. The recent aerial photograph suggests that this area is becoming increasingly colonised by scrub though good areas of grassland do remain in the central parts of this section.

There are a total of 18 ancient woodland indicator species recorded across the Pudnor Wood CWS site including Opposite-leaved golden-saxifrage *Chrysosplenium oppositifolium*, Yellow archangel *Lamiastrum galeobdolon* and Wood sorrel.

Links to Devon, North Devon and UK BAP

Key habitats:

- Lowland mixed deciduous woodland (UK BAP); Oak woodland (Devon BAP, North Devon BAP)

Key species:

- Primrose (Devon BAP)
- Small Pearl-bordered fritillary (UK BAP)

- Pearl-bordered fritillary (Devon BAP, UK BAP)

Delves Cleave County Wildlife Site

The site is located near the east of Pudnor Wood CWS. The site was last surveyed in 1994 and has been identified as 2.1 ha of ancient semi-natural woodland partly replanted with non-native broadleaves. The site occupies a west-facing slope and although there is no public access within the site there is a public footpath at the top of the slope from which the site can be seen.

The canopy is dominated by mature Ash and Oak with Sweet chestnut and a Hazel dominated understorey. The ground flora includes large areas of fern including Hart's-tongue *Phyllitis scolopendrium* and Broad buckler *Dryopteris dilatata* with areas of Bramble. In areas where Bramble is less dominant the ground flora is more diverse and includes 18 ancient woodland indicator species including Dog's mercury and Herb-robert *Geranium robertianum*, Primrose and Bluebell. The canopy in other parts of the woodland is dominated by Sycamore and these parts have a more diverse ground flora with Bramble being less dominant.

The site is stock proof and this together with the absence of public access and management means that this site is undisturbed.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Lowland mixed deciduous woodland (UK BAP)

Key species:

- Primrose (Devon BAP)

Upcott County Wildlife Site

Located in the north of the parish Upcott CWS surveyed in 1994, is recorded as 0.7 ha of species-rich rush pasture. This area of marshy grassland is surrounded on all sides by improved fields. The site extends approximately 20 metres either side of a small stream which was formerly dammed to create a pond area. The dam wall has collapsed at some point and the area has reverted to marsh dominated by Soft rush *Juncus effusus* and Sharp flowered rush *Juncus acutiflorus*. The abundant herb layer is recorded as containing Water mint *Mentha aquatica*, Meadowsweet *Filipendula ulmaria* and Yellow flag *Iris pseudacorus*. Wetter parts of the site are recorded as containing Water horsetail *Equisetum fluviatile* and Opposite-leaved golden saxifrage. Sallow *Salix cinerea* has colonised the centre of the site close to the stream, where the ground vegetation is more characteristic of rough grassland with species such as Yorkshire fog *Holcus lanata* and Bramble.

The site is on private land with no public access and was not surveyed during the audit visit. The recent aerial photograph suggests that colonisation by Sallow has increased. Although there are still large areas of open grassland it is probable that the ground flora composition has changed as colonisation of Sallow continues and the site becomes dryer.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Flower rich meadows and pastures (Devon BAP)
- Lowland meadows (UK BAP)
- Farmland (North Devon BAP)

Raleigh Wood & Coxleigh Wood County Wildlife Site

Located along the southern boundary of the parish Raleigh Wood and Coxleigh Wood CWS consists of 9.3 ha of ancient semi-natural woodland on the steep northern valley slope of the River Yeo. DBRC records the woodland as species-rich with at least 24 ancient woodland indicator species. The canopy is dominated Oak, Ash, Beech *Fagus sylvatica* and Sycamore with a Hazel and Holly understorey. The rich ground flora which includes Common dog violet *Viola riviniana*, Wood millet *Millium effusum* and Wood spurge *Euphorbia amygdaloides* may be attributed to the history of coppicing on the site. The understorey has been invaded by Rhododendron in places.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Lowland mixed deciduous woodland (Devon BAP)

Key species:

- Primrose (Devon BAP)

North Woolley Farm County Wildlife Site

The site is located in the north east of the parish and is part of the Arlington National Trust Estate. The area around North Woolley Farm is managed under a grazing licence by sheep and cattle throughout the year. The site is recorded by DBRC as 4.7 ha of unimproved neutral grassland. Dominant species recorded include Sweet vernal-grass *Anthoxanthemum odoratum* with frequent Common bird's-foot trefoil *Lotus corniculatus*, Common sorrel *Rumex acetosa* and Common knapweed *Centaurea nigra*.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Flower rich meadows and pastures (Devon BAP)
- Farmland (North Devon BAP)
- Lowland meadows (UK BAP)

Woolley Wood Marsh County Wildlife Site

Woolley Wood Marsh is on the eastern parish boundary and is also part of the Arlington National Trust Estate. The area is recorded as 4.7 h of species-rich wood pasture and unimproved neutral grassland with butterfly interest. The River Yeo runs through the centre of the site in a north to south direction. Arlington SSSI borders the north section. The site includes a mosaic of wet alluvial meadows with tall herb communities, dry grassland, Alder carr and young woodland.

There are stands of tussocky vegetation in the wet meadows which include Purple moor-grass *Molinia caerulea*, with Soft rush *Juncus effusus* and Sharp-flowered rush *Juncus acutiflorus* and other species associated with Culm grassland (also known as Rhôs pasture). Of particular interest is the site's importance for the Marsh fritillary butterfly *Eurodryas aurinia* as well as the Small pearl-bordered fritillary *Boloria selene* and a range of other meadow and wood edge butterfly species. There are several ancient large Oak and Ash trees within the site with a rich assemblage of lichens and invertebrates.

Links to Devon, North Devon and UK BAP

Key habitat:

- Flower rich meadows and pastures (Devon BAP)
- Rhôs pasture (Devon BAP), Purple moor-grass & rush pastures (UK BAP)
- Farmland (North Devon BAP)
- Lowland meadows (UK BAP)
- Parkland and wood pasture (North Devon BAP, UK BAP)
- Coastal and floodplain grazing marsh (UK BAP), Grazing marsh (Devon BAP)
- Rivers, streams, floodplains and fluvial processes (Devon BAP)
- Rivers (UK BAP)

Key species:

- Marsh fritillary butterfly (Devon BAP, UK BAP)
- Small pearl-bordered fritillary (UK BAP)

Youlston and Longtimber Woods County Wildlife Site

Surveyed in 2007, the site is situated in the east of the parish on the western steep valley sides of the Yeo river valley. The area consists of 36.2 ha of ancient semi-natural broadleaved woodland. The most northerly section of the site contains Longtimber Wood. Longtimber is dominated by Pendunculate oak *Quercus robur* with some Beech and Sycamore at the western end. There is an extensive area of Hazel at the southern end which has been coppiced in the past. The ground flora is rich with 22 ancient woodland indicator species.

Youlston Wood is to the south of Longtimber wood and runs southwards following the line of the river valley which turns westward at Chelfham bridge.

Like Longtimber the wood is a long area of Pedunculate oak with a Hazel understorey with patches of Holly. The ground flora is species-rich with 35 ancient woodland indicator species recorded, dominated in the higher part of the wood by Bluebells and Creeping soft-grass *Holcus mollis*. There are some damp flushes with patches of Opposite-leaved golden saxifrage and Remote sedge *Carex remota*. There is a lot of fallen timber providing an important habitat for fungi and invertebrates. A good variety of woodland birds and Dormouse *Muscardinus avellanarius* have been recorded.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Lowland mixed deciduous woodland (UK BAP)
- Oak woodland (Devon, North Devon BAP)

Key species:

- Primrose (Devon BAP)
- Common dormouse (Devon BAP, UK BAP)
- Song thrush (UK BAP)

Smythapark Field County Wildlife Site

This is located in the south east of the parish above Youlstone Wood on a steep south to south east facing slope. Surveyed in 2007 the site is recorded as 14.3 ha of unimproved neutral grassland and semi-improved neutral grassland and is managed by grazing. The unimproved section of the site is species-rich and is dominated by Crested dog's tail *Cynosurus cristatus* with flowering species including Common knapweed, Lesser stitchwort *Stellaria graminea* and Common dog-violet *Viola riviniana*. The site is important for invertebrates with a number of grasshoppers and butterfly species recorded including Ringlet *Aphantopus hyperantus* and Meadow brown *Maniola jurtina*.

[Links to Devon, North Devon and UK BAP](#)

Key habitat:

- Lowland meadows (UK BAP)
- Flower-rich meadows and pastures (Devon BAP)
- Farmland (North Devon BAP)

Key species:

- Primrose (Devon BAP)

Preserve, Viveham and Longcleave Woods County Wildlife Site

Surveyed in 2008 the site is located along the northern boundary of the parish along a tributary of Bradiford Water. The site is recorded by DBRC as 17.1 ha of ancient semi-natural broadleaved woodland with secondary woodland. The site has a good series of different woodland habitats including acid oak dominated by Sessile oak *Quercus petraea*, Hazel coppice, damp woodland and Ash dominated woodland with scattered Oak. The ground flora is species-rich with 28 ancient woodland indicator species recorded. Interesting species include Early purple orchid *Orchis mascula* and Twayblade *Listera ovata*. The site is carpeted with Bluebells in spring. There is a good amount of fallen deadwood providing habitat for invertebrates and fungi. In the damp areas there are areas of willow carr with a well established pond which is heavily silted. A good range of birds and invertebrates are recorded including Willow warbler *Phylloscopus trochilus*, Whitethroat *Sylvia communis*, Nuthatch *Sitta europaea*, Speckled wood butterfly *Pararge aegeria* and Peacock butterfly *Inachis io*. Signs of Otter *Lutra lutra* have been recorded close to the site.

Links to Devon, North Devon and UK BAP

Key habitat:

- Lowland mixed deciduous woodland (UK BAP)
- Oak woodland (Devon BAP, North Devon BAP)
- Wet woodland (UK BAP); Alder/willow wet woodland (UK BAP)

Key species:

- Primrose (Devon BAP)
- Otter (Devon BAP, UK BAP)

Other designations and regional classifications

North Devon's Biosphere Reserve

The very special nature of the environment of northern Devon has been recognised at an international level through UNESCO's designation of a Biosphere Reserve centred on the dune system of Braunton Burrows. This designation recognises that the iconic dune ecosystem does not sit in isolation from its surrounding landscapes and so defines wider zones (buffer and transition zones) where management is sympathetic to the needs of the core site and where sustainable development enhances the overall environmental quality of the area. Local communities are a critical part of the development and enhancement of the Biosphere Reserve and can fully participate in the management of the area through the Biosphere Reserve Partnership.

Northern and western parts of Shirwell parish sit within the 'transition zone' for North Devon's Biosphere Reserve, recognising the part that it and its people have to play in the maintenance and enhancement of the area's natural resources.

The Vision for North Devon's Biosphere Reserve is that:

'North Devon will be a great place to live, work and visit where a superb natural environment underpins jobs, recreation and healthy living. The area will be a world class exemplar for sustainable development.'

A Management Strategy and Action Plan is currently being developed to set out how that vision can be achieved.

Natural Areas

Natural England's Natural Areas divides the country into areas containing common or associated ecological and landscape features. The parish of Shirwell sits within the Exmoor and the Quantock Hills Natural Area. This Natural Area incorporates areas with internationally important habitats, such as upland heath, western heath, western oakwoods, blanket bog and certain types of marshy grassland. Other habitats, of national importance, such as sea cliffs and slopes and upland rivers and streams are also represented here. It is also characterised by having unimproved grassland, grazing marsh and a network of hedgerows (source: Exmoor and the Quantock Hills Natural Area Profile, Exmoor National Park and English Nature, 1997). Further information about the Exmoor and the Quantock Hills Natural Area can be found on Natural England's website: www.naturalengland.org.uk

Other habitats (identified from field survey):

Species-rich hedges

Various definitions of species-rich hedges have been used in different parts of the country but it would not be unreasonable to treat a hedge that has five or more woody species in a 30-metre length as a 'species-rich' one.

Many of the hedges surrounding the fields and lanes across the parish, like many of the area's hedges are probably of medieval origin. These form an important landscape feature as well as providing an important wildlife habitat for birds, butterflies, invertebrates and mammals such as Dormice and bats. These hedges also provide sheltered wildlife corridors through areas of farmland allowing wildlife to move between areas of habitat.

There are some very different types of hedges with different characters across the parish. The best examples of hedges can be found on lower ground around the edges of the parish. Here species include Hazel, Hawthorn, Blackthorn *Prunus spinosa*, Holly, Beech and Oak. Many of these hedges are

on traditional Devon hedgebanks with a diverse bank flora providing an impressive spring bank display. Single species Beech hedges are more prevalent on higher ground towards the north of the parish.

Many of the field hedges on the higher ground are closely trimmed and relatively low in height. Such hedges would benefit from being allowed to regrow to provide habitat for species such as Dormouse *Muscardinus avellanarius* and Brown hairstreak *Thecla betulae* butterfly which rely on hedgerows that have had at least two years growth as they lay their eggs on two year old Blackthorn twigs. The management of hedgerows does allow light to penetrate down to the hedgebank resulting in a species-rich hedgebank flora in places.

Conversely some hedges within the parish, particularly on more sloping ground, are under-managed. It is difficult for light to penetrate to the herb layer and consequently hedgebanks are less floristically diverse. There are gaps in many of these under-managed hedges which would benefit from some laying. This itself will allow more light to reach the hedgebanks encouraging greater plant diversity.

Due to the time of year and time constraints it was not possible to survey the hedges in any detail and further surveys are recommended.

Hedgerows tend to be taken for granted as they always seem to be there, providing such a constant in a familiar landscape. However, they do require regular attention to keep them in good condition. That so many are still in good condition is a testament to the skill and hard work of generations of farmers. But there are changes even in the oldest hedgelines as the way the majority are managed has altered. There is now less farm labour available and more reliance on mechanical cutting rather than traditional hedge laying (or, as it is known in Devon, 'steeping').

Even the mechanical cutting has changed as reciprocating cutters that could cut shrub stems cleanly have given way to tractor-mounted flails which can tackle slightly older growth but at the expense of every stem being shattered. Flailing can actually promote bud development (on hawthorn, for example, research indicates that severe damage to the end of a branch encourages shoot development further down in the base of the plant which can help to thicken it up). However, flailing can also leave shrubs susceptible to infection. As individual hedge plants die, they leave gaps which render the hedge less effective and which would in the past have been filled when the hedge was next steeped.

With the advent of mechanical hedge-trimming has come another change - it is now possible to trim all the hedges on a farm in one year. It is this that perhaps has had the most impact on the vertebrate wildlife. Fruiting and seeding species are very much less productive and there is a different and less varied structure. Also, shrubs that do produce a good berry crop are sometimes cut in the early autumn before the birds, particularly the migrants, can gain any advantage from this food source. A couple of generations ago,

many hedges on a farm might have been cut less frequently, allowing them to be much more productive in the meantime.

Recognising these changes does allow choices in the way hedges are managed in the future. Hedges can be cut on a two or even three year rotation. Alternatively, perhaps only one or two of the three 'faces' (the top and the two sides) could be cut in any one year. This wouldn't stop road or drive side hedges being cut from both the safety and visual aspects but for the majority of hedges it would have two major benefits: it would take less time (and hence cost) and it would benefit wildlife! However, whatever pattern of cutting is adopted, "all hedges, except perhaps holly, will need laying or coppicing sooner or later because they will become thin at the base. This is the best form of long-term management" (*Devon's hedges: Conservation and management*, Devon County Council / Devon Hedge Group).

Once it was realised nationally that many thousands of kilometres of hedgerow were being lost annually and that something ought to be done about it, the Hedgerow Regulations (made under Section 97 of the Environment Act 1995) were introduced in England and Wales in 1997 to protect them. The Regulations are intended to prevent the removal of most countryside hedgerows without first submitting a hedgerow removal notice to the local planning authority. The local planning authorities are only able to require the retention of 'important' hedgerows. The Regulations then set out criteria to be used by the local authority in determining which hedgerows are important (Bickmore, 2002).

In such a clearly agricultural landscape, the hedgerows and hedgebanks represent continuity as features in the landscape and provide a significant wildlife resource at a time when the fields themselves are being more intensively used. The UK Biodiversity Action Plan (UK Steering Group, 1995) lists ancient and or species-rich hedgerows as one of its priority habitats.

Links to key habitats in Devon, North Devon and UK BAPs

- Species-rich hedges (Devon BAP, North Devon BAP); Hedgerows (UK BAP)

Churchyards

St. Peter's church is located towards the centre of Shirwell village. There is a graveyard here surrounded in part by some stone walls and a privet hedge. The stone walls provide habitat for several species of mosses and lichens. The majority of the grassland within the graveyard is managed by frequent cutting and is dominated by grasses such as Perennial ryegrass *Lolium perenne*, Red fescue *Festuca rubra* and Cocksfoot *Dactylis glomerata*. The sward is herb rich in places and includes Ribwort plantain *Plantago lanceolata*, Common daisy *Bellis perennis*, Creeping cinquefoil *Potentilla reptans*, Ground-ivy *Glechoma hederacea*, Barren strawberry *Potentilla sterilis*. Lesser celandine *Ranunculus ficaria* and Primrose were recorded in

more shaded parts during the visit. Perhaps the most impressive feature within the churchyard are two ancient Yew trees *Taxus baccata* close to the main entrance to the church. These are believed to predate the church and are estimated to be around 1000 years old.

Links to key habitats in Devon, North Devon and UK BAPs

- Cities, towns and villages (Devon BAP); Towns and villages (North Devon BAP)
- Flower-rich meadows and pastures (Devon BAP)



St Peter's Churchyard

Stone walls

Stone walls surround the churchyard and many gardens of Shirwell and the wider parish. Walls are important for lichens, mosses and flowering plants and with crevices can also provide value for invertebrates and reptiles.

Links to key habitats in Devon, North Devon and UK BAPs

- Cities, towns and villages (Devon BAP); Towns and villages (North Devon BAP)

Recreation areas and public open space

There is a very small pocket of parish owned and maintained grassland in the centre of the village. This is a small area of green that has been planted with bulbs and has an old waterpump. The sward is dominated by Perennial ryegrass with Red fescue.



Shirwell village green and water pump

The village and wider parish is well served with a network of public rights of way. The paths are well maintained and surveyed by the parish footpath warden. Some sites have permissive access, for example at Youlston Wood.

There are a number of farms in agri-environmental schemes including Countryside Stewardship (which will come to an end in 2014) and Environmental Stewardship. As part of the Stewardship scheme some farms offer permissive access for 'conservation walks'. Details of such access can be found on the Natural England website: www.naturalengland.org.uk

Links to key habitats in Devon, North Devon and UK BAPs

- Cities, towns and villages (Devon BAP); Towns and villages (North Devon BAP)

Allotments and gardens

Gardens are a haven for wildlife and can provide links to other areas of wildlife habitat. There is a network of gardens in Shirwell providing a habitat link with hedgerows and the surrounding countryside.

Links to key habitats in Devon, North Devon and UK BAPs

- Cities, towns and villages (Devon BAP); Towns and villages (North Devon BAP)

Redundant and traditional buildings

Traditional buildings are present in the parish and can be important for a number of species including the Barn owl *Tyto alba* and various bat species.

Links to key habitats in Devon, North Devon and UK BAPs

- Cities, towns and villages (Devon BAP); Towns and villages (North Devon BAP)

Rivers and Ponds

The River Yeo forms the eastern and southern boundary of the parish with Bradiford Water and its tributary forming the western and part of the northern boundary.

The River Yeo is a tributary of the River Taw. The Yeo rises on Berry Down south of Combe Martin before winding southwards through Arlington and along the east side of the parish. At Chelfham bridge on the south east corner of the parish the river turns westwards towards Barnstaple before joining the River Taw. The Yeo and Bradiford Water are important sites for Otters.

There are a number of ponds across the parish (for example at King's Warren and Youlston Park). Ponds are an important biodiversity feature and a very important habitat for aquatic plants, invertebrates (including Dragonflies and Damselflies) and amphibians.

There are a number of fishing lakes within the parish on private land which could not be surveyed. Lakes of this nature are usually of low value to wildlife as they are stocked with fish that tend to eat all the plants and invertebrates present and cause nutrient enrichment via their faeces.

The Ponds Conservation Trust has recently launched the Million Ponds Project, which aims to reverse a century of pond losses. Help and support is available to those wishing to create new ponds under this project.

Visit <http://www.pondconservation.org.uk/millionponds/> for more information.



The River Yeo near Loxhore Bridge

Links to key habitats in Devon, North Devon and UK BAPs

- Rivers, streams, floodplains and fluvial processes (Devon BAP); Rivers (UK BAP)
- Ponds (UK BAP)

Roadside verges

Roadside verges often support flower-rich grassland, as well as a variety of other semi-natural habitats. They may also support populations of scarce or declining species of flora and/or fauna, some of which enjoy statutory protection. Linear grassland habitats provide a valuable wildlife resource. Verges provide shelter and food for a variety of species from small mammals, to birds of prey and insects.

Devon has a very substantial resource of roadside verges, with approximately 14 000 km of roads, corresponding to about 2 000 ha of roadside verge. However, of this very large resource, the area that is species-rich is relatively small and localised in distribution.

Devon County Council and Highways Agency manage roadside verges to incorporate prescriptions to maintain or enhance wildlife interests. Devon County Council operate a Special Verge Scheme to manage areas of particular wildlife or amenity value. These verges are protected from damaging activities, and grass cutting is limited to specific periods to avoid the destruction of attractive stands of wildflowers.

There are a number of main routes within the parish including the A39 Lynton to Barnstaple road and the B3230 Barnstaple to Ilfracombe road. In addition, some of the minor roads have verges which can be important wildlife corridors associated with hedges.

Links to key habitats in Devon, North Devon and UK BAPs

- Flower-rich meadows and pastures (Devon BAP)

Unimproved grassland

Flower-rich meadows and pastures are a habitat of conservation concern in Devon and are listed on the Devon Biodiversity Action Plan as well as the UK Biodiversity Action Plan. Unimproved neutral grassland habitat has undergone a huge decline in the 20th century, almost entirely due to changing agricultural practice. It is estimated that by 1984 in lowland England and Wales, semi-natural grassland had declined by 97% over the previous 50 years to approximately 0.2 million ha.

Unimproved grassland is often very flower-rich and as a result of this attracts an abundance of butterflies and other invertebrates. The rich insect life in turn attracts bats such as the Greater Horseshoe bat and birds such as the Green Woodpecker *Picus viridis*.

There are significant areas of unimproved acid grassland and semi-improved neutral grasslands across the parish including North Woolley Farm CWS and Smythapark Field CWS.

There are other potential areas of unimproved and semi-improved grassland within the parish which have been identified as Unconfirmed Wildlife Sites (UWS). Examples include sites at Plaistow Barton UWS and West Okewell UWS.

Links to key habitats in Devon, North Devon and UK BAPs

- Flower-rich meadows and pastures (Devon BAP)
- Lowland meadows (UK BAP)

Culm grassland

Culm grassland is the local name given to species-rich marshy habitats found on the Culm measures of north-western and central Devon and north-east Cornwall, also known as Rhôs pasture, and referred to in the UK Biodiversity Action Plan as Purple Moor Grass and Rush Pastures (*Molinia-Juncus*). Culm grassland is a variable habitat whose main plant communities are classified by the National Vegetation Classification (NVC) as follows:

- M16 *Erica tetralix-Sphagnum compactum* wet heath
- M23 *Juncus effusus/acutiflorus-Galium palustre* rush pasture
- M24 *Molinia caerulea-Cirsium dissectum* fen meadow
- M25 *Molinia caerulea-Potentilla erecta* mire
- M27 *Filipendula ulmaria-Angelica sylvestris* mire

Culm grassland is one of Devon's most important habitats and is listed in the Devon Biodiversity Action Plan as a priority habitat. It is also listed in the UK Biodiversity Action Plan. Devon contains approximately 80% of the extent of the habitat in England, and approximately 8% of that in the UK as a whole.

Culm grassland is characterised by Purple moor-grass *Molinia caerulea*, as well as Sharp-flowered rush *Juncus acutiflorus*, and various flowering species such as Devil's-bit scabious, Meadow thistle *Cirsium palustris*, Heath spotted orchid *Dactylorhiza maculata*, Water mint *Mentha aquatica* and Round-leaved sundew *Drosera rotundifolium*. Culm grassland may support the rare Marsh fritillary *Eurodryas aurinia* butterfly and Narrow-bordered bee Hawkmoth *Hemaris tityus*, as well as the Barn owl and Curlew *Numenius arquata*.

Culm grasslands are a priority for nature conservation because they are highly susceptible to agricultural modification and reclamation throughout their range.

There are two other concentrations of Culm grassland in Devon; on the edges of Dartmoor and on the Blackdown Hills around the springline.

There are potential areas of Culm grassland at Woolley Wood Marsh and Arlington with associated species such as Purple moor-grass, Soft and Hard

rush with butterflies including the Marsh fritillary which is a UK BAP priority species and a Devon BAP species.

Links to key habitats in Devon, North Devon and UK BAPs

- Rhôs pasture (Devon BAP); Purple moor-grass and rush pastures (UK BAP)

Woodlands

Shirwell is not a heavily wooded parish, but there are several areas of important woodland, mainly in the sheltered river and stream valleys of the parish concentrated largely along the parish boundary.

The woodlands of Shirwell are predominantly semi-natural broadleaved woodland, many of which appear on the Ancient Woodland Inventory (AWI). There are a number of sites displaying Oak woodland characteristics. Oak dominated (English oak, Sessile oak or hybrids between the two) woodlands predominately occur in the steeper river valleys, particularly in southern Dartmoor, and less so across Devon's lowland areas, here usually in small blocks. The ground flora of oak woodland is generally rich, with mosses ferns and woodland species such as Bluebell and Wood-sorrel.

Oak woodlands are also a good habitat for a variety of birds and invertebrates. They are associated with a number species of conservation concern: mammals such as the Dormouse *Muscardinus avellanarius* and a number of bat species, birds (including the Redstart *Phoenicurus phoenicurus*, Pied flycatcher *Ficedula hypoleuca* and Wood warbler *Phylloscopus sibilatrix*); butterflies (including the Silver washed fritillary *Argynnis paphia* and Pearl-bordered fritillary *Boloria euphrosyne*, Purple emperor *Apatura iris* and Wood white *Leptidea sinapis*) and moths (such as the Orange upperwing *Jodia croceago* and Double line *Mythimna turca*) together with plants such as the Bluebell, Wild daffodil *Narcissus pseudonarcissus* and endemic Whitebeams *Sorbus sp.* These oak woodlands are threatened by such factors as neglect and lack of management, inappropriate grazing pressure, invasive species (for example Rhododendron) and softwood forestry.

Preserve, Viveham and Long Cleave Woods CWS in the north of the parish displays some characteristics of acid oak wood with areas of wet woodland in parts.

There are a number of woods identified by DBRC as being on the Ancient Woodland Inventory. These include Flatwater Wood (CWS), Pudnor Wood (CWS), Delves Cleave (CWS), Raleigh Wood and Coxleigh Wood (CWS), Yulsone and Longtimber Woods (CWS), and Preserve, Viveham and Longcleave Woods (CWS).

Ancient Woodland is a term applied to woodlands which have existed from at least Medieval times to the present day without ever having been cleared for uses other than wood or timber production. A convenient date used to separate ancient and secondary woodland is about the year 1600. In special circumstances semi-natural woods of post-1600 but pre-1900 origin are also included. The Devon Ancient Woodland Inventory was prepared in 1986 by the Nature Conservancy Council.



Longtimber Woods – Ancient semi-natural woodland

Oak woodland is a Devon and North Devon BAP priority habitat. Lowland mixed deciduous woodlands and wet woodlands are in the UK Biodiversity Action Plan habitats list.

Links to key habitats in Devon, North Devon and UK BAPs

- Oak woodland (Devon BAP, North Devon BAP)
- Lowland mixed deciduous woodland (UK BAP)

Veteran trees

English Nature (now Natural England) has defined veteran trees as: "trees that are of interest biologically, culturally or aesthetically because of their age, size or condition". In relation to Oak it has been taken that trees with a diameter at breast height of more than:

- 1.0m are potentially interesting
- 1.5m are valuable in terms of conservation
- 2.0m are truly ancient.

Veteran trees will be at least as big as these measurements (these figures refer to girth at breast height and not to diameter):

- 1 metre - Hawthorn, Blackthorn

- 2.5 metres - Field Maple *Acer campestre*, Rowan, Yew, Birch *Betula sp.*, Holly
- 3 metres - Oak, Ash, Scot's Pine *Pinus sylvestris*, Alder *Alnus glutinosa*
- 4.5 metres - Sycamore, limes *Tilia sp.*, chestnuts, elms *Ulmus sp.*, poplars *Populus sp.*, Beech *Fagus sp.*, willows *Salix sp.*, pines *Pinus sp.*, non-native trees.

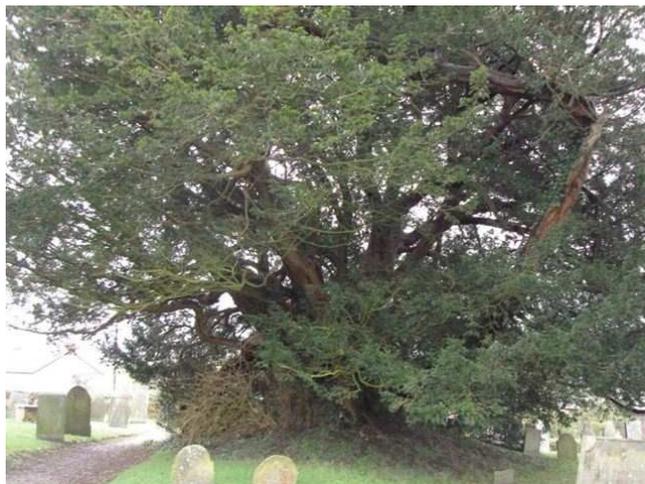
It has been estimated that Britain may be home to around 80% of Europe's ancient trees. Veteran trees are large old trees found in wood-pasture and parkland, but also in a number of other locations: ancient yews in churchyards; mature oaks in hedgerows; Black Poplars *Populus nigra* along stream-sides; and many noble trees in ancient woodlands.

Ancient trees support particularly rich assemblages of invertebrates, fungi, mosses and lichens. Several species of bat may use hollow trees as roosting sites and birds such as Tree Creepers *Certhia familiaris* and woodpeckers feed on the insects living in the bark. Insects such as stag beetles and hornets are associated with old trees.

There are two ancient Yews *Taxus baccata* within St. Peter's churchyard in the centre of the village believed to be over 1000 years old. There are also a number of ancient trees on areas of parkland at Arlington and Youlston Park. A striking feature of the Shirwell skyline is the Trafalgar Beech plantation at Youlston Park. These are coming to the end of their natural life and have been underplanted in places. Several large Oak and Ash have been identified at Woolley Wood Marsh (CWS) with rich lichen floras.

Links to key habitats in Devon, North Devon and UK BAPs

- Parkland and wood pasture (Devon BAP, North Devon BAP, UK BAP)



1000 year old Yew in St. Peter's churchyard

Green lanes

A green lane can be defined as an unmetalled track with field boundaries either side. These boundaries may be banks, hedges, woodland edge, stone walls or fences and often features such as ditches or streams are incorporated within the lanes.

The combination of the track, its boundaries and associated features create a landscape unit with its own microclimate and ecology. These sheltered conditions within lanes are of great importance to butterfly populations and may be more botanically species-rich than single hedge boundaries.

One example of a green lane is Smokey House Lane in the south of the parish in the Yeo valley. There are other private hedge-lined unmetalled tracks across the parish mainly linked to farms.

Links to key habitats in Devon, North Devon and UK BAPs

- Species-rich hedges (Devon BAP, North Devon BAP); Hedgerows (UK BAP)

Pits, quarries and cuttings

There are a number of disused quarries marked on maps, but it was not possible to access or view these on the site visit. Examples include Plaistow Quarry gSSSI designated which is well known locally for its butterfly fossils. Other examples include Plaistow Quarry (E) Unconfirmed Wildlife Site and Shirwell Quarry. Quarries are often grown over with vegetation and can be useful for wildlife for food and shelter for animals and providing a link to other features such as hedgerows. Pits, quarries and cuttings are listed on the Devon Biodiversity Action Plan as habitats of conservation concern in Devon.

Links to key habitats in Devon, North Devon and UK BAPs

- Pits, quarries and cuttings (Devon BAP)

Other possible habitats

Arable fields can support a number of rare arable weeds but this is usually in association with spring cereals and winter stubble; and associated field margins can be particularly important. A large proportion of farmland within the parish is pasture; however there are arable areas in the south of the parish.

No orchards were seen during the visit though these may exist on private land. Traditional orchards have great cultural and landscape importance and can be really valuable habitats for a wide range of species from fungi and lichens, through insects and other invertebrates, to birds and mammals.

Links to key habitats in Devon, North Devon and UK BAPs

- Farmland (North Devon BAP); Arable field margins (UK BAP)
- Parkland and wood pasture (Devon BAP, North Devon BAP, UK BAP)

Unconfirmed County Wildlife Sites

The Devon Biodiversity Records Centre has identified 15 Unconfirmed County Wildlife Sites in or bordering Shirwell parish. These are sites identified as having possible interest but which have not been fully surveyed. Some of these sites may contain areas of significant wildlife interest and further surveys will have to be done to determine whether they are of sufficient quality to be designated. The Unconfirmed County Wildlife Sites identified by DBRC, along with an associated map showing their locations, are also listed in Appendix 1.

Unconfirmed County Wildlife Sites within Shirwell parish.

Site Name	Grid Ref.	Area (ha)	Description
Plaistow Quarry (S)	SS568369	2.8	Semi-improved neutral grassland
Westgate Fields	SS570388	1.8	Semi-improved neutral grassland
Plaistow Barton	SS573382	7.4	Semi-improved neutral grassland
Plaistow (E)	SS581383	2.8	Unimproved neutral grassland
West Okewell	SS583392	5.1	Semi-improved neutral grassland
King's Warren	SS596386	4.3	Broadleaved woodland
The Warren (E)	SS594383	6	Broadleaved woodland
Chillbridge Farm	SS599378	10.5	Semi-improved neutral grassland
Glebe (E)	SS599372	2.6	Semi-improved neutral grassland
Riversmead Fields	SS593354	1.8	Semi-improved neutral grassland
Newbarn Wood (S)	SS599358	2.7	Bracken
Blackpool Bridge	SS609376	2.3	Semi-improved neutral grassland
Loxhore Bridge	SS609364	0.4	Semi-improved neutral grassland
Pudnor Hill	SS566360	13.8	Broadleaved woodland
Youlston Park	SS586374		Parkland

Species

Important species

A report from the DBRC database showing which legally protected, locally notable (e.g. Otter) or noteworthy (e.g. Japanese Knotweed *Fallopia japonica*) species are known to have been present in and around Shirwell is presented separately (Appendix 1). Appendix 2 gives the species noted during this survey. It should be borne in mind that early March is not the ideal season to carry out biodiversity surveys as some species will not be visible at this time of the year and a further survey at a more appropriate time of the year is recommended.

Birds

Several species of birds were recorded during the survey including Blackbird *Turdus merula*, Blue Tit *Cyanistes caeruleus*, Great Tit *Parus major*, Chaffinch

Fringilla coelebs, Buzzard *Buteo buteo*, Rook *Corvus frugilegus* and Robin *Erithacus rebecula*.

Bird species of conservation concern included in records held by DBRC include Song thrush *Turdus philomelos*, Mistle thrush *Turdus viscivorus* and Green woodpecker *Picus viridis*. Song thrush is a UK BAP priority species and a Birds of Conservation Concern (BoCC) Red List species, Mistle thrush and Green woodpecker are both BoCC Amber List species (refer to Appendix 1 for definitions).

Although there are no records of Barn owl, potential habitat does exist within the parish so it may be present. The Barn owl has undergone a major decline in the last century due to changes in agricultural practice, as well as loss of nesting sites such as old barns and hollow trees. It is estimated that there are now about 350-470 pairs in the county. The Barn owl is listed on the Devon Biodiversity Action Plan as species of conservation concern and is also on the Amber List.

Plants

Despite the time of year a number of plant species were noted on the audit visit to the parish in early March 2009, these are listed in Appendix 2.

Devon whitebeam *Sorbus devoniensis*, also known as French hales, has been recorded in the parish at Shirwell Mill Wood. The Devon whitebeam is a nationally scarce and notable species in Devon and is listed in the Devon and UK Biodiversity Action Plans. The best known of the Sorbus family is the Rowan or Mountain ash, but Devon is also home to other rarer whitebeams, some of which are found nowhere else. The Devon whitebeam is largely a hedgerow species and occurs mainly across the North and west of Devon, though rarer hybrids are normally found in clifftop locations. The loss of hedges and too frequent and too close cutting of hedges threaten this species.

The Primrose can be seen in many places in the parish. It is listed on the Devon Biodiversity Action Plan as it is intended to help to raise public awareness of the need to conserve commonplace and characteristic elements of Devon's countryside. The primrose is not rare in Devon, but it may act as an indicator species to the health of Devon's environment, and by conserving the primrose, we may help to conserve some of the habitats in which it is found. These include woodlands, hedges, road verges and churchyards.

The Bluebell, recorded in various locations, is protected against sale under the Wildlife and Countryside Act (1981), Schedule 8 (S).

Japanese Knotweed *Fallopia japonica* is an invasive alien plant and has been recorded on Norwood Moor.

Mammals

Mammal species recorded within Shirwell parish by DBRC include Otter, Badger *Meles meles*, Red deer *Cervus elaphus* and Common dormouse.

Badger is protected under the Wildlife & Countryside Act (1981) Schedule 6 as well as under the Protection of Badgers Act (1992) against deliberate killing, persecution or trapping except under licence. Badger setts may not be damaged, destroyed or obstructed.

The Otter is listed on the Devon Biodiversity Action Plan as a species of conservation concern and is a UK BAP priority species. Formerly widespread throughout the UK, the Otter underwent a rapid decline in numbers from the 1950s to 1970s and was effectively lost from midland and south-eastern counties of England by the 1980s. Populations remain in Wales, south-west England and much of Scotland, where sea loch and coastal colonies comprise one of the largest populations in Europe. There is also a significant population of Otters in Northern Ireland. The decline now appears to have halted and sightings are being reported in former habitats. Devon has an internationally important Otter population and Otters are now found on most watercourses and wetlands throughout the County. Otters are even now recolonising areas where they were thought to have been lost during the 60's and 70's.

Several species of Bat including Brown Long-eared *Plecotus auritus*, Whiskered bat *Myotis mystacinus* and Brandt's bat *Myotis brandti* have been recorded within the parish. All species of British bat are protected under UK law and international law. This makes it illegal to intentionally kill, injure or take a bat, or to damage, obstruct or destroy any place that a bat uses for shelter or protection

Buildings are the most favoured roost sites and more than half of known roosts are in buildings less than 30 years old. Pipistrelles prefer to roost in very confined spaces around the outside of the building, typical sites being behind hanging tiles, weather boarding, soffit and barge or eaves boarding, between roofing felt and roof tiles or in cavity walls. Pipistrelles rarely enter roof spaces except in the more stable, well-established large colonies found particularly in older buildings.

The Dormouse is listed on the Devon Biodiversity Action Plans as a species of conservation concern in Devon and is a priority species in the UK BAP. Nationally, the Dormouse has experienced a marked contraction in range in recent decades, and has become extinct in up to seven counties where it occurred in the last century, representing about half of its former range.

In Devon, the Dormouse appears to be holding its own, and the county is now a major stronghold of the species. However, no detailed quantification of population change has been possible, due to lack of comparable data over time. Having said this, indirect evidence, from the losses of hedgerow length and declines in quality of hedgerows and woodlands that have occurred in the

county over the past few decades, suggests that Dormice may have declined in a similar fashion.

Invertebrates

Due to the time of year of the audit visit there were no invertebrates recorded on the parish site visit.

DBRC records a number of butterfly species of conservation concern. Pearl-bordered fritillary is a UK BAP priority species. Small pearl-bordered fritillary and Marsh fritillary are both UK BAP priority species and a Devon BAP species. Other UK BAP priority species include Small heath *Coenonympha pamphilus*, High brown fritillary *Argynnis adippe* and Dingy skipper *Erynnis tages*. Brown Argus *Aricia agestis* and Green hairstreak *Callophrys rubi* are both in decline.

Great green bush cricket *Tettigonia viridissima* which has been recorded within the parish is a Devon BAP species.

Other invertebrate species recorded within the parish include Oil beetle *Meloe proscarabaeus*.

Reptiles and amphibians

No reptiles or amphibians were recorded during the audit visit due to the time of year. Species such as Common frog, Common toad and Slow-worm may well exist within the parish as there are several suitable habitats. DBRC hold no records for reptiles or amphibians.

In fact, following consultation it has been established that common frogs are known to spawn at Woolcott Farm over the Christmas period, with toads spawning some six weeks later.

The Devon Biodiversity Action Plan (Devon BAP).

The Devon Biodiversity Action Plan describes the key actions needed to look after 37 of Devon's most important habitats and species. It does not stand alone, but is part of a much wider process aimed at conserving our biodiversity.

The Devon BAP is a direct descendent of a process started at the famous 'Earth Summit' held in Rio de Janeiro in 1992. At this summit, world leaders pledged to halt and reverse the loss of the planet's biodiversity. For its part, the UK government produced a series of action plans for a great many threatened habitats and species. These national plans have been joined by a series of regional action plans aimed at providing a more local perspective.

The Devon BAP builds on this endeavour, identifying local priorities and providing targets and plans of action for the County.

All of this work has one aim: to encourage practical action on the ground. Its success depends upon us all.

Biodiversity links:

- The Devon BAP can be viewed at www.devon.gov.uk/biodiversity. This site also contains links to other nature conservation issues relevant to Devon, such as information on hedges. If you do not have access to the internet and require paper copies of relevant sections of the Devon BAP please contact Devon County Council's Biodiversity Officer on 01392 382804.
- The North Devon BAP can be viewed at : www.northdevon.gov.uk/webbiodiversityactionplan.pdf
- Details of biodiversity planning in the south-west region can be viewed at www.swbiodiversity.org.uk.
- National Action Plans can be viewed at www.ukbap.org.uk. This site also contains useful background information on UK biodiversity action planning.

Links between the main wildlife habitats of Shirwell and the Devon and UK Biodiversity Action Plans (BAP)

Shirwell wildlife feature	Brief description of feature	Link with the Devon BAP	Link with the UK BAP	Link with North Devon BAP
Unimproved grassland	<p>Areas of species-rich unimproved grassland</p> <p>Areas of farmland protected from agricultural improvement.</p> <p>Species-rich grass verges</p> <p>Rush pasture/Culm grassland</p>	<ul style="list-style-type: none"> • Flower-rich Meadows and Pastures Habitat Action Plan • Rhôs pasture Habitat Action Plan • Marsh fritillary Species Action Plan • Pearl-bordered fritillary Species Action Plan 	<ul style="list-style-type: none"> • Arable field margins Habitat Action Plan • Lowland dry acid grassland Habitat Action Plan • Lowland meadows Habitat Action Plan • Purple moor-grass & rush pastures Habitat Action Plan 	<ul style="list-style-type: none"> • Farmland Habitat Action Plan
Traditional hedges	Extensive network of traditional hedges throughout the parish.	<ul style="list-style-type: none"> • Species-rich Hedges Habitat Action Plan 	<ul style="list-style-type: none"> • Ancient and/or species rich hedgerows Habitat Action Plan 	<ul style="list-style-type: none"> • Species-rich hedgerows Habitat Action Plan
Rivers, streams and ponds	River Yeo and Bradiford Water and tributaries	<ul style="list-style-type: none"> • Rivers, streams, floodplains and fluvial processes Habitat Action Plan 	<ul style="list-style-type: none"> • Rivers Habitat Action Plan 	
Broadleaved and Ancient Woodland	<p>Secondary broadleaved woodland</p> <p>Ancient semi-natural woodland</p> <p>Acid oak woodland</p> <p>Wet woodland</p>	<ul style="list-style-type: none"> • Oak woodland Habitat Action Plan • Alder/willow carr wet woodland Habitat Action Plan 	<ul style="list-style-type: none"> • Lowland mixed deciduous woodland Habitat Action Plan • Wet Woodland Habitat Action Plan 	<ul style="list-style-type: none"> • Oak woodland Habitat Action Plan

View the Devon Biodiversity Action Plan at www.devon.gov.uk/biodiversity

View the North Devon Biodiversity Action Plan at www.northdevon.gov.uk/webbiodiversityactionplan.pdf

View the UK Biodiversity Action Plan at www.ukbap.org.uk

Some Ideas for Local Action...

This section of the report is provided by Devon County Council (contact: nature@devon.gov.uk).

A major step towards knowing what you can do for your local wildlife and geology is to know what you have already got. This report will help you in this, but it is just a start. Ultimately, the protection and enhancement of the local natural environment requires the interest and enthusiasm of the local community.

There follow some initial ideas for local nature conservation action. Many of them will directly help to achieve the objectives of the habitat and species action plans contained in the Devon Biodiversity Action Plan.

It is by no means an exhaustive list. As a community, you may have many more ideas for action that you would like to take forward in the coming years.

1 Further surveys:

This report is just a beginning. Carrying out further survey within your area will help build a better picture of the wildlife present, and of the opportunities for enhancement. Gaining a better understanding of the resource is usually a key objective of the Devon BAP's habitat and species action plans.

Specific features to survey in Shirwell might include hedges and for Otter signs (Otters have been recorded in the River Yeo and Bradiford Water within the parish boundaries). These actions would directly contribute to the species-rich hedges habitat action plan and the Otter species action plan.

Operation Otter is an initiative organised by the Devon Wildlife Trust (www.devonwildlifetrust.org), which aims to monitor and protect Devon's Otter population with the help of volunteers.

It might be useful, for example, to undertake a hedgerow survey and produce a hedgerow appraisal for your local area. Comparing the current distribution of hedges against boundary lines shown on old maps will give a clue as to how this important resource has changed over recent years. It may also highlight opportunities for restoring hedges in your area. It might also be possible to assess the condition of hedges and this may, in turn, give some ideas about improving their future management to benefit wildlife.

Survey work could be undertaken as a community group or in liaison with conservation groups active in the area.

The Ancient Tree Hunt is co-ordinated by the Woodland Trust and encourages people to report occurrences of individual or clusters of ancient trees. More information about The Ancient Tree Hunt can be found at: www.ancient-tree-hunt.org.uk/project/getinvolved/takepart.htm

You can help to build up a picture of the state of Devon's environment by sending your records to the Devon Biodiversity Records Centre where they can be properly collated. Any new records for the Commons and the wider parish (including 'who', 'where', 'what' and 'when') of any species recognised are useful.

Follow the links to the Devon Biodiversity Records Centre:

www.devonwildlifetrust.org

e-mail: dbrc@devonwildlifetrust.org

Devon Biodiversity Records Centre
c/o Exeter Central Library
Castle Street
Exeter
EX4 3PQ

Tel. (01392) 274128

2 Influence the management of public open space:

There is potential for further enhancement for wildlife in areas of public open space (for example churchyards and village greens). Some areas, for example in the corners or around the perimeters of sites could be identified, where the grass was cut once in late summer, leaving the flowering plants to seed like in a hay meadow. This would enhance the value for wildlife, in particular for flowering plants and nectar feeding invertebrates.

3 Build relationships with local landowners:

Encourage the adoption of more wildlife-friendly land management. For example, hedges that are cut only every other year will provide an autumn and winter source of nuts and berries for birds and small mammals (and can save the landowner money in management costs). The improved management of hedgerows is a key objective of the Species-rich hedgerow Habitat Action Plan. If the owner is willing, why not get involved with practical management, such as traditional hedge laying or pond restoration?

4 Adopt a road verge:

Many verges can have a significant value for wildlife because they have escaped the intensive management of the surrounding farmland. Ensuring such verges are managed for their wildlife is a very positive step, again contributing to the Flower-rich Meadows and Pastures Habitat Action Plan.

There are, of course, obvious health and safety implications to roadside management. It is an action that would need to be undertaken in close liaison

with the relevant highways authority (generally, this is the Highways Agency for motorways and trunk roads, and Devon County Council for all other roads).

5 Wildlife gardening:

You could 'green up' your garden! Collectively the gardens of Shirwell represent a significant area that could be used to benefit wildlife. The proximity of the stream to many of the gardens is an added bonus. Large or small, you can turn your garden (or a part of it) into a haven for wildlife. There are some very good sources of information on wildlife gardening:

- The Natural England/English Nature web site:
[www.english-nature.org.uk/Nature In The Garden](http://www.english-nature.org.uk/Nature_In_The_Garden)
(or call 01733 455101 for free leaflets on wildlife gardening).
Natural England (formerly English Nature) is the Government's adviser on nature conservation. Its web site also contains links to a number of other very useful sources of information.

- The Devon Wildlife Trust (DWT) web site:
<http://www.devonwildlifetrust.org/index.php?section=people:garden>

Which also has links to DWT approved garden centres.

6 Join local conservation organisations:

The Devon Wildlife Trust is a prominent local conservation organisation. There are also a number of local membership groups specialising in specific interests (for example Devon Fungus Group and Devon Mammal Group) which frequently carry out surveys and studies, hold talks and training sessions for volunteers and members.

7 Community involvement in the North Devon Biosphere Reserve

Further information about the North Devon Biosphere Reserve, the Management Strategy and Action Plan and details of how your local community can become involved can be found at:

www.northdevonbiosphere.org.uk

or the Biosphere Reserve Service can be contacted on 01237 423655

8 Link biodiversity to Shirwell Parish Plan and Community projects:

You could encourage any future parish plans to consider further the impact on the biodiversity and wildlife of the parish.

9 Japanese Knotweed:

Not something to cherish, but it can't be ignored! Unfortunately Japanese Knotweed *Fallopia japonica* is present within Shirwell parish according to records held by DBRC. Introduced into Britain by the Victorians, Japanese Knotweed is a native of Japan, north China, Korea and Taiwan. It flourishes in Britain's mild and fertile environment and has no natural biological enemies here. Consequently, it is very invasive and can overrun large areas, replacing our native flora. It is a serious pest which can be so vigorous as to cause significant damage to buildings and roads. It is also a difficult plant to eradicate.

For these reasons Japanese Knotweed is listed under the Wildlife and Countryside Act 1981 as a plant that is not to be planted or otherwise introduced into the wild. In addition, all parts of the plant are considered as controlled waste under the Waste Regulations.

What can you do?

- Firstly, it is important to build up a picture of where Japanese Knotweed is present. This will give an idea of the scale of the problem and will help to prevent it being accidentally spread during any ditch clearance, highway work and so on. To help develop an understanding of the problem in Devon, records should also be sent to the Devon Biodiversity Records Centre¹. Ideally, records should include when you first saw it and confirmation of when it was seen most recently; its precise location (notes or a sketch map are helpful, as is a grid reference if you have one); the kind of habitat it is in (e.g. next to running water, on a road verge), and a rough indication of how abundant it is.
- Secondly, be careful not to spread the plant further. This is all too easily done as it can regenerate from even the smallest fragment and is easy to spread unknowingly. It is important not to flail it or to try and dig it up. Often, it is best not to cut Japanese Knotweed at all, but if it is it should be very carefully disposed of on site when dead or removed as Controlled Waste. Any tools used should be properly cleaned.
- Finally, if Japanese Knotweed is on your land, the best way to prevent its spread is to control or eradicate it as soon as possible. Regular cutting can weaken and eventually kill the plant but it is a time-consuming job and proper disposal of the cut material can be a problem. Usually, the most effective method of control is to treat the plant with herbicide. This can take

¹ DBRC, E-mail: dbrc@devonwildlifetrust.org

a number of years to be successful but if the plant is left untreated it will inevitably spread. A number of issues should be taken into account in deciding which herbicide to use, particularly the presence of water (where special care needs to be taken and the advice of the Environment Agency must be sought).

Fortunately, a great deal of advice (including an Environment Agency Code of Practice) is available on the Devon Knotweed Forum's web pages. You are recommended to view these at:

www.devon.gov.uk/biodiversity/japanese_knotweed

Useful sources of further information:

The following organisations can offer advice and information on various wildlife topics as well as organising events and carrying out projects.

British Trust for Conservation Volunteers: www.btcv.org.uk

British Dragonfly Society: www.dragonflysoc.org.uk

Butterfly Conservation: www.butterfly-conservation.org (Tel: 0870 7744309)

Devon Bat Group: www.dbg.me.uk

Devon Birdwatching and Preservation Society: www.devonbirds.org

Devon Mammal Group: www.devonmammalgroup.org

Devon Wildlife Trust: www.devonwildlifetrust.org (Tel: 01392 279244)

Natural England: www.naturalengland.org.uk
(Tel: 01392 889770; 0845 600 3078)

Plantlife: www.plantlife.org.uk (Tel: 01722 342730)

RSPB: www.rspb.org.uk

The Woodland Trust: www.woodland-trust.org.uk (Tel: 01476 581111)

The Living Churchyards & Cemeteries Project, Arthur Rank Centre, National Agricultural Society, Stoneleigh Park, Warwickshire, CV8 2LZ Tel: 01203 696969 ext.364/339.

In addition, Devon County Council has developed a Community Biodiversity Toolkit available via the DCC web site (www.devon.gov.uk/biodiversity). This toolkit aims to provide practical advice on management to encourage wildlife and, in particular, will provide a central point from which to access the large amount of advice that is already available from a huge range of other organisations

In addition to management advice, the toolkit will also provide guidance on seeking funding for project work. You may also find the following sources of funding useful.

Possible sources of funding:

Heritage Link – a funding directory supported by the Heritage Lottery Fund. A good source of information.

<http://www.heritagelink.org.uk/fundingdirectory/main/fundinghome.php>

Major sources of funding

Environmental Stewardship – whole farm agri-environment scheme funding.

www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx

SITA Trust - Enriching Nature: for biodiversity conservation projects within ten miles of any landfill site in England.

www.sitatrust.org.uk

GrantScape – significant sums of money often available for biodiversity action, including landscape-scale projects.

www.grantscape.org.uk/home

The Tubney Charitable Trust – large funds available but on an invitation-to-bid only basis.

www.tubney.org.uk

Esmee Fairbairn Foundation – no maximum size of grant. “Priority will be given to high quality projects that are exemplars of good practice or imaginative approaches to old problems, that have wider impact, leading to changes in the law, policy or practice or that may be viewed as difficult to support or too 'high risk' by other funders.”

www.esmeefairbairn.org.uk

Big Lottery Fund – “Every year BIG gives out millions of pounds from the National Lottery to good causes. Our money goes to community groups and to projects that improve health, education and the environment.” Often has large programmes relating to the environment, for example:

- *Changing Spaces: Access to Nature* - grants: £50,000 - £715,000. This programme aims to encourage more people to enjoy the outdoors, particularly those who face social exclusion.
http://www.biglotteryfund.org.uk/prog_cs_access_nature?regioncode=-uk
- *Changing Spaces: Community Places* - grants: £10,000 - £450,000. This programme will fund community groups who want to improve local green spaces such as play areas, community gardens and parks.
http://www.biglotteryfund.org.uk/prog_cs_comm_spaces?regioncode=-uk

Possible funding for smaller projects

It should be noted that many of these grants only have a finite pot of money and this could run out at any time. It is also important to check that your project meets any relevant funding criteria. Please check with the different organisations before applying.

Big Lottery Fund (see above) – BIG also gives smaller grants, for example:

- *Awards for All England* - Grants: £300 - £10,000. 'Awards for All gives money to projects that encourage people to take part in arts, sport, heritage and also community projects'.
http://www.biglotteryfund.org.uk/prog_a4a_eng?regioncode=-uk

AONB Sustainable Development Funds -

- Blackdown Hills
- East Devon
- North Devon
- South Devon
- Tamar Valley

Biffawards - grants for biodiversity projects within 10 miles of a Biffa operation (landfill)

www.biffaward.org/projects/smallgrants.php

BBC Breathing Places – currently only available for projects that have received Breathing Places funding already. Grants of £1000 to £5000 available.

www.biglotteryfund.org.uk/prog_breathingplaces

SITA Trust - Enriching Nature: for biodiversity conservation projects within ten miles of any landfill site in England.

www.sitatrust.org.uk

Forestry Commission - grants and sources of funding available for improving biodiversity (for example, the Woodland Improvement Grant).

www.forestry.gov.uk/forestry/hcou-4u4j28

Tree Council - small grants for schools and communities for tree planting schemes.

www.treecouncil.org.uk/?q=grants

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www.swbiodiversity.org.uk

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www.devon.gov.uk

www.pondconservation.org.uk

www.northdevonbiosphere.org.uk

www.northdevon.gov.uk

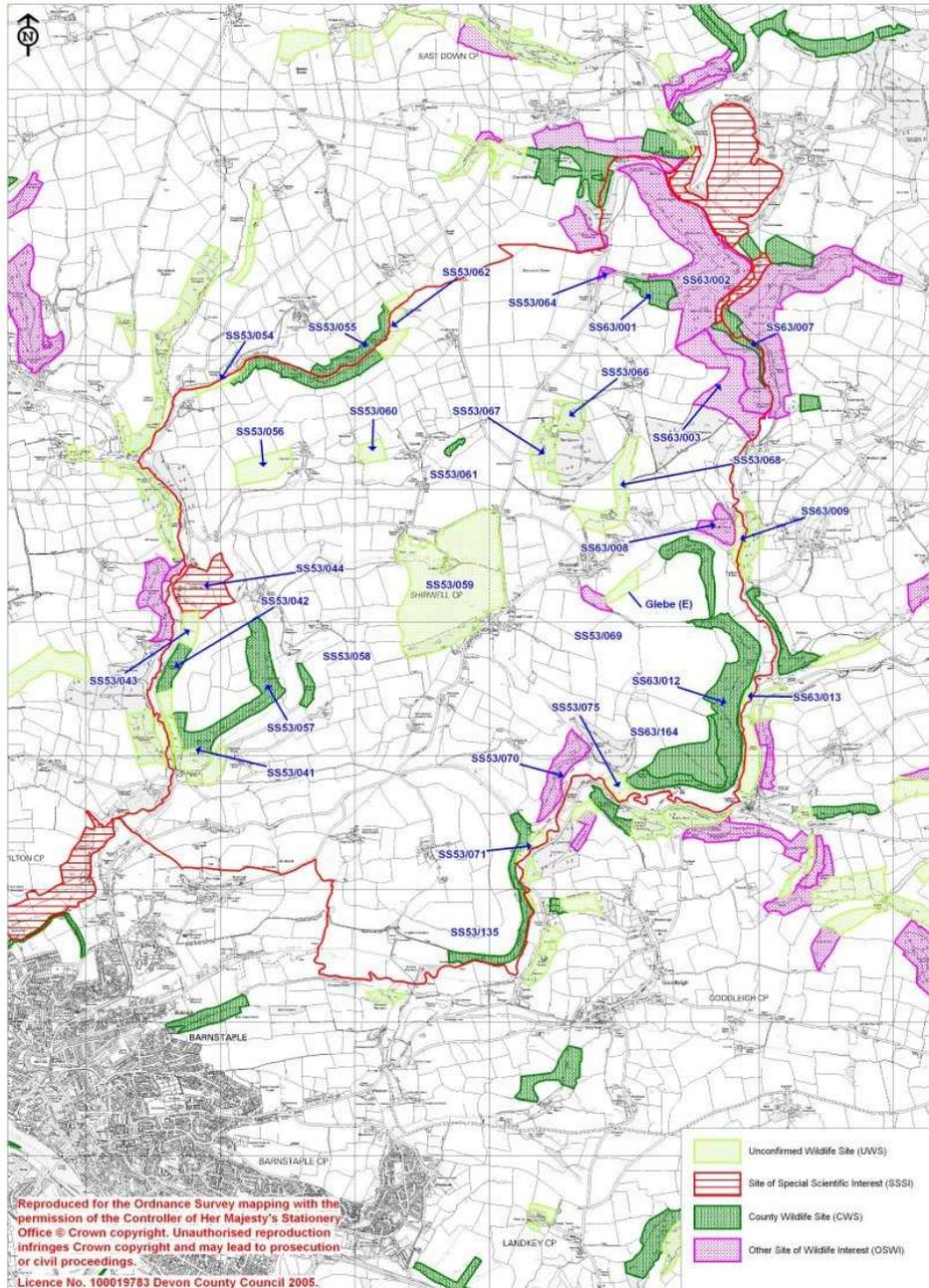
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- The Members of Shirwell parish Council in general

Appendix 1 – Notable sites and species within and near Shirwell Parish.

Statutory and non-statutory sites within Shirwell Parish (2008)



Statutory & non-statutory sites within Shirwell Parish (2008)

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
SS53/044	Plaistow Quarry	SS 569373	13	Upper Devonian Baggy Beds flora.	gSSSI
SS53/042	Flatwater Wood	SS566366	3.7	Ancient semi-natural woodland partly replanted with non-native broadleaves	CWS
SS53/057	Pudnor Wood	SS572364	18.7	Ancient semi-natural woodland partly replanted with non-native broadleaves	CWS
SS53/058	Delves Cleave	SS577365	2.1	Ancient semi-natural woodland partly replanted with non-native broadleaves	CWS
SS53/061	Upcott	SS587383	0.7	Species-rich rush pasture	CWS

SS53/135	Raleigh Wood & Coxleigh Wood	SS591349	9.3	Ancient semi-natural woodland partly replanted with non-native broadleaves	CWS
SS63/001	North Woolley Farm	SS602395	4.7	Unimproved neutral grassland	CWS
SS63/007	Woolley Wood Marsh	SS609391	4.7	Species-rich rush pasture & unimproved neutral grassland with butterfly interest	CWS
SS63/012	Youlston and Longtimber Woods	SS608364	36.2	Ancient semi-natural broadleaved woodland	CWS
SS63/164	Smythapark Field	SS604360	14.3	Unimproved neutral grassland and semi-improved neutral grassland	CWS
SS53/055	Preserve, Viveham and Longcleave Woods	SS581391	17.1	Ancient semi-natural broadleaved woodland and secondary woodland	CWS
SS53/064	North Woolley Field	SS598396	0.6	Species-rich semi-improved neutral grassland	OSWI
SS53/070	Sepscott Wood	SS595359	8.6	Coniferous plantation on an ancient woodland site	OSWI

SS63/002	Woolley Wood & Deerpark Wood	SS608397	94.9	Ancient semi-natural woodland largely replanted with conifers & non-native broadleaves	OSWI
SS63/003	South Woolley Wood Fields	SS608388	18	Semi-improved acidic grassland	OSWI
SS63/008	Shirwell Mill Wood	SS607377	4.7	Acidic ancient semi-natural woodland	OSWI
SS53/069	Glebe (W)	SS598372	2	Semi-improved neutral grassland and a small area of iris dominated mire	OSWI
SS53/043	Plaistow Quarry (S)	SS568369	2.8	Semi-improved neutral grassland0000	UWS
SS53/054	Westgate Fields	SS570388	1.8	Semi-improved neutral grassland	UWS
SS53/056	Plaistow Barton	SS573382	7.4	Semi-improved neutral grassland	UWS
SS53/060	Plaistow (E)	SS581383	2.8	Unimproved neutral grassland	UWS
SS53/062	West Okewell	SS583392	5.1	Semi-improved neutral grassland	UWS
SS53/066	King's Warren	SS596386	4.3	Broadleaved woodland	UWS
SS53/067	The Warren (E)	SS594383	6	Broadleaved woodland	UWS

SS53/068	Chilbridge Farm	SS599378	10.5	Semi-improved neutral grassland	UWS
	Glebe (E)	SS599372	2.6	Semi-improved neutral grassland	UWS
SS53/071	Riversmead Fields	SS593354	1.8	Semi-improved neutral grassland	UWS
SS53/075	Newbarn Wood (S)	SS599358	2.7	Bracken	UWS
SS63/009	Blackpool Bridge	SS609376	2.3	Semi-improved neutral grassland	UWS
SS63/013	Loxhore Bridge	SS609364	0.4	Semi-improved neutral grassland	UWS
SS53/041	Pudnor Hill	SS566360	13.8	Species rich semi-improved neutral grassland, bracken & broadleaved woodland	UWS
SS53/059	Youlston Park	SS586374		Parkland	UWS

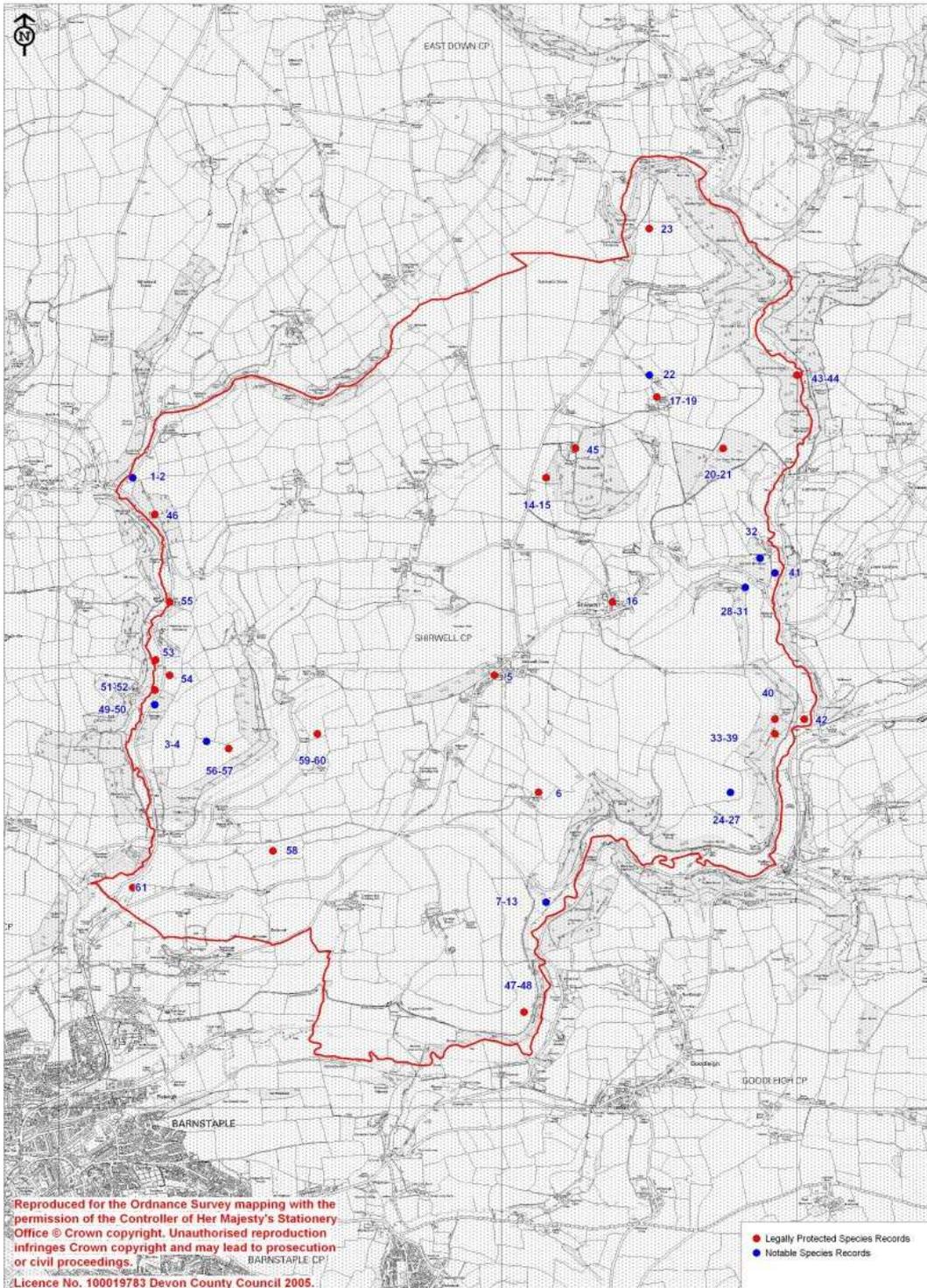
Sites of Special Scientific Interest (SSSI): these are notified by Natural England because of their plants, animals or geological features (the latter are geological SSSIs or gSSSI). Natural England needs to be consulted before any operations likely to damage the special interest are undertaken. SSSI is a statutory designation with legal implications.

County Wildlife Sites (CWS): these are sites of county importance for wildlife, designated on the basis of the habitat or the known presence of particular species. This is not a statutory designation like SSSIs, and does not have any legal status. County Wildlife Sites are usually included in Local Plans as sites of substantive nature conservation interest and are covered by Planning Policy Statement note nine (PPS9). CWS recognition does not demand any particular actions on the part of the Landowner and does not give the public rights of access. However, it may increase eligibility for land management grants.

Other Sites of Wildlife Interest (OSWI): these are sites of significant wildlife interest within a local context that have been surveyed but do not reach the criteria for County Wildlife Sites. They are not covered by PPS9, but may be included in Local Plans.

Unconfirmed Wildlife Sites (UWS): these are sites identified as having possible interest but not fully surveyed. Some of these sites will be areas of significant wildlife interest.

Legally protected & notable species records within Shirwell Parish (2008)



Legally protected & notable Species within Shirwell Parish (2008)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
1	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	MUDDIFORD, MARWOOD	1990	SS565383	WCA 5 (S)		UKBAP (P); DBAP; Nb
2	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	MUDDIFORD, MARWOOD	1990	SS565383			UKBAP (P); Decline
3	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	PUDNOR WOODS	1990	SS570365	WCA 5 (S)		UKBAP (P); DBAP; Nb
4	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	PUDNOR WOODS	1990	SS570365			UKBAP (P); Decline
5	a Bat	Chiroptera	Oakley, Shirwell, Barnstaple.	2006	SS589369	WCA 5, 6	EC IVa; Bonn II	
6	Brown Long-Eared Bat	<i>Plecotus auritus</i>	Sepscott Farm, Shirwell, Barnstaple	1993	SS592361	WCA 5, 6	EC IVa; Bern II; Bonn II	UKBAP (P)
7	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	RIVERSMEAD, SNAPPER	1990	SS593354			UKBAP (P); Decline
8	Brown Argus	<i>Aricia agestis</i>	RIVERSMEAD, SNAPPER	1990	SS593354			Decline
9	Marsh Fritillary	<i>Eurodryas aurinia</i>	COLLARD BRIDGE	1990-1995	SS593354	WCA 5	EC IIa; Bern II (GB reservation)	UKBAP (P); DBAP; Nb

10	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	RIVERSMEAD, SNAPPER	1990	SS593354			UKBAP (P); Decline
11	Small Heath	<i>Coenonympha pamphilus</i>		1990	SS593354			UKBAP (P)
12	Dingy Skipper	<i>Erynnis tages</i>	RIVERSMEAD, SNAPPER	1990-1995	SS593354			UKBAP (P); Decline
13	Green Hairstreak	<i>Callophrys rubi</i>	RIVERSMEAD, SNAPPER	1990	SS593354			Decline
14	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	WARREN, SHIRWELL	1990	SS593383			UKBAP (P); Decline
15	Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	WARREN, SHIRWELL	1990	SS593383	WCA 5 (S)		UKBAP (P); DBAP; Nb
16	a Bat	Chiroptera	St Peter's Church, Shirwell, Barnstaple	2007	SS597374	WCA 5, 6	EC IVa; Bonn II	
17	Brown Long-eared Bat	<i>Plecotus auritus</i>	South Woolley Farm, Shirwell, Barnstaple	1999	SS600388	WCA 5, 6	EC IVa; Bern II; Bonn II	UKBAP (P)
18	Whiskered Bat	<i>Myotis mystacinus</i>	South Woolley Farm, Shirwell, Barnstaple	1999	SS600388	WCA 5, 6	EC IVa; Bern II; Bonn II	
19	Brandt's Bat	<i>Myotis brandti</i>	South Woolley Farm, Shirwell, Barnstaple	1999	SS600388	WCA 5, 6	EC IVa; Bern II; Bonn II	
20	Otter	<i>Lutra lutra</i>	near Loxhore	1985	SS6038	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP

21	Otter	<i>Lutra lutra</i>	Arlington Court SW18	1983-1988	SS6038	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
22	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	ARLINGTON	1990	SS6039			UKBAP (P); Decline
23	High Brown Fritillary	<i>Argynnis adippe</i>	ARLINGTON	1992	SS6040	WCA 5		UKBAP (P); RDB2
24	Red Deer	<i>Cervus elaphus</i>	Smythapark Field	2007	SS605361	DA	Bern III	
25	Bluebell	<i>Hyacinthoides non-scripta</i>	Smythapark Field	2007	SS605361	WCA 8 (S)		
26	Badger	<i>Meles meles</i>	Smythapark Field	2007	SS605361	WCA 6, BA	Bern III	
27	Primrose	<i>Primula vulgaris</i>	Smythapark Field	2007	SS605361			DBAP
28	Song Thrush	<i>Turdus philomelos</i>	Longtimber Wood	2007	SS606375			UKBAP (P); Red
29	Bluebell	<i>Hyacinthoides non-scripta</i>	Longtimber Wood	2007	SS606375	WCA 8 (S)		
30	Mistle Thrush	<i>Turdus viscivorus</i>	Longtimber Wood	2007	SS606375			Amber
31	Primrose	<i>Primula vulgaris</i>	Longtimber Wood	2007	SS606375			DBAP
32	French hales	<i>Sorbus devoniensis</i>	Shirwell Mill Wood	1994	SS607377			DBAP; NS; DN1
33	Indet. Deer	Cervidae	Youlston Wood	2007	SS608365	DA	Bern III	
34	Mistle Thrush	<i>Turdus viscivorus</i>	Youlston Wood	2007	SS608365			Amber
35	Primrose	<i>Primula vulgaris</i>	Youlston Wood	2007	SS608365			DBAP

36	Snowdrop	<i>Galanthus nivalis</i>	Youlston Wood	2007	SS608365		EC Vb(where native); CITES II	
37	Bluebell	<i>Hyacinthoides non-scripta</i>	Youlston Wood	2007	SS608365	WCA 8 (S)		
38	Badger	<i>Meles meles</i>	Youlston Wood	2007	SS608365	WCA 6, BA	Bern III	
39	Green Woodpecker	<i>Picus viridis</i>	Youlston Wood	2007	SS608365			Amber
40	Common Dormouse	<i>Muscardinus avellanarius</i>	Youlston Wood, Chelfham.	1995	SS608366	WCA 5, 6	EC IVa; Bern III	UKBAP (P); DBAP
41	French hales	<i>Sorbus devoniensis</i>	Shirwell Mill, nr Loxhore	1976	SS608376			DBAP; NS; DN1
42	Otter	<i>Lutra lutra</i>	Loxhore Pond	1988	SS610366	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
43	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	ARLINGTON	1990	SS6139			UKBAP (P); Decline
44	Marsh Fritillary	<i>Eurodryas aurinia</i>	ARLINGTON, TUCKERS BRIDGE	1990	SS6139	WCA 5	EC IIa; Bern II (GB reservation)	UKBAP (P); DBAP; Nb
45	Otter	<i>Lutra lutra</i>	A39 between Shirwell and Arlington	2001	SS5938	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
46	Otter	<i>Lutra lutra</i>	Bradiford Water	1986	SS566380	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
47	Primrose	<i>Primula vulgaris</i>	Raleigh Wood & Coxleigh Wood	1994	SS591346			DBAP
48	Bluebell	<i>Hyacinthoides non-scripta</i>	Raleigh Wood & Coxleigh Wood	1994	SS591346	WCA 8 (S)		

49	Badger	<i>Meles meles</i>	B3230, North of turning to Broomhill Hotel.	1999	SS566367	WCA 6, BA	Bern III	
50	Great Green Bush Cricket	<i>Tettigonia viridissima</i>	Reserve at Marwood, North Devon	2000	SS566367			DBAP
51	Japanese Knotweed	<i>Fallopia japonica</i>	Bradiford Water, Plaistow. Edge of quarry waste tip.	2004	SS566368	WCA 9		
52	Japanese Knotweed	<i>Fallopia japonica</i>	Bradiford Water, Plaistow. Edge of quarry waste tip.	2004	SS566368	WCA 9		
53	Japanese Knotweed	<i>Fallopia japonica</i>	Land between the B3230 Barnstaple to Ilfracombe road and the Bradiford Water, just down from Plaistow Quarry.	2004	SS56653705	WCA 9		
54	Badger	<i>Meles meles</i>	B3230, Barnstaple to Muddiford road.	1999	SS567369	WCA 6, BA	Bern III	
55	Otter	<i>Lutra lutra</i>	B3230 between Barnstaple & Ilfracombe, just outside Muddiford. Beside public footpath on left, just after a bend in the road.	2003	SS567374	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
56	Primrose	<i>Primula</i>	Pudnor Wood	1994	SS571364			DBAP

		vulgaris						
57	Bluebell	Hyacinthoides non-scripta	Pudnor Wood	1994	SS571364	WCA 8 (S)		
58	Common Dormouse	Muscardinus avellanarius	Sloe Coomb	1994	SS574357	WCA 5, 6	EC IVa; Bern III	UKBAP (P); DBAP
59	Primrose	Primula vulgaris	Delves Cleave	1994	SS577365			DBAP
60	Bluebell	Hyacinthoides non-scripta	Delves Cleave	1994	SS577365	WCA 8 (S)		
61	Otter	Lutra lutra	SW14 Playford Mill	1987	SS5635	WCA 5	EC IIa, IIIa; Bern II	UKBAP (P); DBAP

WCA 1 **Wildlife and Countryside Act (1981) Schedule 1:** birds which are protected by special penalties at all times.

WCA 5 **Wildlife and Countryside Act (1981) Schedule 5:** species protected against killing, injury, disturbance and handling.

WCA 6 **Wildlife and Countryside Act (1981) Schedule 6:** animals (other than birds) which may not be killed or taken by certain methods

WCA 8 (S) **Wildlife and Countryside Act (1981) Schedule 8: (sale):** plants protected against sale only.

WCA 9 **Wildlife and Countryside Act (1981) Schedule 9:** animals and plants for which release into the wild is prohibited.

BA **Protection of Badgers Act 1992:** badgers may not be deliberately killed, persecuted or trapped except under licence. Badger setts may not be damaged, destroyed or obstructed.

DA	Deer Act 1991: deer protected under the Deer Act.
Bern II	Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix II: Special protection for listed animal species and their habitats.
Bern III	Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) Appendix III: Exploitation of listed animal species to be subject to regulation
ECIIa, IIb	EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IIa and IIb: Designation of protected areas for animal and plant species listed.
ECIIIa, IIIb	EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IIIa and IIb: Species used as criteria for designating Special Areas of Conservation (SACs).
ECIVa, IVb	EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex IVa: Exploitation of listed animals and plants to be subject to management if necessary.
Bonn II	Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) Appendix II: Range states encouraged to conclude international agreements to benefit species listed.
UKBAP(P)	UK Priority Species (Short and Middle Lists - UK Biodiversity steering Group Report 1995) i.e. species that are globally threatened and rapidly declining in the UK (by more than 50% in the last 25 years). Has a Species Action Plan.
DBAP	Devon Biodiversity Action Plan species: these have been identified as species of key conservation concern in Devon.
NS	Nationally Scarce: 15-100 10km squares in Atlas of British Flora 1962.

Devon Notable Species: Selected species recorded from over 50 2km squares in the Atlas of Devon Flora 1984 (R.B. Ivimey-Cook, Department of Biological Sciences, The University of Exeter).

DN1 **Devon Notable¹:** 1-25 2 km squares in Atlas of Devon Flora 1984.

Red List Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.

Amber List Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

Appendix 2 - Species list recorded within Shirwell parish during field visit

Common Name	Scientific Name
Alder	<i>Alnus glutinosa</i>
Annual Meadow-grass	<i>Poa annua</i>
Ash	<i>Fraxinus excelsior</i>
Barren Strawberry	<i>Potentilla sterilis</i>
Beech	<i>Fagus sylvatica</i>
Blackthorn	<i>Prunus spinosa</i>
Bracken	<i>Pteridium aquilinum</i>
Bramble	<i>Rubus fruticosus agg.</i>
Common Dandelion	<i>Taraxacum aggregate</i>
Common Dog Violet	<i>Viola riviniana</i>
Common Mouse-ear	<i>Cerastium fontanum</i>
Common Nettle	<i>Urtica dioica</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Creeping Cinquefoil	<i>Potentilla reptans</i>
Daffodil	<i>Narcissusb sp.</i>
Daisy	<i>Bellis perennis</i>
Elder	<i>Sambucus nigra</i>
Foxglove	<i>Digitalis purpurea</i>
Germander Speedwell	<i>Veronica chamaedrys's</i>
Gorse	<i>Ulex europaeus</i>
Greater Stitchwort	<i>Stellaria holostea</i>
Greater Tussock Sedge	<i>Carex paniculata</i>
Ground-ivy	<i>Glechoma hederacea</i>
Groundsel	<i>Senecio vulgaris</i>
Hart's-tongue	<i>Phyllitis scolopendrium</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Herb-robert	<i>Geranium robertianum</i>
Hogweed	<i>Heracleum sphondylium</i>
Holly	<i>Ilex aquifolium</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Ivy	<i>Hedera helix</i>
Lesser Celandine	<i>Ranunculus ficaria</i>
Lords-and-Ladies	<i>Arum maculatum</i>
Maidenhair Spleenwort	<i>Asplenium trichomanes</i>
Male-fern	<i>Dryopteris filix-mas</i>
Mouse-ear Hawkweed	<i>Pilosella officinarum</i>
Navelwort	<i>Umbilicus rupestris</i>
Oak	<i>Quercus sp</i>
Perennial Rye-grass	<i>Lolium perenne</i>
Periwinkle	<i>Vinca major</i>
Polypody	<i>Polypodium agg.</i>
Red Campion	<i>Silene dioica</i>
Red Fescue	<i>Festuca rubra agg.</i>
Red Valerian	<i>Centranthus ruber</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Sow-thistle	<i>Sonchus sp.</i>
Snowdrop	<i>Galanthus nivalis</i>
Spear Thistle	<i>Cirsium vulgare</i>

Sycamore	<i>Acer pseudoplatanus</i>
White Clover	<i>Trifolium repens</i>
Yew	<i>Taxus baccata</i>
Yorkshire Fog	<i>Holcus lanatus</i>

**Additional plant species
added following consultation
with the Parish:**

Elm	<i>Ulmus spp</i>
Laurel	<i>Prunus laurocerasus</i>
Lime	<i>Tilia spp</i>
Spindle	<i>Euonymus europaeus</i>
Sweet Chestnut	<i>Castanea sativa</i>

Birds

Blackbird	<i>Turdus merula</i>
Blue Tit	<i>Parus caeruleus</i>
Buzzard	<i>Buteo butes</i>
Chaffinch	<i>Fringilla coelebs</i>
Great Tit	<i>Parus major</i>
House Sparrow	<i>Passer domesticus</i>
Robin	<i>Erithacus rubecula</i>
Rook	<i>Corvus frugilegus</i>

Mammals

Mole (hills)	<i>Talpa europaea</i>
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Appendix 3 – Key Biodiversity Features of Shirwell Parish

Statutory and non-statutory sites within Shirwell Parish (2008)

