Isle of Wight Biodiversity Action Plan

Woodland Habitat Action Plan

Second Review August 2009

1 Introduction

This Habitat Action Plan has been prepared through consultation with a range of organisations and specialists within the Isle of Wight BAP partnership. It was first produced in 2003 and reviewed in 2009.

The UK Biodiversity Action Plan (BAP) identifies a total of six native woodland types as priority habitats, of which three can be found on the Isle of Wight, namely:

- lowland mixed deciduous woodland
- wet woodland
- wood-pasture and parkland

The Government's Policy for towards woodland and trees is contained within the document, Keepers of Time: A Statement of Policy for England's Ancient and Native Woodland (2004).

The Delivery Plan for the Government's Strategy, 'England Trees, Woods and Forests, Delivery Plan 2008-2012, includes many goals which should conserve and enhance woodland biodiversity:

- maintenance and appropriate enhancement of biodiversity in all woodlands
- protection and expansion of our ancient and semi-natural woodlands
- creation of new native woodlands and encouraging the planting of site-native trees and broadleaved woodlands more generally
- research into methods of assessing and enhancing biodiversity in woodlands;

The Isle of Wight Biodiversity Audit and Assessment (IW BAP Steering Group 2000) identifies three woodland types of importance to biodiversity on the Isle of Wight namely:

- semi-natural broadleaved woodland (including ancient semi-natural woodland, recent secondary woodland and wet woods)
- parkland and pasture woodland
- plantation woodland

This action plan seeks to ensure that national objectives for woodland biodiversity conservation identified in the UK BAP and UK ETWF Delivery Plan are translated into effective action on the Island, taking into account local issues. To develop objectives and actions for the range of national and local woodland biodiversity priorities the Island's woodlands can be divided into four categories:

- Ancient semi-natural woodland

- Ancient replanted woodland (planted ancient woodland sites or PAWS) (including conifer plantations and non site-native broadleaves)
- Recent semi-natural woodland
- Recent plantation woodland

The identification of these categories of woodland types for biodiversity action on the Isle of Wight is based upon the following factors:

1. Ancient woodlands are of greatest value to woodland biodiversity. A total of 1,617 hectares of ancient woodland remains on the Island. However, 717 hectares of this (44%) has been converted to plantations of non-native or non-indigenous species that significantly reduces the biodiversity value of these woods.

2. A further area of at least 84 ha of ancient woodland has been destroyed over the past century, mostly through clearance to agriculture but also to urban expansion and mineral extraction. There has been no further loss of ancient woodland sites within the last ten years.

3. Much of the remaining 900 ha of ancient semi-natural woodland, approximately 64% is in a management scheme. Although this does not mean that these are all in active management currently, this is a significant advance on the situation when the first edition of this HAP was written.

4. Parkland and wood-pasture is a priority UK BAP habitat. The Nunwell Estate is the largest surviving area of wood pasture but it has suffered from years of inappropriate management and much of its integrity has been lost. The Island contains several examples of former wood pastures. However, these have not been grazed for well over one hundred years and they would require extensive restoration to bring back their specialist habitat structure and the biodiversity this supports.

5. At least 1960 ha of more recent secondary woodland has developed on the Island over the past 400 years. These also require appropriate management to enhance their value to biodiversity, but many will now be in management schemes. Some of these are species-rich woodlands.

6. There are at least 455 ha of recent conifer and broadleaved plantation woodland on the Isle of Wight. Most of this has been established within the last century on former heathland and semi-natural grassland habitats that were of much greater biodiversity value. These plantations have developed new value for biodiversity in particular for red squirrels and some birds such as the long-eared owl but often at the expense of more valuable habitats which they have replaced. Nevertheless, many of these woods have rides which support vegetation communities and species reflecting their historic land use. Within the Forestry Estate, the Forest Design Plans recognise these non-woodland nature conservation interests and attempt to consider them within their management programmes.

7. Some of the Island's woodlands are small and isolated, making populations of rare and endangered woodland mammals as well as other woodland species vulnerable to local extinction and genetic isolation.

National Targets (2008) for native woodland habitat include:

- achieve favourable or recovering condition of 375,000 ha (65%) by 2015
- restore 36,000 ha of PAWS* woodland by 2015
- expand the current woodland resource by 53,000 ha by 2015
- maintain the current extent of 251,000 ha of ancient woodland
- ensure no net loss of native woodland

* PAWS – planted ancient woodland sites

National Targets (2008) for lowland wood pasture and parkland habitat include:

- achieve favourable or recovering condition of 4,200 sites (65% of resource) by 2015
- restore 400 sites of derelict wood pasture & parkland by 2015
- expand 120 sites by 2015 to help reverse fragmentation
- maintain the current extent of 6,000 ha by 2010

The **South-east targets** (2008) for native woodland have been set at:

- achieve favourable or recovering condition of 53,222 ha by 2015
- restore 16,816 ha of PAWS woodland by 2015
- expand the current woodland resource by 8,659 ha by 2015
- maintain the current extent of 87,502 ha of ancient woodland
- ensure no net loss of native woodland (152,575 ha)

For lowland wood pasture and parkland habitat include:

- achieve favourable or recovery condition of 271 sites (68% of resource) by 2015
- restore 40 sites of derelict wood pasture & parkland by 2015
- expand 10 sites by 2015 to help reverse fragmentation
- maintain the current extent of 398 sites

It is widely recognised that these are very provisional figures. Currently, the woodland resource in the UK is inadequately known and information about its condition is also very patchy. It has been argued that, until the extent and condition of the resource is better understood, it is premature to set meaningful targets. These arguments apply nationally, regionally and locally. Consequently, in revising the Isle of Wight Woodland HAP, only a few targets have been set, namely those which can be measured and are considered realistic and achievable. This is contrary to the approach taken with all the other HAP revisions and reflects our very inadequate understanding of the woodland resource.

Isle of Wight targets The following targets are proposed:

- maintain the current extent of ancient woodland (currently estimated as 1,637 ha)
- achieve favourable or recovering condition of 662 ha[1] of native woodland by 2010
- commence restoration of 530 ha (75%) of PAWS woodland by 2015
- commence the production of 1000 m^3 /year of wood products to wood fuel markets by 2015

- address fragmentation by expanding the current woodland resource by 260 ha by 2015
- commence restoration of 1 site of derelict wood pasture/parkland by 2015
- carry out survey work to quantify the wet woodland resource

The starting date for reporting is 2000.
It will also be possible to report upon activity within the Forestry estate and number /area of (private woodlands) within grant schemes.

2 Current Status

Description of Habitat

Ancient woodland

Ancient woodlands are those that have been continuously wooded for at least the last 400 years. Some of these woods are of great antiquity and may have remained as woodland since the end of the last Ice Age – these are often termed primary woods. More recent ancient woods have developed at various times through history, with phases of woodland expansion associated with agricultural decline, for example at the end of the Roman occupation.

Semi-natural woodlands are those composed of a mix of native tree and shrub species that have been perpetuated through natural regeneration. However, the proportions of individual species, the size and age of the trees and the resultant structure of these woods have been greatly influenced by a long history of human intervention and management. Some woods have been managed to produce a continual supply of small diameter wood from coppicing whilst others have been managed to produce larger diameter timber. Wood pastures are woodlands in which timber production is managed along with livestock grazing. These different woodland management systems create different habitats and support a different range of biodiversity.

The varied geology of the Isle of Wight supports a wide range of ancient woodland types and further diversifies the wildlife of the Island's woodlands. The heavy clay soils, such as those in the north of the Island support, the most extensive and varied ancient woodlands. These are fundamentally oak woods, but within this general description is a great variety. On the more acid soils, such as those within Parkhurst Forest and Briddlesford Copse, sessile oak woodland predominates although frequently with an abundance of beech. In these woods the ground flora and even the shrub layer is naturally impoverished and includes an abundance of bracken, together with more specialist species including sedges, heathers and mosses. On more neutral soils, the woodland canopy is dominated by pedunculate oak, often with birches and an understorey of hazel. The ground flora can be dominated by carpets of bluebell together with wood anemone, pignut and sometimes wild daffodils. As the soils become more calcareous in nature, then ash and field maple occur together with other shrubs such as spindle. The ground flora also changes and includes an abundance of primroses, barren strawberry and forget-me-not. Along streams

and in valley bottoms are the most calcareous clay woods. Wych elm is a feature of these wet woodlands, although many have suffered from Dutch elm disease. The ground flora can be very rich and includes species such as dog's mercury, wild garlic or ramsons and in some places, the green hellebore can be found.

On the chalk downs the woods tend to be dominated by ash, sometimes with a scatter of pedunculate oak over a dense understorey of hazel coppice - once cut to make hurdles in which to fold the sheep grazing the adjacent downland. These chalk woods have much in common with the calcareous clay woods in the north of the Island, but the better draining soils support a range of other plants such as nettle-leaved bellflower, columbine and the parasitic toothwort.

The Lower Greensand soils in the centre and south of the Island have relatively few ancient woodlands. Those that occur tend to be on relatively well draining sandy soils and support a slightly acidic flora dominated by pedunculate oak and birch with an understorey of hazel. The ground flora is typically dominated by bluebell, bracken and bramble sometimes with species such as great wood-rush.

A small number of very interesting ancient woods occur on the steep Upper Greensand exposures that outcrop at the foot of the chalk downs. Cliff Copse near Wroxall is a good example where a mix of woodland types occurs, ranging from wet woodland flushed with highly calcareous spring water to beech and whitebeam woodland on the better draining greensand exposures.

In many ancient woodlands, these natural mixes of native trees, shrubs and ground flora plants, and the other wildlife that depends upon them, have been displaced through the planting of non-native or inappropriate species including conifers or non-indigenous broadleaves such as sycamore, red oak and sweet chestnut or the creation of dense beech plantations.

As has been mentioned the best preserved and most extensive wood pasture on the Island is within Parkhurst Forest. However, other good examples of this priority UK BAP habitat occur at America Wood and Apse Castle Wood near Shanklin, Borthwood Copse near Alverstone, North Park Copse at Calbourne and Rowridge Copse.

Wet woodland is also a native woodland type listed as a priority habitat in the UK BAP. This includes both ancient and more recent woodlands. Wet woodlands are mostly dominated by alder and willows and occur on wet peaty soils in river valleys. Extensive areas of ancient and more recent alder woodland occur in the valley of the Medina at Gatcombe, with smaller areas at Alverstone, Freshwater Marshes and along the valley of the Scotchells Brook. These are often characterised by large clumps of tussock sedge and, in spring, carpets of marsh marigold. There are also some good examples of wet oak woodland such as the Wilderness Wood near Rookley.

The other native woodland type listed as a priority habitat in the UK BAP is beech woodland. Ancient semi-natural beech woods are not that common on the Island and tend to occur in complex mosaics with other woodland types. Beech woodland occurs in two distinctive types. On more acid soils it grows with oaks and the distinction between 'oak woodland' and 'beech woodland' can be difficult to make. The best examples of these mixed beech woods on acid soils occur in the former wood pasture of Parkhurst Forest, where they display characteristics very similar to the beech woods in the New

Forest. Beech also grows on calcareous soils such as the chalk and Upper Greensand. Small areas of probably ancient calcareous beech wood occur in Cliff Copse near Shanklin.

Recent semi-natural woodlands

These are woods less than 400 years old that have developed largely through natural regeneration. They occur over a range of soil types on the Island, and often have features in common with nearby ancient semi-natural woodlands, especially where the recent woodland is connected to the ancient woodland. However, in most of these woods, the ground flora is noticeably more impoverished than in the adjacent ancient woodland and normally lacks the specialist ancient woodland species such as bluebell, wood anemone or wild service tree. Glades and clearings in these woods often contain relicts of the former grassland or heathland habitats from which they have derived.

A remarkable and extensive area of recent secondary woodland has developed on the steep chalk slopes above Ventnor. Although composed of non-native holm oak this wood is semi-natural in that it has developed through natural regeneration over the last century. It is also becoming gradually more diverse as other plant species native to the Mediterranean have colonised it, either from introductions or naturally.

The Undercliff between Ventnor and St Lawrence supports extensive areas of secondary woodland that has become established on the jumble of chalk and Upper Greensand that has fallen from the inner cliff. These woods are formed from a diverse mix of native species such as ash, wych elm and field maple and non-native introduced species such as beech, horse chestnut, sycamore and holm oak. These were introduced into the Undercliff by the Victorians but have subsequently become naturalised. The resultant woodlands have a unique atmosphere with a luxuriant ground flora dominated by ivy and an abundance of ferns.

Some good examples of the priority wet woodland habitat on the Isle of Wight occur as more recent secondary woodlands. These have often developed from former withy beds where willow was traditionally grown for basket weaving. In addition to the extensive area of recent secondary woodland within Gatcombe Withybed are those at Ninham (Apse Heath) and Horringford Withybed at Newchurch. The Wilderness at Cridmore is an unusual example of wet oak and alder woodland that has developed over peaty soils in the Medina valley.

Plantations

Plantation woodland has been established on ancient woodland sites where it displaces the native woodland flora and fauna. Extensive plantations have also been created over the past century on former open habitats such as heathland and chalk grassland. These plantations are composed of a mix of conifer and broadleaved species. The conifer plantations include a wide range of species including Corsican pine, Scots pine, Monterey pine, western red cedar, larch, grand fir and Norway spruce. Some of these conifers, particularly the Scots pine, are important food trees for red squirrels but others are of little or no value for squirrels. Other plantations are composed of broadleaved species. These include native species such as beech and ash, as well as a wide range of non-native species such as sycamore. Apart from their value for red squirrels, the conifer plantations created on former open habitats on the Island have little intrinsic biodiversity value

although they are used by some birds such as the common crossbill that are not found in other woodland types. However, where clearings and glades have been created and where rides are wide something of the original open ground habitat is able to re-establish itself. These relatively small and often temporary patches of grassland and heathland within the plantations can be of considerable biodiversity value.

Whereas beech woodland is a priority UK BAP habitat, the plantations of beech created over the last century on the chalk downs, such as Westover Plantation near Calbourne, currently lack the structure and species diversity associated with native beech woodlands. However, in time these plantations are likely to assume a more natural structure and species composition, although this could take many centuries.

Distribution and Extent

The Isle of Wight Biodiversity Audit and Assessment records a total woodland area of some 3,474 ha of the Isle of Wight. However, the Forestry Commission census of woodland identifies a larger area of some 4,490 ha of woodland (>2 ha.) on the Island. Of the 3,474 ha of woodland identified in the Biodiversity Audit and Assessment, 1,614 ha (46%) is ancient woodland, although only 900 ha of the ancient woodland on the Island remains in a semi-natural state with much having being converted to conifer or non-native broadleaved plantations. The remaining 1,860 ha of woodland is recent, most having been planted in the last 100 years on former open habitats. However, some 228 ha of this recent woodland is semi-natural in origin, having arisen from natural regeneration within the last 400 years.

Ancient woodland tends to be concentrated on the heavier clay soils in the north of the Island where the largest and most diverse areas of ancient semi-natural woodland survive. Further areas of ancient woodland occur on the steep chalk slopes of the downs both along the central chalk ridge of the Island and around Wroxall and Ventnor in the south. The central Lower Greensand vale of the Island is relatively poor in ancient woodland but has some notable examples on steeper slopes around Shanklin and on wet clay soils and along river valleys as at Kingston.

Former wood pastures occur in areas of the Island once set aside as hunting forests. They occur both on the heavy clay soils and gravels in the north west of the Island between the Medina and Newtown estuaries and on the more freely draining Lower Greensand soils in the south east between Newchurch and Shanklin.

Wet woodlands can be both ancient and more recent in origin and occur often as narrow or linear woodlands along water courses. The river valleys of the Medina and Eastern Yar and their tributaries support the best examples of wet woodland on the Isle of Wight.

The largest of the recent plantation woodlands is often referred to as Brighstone Forest which extends along the chalk ridge from Brook in the west to Shorwell in the east. Other forestry plantations on former open grassland and heathland habitats occur at Wilmingham, Bouldnor and Hamstead and in the southern part of Parkhurst Forest.

Recent semi-natural woodlands have developed on former meadows around Newtown, for example Walters Copse. They have also become established on chalk downland for instance the woodland and scrub on the north side of Tennyson Down. Perhaps the

largest extent of recent semi-natural woodland is in the Undercliff between St Lawrence and Ventnor.

Unlike other habitats considered in the Island's BAP, there is now more woodland on the Isle of Wight than there has been at any time in the last few hundred years. However, there has been a decline in the extent and quality of the most important woodlands for biodiversity – the ancient semi-natural woods. Some 84 ha of these have been destroyed in the last century alone whilst a much larger proportion (44%) has been converted to plantations of non-native or inappropriate species.

Legislation and Site Designation

A comprehensive review of all ancient woodlands on the Isle of Wight was undertaken by the Nature Conservancy Council (NCC) in 1981 resulting in a Provisional Inventory of Ancient Woodland (1987). This identified the most important ancient woodland sites and resulted in the notification of a number of woodland Sites of Special Scientific Interest (SSSI). These were selected to ensure the best examples of all the ancient woodland types on the Island were given statutory protection. The largest and most diverse site to be notified is Briddlesford Copses SSSI between Wootton Bridge and Havenstreet. The northern part of Parkhurst Forest has also been notified as a SSSI as an example of former pasture woodland. On the chalk downs woodlands have been notified in the Rowridge Valley near Calbourne and at Eagle Head and Bloodstone Copse at Ashey. On the sandy Lower Greensand soils in the south of the Island, America Woods has been notified as a SSSI whilst the best example of Upper Greensand ancient woodland is at Great Wood and Cliff Copse near Shanklin.

A number of more recent semi-natural woodlands have also been included within SSSI, for example Walters Copse at Newtown is within Newtown Harbour SSSI and forms part of the National Nature Reserve. Parts of the Undercliff woodland are included in Bonchurch Landslips SSSI and the Hanover Point to St Catherine's Point SSSI whilst secondary woodland SSSI on the chalk include those on Tennyson Down and the holm oak woods on Ventnor Downs.

Many woodlands on the Island are managed as nature reserves and some have been declared Local Nature Reserves by the Isle of Wight Council. Eagle Head and Bloodstone Copses and Swanpond Copse (near Ryde) are both ancient woodlands that are managed as nature reserves by Wight Wildlife. Atkies Copse , near Ningwood is leased by the Isle of Wight Natural History and Archaeological Society. Much of the Briddlesford Copses SSSI has been purchased by the People's Trust for Endangered Species is also managed as a nature reserve. Dickson's Copse at Dodnor is an ancient woodland that forms part of the Dodnor Creek Local Nature Reserve.

Those ancient and semi-natural woodlands that have not been notified as SSSI have generally been recorded as Sites of Importance to Nature Conservation (SINC) within the IW UDP. However, the Provisional Inventory considered woods in excess of 2ha and there are many woods which would qualify but fall below this threshold.

Certain trees and woodlands are also given protection from felling through Tree Preservation Orders (TPO). A felling licence is also required from the Forestry

Commission to fell all but a minimal volume of timber above a certain diameter at any one time.

Summary of Important Sites

Briddlesford Copses SSSI is the most important ancient woodland site on the Isle of Wight. This SSSI includes fine examples of a wide range of woodland types ranging from highly calcareous stream side wet woodland with wych elm and green hellebore through neutral oak – ash and oak – birch woodland with bluebell, wild daffodil, wood anemone and the nationally scarce narrow-leaved lungwort. On the most acid soils within the SSSI are areas of sessile oak woodland. The woods are of great importance for woodland mammals and include populations of red squirrel, dormouse, Bechstein's bat and barbastelle bat. The invertebrate fauna of the SSSI is also very rich and includes many ancient woodland specialist species.

Parkhurst Forest SSSI incorporates the former wood pasture in the north of the Forest. This comprises a mix of beech and sessile oak woodland that shows many features in common with the ancient and ornamental wood pastures of the New Forest.

On the chalk, important ancient woodlands occur within the Rowridge Valley where they support the only known population of the wood calamint in Britain. Other important ancient chalk woods include the extensive complex of copses including Tolt Copse, Long Copse and Short Copse above the village of Gatcombe, Eaglehead and Bloodstone Copses near Ashey and in the south of the Island, Wroxall Copse and Rew Copse.

The estuary edge and cliff face woods on the north coast of the Island are also particularly interesting and show unusual transitions from ancient woodland to saltmarsh and intertidal mudflat. Good examples occur around King's Quay near Wootton, at Town Copse within Newtown Harbour, Salterns Wood near Yarmouth and Fishbourne Copse near Binstead. These coastal woodlands are also characterised by an abundance of wild service trees, narrow-leaved lungwort and other ancient woodland indicator plants.

Some remarkable ancient woodlands occur on the Upper Greensand exposures particularly near Shanklin where Greatwood and Cliff Copses occur. These support a range of woodland types ranging from wet flushed woodland dominated by ash and wych elm to dry ash maple woodland and areas of beech woodland. Cliff Copse is also characterised by the presence of ancient whitebeams that grow from crevices in the near vertical Greensand exposures.

America Wood on the Lower Greensand is also a former wood pasture and comprises a mix of mature oaks and an abundance of birch. The ground flora is dominated by a dense growth of bracken and bramble but includes some interesting areas dominated by great wood rush. Other good examples of Lower Greensand woodland occur in Lynch Copse near Newchurch and Alverstone Lynch at Alverstone. These steeply sloping oak woods on the edge of the flood plain show fine transitions to wet woodland and marsh.

The Island has a number of important wet woods including the extensive complex of woodland known at Gatcombe Withybed. Other important wet woodlands include Ninham Withybed, Horringford Withybed, Dungewood Withybed and The Wilderness.

Table 1: Distribution and extent of ancient woodland within SSSI

Site name	Ancient Woodland	Ancient Woodland Plantation
Alverstone Marsh	0.60	
America Wood	14.53	
Bouldnor and Hamstead	3.27	3.19
Brading Marshes/St Helens Ledges	8.52	
Briddlesford Copse	83.87	50.61
Eaglehead/Bloodstone Copse	6.75	
Greatwood/Cliff Copse	12.33	
Kings Quay Shore	18.08	
Medina estuary	3.72	
Newtown Harbour	18.44	
Northpark Copse	9.38	
Parkhurst Forest	103.42	60.74
Priory Woods		
Rowridge Valley	19.20	
Ryde Sands/Wootton Creek	12.33	
Thorness Bay	3.34	
Ventnor Downs	3.24	
Total area	321.03	114.53

Table 2: Distribution and extent of ancient woodland within SINCs

SINC number	SINC name	Ancient Woodland	Ancient Woodland Plantation
3	Saltern Wood	9.07	
4	Mill Copse		5.75
5	Clavell's Copse	2.20	
6	Wilmingham Plantation	0.90	12.65
7	Horseground Copse	3.08	
9	Tapnell Furze		7.20
12	Lee Copse		8.82
13	Bouldnor Copse		8.56
19	Brook House Wood		5.90
20	Cooks Copse	0.89	
21	Nunney's Wood		7.82
25	Woodside Copse	1.50	
SINC number	SINC name	Ancient woodland	Ancient Woodland Plantation
29	Fleetlands Copse	2.73	
31	Yatland Copse	1.54	
32	Flatbrooks/Pound Copse	1.07	
33	Crainges	4.59	
35	Westover Copse		4.35
38	Chessell Copse	3.05	
44	Little Down	4.21	
45	Pump Copse		3.27
46	Rushcroft Copse	6.29	
49	Cats Copse	2.29	

50	Hummet Wood	1.58	1.81
52	Burnt Wood		29.51
55	Long Copse Calbourne	3.61	
57	Round Copse	2.27	4.06
58	Bulls Wood	7.94	
59	Apesdown Copse	7.87	
61	Bunts Hill Copse	7.76	
62	Thorness Wood	3.34	
63	Thorley Copse	4.10	
64	Rolls Bridge Copse	4.85	
65	Rolls Farm Wood	1.00	
66	Whitehouse Copse	2.58	
68	Chalkclose Copse	11.49	
70	Parkhurst Forest	11.79	35.15
71	Alvington Manor chalkpit	1.44	
75	Mudless Copse/High Wood	19.19	16.69
77	Idlecombe Down		5.46
78	Plaish Copse	2.55	
79	Barchams Copse	3.08	
80	Dukem Copse		12.07
81	Westridge Copse	4.66	12.66
82	Lorden Copse	7.12	
84	Newbarn Down	16.01	
85	Wolverton Marsh	4.55	
87	Dungewood Withy	2.60	
88	Sheard's Copse	4.44	
89	Kingston Copse	9.25	
92	Billingham Manor	3.14	
93	Gotten Copse	2.05	
97	Upper Dolcoppice	2.00	
101	Rew Copse	8.87	
102	Appuldurcombe	4.74	
103	Sainham Copse	2.43	
106	Upper Yar valley	2.61	
108	Bottoms Copse	2.53	
110	Ramsdown Copse	1.53	
119	Gatcombe Withybed	5.16	
120	Marvel Copse		3.17
124	Standen Copse	2.56	
125	Standen Heath	0.54	
126	Combley Great Wood		37.16
SINC number	SINC name	Ancient woodland	Ancient Woodland Plantation
127	Staplers Heath/Copse	19.61	
128	Quarr Old Abbey	1.25	
129	Brocks/Woodhouse Copse	9.28	26.88
131	Wallishill Copse	4.42	
132	Osborne Estate	12.73	71.41
133	Puckers Copse	8.89	2.56
134	Firestone Copse	1.61	53.53
135	Staynes Copse	1.61	
137	Stroud Wood	3.59	
139	Rowlands Wood		46.69

140	Ramcroft Copse	5.63	58.25
142	Backet's Copse	7.68	
143	Mersley Down North	2.22	
145	Fry's Copse	0.89	
147	Knighton West Wood		7.76
148	Knighton East Wood	1.50	11.12
149	Lynch Copse	6.38	
154	Hornhill Copse	1.56	
155	Youngwoods Copse	3.66	
156	Alverstone Marsh	4.27	
164	Broadley Copse		4.51
165	Peakyclose Copse	22.93	
167	Angels Copse/Swanpond Copse	6.44	
168	Whitefield Woods	2.08	61.35
172	Hill Farm Copse	2.81	7.23
173	Spring Copse	5.90	
174	Eight Acre Copse	3.84	
175	Centurion's Copse	1.67	
177	Bembridge Down	2.11	
178	Breaches Copse	2.16	
180	Apse Castle Wood	2.92	
181	Pennyfeathers	0.16	
182	Quarr Wood	6.20	
185	Newbarn Copse	2.60	3.16
189	Stroud Coppice	1.43	
195	Ridge Copse	10.85	
196	Great Werrar Wood	16.09	
199	Little Werrar Wood	4.54	
201	Blackbush Copse		3.04
208	Woodslade Copse	1.62	
209	Pondclose Copse	1.81	
211	Ryde House Grounds	3.47	
217	Cothey Bottom Copse	7.81	
218	Lushington Copse	6.78	
219	Quarrel's Copse	8.87	
222	New Copse	7.69	
223	Ashlake Copse	4.17	
224	Steyne Wood	11.79	
227	Longlands Copse	1.80	
228	Marshcombe Copse	4.50	
SINC number	SINC name	Ancient woodland	Ancient Woodland Plantation
230	Heathfield Copse	3.96	
232	Springhill Copse	10.77	
234	Princes Esplanade	1.74	
237	Ruffins Copse	14.79	
238	Wards Copse	2.36	
240	Calving Close Copse	4.70	2.75
241	Shamblers Copse/Cowes Cemetery	5.60	
242	Waterclose Copse		7.30
244	Wroxall Copse	8.28	
252	Hungerberry Copse	4.95	

254	Bullen Cross Wood	1.63	
255	Barton/Ninham Withybed	2.86	
260	Borthwood Copse	21.77	
266	Dodnor Creek	1.45	
268	Whitefield Farm Copse	2.17	
270	Rowdown Copse	3.94	
275	Fattingpark Copse	18.66	
	Totals	592.39	598.80

3 Current Factors affecting the habitat

Woodland management for biodiversity

Unlike many other habitats, woodland does not need to be managed to stay as woodland – it developed and maintained itself as woodland for thousands of years prior to any human influence. However, the primeval deciduous forests of Britain have been radically reduced in extent over the last four thousand years or so leaving only remnants of woodland. These fragments of a once much more extensive habitat have been managed for many centuries. This created a much greater concentration of woodland micro-habitats than would naturally have existed. The decline in traditional woodland management practices and the development of modern forestry techniques over the past century has seen a decline in the biodiversity of many ancient woodlands due to a combination of either no management or inappropriate management. One of the greatest challenges facing woodland biodiversity is to develop modern forestry techniques that can deliver biodiversity gains.

The greatest factor affecting woodland biodiversity on the Isle of Wight is therefore promoting appropriate woodland management. In all ancient woodlands as well as all recent semi-natural woodlands this needs to have the following broad objectives:-

1. Maintain and restore semi-natural woodland composed of native and indigenous trees and shrubs of local provenance
2. Develop a diverse woodland age structure comprising a mosaic of seedling and saplings, thicket and pole stage, mature, over-mature and senile trees.
3. Perpetuate open glade conditions within all but the smallest woodlands (<1 ha)
4. Enhance connectivity, both between and within woodland on the island by reconnecting isolated woodland fragments and linking open space within individual woodland blocks.

Achieving these objectives will be dependent on a number of additional factors; these are described further below.

Markets and marketing

In the past there was a demand for woodland products produced by traditional woodland management – typically coppice with standards management. This produced a continual supply of small diameter wood, as well as larger diameter timber. The decline in coppice management in the latter half of the 20th century has left the former coppice woodlands derelict and in need of restoration. Meanwhile, the skills needed to manage coppice and

create coppice products such as wattle hurdles have been all but lost. Despite this there appears to be a demand for such coppice products on the Island, and in theory there is no reason why a proportion of former coppiced woodlands could not be bought back into commercial coppice production. If this is to happen, a significant input of training and coppice restoration is needed to bring these former coppices back into commercial production and to develop the skilled work-force necessary to manage them.

Coppice management is not however going to be financially viable in probably the majority of formerly coppiced ancient woodlands unless other markets can be developed. Some coppice in nature reserves will be maintained solely for nature conservation purposes, other areas might be maintained for shooting but most are likely to remain unmanaged unless other woodland products can be obtained from them. To achieve this change, management systems need to be developed that produce good quality timber to meet local needs. Conversion of former coppice with standards woodland to create productive high forest native woodland presents a significant challenge.

Restoration of planted ancient woodlands

It would be desirable to restore much of the extensive area of ancient woodland that has been converted to plantations to native woodland. The type of woodland these plantations are restored to and the type of woodland produce that they will eventually generate needs careful consideration and planning. Such a move will also result in changes to the habitat of red squirrels that could cause a reduction in population size and density. However, such changes need to be balanced against the biodiversity gains, in particular for the other equally important woodland mammals such as the dormouse and the internationally threatened woodland bats. PAWS restoration is a gradual process of which the removal of non-native species is the first stage.

Fragmentation

Although there is more woodland on the Island than there has been for centuries, the most important ancient and semi-natural woods tend to be small and often isolated from each other. Woodland plants and animals, in particular the nationally and internationally important assemblage of woodland mammals that the Island's woods support, are more likely to thrive in extensive areas of uninterrupted habitat. Indeed, for some species a minimum area of suitable woodland is required to sustain their population. The Forestry Commission have provided substantial funding to resolve this issue for the Island's woodland through the JIGSAW Challenge fund.

Genetic integrity and naturalness

The ancient semi-natural woodlands of the Island have evolved and developed over many thousands of years through natural regeneration, and in some instances, planting. However, up until the 19th century planting would have been undertaken almost exclusively with seed collected from Isle of Wight woodlands: for example, there is evidence of Napoleonic planting of oak in Parkhurst. The genetic make-up of the Island's woodlands has therefore been maintained and allowed to evolve over thousands of years to reflect the specific environmental conditions of the Isle of Wight. The distribution of trees, shrubs and ground flora plants also shows endless variation in relation to soil types, slope and past management practices. Planting trees from stock derived outside of the

Island and often outside of the UK reduces the important genetic integrity of the Islands ancient woodlands and if undertaken un-sympathetically results in the creation of even aged regularly spaced stands of trees that do not respect the natural variation found in unplanted woodland. If we are to restore planted ancient woodlands to a semi-natural state, create more new woodland or improve the timber production value of former coppice with standards woodlands there will be a need to plant more trees. Ideally this should be with local provenance trees planted in ways that follow changes in soil type and which reflect natural patterns of woodland growth.

Inappropriate management practices

Some woodland management practices damage the biodiversity value of woodland. Factors include excessive tidying of woodland worksites, burning of wood waste and leaving no dead wood. Extraction of timber along wet unmade rides during the winter can cause long term damage to the ride flora and drainage. Siting of pheasant release pens in sensitive areas of woodland and excessive pheasant stocking, strawing of rides and even planting of game crops within woods can all cause damage to their biodiversity.

Adjacent land-use

Woodland biodiversity is also affected by the management and use of the land around them. Intensive arable cultivation around woods can lead to problems of spray drift, drainage and nutrient run-off. Removal or bad management of hedges linking woods can also damage woodland biodiversity. The growth of urban development around or adjacent to woods can lead to damage of woodland biodiversity from vandalism, trampling, encroachment of gardens into the wood and predation and disturbance of woodland mammals and birds by pets, particularly cats. The management of road verges bordering woodlands can also have an impact upon their biodiversity.

Wet woodland

Factors affecting wet woodland are rather different from those affecting other woodland types. True, unmodified flood plain woodland does not occur, although some small wet woodland patches are relatively unmodified. The extent and distribution of wet woodland has been partly mapped but the variation in character of this priority BAP habitat on the Isle of Wight is imperfectly understood. In terms of its vegetation, it includes most alder and willow woodlands but it also includes wet ash-maple woodland within the flood plains of streams and rivers and associated with hill side flushes. Wet woodlands often occur as part of larger woodland complexes which are dominated by dry woodland types which again makes it difficult to assess the extent of wet woodland without further survey. Willow carr has often arisen through lack of management of marshland and is often of lower biodiversity value than the habitat which it replaced.

Wet woods were mostly managed in the past, although many have undergone a long period without any woodland management. However, they are also vulnerable to changes in wetness and water quality. This can result from land drainage, water abstraction for irrigation or public water supply and declines in water quality.

An important feature of the water courses through many wet woods is their relatively natural character comprising complex meanders, pool and riffle sequences and debris

dams. The fauna of these woodland streams is however poorly recorded but could provide a valuable barometer of stream quality and condition both within the wet woodland and beyond.

Further loss of habitat
Woodland and in particular ancient woodland must be given a high degree of protection both from destruction for agriculture and development. However, the threat of further losses, often as small scale incursions into woodlands, remains. This incremental loss of woodland needs to be strongly resisted and necessary planning and other policies implemented to prevent further loss.

3 Current Action

Site and Species Protection

Site designation SSSI, SAC

The Briddlesford Copses SSSI has been identified as a Special Area of Conservation (SAC) to conserve the population of Bechstein's bat it supports. Bechstein's bats are listed on Annex I of the EU Habitats Directive and are one of a number of nationally and internationally rare and endangered mammal species that occur within Isle of Wight woodlands.

Staplers Copse, the chalk copses above Gatcombe village and Gatcombe Withybeds have all been considered for SSSI notification in the past although there are currently no plans to notify these woodlands as new SSSI.

Most, if not all semi-natural woodlands and many ancient replanted woods have been identified as SINC in the IW UDP. There is a constant programme of updating and designating new SINC which might include further woodlands in the future.

Purchase of additional reserves or properties

Further areas of woodland, particularly ancient semi-natural woodland, will become available for purchase by nature conservation organisations. Further action to bring this land into management by nature conservation organisations needs to be planned and coordinated.

Habitat management

Management of the Forestry Commission estate is guided by Forest Design Plans, which reconcile issues of productivity, conservation and recreation. The Isle of Wight Forest Design Plan was confirmed in 2007.

The Forestry Commission are encouraging appropriate management of privately owned woodlands and new planting through grant aid and advice through a suite of tailored grants under the England Woodland Grant Scheme (EWGS). The Isle of Wight has also been fortunate to have available to it funding through the JIGSAW Challenge fund. This provides generous grant support for the creation of new native woodlands that link and

extend existing ancient semi-natural woodlands. Qualifying applicants are required to enter competitive bids for the available funding each year.

The Forest Enterprise division of the Forestry Commission is committed to the restoration to a semi-natural state of all the planted ancient woodlands on the Isle of Wight in its management, and the enhancement of biodiversity within more recent plantations through the creation of open space and restoration of grassland and heathland habitats.
Forest Enterprise is also in discussion with Natural England and others over the potential restoration of grazed wood pasture to part of Parkhurst Forest.

America Wood is owned and managed by the Woodland Trust to enhance biodiversity and provide opportunities for informal recreation.

An area of around 130 hectares of the Briddlesford Copses SSSI is owned and managed by the People's Trust for Endangered Species to maintain and enhance the value of these woodlands for biodiversity and the important assemblage of native woodland mammals in particular.

The National Trust own a number of important ancient and more recent secondary woodlands on the Island where they undertake a programme of woodland management including coppice restoration and ride management.

The Hampshire & Isle of Wight Wildlife Trust manage the semi-natural ancient woods of Swanpond Copse and Eaglehead & Bloodstone Copses as nature reserves. The Isle of Wight Natural History and Archaeology Society leases and manages Atkies Copse near Shalfleet.

The Isle of Wight Council own and manage Dickson's Copse at Dodnor, Bonchurch Landslip and a range of more recent secondary woods.

Mill Copse near Yarmouth is an ancient woodland near Yarmouth that is owned and managed by Wight Nature Fund. Management has included the gradual removal of conifer plantations to restore native woodland.

The Environment Agency is will seek to improve and restore wet woodlands on the Isle of Wight through restoration of natural drainage systems and removal of culverts and other artificial drains.

The Isle of Wight Woodland Forum serves as a forum for the dissemination of information about woodland management and biodiversity and serves as a sounding board for ideas and information.

Survey, research and monitoring

Natural England carry out condition assessments of all SSSIs on the Isle of Wight with a target of ensuring that 95% are in favourable or recovering condition by 2010.

The PTES have commissioned a range of surveys of specialist groups of woodland dependent species within the Briddlesford Copses SSSI that have revealed a rich and diverse fauna including an important assemblage of ancient woodland indicator species.

PTES has also funded a long-term programme of dormouse monitoring at Briddlesford to assess the impact of different woodland management techniques on dormouse populations.

A programme of bat trapping and subsequent radio tracking in woods across the Island has revealed the presence of an important bat fauna including significant populations of Bechstein's bat and Barbastelle bat.

A programme of red squirrel monitoring within Isle of Wight woodlands is being undertaken by volunteers for the Wight Squirrel Project.

Action for species

Appendix 1 gives details species on the Isle of Wight found primarily in woodland. Action proposed in this Plan will be the principal means of conserving most of these species. Individual Species Action Plans (SAPs) have been prepared for red squirrels and rare woodland bats.

In some cases, additional action plans and programmes will also contribute to conserving priority species: for example, UK Species Action Plans (UK SAP) and Butterfly Conservation Regional Action Plans (BC RAP).

The National Trust undertakes a rolling programme of species survey including several butterfly monitoring transects within their woodlands.

Forest Enterprise has also funded a number of species surveys including lichen surveys in Parkhurst Forest and has involvement with the reddish buff moth re-establishment project at Parkhurst and Bouldnor Forests.

Target Setting

Target setting has proved to be particularly challenging for the Woodland HAP for the following reasons:

- The true extent of the resource has not been quantified
- The impacts of management on biodiversity on a wood by wood basis is not known, eg timber extraction can be extremely damaging to ground flora
- Regional targets have yet to be set
- The Forestry Commission are market and resource led and do not report to targets
- It is impossible to quantify the extent of new planting which is desirable on biodiversity grounds

5 Targets and Actions

The following table lists the actions required to achieve the objectives set out in this plan. Each action has been assigned to one or more Key Partners. Key Partners are those organisations that are expected to take responsibility for the delivery of the actions assigned to them, according to the targets set in this Plan. Other organisations may also be involved in the delivery of action and they have been indicated in the Others column.

Biodiversity Targets for Woodlands on the Isle of Wight

A Maintain the extent of ancient woodland, together with all woodland of high environmental value.
B Enhance and restore degraded or neglected areas of semi-natural woodland, with an emphasis on restoring the condition of ancient woodland sites to semi-natural condition (PAWS). Maximise biodiversity throughout the entire woodland resource (Including recent semi-natural woodland and plantation)
C Expand and link ancient woodlands through natural regeneration and new broad-leaved planting where appropriate.
D Improve the knowledge of native woodland resource by survey, research and monitoring
E Increase public awareness and appreciation of native woodland resulting in a positive management of these habitats

A1 Maintain the extent of ancient woodland, together with all woodland of high environmental value.
B1 Enhance and restore degraded or neglected areas of semi-natural woodland, with an emphasis on restoring the condition of ancient woodland sites to semi-natural condition (PAWS).
B2 Maximise biodiversity throughout the entire woodland resource (Including recent semi-natural woodland and plantation)
B3 Develop markets for woodland produce to ensure that resource management is economically sustainable
C1 Expand and link ancient woodlands through natural regeneration and new broad-leaved planting where appropriate.
D Improve the knowledge of native woodland resource by survey, research and monitoring
E Increase public awareness and appreciation of native woodland resulting in a positive management of these habitats

- *Currently, our datasets will not allow us to accurately quantify the full extent of the woodland resources, or their condition*
- *Actions D and E are covered by the Generic Action Plan*

	Biodiversity Actions for Woodland on the Isle of Wight	**Lead**	**Reporting**	**2009**	**2010**	**2015**
A1	Maintain the current extent of ancient woodland (currently estimated as around 1,640ha)	FC	IWC			⇨

B1	Achieve favourable condition or recovering condition of 662 ha of native woodland by 2010	NE	IWC		◆	
B2	Commence restoration of 530 ha of PAWS woodland by 2015	FC	IWC			⇨
B3	Commence the production of 1000 m^3 /year of wood products to wood fuel markets by 2015		IWC			➔
B4	Commence restoration of one site of derelict wood pasture/parkland by 2015		IWC			⇨
C1	Address fragmentation by expanding the current woodland resource by 260 ha by 2015	FC	IWC			◆
D1	Carry out survey work to assess the condition and extent of the wet woodland resource	EA	IWC			◆
D2	Carry out survey work to update the Provisional Ancient Woodland Inventory	FC	IWC			◆
D3 /E 1	Use the Histree Trail records, IW Ancient Tree Survey and UK Ancient Tree Hunt initiative to develop a participatory approach to establishing a web based list of concentrations of notable trees	IWC	IWC		◆	

◆ Complete by ⇨ Ongoing ➔start by

KEY TO ORGANISATIONS

AONB	Isle of Wight Area of Outstanding Natural Beauty Unit	IWC (Planning)	Isle of Wight Council Planning Services
H&IWT	Hampshire & Isle of Wight Wildlife Trust	IWNHAS	Isle of Wight Natural History and Archaeological Society
IWC (Coastal)	Isle of Wight Council Centre for the Coastal Environment	NE	Natural England
IWC	Isle of Wight Council Parks and Countryside Section	NT	National Trust

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Species associated with Lowland mixed deciduous woodland

Latin name	English name	BAP	Other habitat	Local abundance	Local population trend
Mammal					
Muscardinus avellanarius	Dormouse	1	Boundary and linear features	Common	Stable
Nyctalus noctula	Noctule	1	Mosaic	Occasional	Decreasing
Sciurus vulgaris	Red Squirrel	1	Boundary and linear features, conifer plantation	Common	Increasing
Myotis nattereri	Natterer's Bat	3	Mosaic	Occasional	Unknown
Bird					
Turdus philomelos	Song thrush	1	Built-up areas & gardens	Common	Decreasing
Falco subbuteo	Hobby	3		Rare	Increading
Luscinia megarhynchos	Nightingale	3	Mosaic	Localised	Decreasing
Muscicapa striata	Spotted flycatcher	3	Built-up areas & gardens	Scarce	Decreasing
Parus palustris	Marsh tit	3		Localised	Decreasing
Phylloscopus trochilus	Willow warbler	3	Boundary and linear features	Localised	Decreasing
Pyrrhula pyrrhula	Bullfinch	3	Arable & horticultural	Localised	Stable
Scolopax rusticola	Woodcock	3		Localised	Stable
Sitta europaea	Nuthatch	3	Built-up areas & gardens	Rare	Unknown
Streptopelia turtur	Turtle dove	3	**Hedgerows**	Scarce	Decreasing
Strix aluco	Tawny Owl	3	Built-up areas & gardens	Rare	Increasing
Sturnus vulgaris	Common Starling	3	Built-up areas & gardens	Common	Decreasing
Sylvia borin	Garden warbler	3		Localised	Decreasing
Ants Bees & Wasps					
Formica rufa	Red Wood Ant	3		Occasional	Unknown
Beetles					
Microrhagus pygmaeus	A false click beetle	3	**Wood pasture & parkland**	Rare	Unknown
Butterflies					
Boloria euphrosyne	Pearl-bordered Fritillary	1		Rare	Decreasing
Boloria selene	Small Pearl-bordered Fritillary	1	**Lowland meadows**	Rare	Decreasing
Erynnis tages	Dingy Skipper	1	**Lowland calcareous grassland**	Localised	Decreasing
Limenitis camilla	White Admiral	1		Localised	Stable
Pyrgus malvae	Grizzled Skipper	1	**Lowland calcareous grassland**	Localised	Decreasing
Satyrium w-album	White Letter Hairstreak	1	Boundary and linear features	Scarce	Decreasing
Argynnis paphia	Silver-washed Fritillary	3		Occasional	Unknown
Cricket and grasshoppers					
Nemobius sylvestris	Wood Cricket	3	**Maritime cliffs & slopes**	Occasional	Stable
Flies					
Bombylius discolor	A beefly	1	**Maritime cliffs & slopes**	Common	Stable
Chetostoma curvinerve	A picture-winged fly	3		Scarce	Unknown
Metasyrphus nitens	A hover-fly	3		Rare	Unknown
Pelecocera tricincta	A hoverfly	3	**Lowland heathland**	Rare	Unknown
Volucella inflata	A hover-fly	3		Localised	Stable
Millipedes					
Trachysphaera lobata	A Millipede	1	**Maritime cliffs & slopes**	Rare	Unknown
Moths					
Pechipogo strigilata	Common Fan-foot	1		Scarce	Decreasing
Apoda limacodes	Festoon	3		Scarce	Unknown
Archiearis notha	Light Orange Underwing	3		Scarce	Unknown
Atolmis rubricollis	Red-necked Footman	3		Occasional	Unknown
Cepphis advenaria	Little Thorn	3	Built-up areas & gardens	Common	Unknown

Conistra rubiginea	Dotted Chestnut	3		Occasional	Increasing
Elaphria venustula	Rosy Marbled	3	**Lowland heathland**	Rare	Unknown
Idaea sylvestraria	Dotted Border Wave	3	**Lowland heathland**	Scarce	Unknown
Meganola strigula	Small Black Arches	3		Occasional	Stable
Mompha sturnipennella	A micro-moth	3		Rare	Unknown
Paratalanta hyalinis	Translucent Straw Belle	3	**Lowland calcareous grassland**	Rare	Unknown
Schrankia taenialis	White-line Snout	3	**Lowland heathland**	Localised	Decreasing
Synanthedon vespiformis	Yellow-legged Clearwing	3		Rare	Stable
Spiders					
Episinus maculipes	A Spider	3	**Maritime cliffs & slopes**	Scarce	Unknown
Pardosa paludicola	A Wolf Spider	3	**Lowland meadows**	Rare	Unknown
True bugs					
Aneurus avenius	A bark bug	3		Scarce	Unknown
Aphrophora alpina	A froghopper	3	**Lowland heathland**	Rare	Unknown
Calligypona reyi	A Leafhopper	3	Boundary and linear features	Rare	Unknown
Megalonotus dilatatus	A ground bug	3	**Lowland dry acid grassland**	Rare	Unknown
Psammotettix albomarginatus	A leafhopper	3	**Lowland dry acid grassland**	Rare	Unknown
Fungus					
Sarcosphaera coronaria	Violet Crowncup	1		Rare	Stable
Amanita ovoidea		3		Rare	Stable
Boletus satanas	Satan's Bolete	3		Rare	Unknown
Cortinarius violaceus		3	Coniferous woodland	Rare	Unknown
Creolophus cirrhatus		3		Rare	Unknown
Ramariopsis crocea		3	Coniferous woodland	Rare	Unknown
Sparassis brevipes		3	Coniferous woodland	Rare	Unknown
Lichen					
Cryptolechia carneolutea	A lichen	1		Rare	Decreasing
Usnea articulata	A lichen	1	Boundary and linear features	Scarce	Decreasing
Usnea florida	A Lichen	1		Rare	Unknown
Wadeana dendrographa	A lichen	1		Rare	Stable
Lobaria pulmonaria	"Tree Lungwort"	3		Rare	Decreasing
Liverwort					
Cololejeunea rossettiana	'Roussetti's Pouncewort'	3	**Maritime cliffs & slopes**	Rare	Decreasing
Lophocolea fragrans	'Fragrant Crestwort'	3		Rare	Decreasing
Marchesinia mackaii	'MacKay's Pouncewort'	3	**Maritime cliffs & slopes**	Rare	Decreasing
Phaeoceros laevis	'Smooth Hornwort'	3	**Maritime cliffs & slopes**	Rare	Stable
Ptilidium pulcherrimum	'Tree Fringewort'	3	**Lowland calcareous grassland**	Rare	Unknown
Scapania nemorea	'Grove Earwort'	3		Believed extinct	
Moss					
Calliergonella lindbergii	'Lindberg's Plait-moss'	3		Rare	Unknown
Conardia compacta	'Compact Feather-moss'	3	**Maritime cliffs & slopes**	Believed extinct	
Ephemerum minutissimum	'Minute Earth-moss'	3	Arable & horticultural	Rare	Unknown
Herzogiella seligeri	"Silesian Feather-moss'	3		Rare	Unknown
Leucodon sciuroides	'Squirrel-tail Moss'	3	Boundary and linear features	Rare	Decreasing
Mnium stellare	'Starry Thyme-moss'	3	**Maritime cliffs & slopes**	Rare	Decreasing
Orthotrichum striatum	'Shaw's Bristle-moss'	3		Rare	Unknown
Pohlia lescuriana	'Pretty Nodding-moss'	3		Rare	Unknown
Pterogonium gracile	'Birds-foot Wing-moss'	3		Rare	Unknown
Syntrichia papillosa	'Marble Screw-moss'	3	Built-up areas & gardens	Rare	Unknown
Flowering Plant					
Cephalanthera damasonium	White Helleborine	1		Rare	Unknown
Clinopodium menthifolium	Wood Calamint	1		Rare	Decreasing
Monotropa hypopitys	Yellow Birdsnest	1		Rare	Unknown
Anagallis minima	Chaffweed	3	**Lowland heathland**	Rare	Unknown
Arum italicum subsp. neglectum	Italian Lords and Ladies	3		Occasional	Stable

Atropa belladonna	Deadly Nightshade	3		Rare	Unknown
Epipactis phyllanthes	Green-flowered Helleborine	3		Rare	Unknown
Epipactis purpurata	Violet Helleborine	3		Believed extinct	
Helleborus viridis	Green Hellebore	3		Rare	Decreasing
Neottia nidus-avis	Birdsnest Orchid	3		Rare	Unknown
Platanthera chlorantha	Greater Butterfly Orchid	3	**Lowland meadows**	Rare	Decreasing
Pulmonaria longifolia	Narrow-leaved Lungwort	3		Scarce	Unknown
Rubus salteri	A Bramble	3		Localised	Stable
Sedum telephium	Orpine	3	Boundary and linear features	Rare	Decreasing
Tilia cordata	Small-leaved Lime	3	**Hedgerows**	Rare	Stable
Vaccinium myrtillus	Bilberry	3	**Lowland heathland**	Rare	Decreasing

Species associated with wet woodland

Moth

Cossus cossus	Goat Moth	1		Rare	Unknown

Moss

Plagiothecium ruthei	'Swamp Silk-moss'	3	Fen, marsh and swamp	Rare	Decreasing

Fern

Dryopteris carthusiana	Narrow Buckler-fern	3		Scarce	Decreasing
Equisetum sylvaticum	Wood Horsetail	3	Fen, marsh and swamp	Rare	Unknown
Oreopteris limbosperma	Lemon-scented Fern	3	Fen, marsh and swamp	Rare	Unknown
Thelypteris palustris	Marsh Fern	3	Fen, marsh and swamp	Rare	Decreasing

Flowering plant

Myrica gale	Bog Myrtle	3	Fen, marsh and swamp	Rare	Decreasing
Viola palustris	Marsh Violet	3	Fen, marsh and swamp	Scarce	Decreasing

Species associated with Wood pasture & parkland

Lichen

Anaptychia ciliaris subsp. *ciliaris*	A lichen	1	Boundary and linear features	Rare	Decreasing
Enterographa sorediata	A lichen	1		Rare	Unknown

Beetle

Lucanus cervus	Stag beetle	1	Built-up areas & gardens	Rare	Unknown
Microrhagus pygmaeus	A false click beetle	3	**Lowland mixed deciduous woodland**	Rare	Unknown

Species associated with conifer plantation

Mammal

Sciurus vulgaris	Red Squirrel	1	Boundary and linear features, **Lowland mixed deciduous woodland**	Common	Increasing

Bird

Caprimulgus europaeus	Nightjar	1	**Lowland heathland**	Localised	Decreasing

Fungus

Cortinarius violaceus		3	**Lowland mixed deciduous woodland**	Rare	Unknown
Ramariopsis crocea		3	**Lowland mixed deciduous woodland**	Rare	Unknown
Sparassis brevipes		3	**Lowland mixed deciduous woodland**	Rare	Unknown

1= National BAP Priority Species 3 = Local BAP Priority Species **Habitats** = National BAP Priority habitats