
Parish Plans Biodiversity Project

Newton & Noss

Report by the
Devon Biodiversity Records Centre
in partnership with
Devon County Council

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*Devon
Biodiversity
Records
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Newton & Noss - Parish Plan Biodiversity Project

Introduction

The wildlife interest of the parish of Newton and Noss is largely centred around the Yealm estuary. The pretty villages of Newton Ferrers and Noss Mayo are situated towards the mouth of the Yealm and lie in a sheltered position thanks to the steep wooded valley to which they cling.

A wealth of habitats are found in and around Newton and Noss, and this is reflected in the number of designated sites in the parish. The Yealm estuary is designated as a Site of Special Scientific Interest, a County Wildlife Site and a Special Area of Conservation, and virtually the whole stretch of coast between the mouth of the Yealm estuary and the Erme estuary to the east of the parish is a County Wildlife Site.

There are breathtaking views along the coast and out towards Wembury bay, and the whole area is within the South Devon Area of Outstanding Natural Beauty. The extensive areas of coastal grassland to the south of the parish are home to many uncommon species such as the green hairstreak and dark green fritillary butterflies, peregrine, hobby, ciril bunting and skylark and the nationally rare plant, shore dock.

Designated Sites

Yealm Estuary Site of Special Scientific Interest and Special Area of Conservation

The Yealm is an example of a ria, or a drowned river valley, which shows a transition to estuarine conditions in its upper reaches. There are a diverse range of biological communities present including rich steep rocky shores, saltmarsh, sand with gravel and pebbles and mudflats.

The River Yealm rises 430 metres above sea level on the Stall Moor mires of south Dartmoor and makes its 15 mile journey to the sea passing through Cornwood, Lee Mill and Yealmpton, before reaching the estuary mouth just below Newton Ferrers and Noss Mayo. The estuary of the Yealm is tidal up as far as Puslinch, 4 miles inland. Like the other estuaries of South Devon, the original deep river valley has been inundated by later sea level rise, with the tide flooding in to create a wide expanse of water.

The SSSI includes extensive areas of a rich and nationally uncommon community on a mixed sediment of muddy shingle. This is dominated by an unusual form of the orange peel sponge (*Hymeniacidon perleve*) and the peacock worm (*Sabella pavonina*).

The Yealm supports good numbers of estuarine birds such as curlew, little egret, shelduck, wigeon, oystercatcher and redshank.

Estuaries are listed on the **Devon Biodiversity Action Plan** and the **South West Biodiversity Action Plan** as a habitat of conservation concern in Devon.

Estuaries, including harbours and rias, are partially enclosed water bodies which are open to the sea but usually have reduced salinity as a result of freshwater inputs. Rias are drowned river valleys created by land subsidence, a rise in sea level, or a combination of both, forming deep narrow, well defined channels which have a large marine influence i.e. high salinity. Rias are characteristic of the South West, with the Region accounting for approximately 90% of the UK resource. The high salinity and shelter of rias supports a very high biodiversity compared with normal estuaries of lower salinity regime.

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

In addition to the SSSI designation, the estuary is also within the South Devon AONB and a **candidate European Special Area of Conservation**, and lies within the South Devon Heritage Coast.

Plymouth Sound and Estuaries **candidate Special Area of Conservation** comprises several SSSIs including the Lynher Estuary, Rame Head to Whitsand Bay, St. John's Lake, Tamar-Tavy Estuary, Wembury Point, the Yealm Estuary and Plymouth Sound Shores and Cliffs.

The area is considered to have a high diversity of habitats and species of European importance. These include a significant population of allis shad (*Alosa alosa*); saltmarsh; estuaries; large shallow inlets and bays; mudflats and sandflats; reefs; shore dock (*Rumex rupestris*), sub tidal sandbanks and eelgrass beds.

Eelgrass beds (*Zostera marina*) are found on the Yealm Estuary and are of national importance being listed as a **Priority Biodiversity Habitat**. *Zostera* beds and intertidal mudflats are habitats on the initial list of OSPAR (Convention for the Protection of the Marine Environment of the North-East Atlantic) threatened and/or declining species and habitats. The species that are known to occur in the UK are nationally scarce. Eelgrass beds form important nurseries for juvenile fish, providing protection from predators.

Blackstone Point Site of Special Scientific Interest and Special Area of Conservation

Blackstone point supports one of the largest rocky foreshore communities of shore dock in the UK & the largest population in Devon. As a result of this it has been notified as a Site of Special Scientific Interest and a Special Area of Conservation.

Shore dock grows on rocky and sandy beaches, at the foot of cliffs and occasionally in dune slacks. It is thought to be the world's rarest dock and is one of the rarest plants in Europe. Shore dock is a Red list species and categorised as endangered. It is listed as a priority species in the **UK Biodiversity Action Plan**. It is only known from a handful of sites in Devon, most of these on the south Devon coast.

Special Areas of Conservation (SAC) are notified by English Nature 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. English Nature needs to be consulted before any operations likely to damage the special interest are undertaken. SAC is a statutory designation with legal implications.

Westcliff Cove to Keaton Cove County Wildlife Site

Westcliff Cove to Keaton Cove is an extensive area of coastal grassland, with areas of mixed plantation, secondary broadleaved woodland, scrub & bracken. Plant species recorded from the coastal grassland areas include red fescue, wild carrot, common restharrow, thrift, common bird's-foot trefoil, lady's bedstraw and ox-eye daisy.

Notable plant species recorded from here include musk stork's-bill (a Devon Rarity), distant sedge and sea rush (Devon Notable plant species). The area is also of considerable importance for breeding circl bunting.

Circl buntings are listed on the **Devon Biodiversity Action Plan** as a species of conservation concern, as well as on the **UK Biodiversity Action Plan**. In Britain the circl bunting is a bird of lowland mixed farmland, especially warm, south-facing slopes with tall bushy hedges. The circl bunting population has declined rapidly since the 1970s and today is a rare breeding bird. The main causes are agricultural change; the decline of mixed farming systems, especially cereal stubble, has deprived the circl bunting of food.

The circl bunting is a Devon speciality and now largely confined to the south of the County, and a few areas in Teignbridge and close to Exeter.

Hilsea Point to Stoke Point County Wildlife Site

Hilsea Point to Stoke Point is a further area of coastal grassland, gorse & scrub which joins Westcliff Cove to Keaton Cove and The Warren Noss Mayo, to make a continuous stretch of coastal grassland stretching from the Yealm Estuary to the Erme Estuary. The main interest of this site is the extensive areas of herb-rich downland on steep slopes supporting species such as silver hair-grass, common bird's-foot trefoil, sheep's-bit and sheep's sorrel. The cliff grassland communities also support a good range of species including wild carrot, thrift, sea plantain, sea beet and sea campion. There are also quite extensive areas of species-poor grassland at Netton Down, where some agricultural improvement has happened in the past.

This habitat is extremely important for breeding birds. Circl buntings are present, along with stonechat, linnet, yellowhammer, whitethroat, meadow pipit, skylark and rock pipit. The rare Dartford warbler is also present in the scrub in this area.

This whole area is managed by the National Trust, and there is access to Netton and Stoke Downs via a footpath from the National Trust car park near to Netton Farm. The coast path runs all the way along this section.

Several notable plant species have been recorded from this stretch of coastline including rock sea-lavender and pennyroyal.

The Warren, Noss Mayo County Wildlife Site

The Warren, Noss Mayo joins Hilsea Point to Stoke Point and the edge of the Yealm Estuary. It is a continuation of coastal grassland, gorse, bracken and scrub. This area is also home to some notable plant species including autumn lady's-tresses and autumn squill. The invertebrate community is also rich with species recorded such as grey bush-cricket, green hairstreak and grayling butterflies. Circl bunting, stonechat, rock pipit and linnet breed here.

Broompark Wood County Wildlife Site

Broompark wood is an area of secondary broadleaved and mixed plantation situated next to the Yealm estuary. Species recorded from the site include stinking iris, bluebell, goldenrod, primrose and great wood-rush. In 1992 when the site was surveyed there was a heronry present on the site.

Heron's nests are usually built in the highest trees and constructed by branches and sticks. Local preferences include alder and Scots pine. Unless blown down by storms the same nest is used each spring. Old ones, massive platforms 3ft across, may also provide homes for nesting tree sparrows. The heron has a stable breeding population in Devon, the largest heronry in Devon is at Powderham on the Exe estuary.

Brooking's Down & Eastern Hill Woods County Wildlife Site

Brooking's Down Wood is owned by the Woodland Trust and leased to the Yealm and District Association. It is an area of secondary broadleaved woodland with a canopy dominated by ash, sweet chestnut and sycamore.

The site is open to the public and has a good network of footpaths throughout. New planting and restoration work was going on when the site was visited in September 2004.

Crawl & West Woods County Wildlife Site

Crawl and West Woods is an extensive area of ancient semi-natural woodland partly replanted with conifers. The canopy is dominated by pedunculate oak with areas of ash, beech and silver birch. The ground flora is dominated by great wood-rush, with heather, common cow-wheat, bilberry, wood sage and bracken.

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.

Newton & Court Woods County Wildlife Site

Newton and Court Woods is a further area of ancient semi-natural woodland adjoining Crawl and West Woods along the eastern edge of the Yealm Estuary. This wood is owned by the Woodland Trust and open to the public, it is also joined by a public footpath from Newton Ferrers village.

The canopy is dominated by sessile oak with an understory of holly, hazel and sweet chestnut. The ground flora is dominated by great wood-rush, with wood sedge, betony, golden-rod, polypody, heather, bluebell and bilberry.

Oak woodland is listed on the **Devon Biodiversity Action Plan** as a habitat of conservation concern in Devon.

Ferry & Passage Woods County Wildlife Site

Ferry and Passage Woods is situated to the south of the Yealm estuary and is an area of ancient semi-natural woodland (partly re-planted). It falls within the National Trust's Yealm estate.

County Wildlife Sites (CWS) 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 Guidance note nine (PPG9). 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.

Brakehill Plantation Local Wildlife Site

Brakehill plantation is a small area of broadleaved plantation situated towards the mouth of the Yealm Estuary.

Netton Local Wildlife Site

Netton is a small area of secondary broadleaved woodland. Species recorded here include sweet chestnut, hawthorn, hazel, yellow archangel and wood sage.

Foredown Wood Local Wildlife Site

Foredown Wood is a narrow strip of secondary broadleaved woodland near to Membland. Although the woodland is of a poor quality being dominated by sycamore and with little ground flora, it still represents an important local wildlife resource. The surrounding land is largely arable and improved pasure, so the woodland represents an oasis for wildlife.

Middle Hill Fields Local Wildlife Site

Middle Hill Fields is an area of semi-improved/unimproved neutral grassland situated to the east of the parish. The grassland is moderately species-rich with species recorded including crested dog's-tail, field wood-rush, common bird's-foot trefoil, burnet-saxifrage, yarrow and ribwort plantain.

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 0.2million 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 and circl bunting.

Brusheshill Field Local Wildlife Site

Brusheshill Field is a small area of semi-improved neutral grassland situated on the eastern edge of Crawl & West Woods County Wildlife Sites. Species recorded from the grassland include wild carrot, yarrow, common knapweed, red clover and crested dog's-tail.

Heddon Wood Local Wildlife Site

Heddon Wood is an area of ancient semi-natural woodland partly replanted with conifers.

Membland Wood Local Wildlife Site

Membland Wood is an area of ancient semi-natural woodland largely replanted with broadleaves. The woodland is openly accessible, with a well-used track running through it, although this is not a public footpath.

Local Wildlife Sites (LWS) are sites of significant wildlife interest within a local context that do not reach the criteria for County Wildlife Sites. They are not covered by PPG9, but may be included in Local Plans.

Other habitats (identified from field survey):

Species-rich hedges

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 with less farm labour available and more reliance on mechanical cutting. 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, leaving them much more 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 layed.

With the advent of mechanical hedge-trimming has come another change - that it now becomes possible to trim all the hedges on a farm in one year. It is this that perhaps has the most impact on the vertebrate wildlife as the fruiting and seeding species are very much less productive and there is a different and less varied structure.

Shrubs that do produce a good berry crop may be cut in the early autumn before the birds, particularly the migrants, can gain any advantage. A couple of generations ago, many hedges on a farm might have been cut only once in five or even seven years, 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 with perhaps only one or two of the three 'faces': the top and the two sides being 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!

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.

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.

Hedgerows are often an essential corridor for the movement of wildlife and may support many animals and plants. Many of the hedgerows around Newton and Noss parish are actually quite species poor. Several hedges were looked at but only two or three woody species were recorded in a 30 metre length, with blackthorn generally being the dominant species. Occasional species recorded include elder, English elm, and hawthorn.

Many of the hedges did have a species-rich bank flora despite being species-poor in terms of woody species. Species recorded from here include hedge bedstraw, yarrow, herb-robert, common knapweed, devil's-bit scabious, cut-leaved cranes's-bill and tufted vetch.

Species rich hedges are listed on the **Devon Biodiversity Action Plan** as a habitat of conservation concern in Devon. However, many of the hedges along the lanes of Newton & Noss would not be classified as species-rich, particularly near to the coast. Although the hedges are not species rich, they are still of good general value for birdlife, especially cirl buntings. The hedges also provide sheltered corridors though areas of farmland which probably support a good variety of invertebrates.

Churchyard

The church of St. Peter's is over 900 years old and set in a lovely churchyard where there is an area of moderately species-rich grassland. Species recorded here include ribwort plantain, smooth hawk's-beard, ox-eye daisy, spotted medick, yarrow, common calamint and germander speedwell. Cycleman are abundant and were planted by Reverend CB Yonge in about 1900.

Stone walls

The walls around Newton and Noss support an interesting and rich flora with lichens and mosses, a number of ferns and several attractive flowering plants. The flowers provide a colourful display with red valerian, pellitory-of-the-wall, traveller's joy, buddleia and ivy-leaved toadflax. Fern species include maidenhair spleenwort, black spleenwort, hart's-tongue, soft-shield fern and polypody.

Recreation areas and public open space

There are a few of areas of amenity grassland and open space in Newton and Noss parish, namely the village green at Noss Mayo, Brookings Down Wood and Newton Wood. The two areas of woodland are owned by the Woodland Trust and managed as community woodlands and appear to be popular with local people.

There is also a good network of public footpaths around the village. A footpath leads along Yealm road along the estuary and into Newton Wood. There are further small paths that allow you to walk along the estuary. A footpath from Noss Mayo, and the coast road join the South West Coast Path and allow access to National Trust owned areas of coastal grassland and woodland. It is possible to walk from Beacon Hill (to the east of the parish) along the coast path all the way to Ferry Wood (at the mouth of the Yealm to the west of the parish).

Gardens

Gardens are a haven for wildlife and can provide links to other areas of wildlife habitat. Several species have been recorded from gardens in Newton and Noss parish including common frog, common toad, common lizard, badger, great green bush-cricket and several common bird species.

The great green bush-cricket is listed on the **Devon Biodiversity Action Plan** as nationally it has experienced a decline in range over the past 50 years. The great green bush-cricket is not rare in Devon, but is under threat from habitat loss. Its preferred habitat is rough herbage with an abundance of brambles, thistles and bracken. In Devon the great green bush-cricket is found primarily along road verges and on the coast. Gardens can also provide valuable habitat, providing there are suitable 'untidy' areas with rank vegetation or scrub and hedges.

Arable land

There are many areas of arable land in Newton and Noss parish, particularly close to the coast. These areas are of considerable interest for farmland birds such as the skylark, ciril bunting and meadow pipit and may support rare arable plants. Winter stubble left over from crops provides valuable feeding ground for skylarks and other farmland birds such as grey partridge, ciril buntings and linnets. These birds may flock together to feed on the spilt grain, seeds and insects within the stubble.

The skylark is listed on the **UK Biodiversity Action Plan** as a species of conservation concern. The UK breeding population of skylark on lowland farmland has declined by 54% between 1969 and 1991. Considerable research in recent years has indicated that the most likely cause of the decline is the increase in the winter-sowing of cereals, which restricts opportunities for late-season nesting attempts because of vegetation height, and may reduce overwinter survival by reducing the area of stubbles.

Several common arable plant species were recorded during the survey including red dead-nettle, cut-leaved crane's-bill and scentless mayweed.

There are also a number of rare arable weeds associated with spring cereals and winter stubble including cornflower, corn marigold, shepherd's-needle and weasel's-snout. Arable land in Britain has lost most of its arable plants over the last 50 years; several species have become extinct and there are many more that are now rare.

Changes in arable farming practice are thought to be responsible for the losses. Technology that allowed more effective seed-cleaning caused an initial decline, but herbicide development was catastrophic for many plants. Nowadays, arable plants are generally confined to the strip along the field edge, which provides a home to many animals, invertebrates and plants.

Wembury Marine Conservation Area

To the west of Newton and Noss parish lies the village of Wembury. A Voluntary Marine Conservation Area was created in here in 1981, which stretches over 4 miles (6.4 km) from the mouth of the Yealm to Bovisand near Plymouth. It was created in recognition of the important wildlife of the area, and to raise public awareness about the wonders of the marine environment and what we can do to reduce the threats facing it.

The VMCA covers the seashore and the adjacent coastal waters with a variety of wildlife habitats, protected as a result of voluntary agreements between all users to ensure sympathetic use of the area. There is a visitor centre and a warden in summer, who provides day to day management of the area.

Wembury is home to the bloody-eyed velvet swimming crab, the blenny - a fish that lives out of water, and the bladder wrack - a seaweed that 'beats up' young barnacles.

Wembury Bay and the coast to the south is an important area for marine life. As well as the rich flora and fauna living on the shore and in the sea, the sheltered coves are home to grey seals, and in the summer you may be lucky enough to see a basking

shark swim by. Pods of bottlenose dolphins regularly pass along this coast and pilot whales and harbour porpoises have also been seen in the area.

Unfortunately, this part of the coast also often sees many dead marine mammals, particularly common dolphins, washed up (stranded) in the winter as a result of being accidentally caught in fishing nets. This is known as bycatch and due to the prevailing winds, the south coast of Devon, from Plymouth to Salcombe, is a hotspot for strandings. Every year it is estimated that thousands of cetaceans (whales, dolphins and porpoises) die from being caught up in fishing gear. Should you find one please let Devon Wildlife Trust or Brixham Seawatch know about it, as valuable information can still be gleaned from these sad events.

Potential County Wildlife Sites

There are seven potential County Wildlife Sites in Newton & Noss parish. These are sites identified as having possible interest but not fully surveyed. Some of these sites will be areas of significant wildlife interest.

Hewsters Hill Wood and **The Kennels** are two small areas of secondary broadleaved woodland.

Newton Downs and **Bridgend** are areas of semi-improved neutral grassland and semi-improved neutral grassland, scrub and bracken.

Collaton Wood & Quarry Park and **Pitts Hill Wood** are ancient semi-natural woodlands.

Hewster Wood & Fields comprises areas of unimproved neutral grassland, secondary broadleaved woodland & conifer plantation.

Species

Protected Species

A report from the DBRC database showing what legally protected, locally notable or noteworthy (eg Japanese Knotweed) species are known to have been present in and around Newton & Noss has been prepared and is presented separately (Appendix 1).

Birds

Several species of birds were recorded during the survey including skylark, buzzard, raven, woodpigeon, rook, jackdaw, house martin, kestrel, chaffinch, swallow, meadow pipit and blue tit.

The areas of coastal grassland are of great importance for the rare curlew which relies on areas of coastal grassland, mixed farmland and scrubby hedges. Other declining farmland birds have also been recorded from these areas including linnet, meadow pipit, yellowhammer, whitethroat and skylark.

The linnet, yellowhammer and skylark are listed on the **RSPB's red list**, which lists 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.

Curlew, black-headed gull, barnacle goose, greenshank, oystercatcher and little egret have all been recorded from the Yealm estuary. Peregrine and hobby have also been seen over the Yealm estuary.

Plants

Plant species noted on a visit on the 24 September 2004 are listed in Appendix 2.

Several uncommon species have been recorded from Westcliff to Keaton Cove including musk stork's-bill, frosted orache and saltmarsh rush (all Devon Notable plant species).

The nationally rare autumn squill has been recorded from the species-rich grassland at Gara Point, as well as the relatively uncommon autumn lady's-tresses. The nationally rare toadflax-leaved St. John's-wort is thought to have been recorded from the National Trust's Yealm Estate, this record is still to be confirmed.

Mammals

Several mammal species have been recorded from Newton & Noss parish. These include badger, water shrew, common and pygmy shrew, otter and pipistrelle.

Otters have been recorded from the river Yealm at Newton Ferrers. The **otter** is listed on the **Devon Biodiversity Action plan** as a species of conservation concern in Devon.

Invertebrates

Several uncommon butterflies have been recorded from Hilsea Point to Stoke Point including green hairstreak, dark green fritillary and silver-washed fritillary. These species have all undergone a substantial local decline in Devon.

The great green bush-cricket, dark bush-cricket and grey bush-cricket have been recorded from the parish, and several uncommon invertebrates have been recorded from the National Trust's Yealm Estate. These include the leaf beetle *Calomicrus circumfusus*, which is associated with gorses and the weevil *Smicronyx jungermanniae* which feeds on the parasitic plant dodder. Both these species are classified as **Nationally Notable B** which means that they have been recorded from 30-100 10km squares in Great Britain since 1980.

Reptiles and Amphibians

Little information is held on reptiles and amphibians in Newton and Noss parish. Common toad, common frog and common lizard have all been recorded from gardens in Newton Ferrers and Noss Mayo.

The Devon Biodiversity Action Plan (BAP).

The Devon Biodiversity Action Plan (BAP) 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.
- 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 wildlife of Newton and Noss and the Devon BAP:

Newton and Noss wildlife feature	Brief description of feature	Link with the Devon Biodiversity Action Plan (BAP)
Yealm Estuary	A drowned river valley with a diverse range of biological communities present including rich steep rocky shores, saltmarsh, sand with gravel and pebbles and mudflats.	<ul style="list-style-type: none"> • Estuaries Habitat Action Plan • Curlew Species Action Plan
Westcliff and Keaton Cove, Hillsea and Stoke Point and The Warren County Wildlife Sites	Extensive areas of coastal grassland and scrub. Several rare plants are present, as well as uncommon butterflies and birds.	<ul style="list-style-type: none"> • Sea cliff and slope Habitat Action Plan • Rocky Foreshore Habitat Action Plan • Cirl bunting Species Action Plan • Great green bush-cricket Species Action Plan
Brushhill Field and Middle Hill Fields Local Wildlife Sites and the churchyard	Small areas of semi-improved and unimproved grassland, which have been protected from agricultural improvement.	<ul style="list-style-type: none"> • Flower-rich meadows and pastures Habitat Action Plan
River Yealm		<ul style="list-style-type: none"> • Otter Species Action Plan
Newton and Court Woods County Wildlife Site	An extensive area of ancient semi-natural oak woodland	<ul style="list-style-type: none"> • Oak Woodland Habitat Action Plan • Primrose Species Action Plan

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

Some Ideas for Local Action...

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

A major step to 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 survey:

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 Newton and Noss might include coastal grassland and cirl buntings. The last two actions would directly contribute to the **Sea cliff and slope Action Plan** and the **Cirl bunting Action Plan**.

One example of survey work that might usefully be undertaken would be to 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. For example, the Woodland Trust is active in the area with two woodlands open to the public. The Devon Wildlife Trust Wembury Voluntary Marine Conservation Area operates nearby, aimed at raising public awareness of the marine environment.

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.

2 Influence the management of Public Open Space:

Creating areas of more species-rich grassland will help to reduce the isolation of the remaining fragments of traditionally managed agricultural land, contributing to the **Flower-rich Meadows and Pastures Action Plan**. Churchyards have often received less intensive management than the surrounding land and can provide good opportunities for wildlife.

3 Build relationships with local landowners:

Encourage the adoption of more wildlife-friendly land management. For example, hedges which 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 Hedges 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 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:

Green up your garden! Collectively the gardens of Newton Ferrers and Noss Mayo represent a significant area that could be used to benefit wildlife. Large or small, you can turn your garden (or a part of it!) into a haven for wildlife. A very good source of information on wildlife gardening is the English Nature web site:

[www.english-nature.org.uk/Nature In The Garden](http://www.english-nature.org.uk/Nature_In_The_Garden)

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.

6 Join local conservation organisations:

One example of a prominent local conservation organisation is the Devon Wildlife Trust and the Woodland Trust. These trusts have a number of Local Groups which, amongst other things, get involved in practical management work.

7 Japanese Knotweed:

Not something to cherish, but it can't be ignored! Luckily, Japanese Knotweed has not been recorded from Newton and Noss parish. 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 a number of years to be successful but if the plant is left untreated it will inevitably spread. A number of issues should be

¹ DBRC, Shirehampton House, 35-37 St David's Hill, Exeter, Devon, EX4 4DA. Phone: 01392 273244; Fax: 01392 433221; E-mail: contactus@devonwt.cix.co.uk

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:

- Devon Wildlife Trust: www.devonwildlifetrust.org
- Devon Birdwatching and Preservation Society: Secretary tel: 01837 53360
- English Nature: www.english-nature.org.uk
- Plantlife: www.plantlife.org.uk
- RSPB: www.rspb.org.uk
- The Woodland Trust: www.woodland-trust.org.uk
- The Living Churchyards & Cemeteries Project, Arthur Rank Centre, National Agricultural Society, Stoneleigh Park, Warwickshire, CV8 2LZ Tel: 01203 696969 ext. 364/339.

Possible sources of funding:

A number of potential sources of funding are available for local biodiversity projects. Each has its own rules, criteria and objectives but the following sites may be worth checking for suitability:

Awards for All: www.awardsforall.org.uk

Countryside Trust Awards: 01242 521382 or www.countryside-trust.org

Living Spaces: 0845 600 3190 or www.living-spaces.org.uk

Local Heritage Initiative: 01226 719019 or www.lhi.org.uk

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Appendix 1 – Notable sites within parish

File Code	Site Name	Grid Ref.	Area (ha)	Description	Status
SX54/006	The Warren, Noss Mayo	SX529468	44.7	Coastal grassland, gorse, bracken and scrub	CWS
SX54/008	Yealm Estuary	SX545496	213.7	Estuary and associated habitats	CWS
SX54/011	Ferry & Passage Woods	SX531476	22.5	Ancient semi-natural woodland	CWS
SX54/016	Newton & Court Woods	SX544487	21.6	Ancient semi-natural woodland	CWS
SX54/017	Crawl & West Woods	SX549497	64.9	Ancient semi-natural woodland partly replanted with conifers	CWS
SX54/018	Hilsea Point to Stoke Point	SX539462 SX563460	to 52.3	Coastal grassland, gorse & scrub with bird interest	CWS
SX54/019	Brooking's Down & Eastern Hill Woods	SX547472 SX549474	& 7.5	Secondary broadleaved woodland	CWS
SX54/029	Westcliff Cove to Keaton Cove	SX563461 SX594471	to 76.8	Coastal grassland, mixed plantation, secondary broadleaved woodland, scrub & bracken with bird interest	CWS
SX55/054	Broompark Wood	SX559506	11.6	Secondary broadleaved and mixed plantation woodland with a heronry	CWS
SX54/007	Brakehill Plantation	SX529474	6.2	Broadleaved plantation	LWS
SX54/024	Netton	SX552466	0.7	Secondary broadleaved woodland	LWS
SX54/026	Membland Wood	SX565482	8.2	Ancient semi-natural woodland largely replanted with broadleaves	LWS
SX54/030	Foredown Wood	SX575474	7.8	Secondary broadleaved woodland	LWS
SX54/031	Middle Hill Fields	SX576490	5.9	Semi-improved neutral grassland	LWS
SX54/020	Brusheshill Field	SX561498	1.2	Semi-improved neutral grassland	LWS
SX55/061	Heddon Wood	SX565505	11.3	Ancient semi-natural woodland partly replanted with conifers	LWS
SX54/021	Newton Downs	SX553492	5.1	Semi-improved neutral grassland	pCWS
SX54/022	Bridgend	SX556478	8.4	Semi-improved neutral grassland, scrub and bracken	pCWS
SX54/025	Collaton Wood & Quarry Park	SX568489	20.1	Ancient semi-natural woodland mostly replanted with conifers and broadleaves	pCWS
SX54/032	The Kennels	SX575481	1.7	Secondary broadleaved woodland	pCWS
SX54/023	Pitts Hill Wood	SX558474	5.3	Ancient semi-natural woodland	pCWS
SX54/027	Hewster Wood & Fields	SX563480	8.4	Unimproved neutral grassland, secondary broadleaved woodland & conifer plantation	pCWS
SX54/028	Hewsters Hill Wood	SX561477	2.8	Secondary broadleaved woodland	pCWS
SX54/008	Yealm Estuary	SX550505	85.9	Drowned river valley with diverse range of biological communities	SSSI
SX54/039	Blackstone Point	SX535462	7.3	One of the largest rocky foreshore communities of shore dock in the UK & the largest population in Devon	SSSI, SAC

	Plymouth Sound and Estuaries	SX465502	1095.2	Estuaries, mudflats, sandbanks, large shallow inlets and bays	SAC
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Sites of Special Scientific Interest (SSSI): these are notified by English Nature because of their plants, animals or geological features (the latter are geological SSSIs or gSSSI). English Nature needs to be consulted before any operations likely to damage the special interest are undertaken. SSSI is a statutory designation with legal implications.

Special Areas of Conservation (SAC): these are notified by English Nature 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. English Nature needs to be consulted before any operations likely to damage the special interest are undertaken. SAC 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 Guidance note nine (PPG9). 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.

Local Wildlife Sites (LWS): these are sites of significant wildlife interest within a local context that do not reach the criteria for County Wildlife Sites. They are not covered by PPG9, but may be included in Local Plans.

Potential County Wildlife Sites / Unconfirmed County Wildlife Sites (pCWS or Unc): these are sites identified as having possible interest but not fully surveyed. Some of these sites will be areas of significant wildlife interest.

Ancient Woodland Inventory (AWI): 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.

Appendix 1 – Notable species within parish

No.	Name	Latin Name	Location	Date	UK Protection	International Protection	Status
1	Grey Bush Cricket	Platycleis albopunctata	Gara Point	1992			Nb
2	Skylark	Alauda arvensis	The Warren (nr Noss Mayo)	2002			UKBAP(P);

							Red
3	Common Frog	<i>Rana temporaria</i>	Near Warren Cottage, Noss Mayo.	2003	WCA 5(S)	EC Va; Bern III	
4	Common Toad	<i>Bufo bufo</i>	Near Warren Cottage, Noss Mayo.	2003	WCA 5(S)	Bern III	
5	Viviparous Lizard	<i>Lacerta vivipara</i>	Near Warren Cottage, Noss Mayo.	2003	WCA 5(KIS)	Bern III	
6	Golden-samphire	<i>Inula crithmoides</i>	Hilsea Point, Noss Mayo	1992			NS; DN1
7	Green Hairstreak	<i>Callophrys rubi</i>	Hilsea point/Stoke point	1992			Declined
8	Badger	<i>Meles meles</i>	Amity Lodge, Lower Court Road, Newton Ferrers	2002	WCA 6, BA	Bern III	
9	Great Green Bush Cricket	<i>Tettigonia viridissima</i>	In garden at Yealm Road, Newton Ferrers	2001			DBAP
10	Curlew	<i>Numenius arquata</i>	Yealm estuary at Noss Mayo.	2002			DBAP; Amber
11	Badger	<i>Meles meles</i>	Garden at Tideways, Yealm Road, Newton Ferrers.	2004	WCA 6, BA	Bern III	
12	Common Toad	<i>Bufo bufo</i>	Newton Ferrers	2001	WCA 5(S)	Bern III	
13	Peregrine	<i>Falco peregrinus</i>	Newton Ferrers	2003	WCA 1		Amber
14	Common Frog	<i>Rana temporaria</i>	Apple Cottage, Court Rd, Newton Ferrers	2002	WCA 5(S)	EC Va; Bern III	
15	Common Toad	<i>Bufo bufo</i>	In garden pond at Apple Cottage, Court Road, Newton Ferrers.	2002	WCA 5(S)	Bern III	
16	Barnacle Goose	<i>Branta leucopsis</i>	Yealm Estuary	1989			Amber
17	Black-headed Gull	<i>Larus ridibundus</i>	Yealm Estuary	1991			Amber
18	Curlew	<i>Numenius arquata</i>	Yealm Estuary	1991			DBAP; Amber
19	Dunlin	<i>Calidris alpina</i>	Yealm Estuary	1989			Amber
20	Greenshank	<i>Tringa nebularia</i>	Yealm Estuary	1991	WCA 1		
21	Kingfisher	<i>Alcedo atthis</i>	Yealm Estuary	1992	WCA 1		Amber
22	Little Egret	<i>Egretta garzetta</i>	Yealm Estuary	1992			Amber
23	Mediterranean Gull	<i>Larus melanocephalus</i>	Yealm Estuary	1990	WCA 1		
24	Mute Swan	<i>Cygnus olor</i>	Yealm Estuary	1992			Amber
25	Oystercatcher	<i>Haematopus ostralegus</i>	Yealm Estuary	1991			Amber
26	Pochard	<i>Aythya ferina</i>	Yealm Estuary	1992			Amber

27	Redshank	<i>Tringa totanus</i>	Yealm Estuary	1991			Amber
28	Shelduck	<i>Tadorna tadorna</i>	Yealm Estuary	1991			Amber
29	Teal	<i>Anas crecca</i>	Yealm Estuary	1990			Amber
30	Wigeon	<i>Anas penelope</i>	Yealm Estuary	1988			Amber
31	Hobby	<i>Falco subbuteo</i>	Newton Ferrers.	1993	WCA 1		
32	Badger	<i>Meles meles</i>	Garden at Court Road, Newton Ferrers.	2003	WCA 6, BA	Bern III	
33	Water Shrew	<i>Neomys fodiens</i>	Noss Mayo	2003	WCA 6	Bern III	
34	Common Shrew	<i>Sorex araneus</i>		2002	WCA 6	Bern III	
35	Pygmy Shrew	<i>Sorex minutus</i>		2002	WCA 6	Bern III	
36	Otter	<i>Lutra lutra</i>	Bridgend, Newton Ferrers.	2002	WCA 5	EC IIa, IIIa; Bern II	UKBAP(P); DBAP
37	Curlew	<i>Numenius arquata</i>	River Yealm, between Warren Wood and Quarry Plantation.	2002			DBAP; Amber
38	Little Egret	<i>Egretta garzetta</i>	River Yealm, between Warren Wood and Quarry Plantation.	2002			Amber
39	Oystercatcher	<i>Haematopus ostralegus</i>	River Yealm, between Warren Wood and Quarry Plantation.	2002			Amber
40	Redshank	<i>Tringa totanus</i>	River Yealm, between Warren Wood and Quarry Plantation.	2002			Amber
41	Cirl Bunting	<i>Emberiza cirlus</i>	Westcliff Cove to Keaton Cove	1992	WCA 1		UKBAP(P); DBAP; Red
42	Black-tailed Godwit	<i>Limosa limosa</i>	By the River Yealm from the woods (Kitley) bordering it.	2002	WCA 1		Red
43	Curlew	<i>Numenius arquata</i>	River Yealm (Kitley Woods) between Puslinch Bridge and Warren Wood.	2002			DBAP; Amber
44	Curlew	<i>Numenius arquata</i>	By the River Yealm from the woods (Kitley) bordering it.	2002			DBAP; Amber

45	Greenshank	<i>Tringa nebularia</i>	River Yealm (Kitley Woods) between Puslinch Bridge and Warren Wood.	2002	WCA 1		
46	Kingfisher	<i>Alcedo atthis</i>	By the River Yealm from the woods (Kitley) bordering it.	2002	WCA 1		Amber
47	Little Egret	<i>Egretta garzetta</i>	River Yealm (Kitley Woods) between Puslinch Bridge and Warren Wood.	2002			Amber
48	Redshank	<i>Tringa totanus</i>	By the River Yealm from the woods (Kitley) bordering it.	2002			Amber
49	Black-headed Gull	<i>Larus ridibundus</i>	Perches Close, Membland, Newton Ferrers.	2004			Amber
50	Dunnock	<i>Prunella modularis</i>	Perches Close, Membland, Newton Ferrers.	2004			Amber
51	Green Woodpecker	<i>Picus viridis</i>	Perches Close, Membland, Newton Ferrers.	2004			Amber
52	Hawfinch	<i>Coccothraustes coccothraustes</i>	Perches Close, Membland, Newton Ferrers.	2003			Amber
53	House Martin	<i>Delichon urbica</i>	Perches Close, Membland, Newton Ferrers.	2003			Amber
54	House Sparrow	<i>Passer domesticus</i>	Perches Close, Membland, Newton Ferrers.	2004			Red
55	Marsh Tit	<i>Parus palustris</i>	Perches Close, Membland, Newton Ferrers.	2004			Red
56	Mistle Thrush	<i>Turdus viscivorus</i>	Perches Close, Membland, Newton Ferrers.	2004			Amber
57	Song Thrush	<i>Turdus philomelos</i>	Perches Close, Membland, Newton Ferrers.	2004			UKBAP(P); Red
58	Starling	<i>Sturnus vulgaris</i>	Perches Close, Membland, Newton Ferrers.	2004			Red
59	Swallow	<i>Hirundo rustica</i>	Perches Close, Membland, Newton Ferrers.	2003			Amber
60	Willow Warbler	<i>Phylloscopus trochilus</i>	Perches Close, Membland,	2003			Amber

			Newton Ferrers.				
61	Water Shrew	<i>Neomys fodiens</i>	Garden pond at Membland Villas, Membland, Newton Ferrers.	2003	WCA 6	Bern III	
62	Brown Long-eared Bat	<i>Plecotus auritus</i>	Collaton House, Livingstone Avenue, Yealmpton.	2004	WCA 5, 6	EC IVa; Bern II; Bonn II	
63	Pipistrelle	<i>Pipistrellus pipistrellus</i>	Collaton House, Livingstone Avenue, Yealmpton.	2004	WCA 5, 6	EC IVa; Bern III, Bonn II	UKBAP(P)
64	Musk Stork's-bill	<i>Erodium moschatum</i>	Westcliff to Keaton Cove, Beacon Hill	1992			NS; DR
65	Distant Sedge	<i>Carex distans</i>	Westcliff to Keaton Cove, Wadham Beach	1992			DN2
66	Frosted Orache	<i>Atriplex laciniata</i>	Westcliff to Keaton Cove, Wadham Beach	1992			DN1
67	Long-bracted Sedge	<i>Carex extensa</i>	Westcliff to Keaton Cove, Wadham Beach	1992			DN2
68	Saltmarsh Rush	<i>Juncus gerardii</i>	Westcliff to Keaton Cove, Wadham Beach	1992			DN3
69	Sea Rush	<i>Juncus maritimus</i>	Westcliff to Keaton Cove, Wadham Beach	1992			DN2
70	Grey Bush Cricket	<i>Platycleis albopunctata</i>	Westcliff Cove to Keaton Cove	1992			Nb
71	Green Hairstreak	<i>Callophrys rubi</i>	Blackstone Point	1995			Declined
72	Green Hairstreak	<i>Callophrys rubi</i>	Noss Mayo-Blackstone	1997			Declined
73	Green Hairstreak	<i>Callophrys rubi</i>	Mouthstone Pt.-Stoke Down	1990			Declined
74	Purple Hairstreak	<i>Quercusia quercus</i>	Mouthstone Point	1993			Declined
75	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	Blackstone Point	1992			Declined
76	Silver-washed Fritillary	<i>Argynnis paphia</i>	Cliff Drive	1992			
77	Dark Green Fritillary	<i>Argynnis aglaja</i>	Stoke Cliffs	2000			Declined
78	Green Hairstreak	<i>Callophrys rubi</i>	Stoke Point	1998			Declined
79	Purple Hairstreak	<i>Quercusia quercus</i>	Fish House Plantation	1993			Declined

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 5 (S)	Wildlife and Countryside Act (1981) Schedule 5: (sale): species protected against sale only.
WCA 6	Wildlife and Countryside Act (1981) Schedule 6: animals (other than birds) which may not be killed or taken by certain methods
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.
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
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.
ECVa, Vb	EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats & Species Directive) Annex Va and Vb: Exploitation of listed animals and plants to be subject to management if necessary.
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.
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 IIIb: Species used as criteria for designating Special Areas of Conservation (SACs).
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.

Decline	Substantial local decline in Devon
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.
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.
Nb	Nationally Notable B: recorded from 30-100 10km squares in Great Britain since 1980
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.
DN2	Devon Notable²: 26-50 2 km squares in Atlas of Devon Flora 1984.
DN3	Devon Notable³: Selected species recorded from over 50 2 km squares in Atlas of Devon Flora 1984.
DR	Devon Rarity: native species recorded from 3 or fewer localities within Devon

Appendix 2

Species list for Newton and Noss parish, recorded during the field survey on 24 September 2004.

Scientific name	Common name
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Aegopodium podagraria</i>	Ground-elder
<i>Aeshna cyanea</i>	Southern Hawker
<i>Agrostis capillaris</i>	Common Bent
<i>Alauda arvensis</i>	Skylark
<i>Anagallis arvensis</i>	Scarlet Pimpernel
<i>Anthus pratensis</i>	Meadow Pipit
<i>Arrhenatherum elatius</i>	False Oat-grass
<i>Artemisia vulgaris</i>	Mugwort
<i>Arum maculatum</i>	Lords-and-ladies
<i>Asplenium adiantum-nigrum</i>	Black Spleenwort
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort
<i>Bellis perennis</i>	Daisy
<i>Blechnum spicant</i>	Hard Fern
<i>Brachypodium sylvaticum</i>	False-brome
<i>Buddleja davidii</i>	Butterfly-bush
<i>Buteo buteo</i>	Buzzard
<i>Calluna vulgaris</i>	Heather
<i>Calystegia sepium</i>	Hedge Bindweed
<i>Carduus nutans</i>	Musk Thistle
<i>Carex pendula</i>	Pendulus Sedge
<i>Carex sylvatica</i>	Wood-sedge
<i>Castanea sativa</i>	Sweet Chestnut
<i>Centaurea nigra</i>	Common Knapweed
<i>Centranthus ruber</i>	Red Valerian
<i>Circaea lutetiana</i>	Enchanter's-nightshade
<i>Cirsium arvense</i>	Creeping Thistle
<i>Clematis vitalba</i>	Traveller's Joy
<i>Clinopodium ascendens</i>	Common Calamint
<i>Columba palumbus</i>	Woodpigeon
<i>Convolvulus arvensis</i>	Field Bindweed
<i>Corvus corax</i>	Raven
<i>Corvus frugilegus</i>	Rook
<i>Corvus monedula</i>	Jackdaw
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Crepis capillaris</i>	Smooth Hawk's-beard
<i>Cyclamen hederifolium</i>	Cyclamen
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax
<i>Cynosurus cristatus</i>	Crested Dog's-tail
<i>Dactylis glomerata</i>	Cock's-foot
<i>Delichon urbica</i>	House Martin

<i>Digitalis purpurea</i>	Foxglove
<i>Dryopteris affinis</i>	Scaly Male Fern
<i>Dryopteris dilatata</i>	Broad Buckler-fern
<i>Dryopteris filix-mas</i> agg.	Male Fern
<i>Euphorbia amygdaloides</i>	Wood Spurge
<i>Fagus sylvatica</i>	Beech
<i>Falco tinnunculus</i>	Kestrel
<i>Festuca rubra</i> agg.	Red Fescue
<i>Fraxinus excelsior</i>	Ash
<i>Fringilla coelebs</i>	Chaffinch
<i>Galium mollugo</i>	Hedge Bedstraw
<i>Galium odoratum</i>	Woodruff
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill
<i>Geranium pyrenaicum</i>	Hedgerow Crane's-bill
<i>Geranium robertianum</i>	Herb-robert
<i>Geum urbanum</i>	Herb Bennet
<i>Hedera helix</i>	Ivy
<i>Heracleum sphondylium</i>	Hogweed
<i>Hirundo rustica</i>	Swallow
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Hyacinthoides non-scripta</i>	Bluebell
<i>Hypericum androsaemum</i>	Tutsan
<i>Hypericum pulchrum</i>	Slender St. John's-wort
<i>Hypochaeris radicata</i>	Cat's-ear
<i>Ilex aquifolium</i>	Holly
<i>Lamium purpureum</i>	Red Dead-nettle
<i>Leucanthemum vulgare</i>	Oxeye Daisy
<i>Ligustrum vulgare</i>	Wild Privet
<i>Lolium perenne</i>	Perennial Rye-grass
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Luzula sylvatica</i>	Great Wood-rush
<i>Malva sylvestris</i>	Common Mallow
<i>Medicago arabica</i>	Spotted Medick
<i>Medicago lupulina</i>	Black Medick
<i>Mercurialis perennis</i>	Dog's Mercury
<i>Parietaria judaica</i>	Pellitory-of-the-Wall
<i>Parus caeruleus</i>	Blue Tit
<i>Pholidoptera griseoaptera</i>	Dark Bush Cricket
<i>Phyllitis scolopendrium</i>	Hart's-tongue
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago major</i>	Greater Plantain
<i>Polypodium vulgare</i> agg.	Polypody
<i>Polystichum setiferum</i>	Soft Shield-fern
<i>Potentilla reptans</i>	Creeping Cinquefoil
<i>Potentilla sterilis</i>	Barren Strawberry
<i>Primula vulgaris</i>	Primrose
<i>Prunus</i> sp.	a planted cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Pteridium aquilinum</i>	Bracken
<i>Pulicaria dysenterica</i>	Common Fleabane

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rubia peregrina</i>	Wild Madder
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rumex acetosa</i>	Common Sorrel
<i>Sambucus nigra</i>	Elder
<i>Sciurus carolinensis</i>	Grey Squirrel
<i>Scrophularia nodosa</i>	Common Figwort
<i>Silene dioica</i>	Red Campion
<i>Solidago virgaurea</i>	Goldenrod
<i>Sorbus aucuparia</i>	Rowan
<i>Stachys officinalis</i>	Betony
<i>Stellaria graminea</i>	Lesser Stitchwort
<i>Stellaria holostea</i>	Greater Stitchwort
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Sympetrum striolatum</i>	Common Darter
<i>Taraxacum officinale</i> agg.	Dandelion
<i>Teucrium scorodonia</i>	Wood Sage
<i>Trifolium pratense</i>	Red Clover
<i>Trifolium repens</i>	White Clover
<i>Tripleurospermum inodorum</i>	Scentless Mayweed
<i>Ulex europaeus</i>	Gorse
<i>Ulmus procera</i>	English Elm
<i>Umbilicus rupestris</i>	Navelwort
<i>Urtica dioica</i>	Common Nettle
<i>Veronica chamaedrys</i>	Germander Speedwell
<i>Veronica filiformis</i>	Slender Speedwell
<i>Vicia cracca</i>	Tufted Vetch
<i>Viola odorata</i>	Sweet Violet
<i>Viola riviniana</i>	Common Dog-violet
<i>Viola</i> sp.	a violet