

Parish Biodiversity Audit
for
Hemyock

Consultation draft – March 2010

David J. Allen

Report commissioned by Devon County Council

Data supplied by the Devon Biodiversity Records Centre



Contents

INTRODUCTION.....	4
DESIGNATED SITES	6
SITES OF SPECIAL SCIENTIFIC INTEREST	6
BLACKDOWN AND SAMPFORD COMMONS SITE OF SPECIAL SCIENTIFIC INTEREST	6
ASHCULM TURBARY SITE OF SPECIAL SCIENTIFIC INTEREST.....	7
COUNTY WILDLIFE SITES	8
BYOOD COPSE COUNTY WILDLIFE SITE.....	8
MIDDLE MACKHAM COUNTY WILDLIFE SITE	9
LITTLE THATCH, COOMBES HEAD FARM COUNTY WILDLIFE SITE	9
GOODALL’S FARM, WEST, COUNTY WILDLIFE SITE	10
GOODALL’S FARM, EAST, COUNTY WILDLIFE SITE	10
WHITEMOOR WOODS COUNTY WILDLIFE SITE	10
WHITEHAMS FARM COUNTY WILDLIFE SITE	11
SIMONSBURROW COUNTY WILDLIFE SITE	12
HEAZLE FARM WOODS COUNTY WILDLIFE SITE	13
JENNINGS FARM COUNTY WILDLIFE SITE.....	13
HACKPEN HILL COUNTY WILDLIFE SITE	14
HEMYOCK COMMON COUNTY WILDLIFE SITE	14
LICKHAM BOTTOM AND LICKHAM COMMON COUNTY WILDLIFE SITE	15
RODLEIGH FARM FIELD COUNTY WILDLIFE SITE.....	15
SHUTTLETON COMMON COUNTY WILDLIFE SITE	16
OXENPARK FARM WEST COUNTY WILDLIFE SITE	16
PEN CROSS FIELDS COUNTY WILDLIFE SITE.....	17
WHEELBARROW LANE COUNTY WILDLIFE SITE	17
MADFORD RIVER COUNTY WILDLIFE SITE.....	18
LOWER MACKHAM FARM COUNTY WILDLIFE SITE	18
LEMON’S HILL (EMBRACING NEW PLOT COPSE) COUNTY WILDLIFE SITE	19
LEMON’S HILL FARM, INCLUDING THE ROOKERY, COUNTY WILDLIFE SITE	20
NEWCOTT MOOR COUNTY WILDLIFE SITE.....	21
WHITEHAMS FARM, SOUTH, COUNTY WILDLIFE SITE.....	21
COLLINSHAYNE MARSH COUNTY WILDLIFE SITE	22
LOWER MACKHAM MEADOW COUNTY WILDLIFE SITE	23
LOWER MACKHAM COUNTY WILDLIFE SITE.....	24
OTHER HABITATS.....	25
SPECIES-RICH HEDGES.....	25
RECREATION AREAS AND PUBLIC OPEN SPACE	26
ORCHARDS	27
POTENTIAL COUNTY WILDLIFE SITES.....	27
SPECIES	28
IMPORTANT SPECIES.....	28
BIRDS.....	28
PLANTS.....	28
MAMMALS.....	28
REPTILES AND AMPHIBIANS.....	29
INVERTEBRATES.....	29
THE DEVON BIODIVERSITY ACTION PLAN (BAP)	30
BIODIVERSITY LINKS:	30
SOME IDEAS FOR LOCAL ACTION... ..	31
1. FURTHER SURVEY:	31
2. INFLUENCE THE MANAGEMENT OF PUBLIC OPEN SPACE:	31
3. BUILD RELATIONSHIPS WITH LOCAL LANDOWNERS:	32

4. <u>ADOPT A ROAD VERGE:</u>	32
5. <u>WILDLIFE GARDENING:</u>	32
6. <u>JOIN LOCAL CONSERVATION ORGANISATIONS:</u>	33
7. <u>JAPANESE KNOTWEED:</u>	33
<u>USEFUL SOURCES OF FURTHER INFORMATION:</u>	35
<u>POSSIBLE SOURCES OF FUNDING:</u>	36
<u>BIBLIOGRAPHY</u>	38
<u>ACKNOWLEDGEMENTS</u>	39
<u>APPENDIX 1 – NOTABLE SITES WITHIN HEMYOCK PARISH (2009)</u>	41
<u>APPENDIX 2 – LEGALLY PROTECTED & NOTABLE SPECIES WITHIN HEMYOCK PARISH (2009)</u>	48

Hemyock 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 very 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 Hemyock parish in future years.

Did you know...?

Section 40 of the Natural Environment and Rural Communities 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/environment/biodiversity/documents/la-guid-english.pdf

This audit and the ideas it may stimulate may help the Parish Council to fulfil this biodiversity duty.

Introduction

Hemyock parish lies within Mid Devon District just south of the escarpment of the Blackdown Hills Area of Outstanding Natural Beauty (AONB). The parish, which is bisected by the River Culm, comprises the village of Hemyock, the largest village of the AONB with a population in excess of 2,000 residents, as well as outlying hamlets including Culm Davy, Simonsburrow, Millhayes, Madford and Mackham. The parish boundary to the south is bounded by the Madford River which flows north, joined first by the Bolham River before reaching the Culm just to the east of the village.

Hemyock's history can be traced back to about 800AD when it became a royal manor and had become an important settlement when, in 1201, twelve Cistercian monks were instructed to build Dunkeswell Abbey in the Madford valley. In 1380, Richard II gave permission for the manor house to be fortified, so creating Hemyock Castle which is now a private house. Next to the castle stands St. Mary's church parts of which are of Norman age.

Like the Blackdown Hills as a whole, livestock farming has been the mainstay of the parishes' economy for many hundreds of years, now principally beef and dairy farming. In 1886, the first mechanically operated butter factory in the west of England was set up in Hemyock, latterly at Millhayes, close to the railway line that served the village until its closure in 1975. Hemyock remains a busy centre with facilities that include a post office, a shop, a café, pub, village hall, two churches, tennis courts and a recreation field.

Hemyock parish lies both within the Blackdown Hills AONB and within the Blackdowns Natural Area that embraces also the coastal area south of the A35 which is part of the East Devon AONB. Ashculm Turbary is the only Site of Special Scientific Interest (SSSI) that lies entirely within the parish whereas only the south-eastern tip of Blackdown and Sampford Commons SSSI extends into Hemyock. There are 28 County Wildlife Sites (CWS) that lie at least partly in the parish in addition to which a further 26 Unconfirmed Wildlife Sites (UWS) have been identified. The latter are presented in Appendix 1.

The landscape of the Blackdowns as a whole has been moulded both by its land use and by its geological history one characteristic of which is the area's dissected greensand plateaux. Beneath the greensand lies an impermeable clay called Keuper Marl so that springs form at the junction between the marl and the greensand; a distinct spring-line is an important feature of the AONB.

Among the SSSIs and CWS within the parish, the basis for their designation was in the majority of cases the presence of lowland heathland and/or purple moor-grass and rush pasture. Both of these are plant communities identified as priorities nationally in the Biodiversity Action Plan (UK BAP, see page 29).

Other important habitats represented in the designated sites are wet woodland, including alder/willow carr, and these together with the rush pasture and remnants of wet heathland are reflections of the existence of spring-line mire.

Woodland, particularly ancient semi-natural lowland mixed deciduous woodland, is relatively uncommon in Hemyock; one example is found in Bywood Copse CWS. A large area of plantation woodland is Culm Davy and Whitehall Plantations in the north-west of the parish.

Grassland, largely the improved grassland that sustains the livestock industry, is widespread throughout the parish but this is of little interest in terms of biodiversity. That said, the parish is rather well-endowed with unimproved lowland meadows some of which are flower-rich; this habitat is represented in many of the CWS in Hemyock. Madford River CWS was designated for its diversity of habitats that include a series of ponds, river banks with tall herb fen, ditches and leats, and some marshy grassland.

Fine, wide views can be had from various points of the parish, looking across the upper Culm valley, and a walks leaflet for Hemyock has been published recently, with support from the Leader + Programme run via the Blackdown Hills AONB.

Notable sites for biodiversity, and Notable species as defined by the Devon Biodiversity Records Centre (DBRC), are summarized in Appendices 1 and 2. The species list includes those cited in the UK Biodiversity Action Plan (UK BAP) as well as those in the county Biodiversity Action Plan (Devon BAP). Each is described on page 29. What follows, under Designated Sites, is summarized from survey records held by the DBRC. Many of these surveys were conducted 8-12 years ago, for which reason the text is often written in the past tense: certain sensitive habitats can become degraded quite quickly so there is no certainty they remain as described when last surveyed, nor that uncommon and notable species survive. This is particularly the case with species like the marsh fritillary butterfly that is fast-declining across its range. It should perhaps also be added that the Notable Species of vascular plant are defined on the basis of an inadequate and out-dated Devon Flora published in 1984; a new county flora is in the final stages of preparation by botanists of the Devonshire Association.

Designated Sites

Many designated sites are on private land. The inclusion of a site in no way implies any right to public access.

Sites of Special Scientific Interest

Sites of Special Scientific Interest (SSSI) 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.

Blackdown and Sampford Commons Site of Special Scientific Interest

Blackdown and Sampford Commons SSSI straddles the Devon/Somerset county borders and occupies just over 155 hectares. Most of the site lies in Culmstock parish; it is included here because a small block to the east of the site is in Hemyock parish. The site was notified as a SSSI in 1981 principally because it was seen to be “the finest and most extensive surviving example of ... heathland, carr woodland and marshy grassland habitats that have developed on the acid soils..... of the Blackdown Hills”. It remains so. The dry heathland supports a typical invertebrate fauna including a wide variety of butterflies such as grayling and small heath, and moths that include the emperor. Spiders are notably abundant. The site is regionally important for heathland birds: snipe and jack snipe are winter visitors whereas nightjar, curlew and Dartford warbler breed here, now possibly the only extant site in the Blackdowns.

There is a large area of unimproved, acid marshy grassland on the lower slopes where drainage is impeded, an area dominated by tussocks of purple moor-grass, cross-leaved heath and bog-mosses. Here are found two species of the carnivorous sundew, pale butterwort, bog asphodel, bog pimpernel, lousewort, lesser skullcap, marsh St. John’s-wort, creeping willow, common cotton grass and early marsh-orchid, the latter more abundant than anywhere else in the Blackdowns or, indeed, in Devon.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)
- Purple moor-grass and rush pastures (UK BAP)
- Rhos pasture (Devon BAP)

Links to Devon and UK BAP

Key species:

- Dartford warbler (UK BAP)
- Nightjar (Devon and UK BAP)
- Curlew (Devon BAP)
- Linnet (UK BAP)
- Green hairstreak (Declining)
- Grayling (UK BAP)
- Small heath (UK BAP)
- Early marsh-orchid (Devon Notable)
- Oblong-leaved sundew (Devon Notable)
- Heath pearlwort (Devon Notable)
- Orpine (Devon Notable)

Ashculm Turbary Site of Special Scientific Interest

Ashculm Turbary is a small site occupying just over 6½ hectares entirely within Hemyock Parish by whom it is owned. It is currently leased to the Devon Wildlife Trust who manages the site in conjunction with Natural England. Moorland ponies have been used to good effect in grazing the reserve.

Ashculm Turbary was notified as a SSSI in 1981 on the basis of its important bog and wetland communities. There is a “quicksand” which is a fenced-off area of deep bog, and old peat cuttings are discernible. Pale butterwort, both round-leaved and oblong-leaved sundews, white beak-sedge and early marsh-orchid are among the more important plant species here. There are historical records also of needle spike-rush, wood horsetail, marsh valerian, marsh St. John’s-wort, the lichen *Usnea florida*, pearl-bordered fritillary and silver-studded blue some of which are probably now extinct.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)
- Purple moor-grass and rush pastures (UK BAP)
- Wet woodland (UK BAP)

Key species:

- Early marsh-orchid (Devon Notable)
- Oblong-leaved sundew (Devon Notable)
- White beak-sedge (Devon Notable)

County Wildlife Sites

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 regional or local biodiversity interest and are covered by Planning Policy Statement 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.

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.

Byood Copse County Wildlife Site

A survey in 1991 identified a mosaic of habitats including ancient semi-natural woodland, wet heath and spring line mire at this site. The mire supported a community containing bog myrtle, round-leaved sundew, pale butterwort, bog pimpernel, bog asphodel, bog-mosses and white beak-sedge. Wet heath, dominated by purple moor-grass, had tussock sedge and a grass snake, and the whole site was grazed at low intensity by beef cattle.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon & UK BAP)
- Purple moor-grass and rush pastures (UK BAP)
- Lowland mixed deciduous woodland (UK BAP)

Key species:

- Bog myrtle (Devon Notable)
- White beak-sedge (Devon Notable)

Middle Mackham County Wildlife Site

A survey conducted in 2007 found species-rich neutral grassland, rush pasture and wet woodland at this site part of which is under a Higher Level Stewardship agreement between the private owner and Natural England. Among plants, the two Devon Notable species round-leaved crowfoot and wood horsetail were identified here. An area of tall herbs was deemed excellent for invertebrates among which a silver-washed fritillary was recorded.

Links to Devon and UK BAP

Key habitat:

- Wet woodland (UK BAP)
- Purple moor-grass and rush pasture (UK BAP)
- Alder and willow wet woodland (Devon BAP)

Key species:

- Round-leaved crowfoot (Devon Notable)
- Wood horsetail (Devon Notable)
- Primrose (Devon BAP)

Little Thatch, Coombes Head Farm County Wildlife Site

In a 1987 survey, the site comprised three communities of grassland: an area of unimproved to semi-improved neutral grassland; some unimproved marshy grassland; and area of purple moor-grass and sedges interlaced with species-rich boggy areas, with creeping willow, many-stalked spike-rush, round-leaved sundew, common cotton grass, bog asphodel, bog pimpernel and meadow thistle. Devil's-bit and sneezewort were also found.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pastures (UK BAP)
- Lowland meadows (UK BAP)

Goodall's Farm, West, County Wildlife Site

Goodall's Farm west CWS occupies an area of 2.6ha which, in a survey in 1987, was a mosaic of scrub and unimproved marshy grassland. Much of the site was rushy, with boggy patches with marsh violet, marsh willowherb, marsh bedstraw, bog pimpernel, greater bird's-foot trefoil, water mint, ragged robin, both creeping and tufted forget-me-not, and star sedge, a plant community called a rush pasture. The scrubby area was less species-rich and the site was fairly well-grazed by cattle.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pastures (UK BAP)

Goodall's Farm, East, County Wildlife Site

In 1987, this small area of unimproved marshy grassland was mostly dominated by rushes. Common spotted orchids were frequent in a community with marsh horsetail, marsh bedstraw, greater bird's-foot trefoil, ragged robin, marsh willow herb, hairy sedge, fleabane, field scabious and devil's-bit. Somewhat better drained patches supported a greater diversity of grasses, including quaking grass, with only occasional rushes. Here too were rough hawkbit, common cat's-ear, yarrow and common bird's-foot trefoil.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pasture (UK BAP)

Whitemoor Woods County Wildlife Site

Whitemoor Woods CWS is a varied area of 8.1ha that lies just to the south of the Blackdowns scarp on the gentle dip slope at the head of a valley that drains into the River Culm. When surveyed in 1993, the site was a mosaic of secondary woodland, a small area of ancient semi-natural woodland, degraded wet heath and marshy grassland. Old woodland, indicated by the presence of sweet woodruff, primrose, wood sorrel, sanicle and yellow pimpernel as well as by some coppice and old pollards, included an area of ancient alders on damper ground. The secondary woodland and scrub consisted of oak, beech and rowan, with some holly understorey overlying tussocks of purple moor-grass that indicates the area is a mire that has been encroached by scrub. In one area of mire, there is a small stand of bog myrtle, or sweet gale, which is a Devon Notable species of local occurrence in the Blackdowns.

An open area at the time of the survey had been rough-grazed, probably by pigs. Down the slope rush pasture gave way to degraded heathland, as indicated by bell heather, ling, tormentil, purple moor-grass and various sedges. Wetter areas supported bog-moss and lesser spearwort.

Overall, the site was deemed important, because of the variety of its habitats and plant communities, albeit some in a degraded state. There seemed scope for improvement of the CWS, through sympathetic management including light grazing and scrub control. The presence of bog myrtle and the area of ancient woodland were seen as particularly interesting.

Links to Devon and UK BAP

Key habitat:

- Wet woodland (UK BAP)
- Alder/willow wet woodland (Devon BAP)
- Lowland heathland (Devon and UK BAP)
- Purple moor-grass and rush pastures (Devon BAP)

Key species:

- Bog myrtle (Devon Notable)

Whitehams Farm County Wildlife Site

Whitehams Farm CWS lies on a west-facing slope just to the East of Whitemoor Woods CWS (see above) and occupies nearly 10 hectares. In a survey in 1987, three distinct plant communities could be distinguished. On drier ground to the north of the site, there was an area of unimproved neutral grassland with some encroaching scrub. Significantly, this was one of the two areas where devil's-bit scabious was frequent (the other was just outside the CWS, on adjacent land at the southwest corner). Devil's-bit is the larval food plant of the rare marsh fritillary, Europe's fastest declining butterfly, adults of which were recorded in the 1987 survey. Only four adults were seen in subsequent surveys in 1988-89, and this was attributed to cattle poaching of the devil's-bit population.

In the centre of the site, there was an area dominated by purple moor-grass with cross-leaved heath and creeping willow, and this wet heath community gave way southward to rush pasture and spring-line mire that was more species-rich. Plants typical of mires and bogs included common cotton-grass, a range of sedges, meadow thistle, marsh violet, bog asphodel, the insectivorous round-leaved sundew, bog pimpernel, marsh St. John's-wort and many stalked spike-rush.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)
- Purple moor-grass and rush pasture (UK BAP)

Key species:

- Marsh fritillary (UK BAP)
- Primrose (Devon BAP)

Simonsburrow County Wildlife Site

Simonsburrow CWS is a large (12.5ha) and complex site that abuts Ashculm Turbary SSSI. In a survey in 1993, the northern half of the site was being grazed and contained two recently constructed ponds that were attracting many dragonflies. Much of this northerly portion consisted of wet woodland dominated by alder, including some veteran trees. The rest constituted a rich mosaic of habitats including wet heath, mire and bog but these open areas were seen to be under threat by the spread of scrub. The southern portion of the CWS was at that time unmanaged, and the open mire had been invaded by birch and willow scrub as well as by dense bracken in the drier areas. Remaining mire was dominated by tussocks of purple moor-grass amongst which bell heather and tormentil persisted.

The most species-rich areas of mire were those where light grazing had produced an even sward comprising purple moor-grass, devil's-bit, cotton grass, several sedges, bog asphodel and heath spotted orchid in addition to the three common species of heather. Marsh St. John's-wort, round-leaved sundew and the uncommon white beak-sedge were present in the more open, wetter mires.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Wet woodland (UK BAP)
- Lowland heathland (Devon and UK BAP)

Key species:

- White beak-sedge (Devon Notable)

Heazle Farm Woods County Wildlife Site

This small (4.5ha), complex and ecologically varied site at the head of a valley in the Culm catchment was surveyed in 1993. The CWS abuts Simonsburrow CWS to the west and also adjoins Jennings Farm CWS to the southeast. At the time of the survey, the following three communities were distinguishable : areas of sheep-grazed semi-improved grassland on the more freely drained soils, with patches of rushes, common bird's-foot trefoil and a profusion of butterflies including common blue and small heath; areas of secondary woodland and scrub, with oak, scots pine, birch, willow, rowan and hazel, with some open areas of dense bracken and gorse; and thirdly, spring-line mire dominated by tussocks of purple moor-grass. The most valuable part of the site was deemed the small and vulnerable area of mire, flower-enriched by sneezewort, southern marsh orchid, meadow thistle and lesser spearwort.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pasture (UK BAP)
- Rhos pasture (Devon BAP)

Jennings Farm County Wildlife Site

Jennings Farm CWS is sandwiched between Heazle Farm Woods CWS, to the northwest, and the northernmost compartment of Clayhidon Turbary, to the east; the site occupies 2.0ha and was surveyed in 1987. Two fairly distinct plant communities were identified. Most of the area was unimproved neutral grassland, with crested dog's-tail, common bent and black knapweed among the most frequent species. The rest of the site was a marshy grassland, with velvet bent, both soft and sharp-flowered rush, Yorkshire fog, cuckoo flower, sneezewort, meadow thistle, fleabane, greater bird's-foot trefoil, marsh bedstraw and ragged robin, an association that is a rush-pasture.

Links to Devon and UK BAP

Key habitat:

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

Hackpen Hill County Wildlife Site

Hackpen Hill CWS is a large area of 51ha from which fine, wide views are possible, especially across to Culmstock Beacon. Whereas the north-easterly part of the Hill, including Owleycombe Common, lies within Hemyock parish, the rest of the site is in either Culmstock or Uffculme parishes.

A survey conducted in 1991 recognized that Hackpen Hill was a complex of bracken slopes, scrub, wet secondary woodland and remnant heathland. One area to the west was found to be severely poached by cattle but, overall, the site seemed neglected and degraded, badly in need of some management; the biological interest was seen as very limited. A small patch of remnant heath, at about ST 111121, was dominated by common gorse overlying ling, bell heather and bilberry, an area in dire need of management to control scrub encroachment. A nice small spring-line flush was found in the south of the site, with common spotted orchid, ragged robin, sharp-flowered rush and, surprisingly, brown sedge which is a Devon Notable species in what must now be among its most south westerly stations in Britain, if it still persists.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)

Key species:

- Brown sedge (Devon Notable)

Hemyock Common County Wildlife Site

Hemyock Common occupies an area of 8.2ha on the plateau to the southeast of Hackpen Hill. In a survey in 1991, it was a fairly good patch of dry heathland, with both common and western gorse, ling, bell heather, cross-leaved heath, tormentil, heath bedstraw and purple moor-grass. About a quarter of the area was invaded by bracken with purple moor-grass and this association was much less diverse. Another quarter had become encroached by scrub, especially birch with some alder buckthorn, and secondary woodland including oak. Damp areas supported bog-moss, meadow thistle, heath-spotted orchid and devil's-bit. The site was then and still is used for clay pigeon shooting and there is evidence of occasional burning.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)

Lickham Bottom and Lickham Common County Wildlife Site

This site, which embraces a Local Nature Reserve managed by the Devon Wildlife Trust, occupies 6.4ha of mixed habitat within a side valley that is part of the Culm catchment. In a survey in 1987, much of the site was spring-line mire dominated by purple moor-grass with tormentil and cross-leaved heath. The Devon Notable bog myrtle was locally frequent but much of the site was becoming invaded by scrub and wet woodland. A subsequent survey, in 2007, revealed that the mire community had been overcome by the advance of downy birch scrub which then jeopardized the survival of the few remaining plants of bog myrtle. Now, with some support from Uffculme Environmental, the site is fenced and grazed by ponies, and the mire community is again strong, with locally abundant bog myrtle. Round-leaved crowfoot is also locally frequent. Areas of wet woodland, consisting of alder and willow carr, dominate some compartments of the site, separated by internal Devon banks upon which once there would have been laid hedges and here there are remnants of heath species like bilberry. There is some semi-natural broad-leaved woodland with primroses. There are historical records of the lichen *Usnea florida* (1979) and of early marsh-orchid (1987) which are probably extinct.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Wet woodland (UK BAP)
- Purple moor-grass and rush pastures (UK BAP)

Key species:

- Bog myrtle (Devon Notable)
- Round-leaved crowfoot (Devon Notable)
- Primrose (Devon BAP)

Rodleigh Farm Field County Wildlife Site

In 1987, Rodleigh Farm Field was very wet marshy grassland on a gentle north-facing slope above the River Culm, just East of Lickham Bottom. The principal components of the grassland were sharp-flowered and soft rushes with purple moor-grass and velvet bent; other species included marsh bedstraw, marsh willow-herb, meadow thistle, greater bird's-foot trefoil, ragged robin, marsh violet, devil's-bit, cuckoo flower and sneezewort, a community identified as a type of rush-pasture.

An area of wet woodland consisting of alder and willow carr occupies the stream bank.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Wet woodland (UK BAP)
- Lowland Meadows (UK BAP)
- Grazing marsh (Devon BAP)

Shuttleton Common County Wildlife Site

Shuttleton Common was a small patch of quite nice heathland covering nearly 5ha when surveyed in 1991. Bracken, with bluebells, occupied the north side and southeast corner of the site, and scrub was invading the heath from the northwest corner. The body of the dry heath was a short mixture of purple moor-grass, western gorse and bell heather with patches of ling, sheep's fescue and common gorse. Heath milkwort and lousewort were frequent and common spotted orchid occasional.

The short sward suggested it was being grazed, possibly by roe deer alone. There was evidence of past burning of the site.

Links to Devon and UK BAP

Key habitat:

- Lowland heathland (Devon and UK BAP)

Oxenpark Farm West County Wildlife Site

This CWS consists of a small group of fields amounting to 2.5ha of unimproved neutral and marshy grassland. In 1987 when surveyed, three plant communities were distinguished. The greater part of the site was marshy grassland, very wet in places and dominated by sharp-flowered and soft rushes in association with both marsh and fen bedstraws, a community termed a rush pasture. Occasional species here included lesser skullcap, devil's-bit, sneezewort, bog asphodel and musk.

A distinct plant association was confined to a small patch on a steep slope on drier land where carnation sedge and heath-grass were major components of the unimproved grassland along with bents, sweet vernal grass and purple moor-grass. The third community identified was a moderately species-rich area of neutral grassland with cat's-ear, rough hawkbit, autumn hawkbit, black knapweed and devil's-bit scabious all locally frequent. Patches of scrub were encroaching the grassland in places.

Links to Devon and UK BAP

Key habitat:

- Lowland meadows (UK BAP)

Pen Cross Fields County Wildlife Site

This site is a network of small fields totalling 4.4ha on a steep south-facing slope conspicuous from Hemyock village as an 'oasis' in an area of improved grassland. Despite being semi-improved grassland, in 1993 Pen Cross Fields remained species-rich and relatively undisturbed. The southern-most field lower on the slope was the richest and had ant-hills indicating old pasture. There was some scrub encroachment, including patches of gorse that were occasionally topped, and the site was cattle-grazed.

Species comprising the grassland community were Yorkshire fog, annual meadow-grass, sweet vernal-grass, crested dog's-tail and timothy, with the herbs black knapweed, common bird's-foot trefoil and yarrow all frequent to abundant. Oxeye daisy, field scabious and great mullein occurred occasionally.

Links to Devon and UK BAP

Key habitat:

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

Wheelbarrow Lane County Wildlife Site

Wheelbarrow Lane CWS is a series of six fields varying in biological interest; the two to the west of the lane itself were found the most species-rich, in a survey in 1991. As a whole, the site occupies 12ha of unimproved to semi-improved natural to marshy grassland. The smaller field immediately to the west of Wheelbarrow Lane was damp marshy grassland, apparently grazed, with sharp-flowered rush prominent in the wetter areas. Corky-fruited water dropwort was scattered throughout. The larger field to the west again, adjacent to the one described above, was a hay meadow with a moderately interesting flora that included a brome-grass, lesser trefoil and yellow-rattle. The remainder of the site was similar but less rich; all were managed for hay.

Links to Devon and UK BAP

Key habitat:

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

Links to Devon and UK BAP

Key species:

- Corky-fruited water dropwort (Devon Notable)

Madford River County Wildlife Site

Madford River CWS is an elongated area of 3.4ha on the banks of the Madford River, north of Madford Bridge, surrounded by intensively managed grassland. When the site was surveyed in 1993, it was remarkable for its diversity of habitats. A series of ponds which were once part of a trout farm had developed into semi-natural features and there was a profusion of dragonflies and damselflies on the day of the survey. The ponds had developed extensive fringing vegetation amongst rank tall herb fen, with bulrushes, branched bur-reed, rushes, sneeze-wort, hemlock water-dropwort, hemp agrimony, wild angelica, meadowsweet and yellow flag iris. Small areas of scrub included alder buckthorn and guelder-rose within the willow carr. The stream that passes through the site was seen to be varied, with areas of fast flow over stones, and more sluggish flow over silt. Adjoining ditches and leats, remnants of the defunct trout farm, had developed their own micro-habitats. Areas of marshy grassland added to the overall ecological diversity of the site.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Mesotrophic standing water (UK BAP)
- Rivers, streams & flood plains & fluvial processes (Devon BAP)

Lower Mackham Farm County Wildlife Site

In a survey in 1993, this 6.3ha CWS at Lower Mackham Farm consisted of a mosaic of four compartments of distinct habitat. An area of old woodland of oak, ash and beech formed a dense canopy with holly forming the shrub layer under which there was virtually no ground flora. Where the canopy was less dense, particularly where there was a series of humps and hollows from former marl pits, coppiced hazel and alder accompanied holly as shrubs beneath which there was an assortment of herbs including primrose, wood sorrel, bluebell, yellow pimpernel and remote sedge.

Adjoining this ancient semi-natural woodland was an area of secondary wet scrubby woodland dominated by birch and purple moor-grass, with tormentil, sneezewort and bog myrtle where scrub encroachment of the mire was less dense. To the south of this scrubby mire, there was an area of open mire that was being grazed with the result that scrub was not invading and that the flora was extremely rich in this purple moor-grass and rush pasture. Species

recorded included tormentil, saw-wort, sneezewort, bog asphodel, devil's-bit scabious, heath spotted orchid, round-leaved sundew, bog pimpernel, marsh pennywort, star sedge and carnation sedge.

The fourth compartment identified at this CWS was former mire planted up to alder.

A follow-up survey in 1994 to Lower Mackham Farm drew attention to the marshy areas alongside the stream, as well as to the presence of petty whin in the open mire on the upper slopes, and wood club-rush in the lower marshy area. Advice was given to the owners on management of the site (apparently also covering areas of the farm outside the extent of the County Wildlife Site) as part of an ELMS Agreement.

Links to Devon and UK BAP

Key habitat:

- Wet woodland (UK BAP)
- Purple moor-grass and rush pastures (UK BAP)
- Rhos pasture (Devon BAP)

Key species:

- Bog myrtle (Devon Notable)
- Wood club-rush (Devon Notable)
- Petty whin (Devon Notable)
- Primrose (Devon BAP)

Lemon's Hill (embracing New Plot Copse) County Wildlife Site

Lemon's Hill CWS consisted of a mosaic of both wet and dry secondary woodland, scrub and open mire when surveyed in 1993. Situated on the southern side of the Bolham river valley, alder woodland, with purple moor-grass and bog moss, occupied the valley bottom. In somewhat drier places, there were a few old oaks, with an under storey of hazel and holly underlain by yellow pimpernel, foxglove, wood sorrel and dog's mercury.

On the north-east facing slope in the centre of the site, birch scrub was encroaching into a open area of mire dominated by tussocks of purple moor-grass with angelica and tormentil, and it was this patch of mire that was seen as the most important, despite being species-poor. The remainder of the site was wet woodland, with birch, willow and alder.

New Plot Copse, surveyed in 2007, is a mosaic of habitats including also an area of parkland.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Wet woodland (UK BAP)
- Purple moor-grass and rush pasture (UK BAP)
- Parkland and wood pasture (Devon BAP)

Lemon's Hill Farm, including The Rookery, County Wildlife Site

This site is a large area of almost 10ha of secondary woodland and, in 1993 when it was surveyed, also of scrub and open mire, on a fairly steep slope on the southern aspect of the Bolham valley. A follow-up survey in 2007 added The Rookery covering an additional 5.4ha. At the time of the first survey, it was unmanaged and scrub encroachment into the remaining open habitat had been considerable. The lack of grazing had resulted in the spread of willow and alder saplings into the tussocks of purple moor-grass with occasional sneezewort, bell heather, bog asphodel and tormentil. Near by, the succession of mire into scrub had progressed some way toward woodland, still underlain by the moor-grass. The remaining open pockets and scrub graded into alder secondary woodland, of birch and oak, further down the slope and around the fringes of the site. In some places, woodland was mature, with a shrub layer of hazel and holly but generally with a poor flora beneath.

In 2007, The Rookery was found pony-grazed. This site embraces both rush mire and an area of unimproved grassland over which barn owls hunt. Evidence was found that the dormouse occurs here and that invertebrates are abundant.

Links to Devon and UK BAP

Key habitat:

- Alder/willow wet woodland (Devon BAP)
- Wet woodland (UK BAP)
- Purple moor-grass and rush pasture (UK BAP)
- Flower-rich meadows and pastures (Devon BAP)

Key species:

- Barn owl (Devon BAP)
- Dormouse (Devon BAP)

Newcott Moor County Wildlife Site

Newcott Moor is a large and important site that straddles the border between Hemyock and Clayhidon parishes, to the southeast of Lemon's Hill Farm. The CWS was surveyed in 1987 with a follow-up in 1991, when the area, of almost 20ha, supported wet heath, unimproved acid and marshy grassland, and some scrub. In the 1991 survey, both marsh fritillary and raft spider were recorded among invertebrates; the former is an internationally threatened species, the latter has a restricted distribution in Devon. Plant species present included purple moor-grass, sharp flowered rush, cross-leaved heath, tormentil, meadow thistle, devil's-bit scabious, sneezewort, bog asphodel, heath spotted orchid, pale butterwort, round-leaved sundew and, most significantly, white beak sedge and petty whin. Analysis of the relative proportions of such species within this rich site identified two distinct plant communities within Newcott Moor CWS: purple moor-grass/tormentil mire and purple moor-grass/meadow thistle fen-meadow.

At the time of the second survey, light to moderate intensity grazing by cattle had been given to the species-rich areas of wet heath, marshy grass and mire, though some scrub encroachment was evident. The petty whin was still there in 2006, though apparently threatened.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pasture (UK BAP)
- Rhos pasture (Devon BAP)
- Lowland heathland (Devon and UK BAP)

Key species:

- Marsh fritillary (Devon and UK BAP)
- Raft spider (restricted in Devon)
- White beak-sedge (Devon Notable)
- Petty whin (Devon Notable)

Whitehams Farm, South, County Wildlife Site

Whitehams Farm South was surveyed in 2007, at a time when the land was managed under the Environmentally Sensitive Area scheme. The site consisted of mosaic of rush pasture, spring line mire and wet woodland with small patches of remnant wet heath. The open grassland areas and some of the woodland (part of Greywalls Copse) were cattle grazed whereas the wet woodland was left unmanaged and used for pheasant rearing

The rushy meadows, embracing the areas known as Little Moor, Middle Moor and Long Moor, were the most species-rich and supported abundant invertebrates, including scarce keeled skimmer and marbled white butterfly. Throughout, grasses were abundant with Yorkshire fog, sweet vernal grass and common bent. Soft rush was locally dominant, in association with greater bird's-foot trefoil, marsh bedstraw, marsh thistle and marsh violet. Here too, amongst the rushy grassland, were areas dominated by purple moor-grass, with bog mosses, carnation sedge, yellow sedge, devil's-bit scabious, tormentil and meadow thistle. Lesser spearwort and dense mats of bog pimpernel occurred in very damp areas, often where the ground had been poached.

The wet woodland was dominated by downy birch underlain by extensive tussocks of purple moor-grass. Willow was an occasional associate in the canopy, and mats of bog-moss, ferns, soft rush, lesser spearwort and remote sedge were components of the herb layer beneath. A heathy glade was found where the canopy opened out. Here, some straggly western gorse, cross-leaved heath and occasional stunted ling occurred among the bog-moss and purple moor-grass, a remnant wet heath community seeming threatened by the spread of scrubby woodland. The Devon Notable wood horsetail was found here, in a shallow channel. The boundaries of the woodland are stone-faced beech banks, with bilberry and wavy hair-grass. The ground flora of better drained areas of woodland, where browsed holly occupied the shrub layer, included remote sedge, wood sedge, primrose, common dog violet, enchanter's nightshade and dog's mercury.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pasture (UK BAP)
- Rhos pasture (Devon BAP)
- Lowland heathland (Devon and UK BAP)
- Wet woodland (UK BAP)
- Lowland meadow (UK BAP)

Key species:

- Wood horsetail (Devon Notable)
- Primrose (Devon BAP)

Collinshayne Marsh County Wildlife Site

This CWS is a small area of 1.7ha on a slope above the Madford River, partly spring line mire and in part woodland. The more species-rich section of mire was found in 2006 to consist of a community dominated by purple moor-grass with abundant greater bird's-foot trefoil and marsh bedstraw, frequent tormentil and occasional sharp-flowered rush, Yorkshire fog, velvet bent,

devil's-bit scabious, marsh willow-herb and marsh thistle. Part of the mire was becoming invaded by scrub, particularly by downy birch with some willow, bramble and bracken. In an area of scrub, bog myrtle is locally abundant.

A wooded area, on better drained soil, is dominated by pedunculate oak underlain by hazel, formerly coppiced. Hawthorn, holly, rowan and birch were also found amongst the under storey. A rather sparse ground flora was composed of broad buckler fern, common dog violet, primrose, bugle and bluebell. A lower part of the wooded area consisted of clumps of downy birch and alder, and with willow branches sprawling beneath the canopy. The ground flora within this wet woodland included bog-mosses, purple moor-grass, marsh bedstraw, soft rush and marsh violet.

A sparsely bracken-clad slope consisted of a species-rich area of neutral grassland, with black knapweed, devil's-bit scabious, cat's-ear, ribwort plantain, yarrow and common bird's-foot trefoil within a sward of sweet vernal-grass, velvet bent, creeping soft grass and cock's-foot.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pasture (UK BAP)
- Wet woodland (UK BAP)
- Lowland meadow (UK BAP)
- Alder/willow wet woodland (Devon BAP)

Key species:

- Bog myrtle (Devon Notable)
- Primrose (Devon BAP)

Lower Mackham Meadow County Wildlife Site

Some 80 per cent of this small (2.5ha) CWS is hay meadow on a gentle slope beside the Madford River. This area is unimproved, or perhaps semi-improved, neutral grassland with vegetation communities including a fairly diverse black knapweed-crested dog's-tail grassland. The remaining 20 per cent of the site lies within the flood-plain of the Madford River with vegetation representative of a fen meadow which, apparently, was once managed as a water meadow. Part of the fen meadow is dominated by greater tussock sedge; purple moor-grass is abundant elsewhere, with frequent meadowsweet, marsh thistle, greater bird's-foot trefoil, meadow vetchling, angelica, tormentil, marsh bedstraw and Yorkshire fog. Occasional to rare components include sneezewort, devil's-bit scabious, southern marsh orchid, common spotted orchid and, notably, dyer's greenweed. The fen meadow was found to be rich in invertebrates at the time of the survey, in July 2007.

Links to Devon and UK BAP

Key habitat:

- Purple moor-grass and rush pastures (UK BAP)
- Rhos pasture (Devon BAP)
- Lowland meadows (UK BAP)
- Flower-rich meadows and pastures (Devon BAP)

Key species:

- Dyer's greenweed (Devon Notable)

Lower Mackham County Wildlife Site

This site consists of a species-rich haymeadow managed unintensively within an Environmentally Sensitive Area agreement.

The vegetation has affinity to crested dog's-tail-black knapweed grassland where corky-fruited water-dropwort was frequent; this is a Devon Notable species.

Links to Devon and UK BAP

Key habitat:

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

Key species:

- Corky-fruited water-dropwort (Devon Notable)

Other habitats

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. 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.

Sunken lanes between high hedgebanks are features of the Blackdown Hills and many hedges are at least Medieval in origin, enclosing small irregular fields. Not only do ancient hedges consist of many species of native woody plant but often also support abundant hedgerow herbs typical among which is the primrose. One hedgebank in Hemyock contains the Devon Notable green hellebore which is persistent and perhaps has become naturalized from earlier cultivation as a medicinal herb. Another hedgebank, at Five Bridges Cross, supports a good population of hybrid water avens x wood avens which is uncommon in Devon.

Links to Devon and UK BAP

Key habitat:

- Species-rich hedges (UK and Devon BAP)

Key species:

- Green Hellebore (Devon Notable)
- Primrose (Devon BAP)
- Water avens x wood avens hybrid (uncommon in Devon)

Recreation areas and public open space

Hemyock parish has a range of open spaces in addition to a network of public footpaths and bridleways. Some of the latter are shown in the leaflet 'Six Circular Walks in and around Hemyock'. Among the former is the Recreation Field beside the Village Hall by which it is owned; Long Meadow, off Station Road, owned by the Parish Council; and the church yard and cemetaries that can be rich in lichens. All of these are within the village. From a biodiversity perspective, of greater significance are the areas outside the village also owned by the Parish. These are: Hemyock Turbary, Shuttleton Common,

Lickham Bottom and Lickham Common, and Ashculm Turbary. Together, these areas constitute three County Wildlife Sites, one Site of Special Scientific Interest and one Local Nature Reserve the details of which have been described above.

Orchards

According to a map published in 1993 by the Blackdown Hills AONB soon after its inception, there were a number of old orchards in Hemyock parish but it seems that virtually all have now be grubbed. There is now a very large, newly planted orchard at Culm Pyne Barton.

Potential County Wildlife Sites

There are 26 potential, Unconfirmed County Wildlife Sites (UWS) in Hemyock parish. These are sites identified as having possible interest but not fully surveyed. Some of these sites will be areas of significant wildlife interest. They are listed in Appendix 1.

Species

Important species

Appendix 2 presents a list of species which are legally protected, unwelcome invasives (e.g. Japanese knotweed, Himalayan balsam), or Devon Notable ones that have been reported present in and around Hemyock parish.

Birds

Birds recorded for the parish include curlew, at Culm Davey near to where the species is known to breed on Blackdown and Sampford Commons SSSI. The Curlew is a UK and Devon BAP species and there may now be less than ten extant sites where the species breeds in Devon. The barn owl is recorded from The Rookery and may well occur elsewhere within the parish; this is a legally protected bird and a Devon BAP species. The marsh tit is also recorded: this is a Red List species of high conservation concern because of rapid decline.

Plants

There are at least 16 species of Devon Notable vascular plant recorded from Hemyock Parish. Among those listed in Appendix 2, several have their county strongholds in the Blackdowns; these include bog myrtle and early marsh-orchid. Others, like corky-fruited water-dropwort, are nationally scarce with strong populations locally. Species excluded from the list but mentioned elsewhere in the text here include petty whin, now very rare in the Blackdowns, wood horsetail which is fairly frequent within the AONB, and green hellebore which persists in hedgebanks in only four places.

Two UK BAP species recorded are the black and white tooth-fungus and the lichen *Usnea florida*, both from Ashculm Turbary. The primrose, a Devon BAP species, remains fairly widespread and abundant in suitable woodland and hedgebanks.

Mammals

Among the wild mammals recorded (Appendix 2), two are Devon and UK BAP species, the otter and dormouse. Formerly widespread throughout the UK, otters declined rapidly, and the species was effectively lost from the Midlands and south-eastern England by the 1980s. Populations hung on in the north and west including south-west England, and there is evidence of some recovery in former habitats. Devon has an internationally important population, and otters are now back in most rivers, streams and wetlands throughout the county.

The dormouse is a species of conservation concern in Devon. Though the species has declined nationally and has become extinct in some areas,

Devon as a whole, and probably the Blackdowns in particular, are strongholds for the dormouse.

The pipistrelle and a long-eared bat are the only species of bat identified within Hemyock parish, according to DBRC records. All species of bat are protected under UK law.

Reptiles and Amphibians

Records of these groups are very lean and probably do not represent their status within Hemyock with any degree of accuracy. The viviparous (common) lizard, a UK BAP species, has been recorded from Lickham Common and Ashculm Turbary, and the adder and common frog have been reported elsewhere in the parish. The common toad, several species of newt and the grass snake are seen elsewhere in the Blackdowns, and it seems probable these species occur also in Hemyock.

Invertebrates

With the single exception of one dragonfly (a keeled skimmer), all invertebrate records held by the DBRC concern butterflies so there is scope for contributing to our knowledge of other groups in Hemyock. Among butterflies, seven UK BAP species have been reported from the parish; these are: marsh fritillary, small pearl-bordered fritillary, small heath, grayling, wall brown, wood white and brown hairstreak.

The Devon Biodiversity Action Plan (BAP)

The Devon Biodiversity Action Plan (BAP) describes the key actions needed to look after 40 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 BAP¹ 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.
- Detailed national Action Plans can be viewed at www.ukbap.org.uk. This site also contains useful background information on UK biodiversity action planning. The list of UK priority habitats and species was revised in 2008 and, following political devolution, a separate list of priority BAP habitats and species has been produced in England. These are known as 'habitats and species of principal importance in England'. The lists can be viewed here:
www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habitatsandspeciesimportance.aspx

Where they have been produced, national objectives and targets for these features can be seen on the Biodiversity Action Reporting System web site: www.ukbap-reporting.org.uk/outcomes/targets.asp

¹ In fact, it integrates wildlife and geological conservation in one document and is now officially known as the Devon Biodiversity and Geodiversity Action Plan (still commonly referred to as the Devon Biodiversity Action Plan and always abbreviated to the Devon BAP).

Some Ideas for Local Action...

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.

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.

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.

Planting up areas that are currently of little wildlife interest with new copses of native trees and shrubs will also help to attract wildlife. Suitable sites might include unused areas of playing fields, for example.

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 Hemyock 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 Natural England web site:

www.naturalengland.org.uk/advice/wildlifegardening/

Natural England 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 is another good source of information:

www.devonwildlifetrust.org/wildlife-gardening/

6 Join local conservation organisations:

One example of a prominent local conservation organisation is the Devon Wildlife Trust. DWT has a number of Local Groups and volunteer opportunities:

www.devonwildlifetrust.org/get-involved/

7 Japanese Knotweed:

Not something to cherish, but it can't be ignored! Unfortunately Japanese Knotweed is present in several locations in Hemyock 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 Centre². 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

² dbrc@devonwildlifetrust.org

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 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/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.

Blackdown Hills AONB: www.blackdown-hills.net.

Botany Section, Devonshire Association for the Advancement of Science, Literature and the Artes: www.devonassoc.org.uk

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 Fungus Group: www.ex.ac.uk/devonfungusgroup

Devon Mammal Group: www.devonmammalgroup.org

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

Natural England: www.naturalengland.org.uk/
(Tel: 01392 889770)

Natural England: www.naturalengland.org.uk (Tel: 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 produced a Community Wildlife Toolkit which is 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, provides 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 provides guidance on seeking funding for project work.

Possible Sources of Funding

Please note that funding sources change quite frequently and are often short lived. IT is worth exploring widely what may be available. However, the sources listed below should provide a good starting point.

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

Bibliography

Allen, DJ (2004) *Heathland in East Devon and the Blackdown Hills*. Blackdown Hills AONB.

Benfield, B (2001). *The Lichen Flora of Devon*

Bickmore CJ (2002) *Hedgerow Survey Handbook* Countryside Council for Wales

DCC & Devon Hedge Group (1997) *Devon's Hedges* Devon County Council and Devon Hedge Group

Devon Biodiversity Partnership (1998) *The Nature of Devon: A Biodiversity Action Plan*

Farrell I and Reay P (Eds) *Devon Bird Report 2002* (2003) No 75 Devon Bird Watching and Preservation Society Okehampton

Hubbard CE (1984) *Grasses* Penguin Group London

Ivimey-Cook, RB (1984). Atlas of the Devon Flora. Devonshire Association, Exeter

National Trust Biological Survey (1993) *Yealm Estate, Devon* The National Trust, Cirencester

Preston, CD, Pearman, DA and Dines, TD (2002). New Atlas of the British & Irish Flora. BSBI.

Rose F (1981) *The Wild Flower Key* Penguin Group London

UK Steering Group (1995) *Biodiversity: The UK Steering Group Report Vol 1 Meeting the Rio Challenge* HMSO London

UK Steering Group (1995) *Biodiversity: The UK Steering Group Report Vol 2 Action Plans* HMSO London

Wilson P & King M (2003) *Arable Plants – A Field Guide* Wildguides

Websites:

www.woodland-trust.org.uk

www.devonwildlifetrust.org

Acknowledgements

Councillor Heather Stallard MBE, Chairman, Hemyock Parish Council.

Julie Steed, Hemyock resident.

Appendix 1 – notable sites within Hemyock parish (2009)

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/008	Black Down and Sampford Commons	ST115165	156.1	Lowland dry heath with small carr woodlands & unimproved marshy grassland	SSSI
ST11/018	Ashculm Turbary	ST146156	6.6	Dry and wet lowland heath & peat bog communities	SSSI
ST10/100	Bywood Copse (N)	ST157096	8.7	Ancient semi-natural woodland with wet heath & springline mire	CWS
ST10/125	Middle Mackham	ST149098	6.8	Mosaic of rush-pasture, wet woodland and unimproved neutral grassland	CWS
ST11/009	Little Thatch	ST119156	3.1	Unimproved neutral & marshy grassland	CWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/010	Coombes Head Farm	ST115151	2.5	Semi-improved & unimproved marshy grassland, wet heath & scrub	CWS
ST11/012	Goodall's Farm West	ST127155	2.6	Unimproved marshy grassland & scrub	CWS
ST11/013	Whitemoor Woods	ST135166	8.1	Mosaic of secondary wet & dry broadleaved woodland, degraded wet heath & marshy grassland	CWS
ST11/014	Whitehams Farm	ST136166	9.7	Unimproved marshy grassland & dry heath with scrub	CWS
ST11/016	Goodall's Farm East	ST136153	1.1	Unimproved marshy grassland	CWS
ST11/019	Simonsburrow	ST148161	12.5	Mosaic of wet secondary broadleaved woodland, scrub, mires & bogs	CWS
ST11/020	Heazle Fam Woods	ST153161	4.5	Mosaic of secondary broadleaved woodland, scrub, semi-improved acidic grassland & springline mires	CWS
ST11/021	Jenning's Farm	ST155159	2.9	Unimproved neutral & marshy grassland	CWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/027	Hackpen Hill	ST112124	51	Complex of bracken slopes, scrub, wet secondary woodland & remnant heath	CWS
ST11/029	Hemyock Common	ST120118	8.2	Dry Heath	CWS
ST11/030	Lickham Common and Lickham Bottom	ST126123	6.4	Wet heath surrounded by secondary woodland and scrub and wet woodland	CWS/ part DWT reserv
ST11/031	Rodleigh Farm Field	ST130124	1.9	Unimproved and semi-improved marshy grassland and scrub	CWS
ST11/032	Shuttleton Common	ST127113	4.9	Dry heath with scrub	CWS
ST11/033	Oxenpark Farm West	ST133122	2.5	Unimproved neutral and marshy grassland	CWS
ST11/035	Pen Cross Fields	ST140146	4.4	Semi improved acidic grassland	CWS
ST11/038	Wheelbarrow Lane	ST149136	12	Unimproved and semi-improved neutral grassland and marshy grassland	CWS
ST11/041	Madford River	ST145115	3.4	Mosaic of unimproved marshy grassland, tall herb vegetation, scrub, ponds & river	CWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/042	Lower Mackham Farm	ST148105	6.3	Mosaic of wet & dry secondary woodland, scrub & open mires	CWS
ST11/049	Lemon's Hill	ST155120	8.5	Mosaic of wet & dry secondary woodland, scrub, semi-improved acidic grassland & mire	CWS
ST11/054	Lemon's Hill Farm	ST157117	9.9	Semi-improved neutral grassland, wet secondary broadleaved woodland, scrub & springline mire	CWS
ST11/055	Newcott Moor	ST163114	19.7	Wet heath, unimproved acidic & marshy grassland & scrub	CWS
ST11/069	Whitehams Farm (S)	ST135163	8.2	Mosaic of rush-pasture, springline mire, wet woodland & damp heath	CWS
ST11/113	Collinshayne Marsh	ST149116	1.7	Mosaic of springline mire and wet woodland	CWS
ST11/114	Lower Mackham Meadow	ST145102	2.4	Hay meadow with semi-improved and unimproved neutral grassland and rush-pasture	CWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/116	Lower Mackham	ST149102	0.9	Unimproved neutral grassland (species-rich hay meadow)	CWS
ST11/044	Tanhouse Farm & Rosemary Lane Field	ST152146	03/01/1900	Unimproved grassland	UWS
ST11/048	Fivebridges Farm	ST152124	3	Unimproved grassland	UWS
ST10/099	Higher Mackham Wood	ST152095	2.9	Broadleaved woodland	UWS
ST10/124	Bywood Fields	ST153095	12.2	Unimproved neutral and marshy grassland	UWS
ST11/068	Whitehill Plantation	ST125162	9.4	Regenerating heathland on former conifer plantation	UWS
ST11/070	Simonsburrow (West)	ST146161	3.3	Semi-improved grassland and possible remant heath	UWS
ST11/071	Combe Hill (N)	ST145158	0.6	Lowland heath or springline mi	UWS
ST11/079	Lane End	ST152159	1.9	Springline mire, heathland and ponds	UWS
ST11/080	Higher Ashculm	ST154156	5.6	Marshy grassland and possible springline mire	UWS
ST11/081	Knap Cottage	ST152157	1.4	Marshy grassland and scrub	UWS
ST11/082	Brownheath	ST146155	1.6	Heathland and springline mire	UWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/083	Combe Hill (S)	ST145155	1	Marshy grassland, remnant heath? Poss SI	UWS
ST11/084	Middle Farm	ST144149	04/01/1900	Marshy grassland, springline mire	UWS
ST11/085	Goodall's Farm	ST137154	01/01/1900	Marshy grassland	UWS
ST11/086	Pithayne Farm	ST113150	05/01/1900	Heath, scrub, marshy grassland and semi-improved grassland	UWS
ST11/087	Gray's Hill North	ST151147	00/01/1900	Unimproved acid grassland	UWS
ST11/094	Whitehall Mill Fields	ST123137	06/01/1900	Marshy grassland	UWS
ST11/098	Lydensign Cottage	ST131124	04/01/1900	Marshy grassland	UWS
ST11/099	Lower Castle Hill Farm Fields	ST134121	3.8	Unimproved neutral and marshy grassland	UWS
ST11/100	Bodham's Farm (S)	ST143124	3.4	Unimproved grassland, bracken and scrub	UWS
ST11/110	Collinshayne Copse	ST149114	07/01/1900	Broadleaved woodland and possible springline mire	UWS
	Lickham Bottom (E)	ST129124	9.2	Marshy grassland, possible springline mire and broadleaved woodland	UWS
	Conigar Knob	ST124126	6.6	Broadleaved woodland (possible extension to Hackpen Hill CWS)	UWS

File Code	Site Name	Grid Reference	Area (ha)	Description	Status
ST11/034	Oxenpark Farm East	ST137124	4.6	Unimproved grassland	UWS
ST10/126	Gorwell Farm	ST159098	4.4	Unimproved grassland and scattered scrub	UWS, Blackdowns AONB
New site	Clement's Farm Field	ST119145	04/01/1900	Unimproved grassland	UWS, Blackdowns AONB

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.

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.

Appendix 2 – Legally protected & notable Species within Hemyock Parish (2009)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
1	Green Hairstreak	<i>Callophrys rubi</i>	LITTLE BRCH BUT.RES.,CLTK	1992	ST115154			Decline
2	Wall Brown	<i>Lasiommata megera</i>		1992	ST115154	NERC 41		UKBAP (P)
3	Green Hairstreak	<i>Callophrys rubi</i>	LITTLE BREACH	1997- 2003	ST115155			Decline
4	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	LITTLE BREACH	1997- 2003	ST115155	NERC 41		UKBAP (P); Decline
5	Purple Hairstreak	<i>Quercusia quercus</i>	Little Breach (Pithayne Farm)	1992- 2003	ST115155			Decline
6	Small Heath	<i>Coenonympha pamphilus</i>	Little Breach	1997- 2003	ST115155	NERC 41		UKBAP (P)
7	Grayling	<i>Hipparchia semele</i>	LITTLE BREACH	1997- 2003	ST115155	NERC 41		UKBAP (P)
8	Brown Argus	<i>Aricia agestis</i>	Little Breach	1997	ST115155			Decline
9	Brown Hairstreak	<i>Thecla betulae</i>	LITTLE BREACH	1997	ST115155	WCA 5 (S); NERC 41		UKBAP (P); Nb
10	Brown Hairstreak	<i>Thecla betulae</i>	CULM DAVEY	1997- 1998	ST118147	WCA 5 (S); NERC 41		UKBAP (P); Nb
11	Green	<i>Callophrys</i>	CULMSTOCK	1996	ST121155			Decline

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
	Hairstreak	rubi	BEACON					
12	Badger	Meles meles	B3391 one mile west of Hemyock in East Devon.	2001	ST1213	WCA 6, BA	Bern III	
13	Otter	Lutra lutra	Lower Westown, Hemyock	2007	ST122138	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
14	Roe Deer	Capreolus capreolus	Lower Westown, Hemyock	2007	ST123135	DA	Bern III	
15	Curlew	Numenius arquata	Culm Davey	1999	ST124151	NERC 41		UKBAP (P); DBAP; Amber
16	Bog Myrtle	Myrica gale	Lickham Common; 2x2m quadrat, Compartment 2	1987	ST12421220			DN1
17	Bog Myrtle	Myrica gale	Lickham Common; 2x2m quadrat, Compartment 2	1986-2007	ST12501220			DN1
18	Primrose	Primula vulgaris	Lickham Common; Compartment 2	1985	ST125121			DBAP
19	Primrose	Primula vulgaris	Lickham Common; Compartment 2	1984	ST125121			DBAP
20	Woodcock	Scolopax rusticola	Lickham Common	2007	ST125122			Amber
21	Otter	Lutra lutra	Whitehall	1997-2006	ST125138	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
22	Badger	Meles meles	Clement's Common	2007	ST125155	WCA 6, BA	Bern III	
23	Indet. Deer	Cervidae	Clement's Common	2007	ST125155	DA	Bern III	
24	a Lichen	Usnea florida	Lickham Common	1979	ST126122	NERC 41		UKBAP (P)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
25	Primrose	<i>Primula vulgaris</i>	Lickham Bottom (W)	2007	ST126123			DBAP
26	Round-leaved Crowfoot	<i>Ranunculus omiophyllus</i>	Lickham Bottom (W)	2007	ST126123			DN1
27	Roe Deer	<i>Capreolus capreolus</i>	Conigar Plantation, Hemyock	2007	ST126126	DA	Bern III	
28	Pipistrelle	<i>Pipistrellus pipistrellus</i>	Langley, Whitehall, Hemyock.	1994	ST126136	WCA 5, 6	EC IVa; Bern III, Bonn II	
29	Roe Deer	<i>Capreolus capreolus</i>	Shuttleton Common	1991	ST127113	DA	Bern III	
30	Primrose	<i>Primula vulgaris</i>	Lickham Common; Compartment 1	1987	ST127122			DBAP
31	Round-leaved Crowfoot	<i>Ranunculus omiophyllus</i>	Lickham Common; Compartment 1	1987	ST127122			DN1
32	Early Marsh-Orchid	<i>Dactylorhiza incarnata</i>	Lickham Common; Compartment 1	1987	ST127122			DN2
33	Pale Sedge	<i>Carex pallescens</i>	Lickham Common; Compartment 1	1982-1987	ST127122			DN2
34	Willow Warbler	<i>Phylloscopus trochilus</i>	Lickham Common	2002	ST127123			Amber
35	Marsh Tit	<i>Parus palustris</i>	Lickham Common	2002	ST127123			Red
36	Viviparous Lizard	<i>Lacerta vivipara</i>	Lickham Common	2002	ST127123	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
37	Wall Brown	<i>Lasiommata megera</i>	Luggs, Culm Davy	1998	ST128152	NERC 41		UKBAP (P)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
38	Wood White	<i>Leptidea sinapis</i>	Luggs, Culm Davy	1998	ST128152	WCA 5 (S); NERC 41		UKBAP (P); Nb
39	Wood White	<i>Leptidea sinapis</i>	Culm Davy	1998	ST128152	WCA 5 (S); NERC 41		UKBAP (P); Nb
40	Small Heath	<i>Coenonympha pamphilus</i>	Culm Davy	1998	ST128152	NERC 41		UKBAP (P)
41	Green Hairstreak	<i>Callophrys rubi</i>	Luggs Culm Davy	1998	ST128152			Decline
42	Small Pearl-bordered Fritillary	<i>Boloria selene</i>	Culm Davy	1998	ST128152	NERC 41		UKBAP (P); Decline
43	Green Woodpecker	<i>Picus viridis</i>	Luggs Field	2007	ST128153			Amber
44	Primrose	<i>Primula vulgaris</i>	Conigar Farm	2007	ST129128			DBAP
45	a Bat	Chiroptera	Golden Orchard, Castle Hill, Hemyock	1993	ST131118	WCA 5, 6	EC IVa; Bonn II	
46	Pipistrelle	<i>Pipistrellus pipistrellus</i>	Ingledale, Culmstock Road, Hemyock, Cullompton.	1994	ST131134	WCA 5, 6	EC IVa; Bern III, Bonn II	
47	Pipistrelle	<i>Pipistrellus pipistrellus</i>	Lulworth, Culmstock Road, Hemyock.	2003	ST132134	WCA 5, 6	EC IVa; Bern III, Bonn II	
48	a Bat	Chiroptera	Culmstock Road, Hemyock.	2003	ST132134	WCA 5, 6	EC IVa; Bonn II	

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
49	Swallow	<i>Hirundo rustica</i>	Lower Castle Hill Farm Fields (N)	2007	ST133122			Amber
50	Wall Brown	<i>Lasiommata megera</i>		1992	ST133135	NERC 41		UKBAP (P)
51	Wall Brown	<i>Lasiommata megera</i>		1991	ST133167	NERC 41		UKBAP (P)
52	Wood White	<i>Leptidea sinapis</i>		1997	ST134123	WCA 5 (S); NERC 41		UKBAP (P); Nb
53	Japanese Knotweed	<i>Fallopia japonica</i>	The Rectory, Hemyock, Cullompton.	2005	ST134130	WCA 9		
54	a Bat	<i>Myotis</i> spp.	Hemyock Castle	2002	ST134132	WCA 5, 6	EC IVa; Bern II; Bonn II	
55	a Bat	Chiroptera	Hemyock Castle (Manor House behind church), Cullompton	1993	ST135132	WCA 5, 6	EC IVa; Bonn II	
56	Primrose	<i>Primula vulgaris</i>	Whitehams Farm (S); Greywalls Copse	2007	ST135163			DBAP
57	Common Frog	<i>Rana temporaria</i>	Whitehams Farm (S); Whitehams Farm Meadows (Moors)	2007	ST135163	WCA 5 (S)	EC Va; Bern III	
58	Keeled Skimmer	<i>Orthetrum coerulescens</i>	Whitehams Farm (S); Whitehams Farm Meadows	2007	ST135163			KeyD (N)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
			(Moors)					
59	Swallow	<i>Hirundo rustica</i>	Whitehams Farm (S); Whitehams Farm Meadows (Moors)	2007	ST135163			Amber
60	Primrose	<i>Primula vulgaris</i>	Whitemoor Woods	1993	ST135166			DBAP
61	Common Dormouse	<i>Muscardinus avellanarius</i>	Greywalls Plantation, Hemyock.	1995	ST136158	WCA 5, 6; NERC 41	EC IVa; Bern III	UKBAP (P); DBAP
62	Marsh Fritillary	<i>Eurodryas aurinia</i>	Whitehams Farm	1987	ST136166	WCA 5; NERC 41	EC IIa; Bern II (GB reservation)	UKBAP (P); DBAP; Nb
63	Common Frog	<i>Rana temporaria</i>	7 Station Rd, Hemyock	2002	ST137136	WCA 5 (S)	EC Va; Bern III	
64	Common Frog	<i>Rana temporaria</i>	60 Prowses, Hemyock.	2002	ST138131	WCA 5 (S)	EC Va; Bern III	
65	Small Heath	<i>Coenonympha pamphilus</i>	Hemyock	2000	ST138134	NERC 41		UKBAP (P)
66	Otter	<i>Lutra lutra</i>	Field next to river Culm	2000	ST138140	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
67	Pipistrelle	<i>Pipistrellus pipistrellus</i>	No 7 Eastmead, Hemyock, Wellington (falls in mid Devon)	1993	ST139130	WCA 5, 6	EC IVa; Bern III, Bonn II	

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
68	Otter	<i>Lutra lutra</i>	Site of the St Ivel milk factory at Hemyock, next to the River Culm. Using the leat that runs around the factory.	2001	ST139139	WCA 5; NERC 41	EC IIa, IIIa; Bern II	UKBAP (P); DBAP
69	Common Dormouse	<i>Muscardinus avellanarius</i>	Hurst Farm; In hedge (predominantly hazel)	2007	ST142116	WCA 5, 6; NERC 41	EC IVa; Bern III	UKBAP (P); DBAP
70	Common Dormouse	<i>Muscardinus avellanarius</i>	Coppice, Hemyock	1993	ST143113	WCA 5, 6; NERC 41	EC IVa; Bern III	UKBAP (P); DBAP
71	Bog Myrtle	<i>Myrica gale</i>	Abbey Mill Farm; Sub-site 1	1993	ST144101			DN1
72	Greater Butterfly-Orchid	<i>Platanthera chlorantha</i>	Abbey Mill Farm	1993	ST144101			DN1
73	Marsh Valerian	<i>Valeriana dioica</i>	Abbey Mill Farm	1993	ST144101			DN3
74	Small Pearl-Bordered Fritillary	<i>Boloria selene</i>	Abbey Mill Farm	1993	ST144101	NERC 41		UKBAP (P); Decline
75	Japanese Knotweed	<i>Fallopia japonica</i>	Madford River, near the bridge at Madford.	2001-2004	ST144111	WCA 9		
76	Dyer's	<i>Genista</i>	Lower Mackham	2007	ST145102			DN1

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
	Greenweed	tinctoria	Meadow					
77	Swallow	Hirundo rustica	Lower Mackham Meadow	2007	ST145102			Amber
78	Primrose	Primula vulgaris	Lower Mackham Meadow	2007	ST145102			DBAP
79	Brown Hairstreak	Thecla betulae	Madford	1996	ST145111	WCA 5 (S); NERC 41		UKBAP (P); Nb
80	a Bat	Chiroptera	Prings Farm, Hemyock, Cullompton (thatched garage)	1993	ST145111	WCA 5, 6	EC IVa; Bonn II	
81	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Byes Farm	1987	ST145138			DN3
82	a Lichen	Usnea florida	Ashculm Turbary	1979	ST145150	NERC 41		UKBAP (P)
83	Primrose	Primula vulgaris	Ashculm Turbary Compartment 1; Tall scrub (or wet woodland)	1973	ST14531356			DBAP
84	Needle Spike-Rush	Eleocharis acicularis	Ashculm Turbary Compartment 3; Quicksand area	1993	ST14651570			NS; DN1
85	White Beak-Sedge	Rhynchospora alba	Ashculm Turbary Compartment 3; Quicksand area	1993	ST14651570			DN2
86	Long-Leaved Sundew	Drosera intermedia	Ashculm Turbary Compartment 3	1995	ST14651570			DN2

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
87	Long-Leaved Sundew	<i>Drosera intermedia</i>	Ashculm Turbary Compartment 3; Heath	1973- 2002	ST14651570			DN2
88	White Beak-Sedge	<i>Rhynchospora alba</i>	Ashculm Turbary Compartment 3	1983- 2002	ST14651570			DN2
89	Marsh Valerian	<i>Valeriana dioica</i>	Ashculm Turbary Compartment 4; Heath and edge of path	1973	ST14691584			DN3
90	Corky-Fruited Water-Dropwort	<i>Oenanthe pimpinelloides</i>	Wheelbarrow Lane	1991	ST147137			DN3
91	Common Dormouse	<i>Muscardinus avellanarius</i>	Hedge, Ashculme	2002	ST147149	WCA 5, 6; NERC 41	EC IVa; Bern III	UKBAP (P); DBAP
92	Viviparous Lizard	<i>Lacerta vivipara</i>	Ashculm Turbary	2005	ST147157	WCA 5 (KIS); NERC 41	Bern III	UKBAP (P)
93	Japanese Knotweed	<i>Fallopia japonica</i>	Common adjacent to 'Fernlea', Simonsburrow, Hemyock, Cullompton, EX15 3XA.	1970- 1977	ST147157	WCA 9		
94	Tooth fungus	<i>Phellodon melaleucus</i>	Ashculm Turbary	1974	ST147157	NERC 41		UKBAP (GPC)
95	Adder	<i>Vipera berus</i>	Ashculm Turbary	2007	ST147158	WCA 5 (KIS);	Bern III	UKBAP (P)

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
						NERC 41		
96	Snipe	Gallinago gallinago	Lower Mackham	2007	ST148102			Amber
97	Corky-Fruited Water-Dropwort	Oenanthe pimpinelloides	Lower Mackham	2007	ST148102			DN3
98	Primrose	Primula vulgaris	Lower Mackham Farm; Woodland	1993	ST148105			DBAP
99	White Beak-Sedge	Rhynchospora alba	Simonsburrow	1993	ST148161			DN2
100	Round-leaved Crowfoot	Ranunculus omiophyllus	Middle Mackham	2007	ST149097			DN1
101	Primrose	Primula vulgaris	Middle Mackham	2007	ST149097			DBAP
102	Common Frog	Rana temporaria	Middle Mackham	2007	ST149097	WCA 5 (S)	EC Va; Bern III	
103	Roe Deer	Capreolus capreolus	Middle Mackham	2007	ST149097	DA	Bern III	
104	Swallow	Hirundo rustica	Middle Mackham	2007	ST149097			Amber
105	Bog Myrtle	Myrica gale	Collinshayne Marsh	2006	ST149116			DN1
106	Primrose	Primula vulgaris	Collinshayne Marsh	2006	ST149116			DBAP
107	Roe Deer	Capreolus capreolus	Collinshayne Marsh	2006	ST149116	DA	Bern III	

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
108	Pipistrelle	<i>Pipistrellus pipistrellus</i>	Higher Mackham Farm, Madford, Hemyock (house & farm buildings)	1993	ST150098	WCA 5, 6	EC IVa; Bern III, Bonn II	
109	a Long-eared Bat	<i>Plecotus</i> spp.	Higher Mackham Farm, Madford, Hemyock (house & farm buildings)	1993	ST150098	WCA 5, 6	EC IVa; Bern II; Bonn II	
110	Marsh Fritillary	<i>Eurodryas aurinia</i>	NEAR ASHCULME	1991	ST152159	WCA 5; NERC 41	EC IIa; Bern II (GB reservation)	UKBAP (P); DBAP; Nb
111	Small Heath	<i>Coenonympha pamphilus</i>	Heazle Farm Woods	1993	ST153161	NERC 41		UKBAP (P)
112	Primrose	<i>Primula vulgaris</i>	Lemon's Hill	1993	ST154120			DBAP
113	White Beak-Sedge	<i>Rhynchospora alba</i>	Bywood Copse (N)	1992	ST157096			DN2
114	Long-Leaved Sundew	<i>Drosera intermedia</i>	Bywood Copse (N)	1992	ST157096			DN2
115	Primrose	<i>Primula vulgaris</i>	Bywood Copse (N)	1992	ST157096			DBAP
116	Badger	<i>Meles meles</i>	The Rookery (ST157118)	2007	ST157118	WCA 6, BA	Bern III	
117	Barn Owl	<i>Tyto alba</i>	The Rookery (ST157118)	2007	ST157118	WCA 1, 9		DBAP; Amber
118	Common Dormouse	<i>Muscardinus avellanarius</i>	The Rookery (ST157118)	2007	ST157118	WCA 5, 6; NERC 41	EC IVa; Bern III	UKBAP (P); DBAP

No	Common Name	Scientific Name	Location	Date	Grid Reference	UK protection	International protection	Status
119	Roe Deer	Capreolus capreolus	The Rookery (ST157118)	2007	ST157118	DA	Bern III	

NERC 41 **NERC Act (2006) Section 41:** Species listed under Section 41 of the Natural Environment and Rural Communities Act (2006). These are the species found in England which have been identified as requiring action under the UK BAP. All local authorities and other public authorities in England and Wales have a duty to promote and enhance biodiversity in all of their functions.

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 5 (KIS) **Wildlife and Countryside Act (1981) Schedule 5: (killing & injury):** species protected against killing, injury and 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

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.
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.
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.

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.

Nb **Nationally Notable B:** known from 100 or fewer 10km squares. Taken from the Invertebrate Site Register.

Decline Substantial local decline in Devon

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.

KeyD (N) **Nationally Important Key Dragonfly Species:** those which have been recorded in less than 10% of 10km squares in Britain. Those occurring in Devon are White-legged damselfly (*Platynemesis pennipes*) Scarce blue-tailed damselfly (*Ischnura pumilio*) Small red damselfly (*Ceriatonurus tenellum*) Hairy dragonfly (*Brachytron pratense*) Downy emerald (*Cordulia aenea*) and Keeled skimmer (*Orthetrum coerulescens*).

UKBAP(GPC) UK Priority Species Group (child) (Short and Middle Lists - UK Biodiversity steering Group Report 1995)
individual species covered by a Grouped Action Plan