Isle of Wight Biodiversity Action Plan
Lowland Meadows Habitat Action Plan

Second Review December 2008

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 2002 and reviewed in 2008.

Lowland meadows have been selected as a habitat action plan for the Isle of Wight to ensure that national objectives for this priority habitat identified under the UK Biodiversity Action Plan are translated into effective action on the Island, taking into account local issues. The identification of lowland meadows as a national priority habitat is based on the following factors:

1. It is estimated that by 1984 semi-natural lowland grassland had declined by 97% in England and Wales over the previous 50 years to approximately 0.2 million hectares. Losses have continued during the 1980s and 1990s and have been recorded at 2-10% per annum in some parts of England. Loss has been almost entirely due to increased use of fertiliser and herbicide to increase agricultural production.

2. On the Isle of Wight, it is likely that there has been a similar decline in this habitat although no specific estimates have been made. The Isle of Wight Biodiversity Audit and Assessment identifies a total of 223 ha of unimproved and 249 ha of semi-improved neutral grassland on the Island. The definition of neutral grassland in this plan combines these two grassland categories, making a total of 472 ha of neutral grassland. This is probably an underestimate of the actual area of the habitat as it is likely that some isolated meadows remain to be discovered.

   The loss of lowland meadow habitat on the Island has been accompanied by severe fragmentation, with most of the remaining sites being less than a few hectares in area.

   Many of the remaining sites are not being managed ideally. A review of the condition of SSSI and SINC on the Isle of Wight made in 2001 suggested that 60% were in favourable condition or believed to be in favourable condition, 27% were in unfavourable condition or believed to be in unfavourable condition and the remaining 13% of sites were of unknown condition. There is considered to have been an improvement on this situation as a result of the effort made to encourage landowners to enter agri-environment schemes, particularly on SSSIs.

3. Lowland meadows on the Isle of Wight provide habitat for many species of national or local importance including six national priority BAP species together 23 national and 22 species of local conservation concern.

The **England targets** (2008) for this habitat are:

- maintain the current extent of 7,282 ha by 2010
- achieve favourable or recovering condition of 6,078 ha (84%) by 2015

- restore 481 ha of degraded or neglected habitat by 2015
- re-establish 256 ha by 2015

The **South-east targets** (2008) for this habitat include:

- maintain the current extent of 4,981 ha by 2010
- restore 877 ha of degraded or neglected habitat by 2015
- re-establish 475 ha by 2015

The **Isle of Wight targets** (2008) for this habitat are:

- maintain the current extent of 223 ha by 2015
- achieve favourable or recovering condition of 198 ha (85%) by 2015
- restore 249 ha of degraded or neglected habitat by 2015
- re-establish 30 ha by 2015

2 Current Status

Physical Features of the Island's Lowland Meadows

Description of habitat

The national Lowland Meadows Habitat Action Plan is wide-ranging in its definition of the habitat, and includes most forms of agriculturally unimproved grassland on neutral soils across the enclosed lowland landscapes of the UK. Even on the Isle of Wight, there is considerable variation within this broad group of grasslands, relating to soil type and other environmental conditions. The main concentrations of lowland meadows are found in the north of the Island, associated with the poorly-draining clay and marl soils of the Hamstead Beds, Bembridge Marls, Osborne and Headon Beds and Bagshot Beds. In the south of the Island much smaller fragmented examples of lowland meadows occur, associated with the upper and lower greensand exposures of much older Cretaceous rocks. These meadows occasionally form small complexes of fields, separated by species-rich hedges and patches of ancient woodland. It is this mosaic of habitats that are of particular biodiversity importance.

In terms of the National Vegetation Classification (NVC), only one community of grassland type conforms to this habitat on the Island, termed the *Cynosurus cristatus – Centaurea nigra* grassland (MG5) in which crested dog's tail grass and black knapweed are constant species. Meadow grasses typically dominate the sward, often fine leaved fescues and bents, with Yorkshire fog, meadow foxtail and sweet vernal grass also commonly occurring. In addition to the black knapweed, other herbaceous plants commonly include bird's foot trefoil, ox-eye daisy, ribwort plantain, meadow vetchling and red clover. Sedges are also common, with the bluey leaves of glaucous sedge being the most frequent. The low shrubby dyer's greenweed is also a typical plant of this grassland type on the Island where it has been given the local name of wood wax. Two members of the orchid family, the green winged orchid and autumn lady's tresses are also characteristic of these meadows. On the more calcareous marl soils, plants more typical of chalk grassland can also occur including fairy flax, hairy violet, yellow wort and quaking grass. On more acid soils, devil's bit scabious, saw wort and sneezewort can often be found.

On water-logged, heavy clay soils, gleying of surface horizons over a long period of time leads to changes in the vegetation, with acid tolerant grasses and heathers replacing the neutral grassland species. This process can be seen on the heavily gleyed clay soils between Cranmore and Bouldnor and within Parkhurst Forest where heathers, purple moor-grass, lousewort and heath dog-violet occur in a mixture with the neutral grassland species. These 'clay heaths' are difficult to classify in terms of the NVC, but in some respects they are similar to the species-rich heaths of Cornwall in which grassland species and heathers occur in close association. This habitat is also difficult to classify in terms of the biodiversity action plan, and will be referred to in both the lowland meadows and acid grassland and heathland habitat action plans in recognition of this.

Some neutral grasslands have been managed as permanent pasture or hay meadow for many decades, but may have been treated with limited amounts of artificial fertiliser or farmyard manure. These grasslands are often termed semi-improved. They are composed of a diversity of wild unsown grassland species but tend to have a reduced species diversity when compared to the truly unimproved grassland. These most unimproved of semi-improved grasslands are also included in this habitat action plan.

Hay meadows and pastures

Most of the lowland meadows on the Isle of Wight have been managed not only to provide pasture on which livestock can graze, but also to provide a crop of grass to be mown for hay. Mown grasslands provide a very different habitat to pasture. Hay crops are usually cut in mid summer; the meadows are then left to re-grow and are normally grazed in late summer and early autumn. As the hay grows, the tall grassland provides a very different habitat for insects, small mammals and nesting birds to that found in pastures grazed at this time of year. The removal of the hay crop marks a dramatic change in the habitat, leaving the open short sward of the mown field. Despite this, the meadow plants and animals are well adapted to cope with this rapid change in the habitat. Moreover, the hay produced is important to maintain the grazing livestock system through the winter months. The removal of hay depletes the soil of plant nutrients and over time the grassland productivity declines. This may increase plant species diversity but in the long term may make the hay meadow un-economic to cut. It is likely that most hay meadows were treated with farmyard manure to restore fertility following hay cutting.

3 Distribution and Extent

The former extent of lowland meadow on the Isle of Wight is impossible to estimate as this has fluctuated considerably over the last few centuries as the extent of heathland, woodland and wood pasture has changed and as agricultural practices have slowly improved. From the end of the 19th century until the middle of the 20th century, lowland meadows would have been a widespread and common habitat across much of the Isle of Wight, and in particular, on the heavier clay soils of the north of the Island. That is not to say that this grassland was all permanent. It is clear from the Tithe Maps of the mid 19th century and from conversations with farmers who farmed on the Island before the Second World War, that much of the enclosed landscape of the Island was ploughed on an irregular basis. Arable crops were taken for a few years before being returned to pasture as part of a small scale, mixed farming system. A botanically diverse sward appears to have become re-established soon after cultivation, presumably from the soil seed bank

and relict grassland left around field edges. This can be seen in many areas of the Island where there is evidence of recent cultivation in fields that now support neutral grassland. Artificial fertiliser was not widely used in the first half of the 20th century and soil fertility was never raised to the levels possible today; herbicide was also unavailable. The low soil fertility and lack of herbicide use were probably the most important factors in allowing species diversity to re-establish. However, farmyard manure was used extensively as well as blood and bone meal. Marl dug from marl pits was also spread on fields to maintain fertility, particularly before arable cropping or mowing for hay.

Botanically diverse neutral grassland was therefore a significant component of the Island's landscape until the mid 20th century although this was not necessarily permanent grassland, and much of it was treated with organic fertilisers to maintain or improve soil fertility. Only where soils were particularly heavy and poorly drained is it likely that permanent agriculturally unimproved grassland developed. In these locations, there was probably increased soil acidity and poor drainage creating transitions and mosaics with acid grassland and heathland as can be seen around Bouldnor and Cranmore and within Parkhurst Forest.

The Isle of Wight Biodiversity Audit and Assessment identifies a total of 223 ha of unimproved and 249 ha of semi-improved neutral grassland on the Island. The definition of neutral grassland in this plan combines these two grassland categories making a total of 472 ha of neutral grassland. This is probably an underestimate of the actual area of the habitat as it is likely that some isolated meadows remain to be discovered.

Legislation and Site Designation

Much of the known area of lowland meadow on the Isle of Wight is included within SSSI (Sites of Special Scientific Interest) and SINC (Sites of Importance for Nature Conservation). Table 1 lists all the SSSI and SINC known to support lowland meadows on the Isle of Wight. Further assessment is required to determine what proportion of the habitat on the Island is protected by SSSI and SINC.

The lowland meadows within Hart's Farm are included within the Newtown Harbour National Nature Reserve and are managed by the National Trust.

Some of the lowland meadows around Newtown Harbour are also included in the Solent and Southampton Water Special Protection Area (SPA), in recognition of their value for feeding and roosting waders and wildfowl.

The Isle of Wight AONB includes several areas of lowland meadow, particularly within the Hamstead Heritage Coast, including the clay heaths of the recently notified Cranmore Common SSSI.

Summary of Important Sites

The largest extent and greatest range of lowland meadow types are found around the Newtown Harbour in the north west of the Isle of Wight. The Newtown Harbour SSSI includes the most important area of species-rich lowland meadow to be found on the Island. The most species-rich meadows in the SSSI are found within the MOD/SERFCA firing ranges at Jersey Camp, whilst the mixture of grazed pasture and hay meadows found around the village of Newtown is also very diverse. To the east of the SSSI are the extensive grasslands of Lambsleaze and Elmsworth Farms. These grasslands are semi-

improved although some still contain frequent dyer's greenweed and, more locally, green winged orchids. However, it is the extent of these grasslands that is most important, as it enables them to support large populations of species such as brown hare, grey partridge and skylark.

To the west of Newtown Harbour SSSI, and in a few meadows in private ownership to the south, there are examples of neutral, tending to acid, grassland in which saw-wort, devils-bit scabious and lousewort can be found on more gleyed clay soils.

On the Brickfields peninsula, now owned and managed by the National Trust, are some fine examples of almost calcareous grassland developed over Bembridge Marls. In this relatively small area of grassland, calcareous grassland species such as fairy flax, hairy violet and agrimony occur.

Away from Newtown Harbour, other examples of lowland meadows occur at Wydcombe Farm in the south of the Island, around the fringes of Bembridge airport in the east of the Island and East Cowes cemetery and grounds of Osborne House in the north.

Many other, often small fragments of lowland meadow can be found throughout much of the Island, with churchyards and cemeteries being particularly important.

Table 1: Distribution and extent of lowland meadow sites within SSSI and SINC on the Isle of Wight

SSSI name	**Area of site (ha)**[1]	**Subsidiary habitat**
Locks Farm Meadow	2.3	
Newtown Harbour	170 ha[2]	Hedges, ponds, woodland, transitions to saltmarsh and mudflat.
SINC name	**Area ha**[3]	**Subsidiary habitat**
Staplers Heath	8.4	Ancient hedgerows, semi-improved meadows
Barnsley Farm	5.5	Scrub, acid grassland, broad-leaved woodland
Newchurch Marshes	28.88	Scrub, marshy grassland
Landguard Manor Meadow	1.2	
Bartlett's Green Farm	4.33	Semi-improved grassland, wet grasslands, and scrub.
Ashey Cemetery	0.6	
Brading Churchyard	0.96	Walls
Cowes Cemetery	7.31	
East Cowes Cemetery	1.33	Calcareous grassland
Fort Warden Fields	4.83	
Westhill Meadow, Norton	0.44	
Standen Heath	6.68	Wet woodland
Nodes Point Meadow	2.31	
Shalfleet Churchyard	6.64	Pond, hedges, walls
Swanmore Meadows	8.79	
Alverstone Marshes East	60.74	Scrub
Osborne Park	37.76	Semi-improved grasslands
Cracknells meadow, Yarmouth	0.45	
Calbourne Meadows	10.51	
Moon's Hill	3.56	
Lock's Farm	27.62	Arable
Wroxall Meadow South	10.41	
Godshill Park	28.22	Broad-leaved woodlands, ponds, arable

Werrar Meadow	2.05	
Hart's Farm Lower Meadows	8.7	
Heathfield Meadows	31.61	Saltmarsh, reedswamp, broad-leaved woodland
Gore Down	11.48	Unimproved neutral and maritime grassland; rocky outcrops, scrub
Appuldurcombe Down	94.59	Acid grasslands, rock outcrops, broad-leaved woodland

[1] = Estimated area of habitat within the SSSI
[2] = The area of neutral grassland within Newtown Harbour is believed to be an under estimate. Neutral grassland occurs within the following parts of the SSSI: Harts Farm Meadows, Jersey Camp firing range (incl. Robin wood), Lambslease Farm, Elmsworth Farm, Lower Hamstead Farm, Creek Farm, Fleetlands Farm
[3] = Area of SINC including subsidiary habitats

4 Current Factors affecting the habitat

The most important factors affecting the conservation of lowland meadows relate to continued sustainable management through appropriate grazing and mowing systems. These were reviewed in the Isle of Wight Grazing and Biodiversity Topic Report (February 2002) and apply equally to a range of grassland habitats and are summarised below.

Further loss of habitat

The largest extent of remaining lowland meadow on the Isle of Wight is now within SSSI or other protection and as the agricultural economy has declined in recent years the threat to the remaining areas of the habitat from agricultural intensification has subsided. However, the threat from lack of management is a problem on some sites, especially small meadows that are fragmented and isolated.

Although the threat to the habitat through agricultural intensification may have receded, it has by no means disappeared. Small meadows that have escaped agricultural improvement may be under threat from inappropriate management such as horse paddocks where over-grazing and application of herbicide and fertiliser can lead to loss of species diversity. There has also been a decline in the numbers of cattle on the Island in recent years, in particular numbers of beef cattle, which are the most appropriate for grazing these meadows.

There is also a threat from various development pressures, including development for housing or industrial use, as well as road and bridge construction.

Management of these threats and pressures remains a significant factor in conserving the remaining lowland meadow resource.

Financial incentives

Sufficient financial incentives are needed to encourage farmers and land managers to maintain and restore areas of lowland meadow on the Isle of Wight. The Environmental Stewardship Scheme has provided valuable support for the restoration and creation of some lowland meadows, but the levels of payment available through this scheme may not be sufficient, and may decline further in line with the general decline in agricultural incomes.

Environmental Stewardship payments are open to all landowners. In addition, Natural England may enter into management agreements with SSSI owners if the site is deemed to be in unfavourable condition.

In the wider countryside, outside of these protected sites, there is a need to reverse the trend of habitat decline seen over the past 150 years. Whereas this should be encouraged throughout the Island, there are areas where the potential gains are likely to be greatest, and where efforts and financial incentives should be targeted.

Alternative methods of providing a financial incentive also need to be considered and evaluated. This might include niche and brand marketing schemes. The availability of a local slaughtering facility is likely to be critical to the success of local produce production and sale.

Availability of suitable stock and stock management expertise

Effective management of lowland meadows may require specific breeds of cattle or sheep to maintain their nature and biodiversity value. Certain farming systems are also likely to be more beneficial to biodiversity than others. For example extensive cattle rearing systems are likely to be preferable to modern intensive dairy production.

Lowland meadows often occur as a component of mixed farming systems that might include some areas of arable and downland as well as the meadows. Traditionally, some of the meadows may have been ploughed on a long rotation and mown or grazed to create hay meadows or pasture. Due to the very small area of habitat now remaining, it is no longer possible to treat the resource with this rotational management. However, such mixed farming systems are very rich in biodiversity and, if possible, should be restored in parts of the Island.

Grazing and grassland management on low productivity habitats and the restoration of these habitats using livestock as a management tool is a specialist area of expertise. Whereas many farmers may have very valuable skills, it may be that there is a specific need for training and provision of information to assist in developing skills in this specialist area.

Weed growth and habitat stabilisation

The restoration of lowland meadows often passes through a phase in which soil fertility and disturbance is sufficient to create ideal conditions for the growth of ‘weed’ species with ragwort, creeping thistle and dock causing the most significant problems. As the soil fertility declines and semi-natural grassland becomes re-established, the weed species naturally decline. However, it might take five years or so for the new equilibrium to establish. It is generally unacceptable to allow these high weed infestations to persist for this length of time. It may therefore be necessary to control these weed species with well-targeted herbicide use or by other means. This can be expensive and time consuming, and often relies on the use of specialised equipment such as ragwort pullers or weed wipers.

Hydrology

Where agriculturally unimproved grassland has developed on particularly heavy and poorly drained soils it is important to maintain and, where necessary, improve or restore

the hydrology to its historic regime. In some instance, abstraction within the catchment may be having damaging impacts.

Habitat fragmentation and loss of ecological continuity

Many species of lowland meadows have poor powers of dispersal, so that once isolated from other meadows, they become vulnerable to chance extinction. Perhaps more importantly, it is difficult, if not impossible for these species to re-colonise new habitats, even if the correct conditions have been created for them. It is interesting, for example, that soil fertility on some formerly improved grasslands can be significantly reduced through more than a decade of no fertiliser use, but a diverse flora will not have re-established itself. By contrast where a good supply of wild meadow seeds are available – either in the soil seed bank or in adjacent meadows, then a diverse flora can re-establish itself within 5 years of being ploughed and re-seeded.

The current state of habitat fragmentation may mean that intervention will be required to restore species diversity to lowland meadows, through the re-introduction of seed and other plant propagules from appropriate donor sites. These are likely to be the remaining SSSI and SINC, which retain semi-natural vegetation, which makes their conservation even more critical for the future.

Many of the Island's cemeteries also contain small areas of botanically rich meadow grassland from which seed could be harvested for use in restoration project

4 Current Initiatives

Site designation

There are currently no plans to notify new lowland meadow sites as SSSI on the Isle of Wight. Although English Nature has approval from their Council to notify Staplers Copse and adjacent meadow as a SSSI, it appears there are no plans to implement this notification.

SINC identification is ongoing on the Island. Further lowland meadow SINCs may be identified by the IW Council.

Natural England has a number of agreements (under Section 15 of the National Parks and Access to the Countryside Act) on lowland meadow sites, all of which are SSSI.

Purchase of additional reserves or properties

Given the poor state of the agricultural economy, it is possible that further areas of lowland meadow or more importantly, areas with the potential for restoration as lowland meadow, will become available for purchase by nature conservation organisations. Further action to bring this land into management of nature conservation organisations needs to be planned and coordinated.

Habitat management

Old Meadows and Pastures are a target habitat for the Environmental Stewardship Scheme, administered by Natural England. This scheme provides payments for

maintaining and enhancing Old Meadows and Pastures and arable reversion to this habitat, although there is only a limited pool of funding and funding has to be prioritised.

Not all the examples are in good condition. Some are being colonised by scrub and are ungrazed or inadequately grazed. Others are treated with excessive amounts of fertiliser or inappropriately mown. An initial assessment of the condition of the neutral grasslands was made by Natural England, and the IWC Ecology Officer in discussion with the H&IWT Officer. The details of this assessment are reviewed in the Grassland and Grazed Habitats Topic Report (February 2002).

In the 2002 HAP (first edition), a priority for a Grazing Officer was highlighted. This was superseded by the Living Landscapes Project where funding was obtained to work with and advise farmers and landowners. Since the original HAP, a niche market in locally sourced meat has developed and therefore the Grazing Officer action has been dropped and a new action of supporting animal husbandry has been introduced.

In the 2002 HAP (first edition), priorities for a meadow seed/propagule harvesting project to regulate and facilitate the collection of seed from suitably selected sites for introduction to appropriate donor sites, and an associated database were highlighted. Experience has shown that the small demand for local provenance hay seed can easily be met from current resources. As a result of this, the action from the original HAP has been dropped.

In 2001, the People's Trust for Endangered Species purchased an area of some 50 hectares of agriculturally improved meadows at Briddlesford adjacent to Wootton Creek. 30 hectares of agriculturally unimproved lowland meadows are being converted and managed as permanent pasture or hay meadow.

The MOD/SERFCA have agreed a management plan with Natural England over the meadows at Newtown Rifle Ranges

Survey, research and monitoring

Natural England have carried out an assessment of the condition of all SSSI on the Isle of Wight with a target of ensuring that 85% are in favourable or recovering condition by 2010.

The Environment Agency is working with BAP partners to identify, survey and, where necessary, help restore lowland meadow sites which are dependent upon appropriate hydrological regimes.

The IW Natural History and Archaeological Society undertook a survey of the lowland meadows at Wydcombe Farm during 2000.

Action for species

Appendix 1 gives details of species on the Isle of Wight found primarily in lowland meadows. Action proposed in this Plan will be the principal means of conserving most of these species. 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).

Associated Plans within the Isle of Wight BAP

Generic Habitat Action Plan

5 Targets and Actions

Biodiversity targets for Lowland Meadows on the Isle of Wight

A Maintain existing area of lowland meadows habitat for its wildlife and earth science interest with no net loss, subject to natural change.
B Enhance and restore degraded or neglected areas of lowland meadows into habitat and/or exposures of high wildlife and earth science value
C Establish buffer zone habitats between intensively-managed agricultural land and lowland meadows habitats
D Improve the knowledge of lowland meadows resource by survey, research and monitoring
E Increase public awareness and appreciation of lowland meadows resulting in a more positive management of this habitat

- *Actions D and E are covered by the Generic Action Plan*

	Biodiversity Actions for Lowland Meadows on the Isle of Wight	Lead	Reporting	2008	2009	2010	2015	2020
A1	Maintain the existing extent of 223 ha of unimproved lowland meadows by 2015	NE	IWC				◆	
A2	Ensure appropriate management to achieve favourable or recovering condition of 85% of unimproved lowland meadows by 2015	NE	IWC				◆	
A3	Achieve a slaughter house/incinerator to support the Isle of Wight livestock industry by 2010	NFU CLA IWC	IWC			◆		
B1	Enhance and restore the extent of 249 ha semi-improved lowland meadows by 2015	NE	IWC				◆	
B2	Assess whether Environment Agency consents and operations are having impacts upon poorly-drained lowland meadows.	EA	EA			◆		
C1	Increase the extent of semi-improved lowland meadows by 30 ha by 2015	NE	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&IWWT	*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*
EA	*Environment Agency*	CLA	*Countryside Land & Business Association*
NFU	*National Farmers Union*		

References

1. English Nature, 1998. *Isle of Wight Natural Area Profile*

2. English Nature, 1998. *UK BAP Targets By Natural Area - 10 Terrestrial Habitats*

3. Department of the Environment, 1998, *UK Biodiversity Group Tranch 2 Action Plans. Volume II – terrestrial and freshwater habitats*. Peterborough: English Nature on behalf of the UK Biodiversity Group

4. Isle of Wight Biodiversity Partnership. 2002. Grassland and Grazed Habitats Topic Report. Isle of Wight Council.

5. Joint Nature Conservation Committee, 1999, *The implementation of Common Standards for Monitoring and Conservation Objectives*. Peterborough.

Species associated with Lowland Meadows

Species associated with Lowland meadows

Latin name	English name	BAP code	Other Habitat	Local Abundance	Local Population Trend
Mammal					
Lepus europaeus	Brown Hare	1	Improved grassland	Common	Stable
Birds					
Limosa limosa	Black-tailed godwit (wintering)	1	***Mudflats***	Localised	Stable
Lymnocryptes minimus	Jack snipe (wintering)	3	Fen, marsh and swamp	Localised	Unknown
Tringa totanus	Redshank	3	***Mudflats***	Localised	Decreasing
Reptiles					
Anguis fragilis	Slow-worm	1	Built-up areas & gardens	Common	Stable
Lacerta vivipara	Common Lizard	1	***Lowland heathland***	Localised	Decreasing
Natrix natrix	Grass Snake	1	Built-up areas & gardens	Common	Unknown
Ants, Bees & Wasps					
Bombus humilis	Brown-Banded Carder Bee	1	***Lowland calcareous grassland***	Rare	Unknown
Butterflies					
Boloria selene	Small Pearl-bordered Fritillary	1	***Lowland mixed deciduous woodland***	Rare	Decreasing
Ochlodes sylvanus	Large Skipper	3	Boundary and linear features	Common	Decreasing
Moths					
Acosmetia caliginosa	Reddish Buff	1	***Lowland heathland***	Rare	Stable
Eupithecia millefoliata	Yarrow Pug	3	***Maritime cliffs & slopes***	Common	Increasing
Spider Group					
Argiope bruennichi	Wasp Spider	3	Built-up areas & gardens	Occasional	Increasing
Aulonia albimana	A Wolf Spider	3		Believed extinct	
Pardosa paludicola	A Wolf Spider	3	***Lowland mixed deciduous woodland***	Rare	Unknown
True Bugs					
Lygus pratensis	A ground bug	3	***Hedgerows***	Rare	Unknown
Peritrechus gracilicornis	A Lygaeid bug	3	***Lowland calcareous grassland***	Rare	Unknown
Fungi					
Microglossum olivaceum	An earthtongue	1		Rare	Unknown
Hygrocybe calyptraeformis	Pink Waxcap	3		Rare	Unknown
Flowering Plants					
Viola lactea	Pale Dog Violet	1	***Lowland dry acid grassland***	Rare	Decreasing
Achillea ptarmica	Sneezewort	3	***Lowland dry acid grassland***	Scarce	Decreasing
Anacamptis morio	Green-winged Orchid	3	***Lowland calcareous grassland***	Localised	Stable
Cirsium dissectum	Meadow Thistle	3	***Fens***	Rare	Decreasing
Crocus vernus	Spring Crocus	3		Rare	Decreasing

Lysimachia nummularia	Creeping Jenny	3		Scarce	Decreasing
Parentucellia viscosa	Yellow Bartsia	3	***Maritime cliffs & slopes***	Rare	Decreasing
Platanthera chlorantha	Greater Butterfly Orchid	3	***Lowland mixed deciduous woodland***	Rare	Decreasing
Triglochin palustre	Marsh Arrowgrass	3	Fen, marsh and swamp	Scarce	Decreasing
Valeriana dioica	Marsh Valerian	3	Fen, marsh and swamp	Rare	Decreasing

1 = National BAP Priority Species

3 = Local BAP Priority Species

Habitats = National BAP Priority Habitats