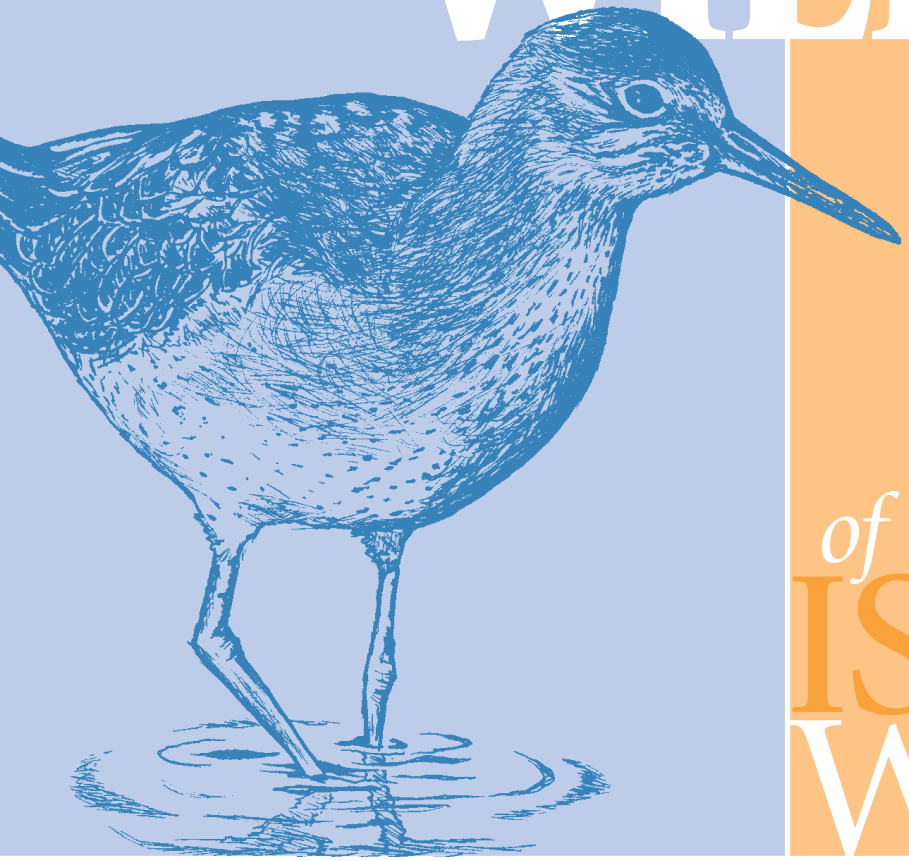
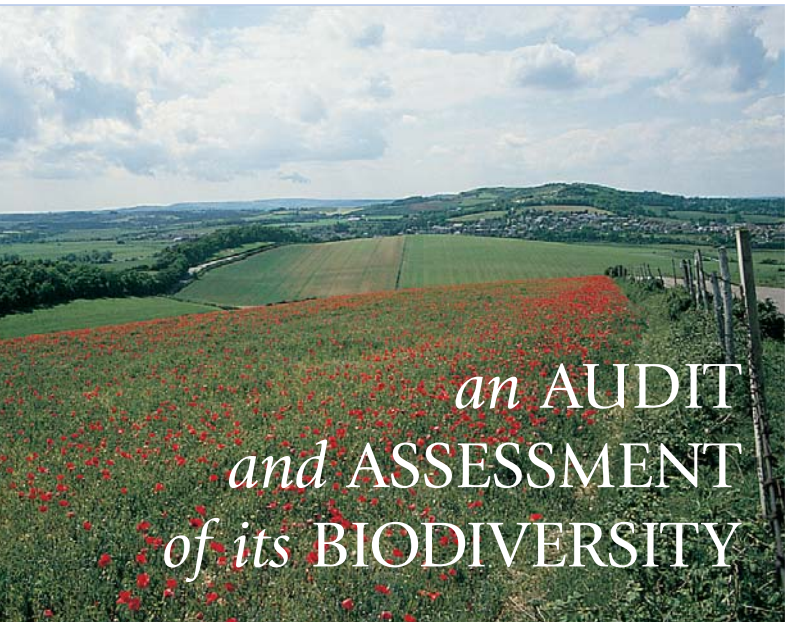



ISLAND AGENDA 21

WILDLIFE



of the ISLE *of* WIGHT



an AUDIT
and ASSESSMENT
of its BIODIVERSITY


July 2000

WILDLIFE *of the* ISLE *of* WIGHT

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JULY 2000

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FOREWORD *by David Bellamy*

My first visit to the Isle of Wight was a family holiday the week before war broke out. Mum evidently thought we would never get home. I rather liked that idea. Since then, I have been to the Island many times, on holiday, botanising and filming, and so discovered that it is a very special place, overflowing with heritage, both natural and people made.

The first specimen I ever collected was a little phial of those famous coloured sands and the Needles taught me the importance of tiny planktonic plants in the building of dramatic landscapes, the making of oxygen and, much later, the control of the global greenhouse.

Sixty years ago, the Island was a patchwork of estates and well-run farms, all bursting with the rich biodiversity of flora and fauna. Gleaning dinosaur bones on the beaches almost turned me into a geologist, but the flowers of the chalk grasslands and formal gardens in the resorts helped direct my footsteps along the paths of botany.

We have lost so much of our semi-natural heritage since then and yet, the Island is still a rich source of biodiversity. Biodiversity may be merely a word, but it sums up late 20th-century ideas. Along with "heritage" and "millennium", it is one of the words that celebrate the past and question the future. All across the country, local Biodiversity Action Plans are being written to focus attention on the need to protect the countryside and to carry out the right sort of management. We can all play our part. Without action to protect the biodiversity of the world, the future of our children is indeed bleak.

David Bellamy

ACKNOWLEDGEMENTS

In June 1999, the Isle of Wight local Biodiversity Action Plan process was launched with a presentation in the Quay Arts Centre in Newport. The Isle of Wight BAP process is overseen by a Steering Group made up of representatives from the following organisations:

Countryside Landowners Association, English Nature, Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Isle of Wight Council, National Farmers' Union, National Trust, Royal Society for the Protection of Birds, Wight Wildlife.

In addition, a much larger network of national and local organisations and individuals form the wider partnership. They are kept informed of progress via an occasional newsletter and it is anticipated that many will become further involved as the process develops.

The production of this report has been made possible by the contribution of time and expertise by

Almost half the Island is AONB

many individuals and organisations. In particular, the following have contributed information relating to their records of Island species:

Andy Barker, David Biggs, David Carr, Jim Cheverton, Simon Colenutt, Dennis Cox, Mike Edwards, James Gloyn, Richard Grogan, Roger Herbert, Peter Hodge, David Honeybun, Sam Knill-Jones, Keith Marston, Colin Pope, Lorna Snow, Graham Sparshott, Derek Telfer.

Butterfly Conservation, Isle of Wight Natural History and Archaeological Society, Isle of Wight Ornithological Group, Wight Wildlife.

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EXECUTIVE SUMMARY

This book has been written as part of a national (and world-wide) process to protect the variety of living things on earth, and their habitats. Following the Rio de Janeiro Earth Summit in 1992, each country is in the process of developing a national Biodiversity Action Plan. At the local level, individuals and communities are working out these principles and projects for the benefit of habitats and species in their immediate environment. The production of a Biodiversity Action Plan is part of local Agenda 21, a process which aims to involve people in deciding the priorities for the long-term health and well-being of their communities.

This book takes stock of our present knowledge of the Island's habitats and species, based upon information supplied by local and national experts and organisations. It is designed to be a springboard for the conservation of our biodiversity by providing an objective factual basis from which to consider priorities for taking forward the conservation of our wildlife and their habitats.

The Isle of Wight is a microcosm of south-east England and has, size for size, its fair share of the habitats characteristic of the region. In fact, we are unusually rich in species and habitats compared to other similar areas on the mainland. The chalk grasslands, the maritime cliffs and slopes, and the estuaries are particularly important, not only in a regional context but also on a national and international scale. The mere fact that we are an island located off the south coast has consequences for the wildlife as well as for the human population. We do not have introduced species such as grey squirrels, deer or mink; this allows populations of native animals which have become rare on the mainland, such as red squirrels, dormice and water voles to flourish. Our mild climate and maritime situation provides a foothold for species such as the Glanville fritillary butterfly, on the northern edge of their European range.

Much of the Island is covered by nature conservation and other designations. About half of the Island has Area of Outstanding Natural Beauty status, in recognition of its landscape value. 11% of the land area is designated as Sites of Special Scientific Interest and much of this, particularly around the coastline, is also considered to be of international importance. A further 10% has been identified locally as having value as Sites of Importance for Nature Conservation.

Many species of conservation concern which have been identified at the national level occur on the Island. The Island has 54 of those which are regarded as national priorities; they include the dormouse, song thrush, red squirrel, water vole, early gentian, skylark and starlet sea anemone. A further 180 species are also seen as important on the national scale –- butterflies such as the Adonis

blue and pearl-bordered fritillary; marine life such as the native oyster and dogwhelk; freshwater fish such bullhead and brook lamprey; wild flowers such as the cornflower and field cow-wheat; birds such as the barn owl and nightjar; and the many species of bats.

In addition, another 455 species, which are locally distinctive have been identified by local experts and enthusiasts. They include a diverse range of species such as mantis shrimps, wasp spiders, wall lizards and pink wax-cap fungi.

There have been many changes in the countryside and the wildlife it supports throughout history. As a consequence of human activities, chalk grassland on the Isle of Wight has declined in area by two-thirds since 1850, and even greater losses have occurred to heathland habitats. In more recent times, there have been increasing pressures relating to built development, whether for housing, roads or industry. Agricultural practice, driven by Government policy, has changed dramatically over the last 50 years and has resulted in change to our countryside. An estimated 72 species are considered to have become extinct locally within the last fifty years and very many more are in decline. These losses are largely due to habitat change or loss.

Over the next two years, plans will be developed by members of the Island's Biodiversity Action Plan Partnership, aimed at producing effective action to safeguard viable populations of species, and to conserve their habitats. A vital component of these action plans is to raise public awareness of the issues, to inform and educate both Island residents and visitors about the precious and fragile environment in which we all live. If we are to enjoy and appreciate the wonders of the natural world, then we must recognise our responsibilities and play our part in protecting it.

I N T R O D U C T I O N

Ten percent of the Island has been designated as SINC's

Biodiversity is a shorthand expression for biological diversity. Article 2 of the Biodiversity Convention (UNCED 1992) defines biological diversity as:

> *"The variability among living things from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part: this includes diversity within species, between species and of ecosystems."*

The UK Government signed the Biodiversity Convention at the Rio Earth Summit in June 1992. This committed it to develop programmes (action plans) for the conservation and sustainable use of biodiversity (UNCED 1992).

The UK Steering Group report says:

> *"Local Biodiversity Action Plans are seen as a means by which actions at the local level can be achieved. One of their main functions is to ensure that national targets for species and habitats are attained in a consistent manner throughout the UK."*

Local plans should seek to include targets which reflect the values of local people and which are based on a range of local conditions and thereby cater for local distinctiveness.
The process of writing local Biodiversity Action Plans is becoming widespread throughout Britain.

In December 1993, a partnership of conservation organisations (The Royal Society for the Protection of Birds, The Wildlife Trusts, Plantlife, Butterfly Conservation, Friends of the Earth and World Wildlife Fund UK) published Biodiversity Challenge (Wynne et al 1995) as a discussion document that suggested an approach to biodiversity planning for the Government. The Government published its national strategy, Biodiversity: the UK Action Plan in January 1994. The action plan proposed 59 steps towards conserving and enhancing biological diversity within the UK and globally (UK Government 1994).

One of the 59 steps was to write action plans for priority species and habitats, a process which was begun with the publication of Biodiversity: the UK Steering Group Report, an advisory report (UK Steering Group 1995) to which the Government responded 15 May 1996. The process has been continued with the publication of UK Biodiversity Group Tranche 2 Action Plans (1998 and 1999).

Objective of the Report

This document aims to identify the key features of international, national and local conservation importance on the Isle of Wight. It is an audit of these features together with an assessment of them in nature conservation terms. As such, it hoped that it can form a factual basis for the Biodiversity Action Plan process which has the acceptance of nature conservation bodies. It does not attempt to prioritise or set targets, jobs which are the role of the Isle of Wight BAP Steering Group. Set up in 1999, this comprises representatives of Country Landowners Association, English Nature, Environment Agency, Hampshire & Isle of Wight Wildlife Trust, Isle of Wight Council, National Farmers Union, National Trust, Royal Society for the Protection of Birds and Wight Wildlife. A much wider partnership, made up of national and local organisations and individuals are kept informed of the process via a newsletter. Many are likely to become more involved as the process develops.

Eleven percent of Isle of Wight land area is of such nature conservation value that it is designated SSSI

Introduction to the Audit

Some aspects of our biodiversity are more threatened than others and there is an urgent need to prioritise action. This has been done at a national level in both Biodiversity: The UK Steering Group Report (UK Steering Group 1995) and Biodiversity Challenge (Wynne et al 1995). These documents focus on species and habitats in the UK that are globally threatened, occur in internationally significant concentrations or are rapidly declining.

The audit provides an assessment of the biodiversity of the Isle of Wight using the best available information. It will need to be revised and completed for some habitats, particularly those in the marine environment.

The audit gives the extent, where known, of each of the main habitat types and indicates their significance at the European, national and local context. It highlights links between the habitats and key species of conservation concern. It records important sites and areas and lists factors affecting the habitat. Wherever possible, this information has been taken from nationally and regionally produced audits and action plans in order to provide a consistency of approach. However, where necessary, the information has been modified so that it is appropriate within an Isle of Wight context.

One of the key components of English Nature's Strategy for the 1990s has been the Natural Areas approach, in which it examined the local distinctiveness of each part of England. The characteristic wildlife and natural features were identified, and used to define a comprehensive series of "Natural Areas" of which the Island is one. It is the subject of its own Natural Area profile published by English Nature (1998). This provides an excellent introduction to the area and a good background to the Biodiversity Audit. Unfortunately, marine and maritime parts of the area are dealt with

separately within the Solent and Poole Bay Natural Area Profile. The Isle of Wight BAP will seek to combine the "Natural Areas" characteristics of local terrestrial, maritime and marine environments.

The Audit

From a biogeographical point of view, there are strong affinities between the Isle of Wight and the Wessex region. However, in this document, the Isle of Wight is considered as a part of the South-East region as it falls within the geographical boundaries of the Government Office for the South-East (GOSE) and the South-East England Development Agency (SEEDA). It also falls within the South-East Regional Biodiversity Audit (1998) produced jointly by the Wildlife Trusts of South-East England and the RSPB South-East and Central Regions. The South-East region is defined as comprising the counties Oxfordshire, Buckinghamshire, Hertfordshire, London, Berkshire, Surrey, Kent, Hampshire, the Isle of Wight and Sussex.

An audit of biodiversity is perhaps best expressed through a consideration of the habitats which are present. The habitat types used are based upon those in Biodiversity: UK Action Plan. Twenty-two habitats have been considered for this document and they follow those used in the South-East region Biodiversity audit. The audit has been conducted using the best available data, the quality of which varies with different habitats.

There has been no full Phase 1 survey of the Isle of Wight carried out. However, there has been a considerable amount of targeted survey work and the semi-natural resource of the county is comparatively well-known. Where quantitative data have been given, these figures are based on up-to-date and current knowledge, using GIS mapped data. However, it should be remembered that land use data is difficult to collect, generally fails to achieve full coverage, becomes outdated very quickly and is open to interpretation.

The Isle of Wight may be small but it is exceptionally rich in wildlife

The Isle of Wight is by far the smallest county in the South-East Region. Nevertheless, the Island has a great diversity of habitats contained within an intimate landscape mix. Despite its exceptional biological richness, it cannot compete in extent of habitats with its larger neighbours. The percentage of the land surface occupied by different habitat types compares favourably with similar percentage figures for the South-East (Fig. 1), even though the actual area figures may be low. This complexity of habitats, often of small extent, makes mapping difficult to display at the scale appropriate for this document. The maps frequently appear to show a dramatic habitat fragmentation. Although this is certainly an issue, its full extent may be more apparent than real and it should be appreciated that many of these fragments are linked by other semi-natural habitat fragments. An indication of the extent of semi-natural habitats of nature conservation value is provided by a map showing the extent of statutory and non-statutory nature conservation areas across the Island (Fig. 2).

Habitat audits cannot effectively be carried out without reference to species, and a Species Audit is included within the document. It has been arrived at through consultation with local naturalists and local and national experts and organisations. It represents a compilation of the best currently available data. However, it does not pretend to be fully comprehensive and it should constantly evolve and require revision. The emphasis has been upon species of national conservation concern and upon linking them, wherever possible, to habitats. With invertebrates in particular, it has only been possible to include a representative selection of species. Frequently, there is insufficient recent data to provide current estimates of status. The main purpose of the Species Audit is to highlight species-rich habitats and to identify those species of conservation concern which would not be adequately catered for within Habitat Action Plans (HAPs).

Figure 1 Isle of Wight Habitats in a South East Context

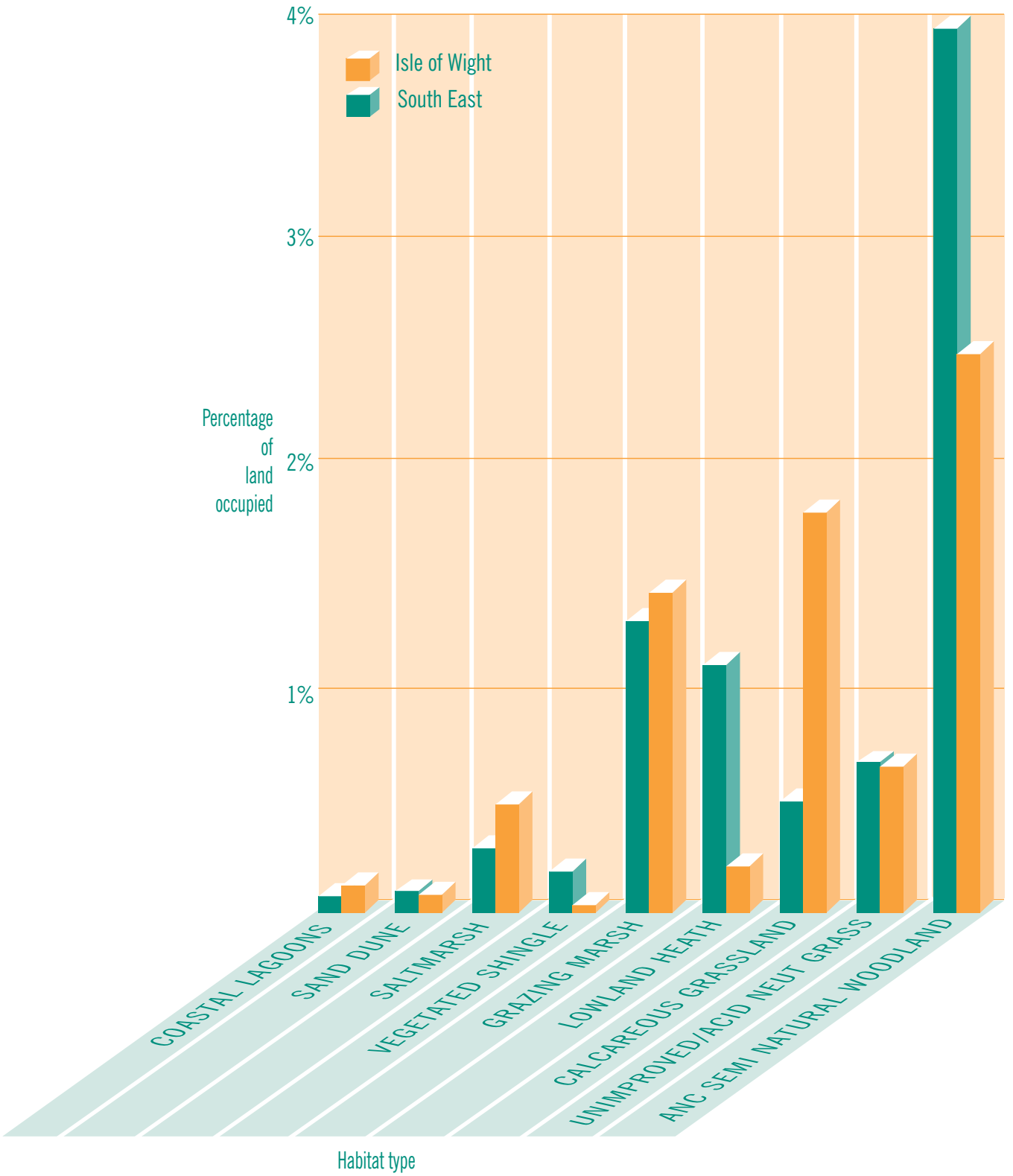
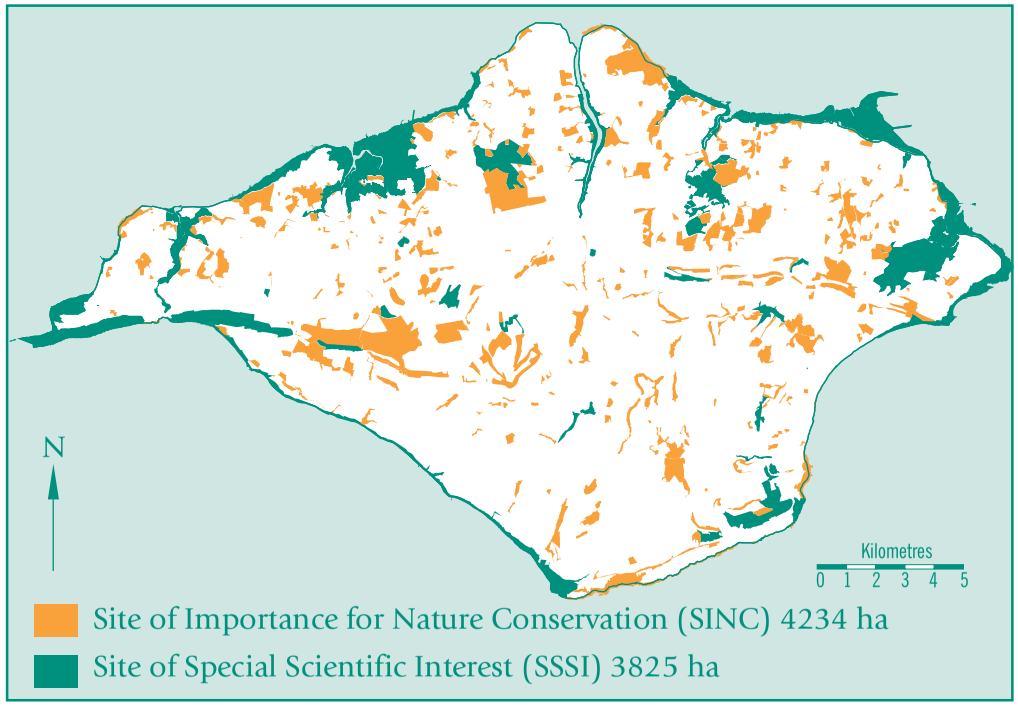
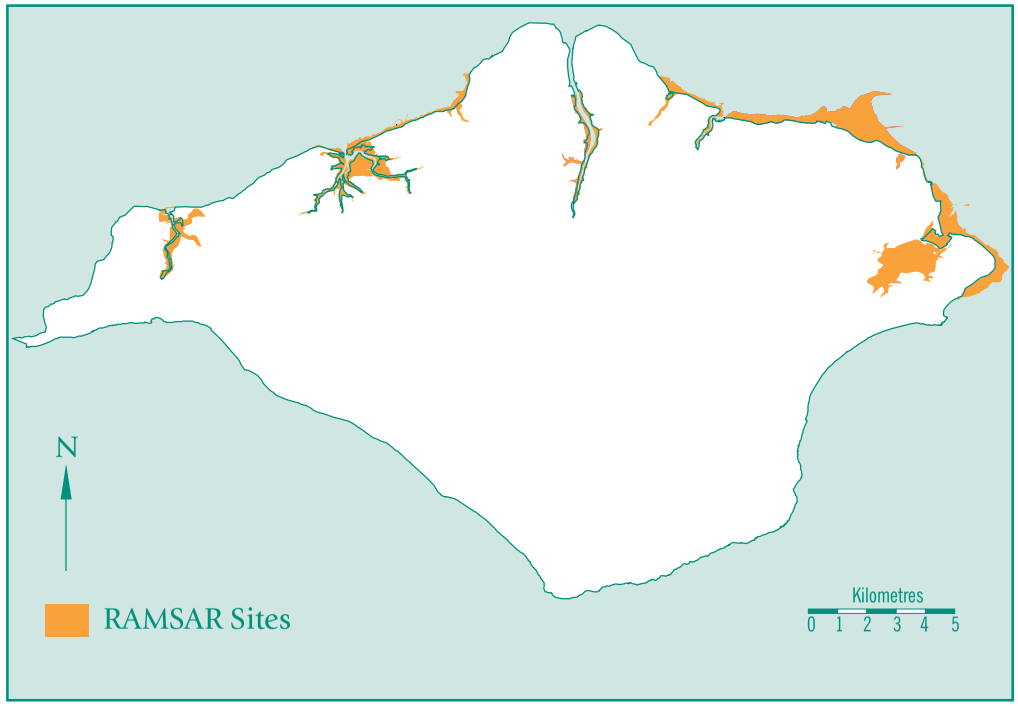
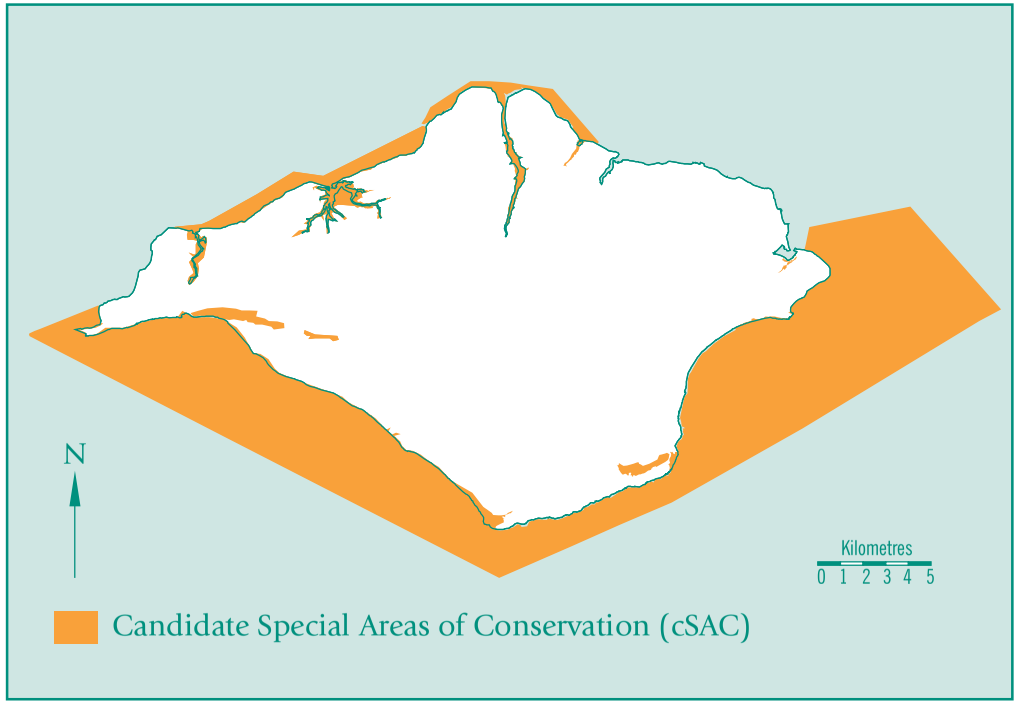
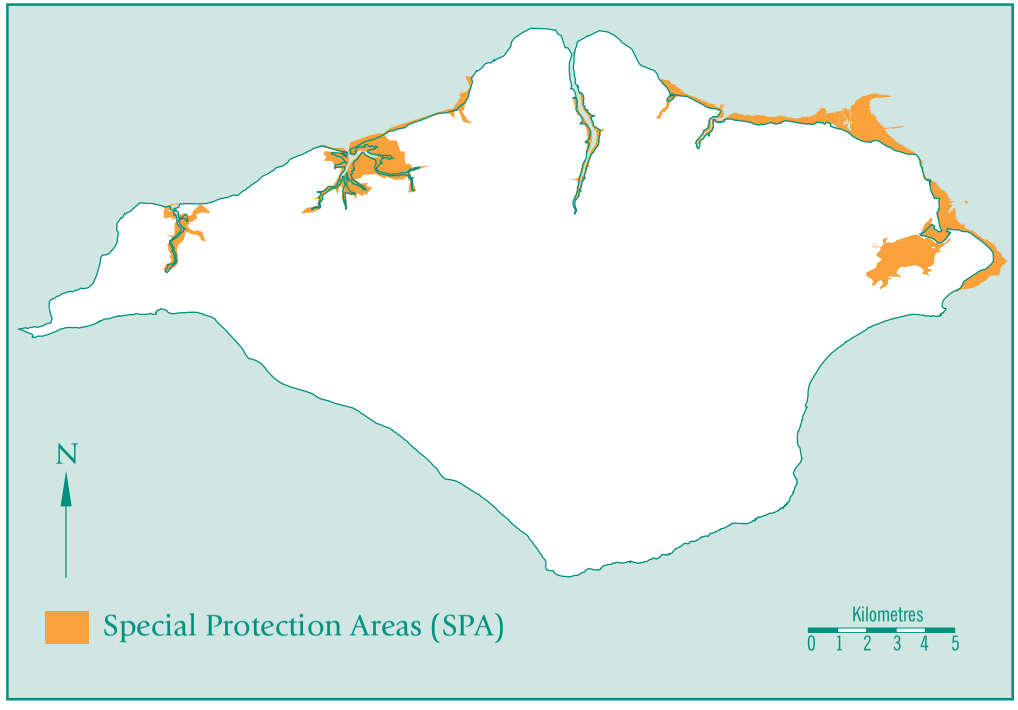


Figure 2 Statutory and Non Statutory Nature Conservation Designations









The broad habitat types described here conform to the 38 habitat types as defined under the UK Biodiversity Programme. From this list of 38 key habitats, 19 occur in the Island.

1 WOODLANDS

Isle of Wight woodland

1.1 SEMI-NATURAL BROADLEAVED WOODLAND (comprising ancient semi-natural broadleaved woodland, secondary woodland and wet woods). "Wet Woodland" is a Priority Habitat..

1.1.1 Definition

The UK Steering Group defines this broad habitat type as comprising areas of woodland composed of broad-leaved, principally native, woody species. Such woodlands are the product of both human management and natural processes, rather than being wholly artificial. They can be classed as ancient (ie woodland cover has been continuous on the site for at least 400 years) or secondary (ie have become established by natural processes more recently). Wet woodlands, included within this definition, are generally secondary in origin. There is overlap between this habitat type and both the Parkland and the Plantation Woodland categories. Although other lowland broad-leaved woodland types have not been identified as Priority Habitats, there is a general recognition that such woods can contribute substantially to overall biodiversity.

1.1.2 The resource

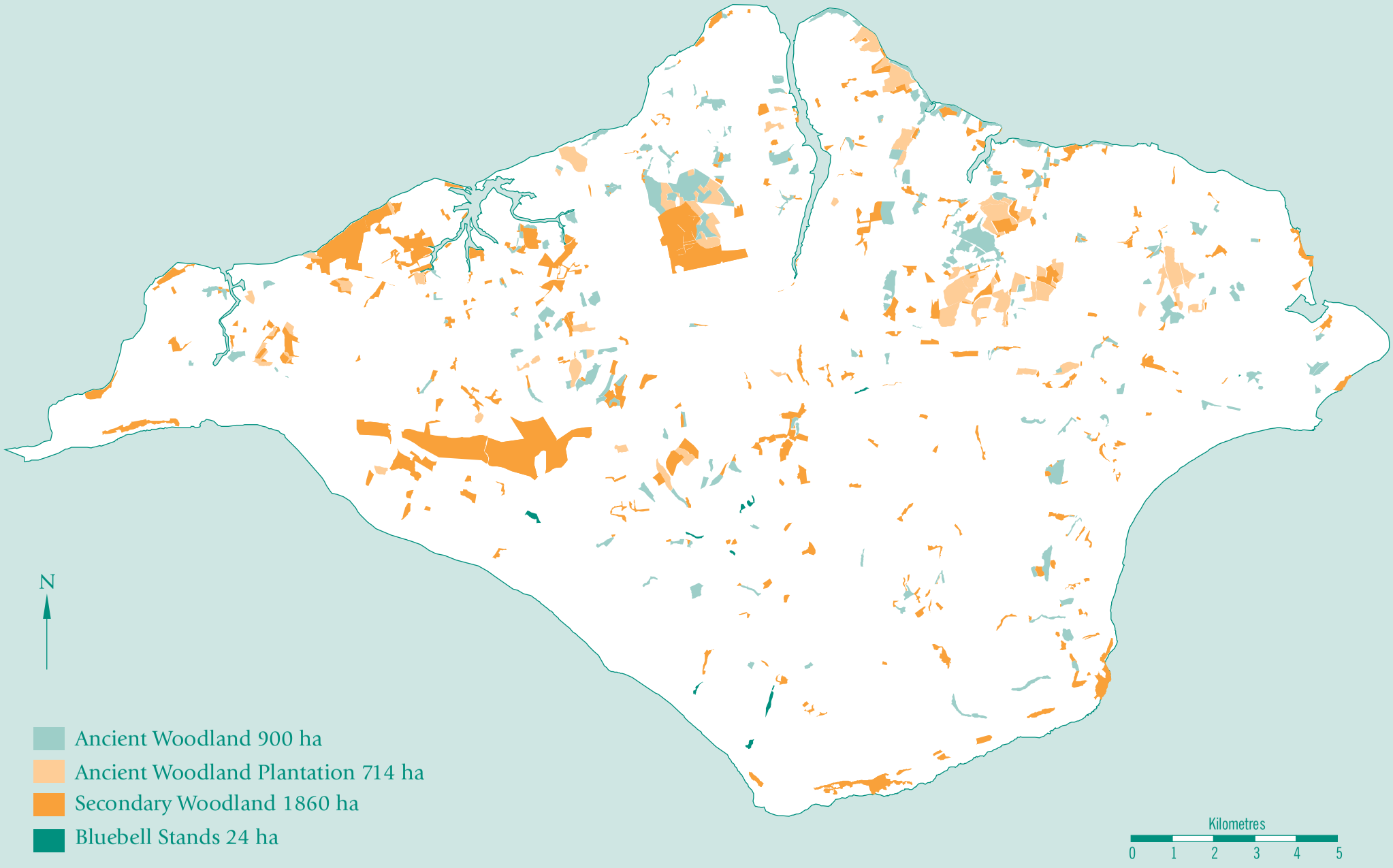
The Isle of Wight is not regarded as a particularly well-wooded county by regional standards and yet the total area of woodland cover is around the national average, occupying just under 10% of the Island's land surface. This includes native woodland and plantation woodland; the latter may be broad-leaved or conifer (Fig. 3). Approximately 1128 hectares of semi-natural broadleaved woodland, as defined above, have been currently identified. Of this total, some 900 hectares are known to be of ancient origin. In addition, 714 hectares of ancient woodland have been replanted with conifers or non-native broadleaves since the beginning of this century, and these have been included within the Plantation Woodland habitat (1.3). The total area of woodland occupying known ancient sites is 1,614 hectares covering just over 4% of the Island's land surface. This may be an underestimate as there are likely to be a number of small semi-natural woodlands (under 2 hectares) of ancient origin which have not been identified at this stage.

1.1.3 Nature conservation importance

Pearl-bordered fritillary butterfly

Semi-natural broadleaved woodland covers a wide range of woodland types. The ancient semi-natural woodland is predominately ash-maple woodland (NVC W8) on calcareous and clay soils, and oak woodland (NVC W10) on more acid and sometimes sandy soils. Most woods show clear evidence of management as coppice woodland and hazel is a common understorey shrub. The richest woods biologically are those situated on the clay soils of the northern half of the Island and this is where the majority of our ancient woodland survives. Those fringing the Solent coasts and estuaries are nationally important showing some of the best transitions from woodland through brackish marsh and soft cliff to saltmarshes and intertidal mud. Another aspect of ancient woodland on the Island

Figure 3 Distribution of Woodland Types



is the presence of neglected wood pasture. Here standard trees of great age, with their associated species, survive in the absence of the grazing pressure to which they were once subject. Woodland such as Northpark Copse, the northern part of Parkhurst Forest, and perhaps America Wood and Borthwood Copse contain the last vestiges of these habitats, though they are masked by developing young trees, understorey and scrub. Many, but not all, of the species associated with wood pasture have been lost as a result of the cessation of grazing.

Bluebell

The wet river valley woods at Gatcombe include an area of alder woodland which has intrinsic importance as peat cores indicate that this area has supported alder carr continuously since circa 7000 BP. As such it is a rare example of alder woodland persisting on the same site since the end of the last glaciation.

Secondary woods tend to be dominated by ash, elm or sycamore and in wetter areas with sallow carr. They generally have lower nature conservation value, but some secondary woods can become species-rich relatively quickly through natural regeneration. Some secondary woodland within the shelter of the Undercliff coastline along the south coast can support Bryophyte communities with western Atlantic affinities. Other small, exposed, scrubby woodlands along the south-west coast are of long-standing. They can support luxuriant lichen communities and can provide valuable shelter for migrant and resident birds.

Large herbivores are absent from the Island and this leads to good coppice growth and natural regeneration in turn promoting arboreal species such as red squirrel and dormice, particularly on the heavy clay soils to the north of the Island. The Island is now the only county in Britain where both of these mammal species exist together in their natural habitat and is also possibly the best locality in Britain for the Bechstein's bat. These mammals are not confined to ancient woodland, but are able to disperse freely through woodlands of various types.

There is an increasing recognition that many woodland species are nationally declining. At this stage, the reasons for this are unclear, but the considerable damaging impact of deer and grey squirrels in mainland woodlands is considered to be a contributing factor.

1.1.3.1 Key species

Mammals:	Red squirrel*; common dormouse*; noctule bat; Bechstein's bat*; barbastelle bat; Natterer's bat
Birds:	Nightingale
Insects:	Pearl-bordered fritillary*; red-necked footman; wood cricket
Flowering plants:	Wood calamint; bluebell; narrow-leaved lungwort; ivy broomrape
Bryophytes:	*Lejeunea lamacerina; Lophocolea fragrans; Cololejeunea rosettiana*
Lichens:	Tree lungwort *(Lobaria pulmonaria)* and other ancient woodland indicator species; *Cryptolechia carneolutea*

1.1.3.2 Key sites

The Island is the only place in Great Britain for Wood Calamint

The most important woods nationally are those ancient woodlands bordering estuaries and creeks and showing a transition of habitats through to saltmarsh. Many of the best ancient woodlands have been designated as SSSIs. All remaining known ancient woodlands are proposed as SINCs

Clay woods -	Briddlesford Copses (SSSI)
	Walter's Copse, Town Copse & Lock's Copse (SSSI)
	Centurion's Copse, Bembridge (SSSI)

	King's Quay woods (SSSI)
	Fishbourne Copse (SSSI)
	Dickson's Copse (SSSI)
	Whitefield Woods (SINC)
Chalk woods -	Rowridge Valley woods (SSSI)
	Eaglehead and Bloodstone Copses (SSSI)
Greensand woods -	America Woods (SSSI)
	Cliff Copse, Shanklin (SSSI)
Woodpasture woods -	Parkhurst Forest (SSSI)
	Northpark Copse (SSSI)
	America Woods (SSSI)
	Borthwood Copse (SINC)
Other woods-	Greatwood Copse (SSSI)
	Bonchurch Landslips (SSSI)
	Bouldnor cliffs (SSSI)
	Gatcombe Withybeds (SINC)

The Island is a national stronghold for the Red Squirrel

1.1.4 Factors affecting the habitat

- Lack of continuity of age structure
- Inappropriate or lack of management
- Fragmentation and isolation of woods
- Inappropriate planting and restocking
- Lack of suitable markets for coppice and other products

1.2 PARKLAND & PASTURE WOODLAND. "Lowland Wood Pasture and Parkland" is a Priority Habitat

1.2.1 Definition

Wood pasture and parkland are historic habitat systems derived from extensive grazing. Such sites usually contain existing old trees and provide habitat continuity often established over centuries. Only relict examples exist on the Island, either in an unmanaged state or as scattered trees within an arable or improved pasture setting. Additionally, isolated ancient trees can be found as scattered survivals in the landscape. These can be of great historic interest but tend to be less important biologically. Long neglected wood pasture which has developed into woodland is also covered under Semi-natural Broad-leaved Woodland habitat.

Stag beetle

1.2.2 The resource

This habitat is poorly quantified, although the locations of collections of ancient trees of biological interest are known. There has been a complete loss of working wood pasture to either woodland or to arable/improved grassland over the last 100 years.

1.2.3 Nature conservation importance

Wood pasture was probably widespread in lowland landscapes through the medieval age and up until the early 19th century. The greatest extent of this habitat in western Europe probably survives in southern England. The species associated with ancient trees (lichens, fungi, invertebrates and bats) largely contribute to the ecological significance of this habitat, which is also of historical and cultural value.

The old parkland trees on the Island are principally oak. Oak trees of 250 years or older support a lichen community with a very restricted distribution in Western Europe. Species of note include *Lecanactis lyncea, L. premnea and Opegrapha prosodea*. The ancient trees and associated dead wood are also important for specialist saproxylic species, especially beetles, hover-flies and other flies, and certain species of fungi. Mammals such as Bechstein's bat and noctule bat are associated with this habitat type. Old trees are also important for hole-nesting bird species. Barn owl nests on the Island are located mostly within old trees.

Devil's bolete fungus

No relict wood pasture/parkland sites are designated as SSSIs and there is no working wood pasture surviving. The largest collection of ancient trees on the Island is the Nunwell Estate where more than one hundred post-mature oak trees occur within a grassland and arable setting of around 40ha. Much smaller groups of old oaks which support wood pasture species occur at Swainston and Quarr. Several sites which are likely to have contained or been predominantly wood pasture in the past have reverted to woodland. These include Borthwood Copse, America Woods, Northpark Copse and parts of Parkhurst Forest. Some of these sites contain species characteristic of wood pasture. There is complementary coverage of their interest within the Semi-natural Broad-leaved Woodland habitat statement.

1.2.3.1 Key species

Mammals:	Bechstein's bat*; noctule bat; natterer's bat
Birds:	Barn owl
Hymenoptera:	A tree ant *(Lasius brunneus)*
Diptera:	An empid fly *(Oedales apicalis)*
Beetles:	Stag beetle; a cobweb beetle *(Ctesias serra)*; an anobiid beetle *(Xestobium rufovillosum)*; a fungus-boring beetle *(Dorcatoma serra)*; a fungus beetle *(Rhizophagus nitidulus)*
Lichens:	*Physcia tribacioides; Lobaria pulmonaria; Lecanactis premnea; L.lyncea; Rocella phycopsis; Anaptychia ciliaris; Opegrapha prosodea*
Fungi:	*Ganoderma applanatum*

1.2.4 Factors affecting the habitat

- Changes in agricultural practice, from the cessation of grazing to overgrazing and intensification including: ploughing and re-seeding to improve pasture productivity, conversion to arable farming; and inappropriate use of herbicides and fertiliser.
- Removal of old trees, scrub, and dead wood.
- Increased recreational pressures and the associated demand for tree safety work, disturbance to stock, erosion and vandalism.
- Large generation gap (very old trees and young trees or no young trees present) leading to loss of habitat continuity.
- Agricultural tenancy agreements which do not provide adequate protection for pasture woodland.
- Lack of knowledge about the resource, and therefore lack of appreciation.

1.3 PLANTATION WOODLAND

1.3.1 Definition

This is interpreted as woodland that has been deliberately planted since the late 19th century. There were earlier plantations of native species, but often these are difficult to distinguish from other

woodlands on the ground and have been considered under the Semi-natural Broad-leaved Woodland category. Plantation woodlands can be composed of coniferous or broadleaved species, or a mixture of these. The species are generally not native, either to the area or to this country. These woodlands are split into two classes: those that have been planted on pre-existing woodland sites and those that have been planted on other habitats

1.3.2 The resource

There is estimated to be some 1880 hectares of secondary woodland, some of which has become established by plantation, and some of which has established naturally (Fig. 3). 714 hectares of plantation woodland occupy sites of pre-existing woodland. A significantly larger area of woodland has been planted over other habitat types, particularly earlier in the 20th Century.

1.3.3 Nature conservation importance

Red squirrel populations can build up to high levels in conifer plantations, but much of the plantation on the Island has been to the detriment of other habitats including chalk grassland, ancient woodland and, most significantly, heathland. Frequently, remnants of previous habitat types survive within plantations along rides and sometimes regenerate from clear-fell areas. Additional ecological interest in these sites lies in the early stages of establishment, as these tend to be fenced from herbivores such as sheep and rabbits, providing long grass habitats for small mammals and invertebrates and their predators. Hence rides and clear fell areas are the best sites for nightjar, long-eared owl, hobby and heathland remnants. The rides in Parkhurst Forest are typical of this effect. Plantation woodland on ancient woodland sites frequently retains significant elements of an ancient woodland flora, even under conifers during the initial rotation, providing the opportunity to effectively restore some conifer compartments back to broad-leaved native woodland.

Large areas of sycamore and mixed plantations from around the turn of the century in the Undercliff have given rise today to significant areas of Undercliff woods. Again, semi-natural elements remain where plantations linked together scattered remnants of native woodland.

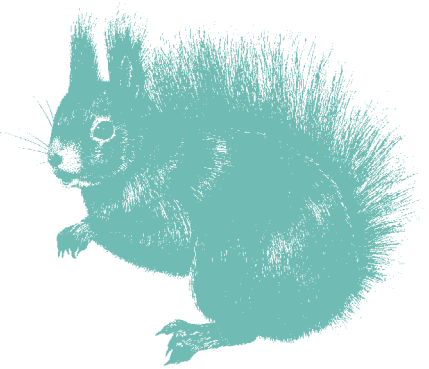
On the south facing downland slopes behind Ventnor, a unique holm oak woodland has developed as a result of a mixture of deliberate acorn sowing and natural regeneration. Although less than one hundred years in age, this woodland is developing a distinctive flora and fauna which show an affinity with the Mediterranean native holm oak woodland. Some locally rare species have become established including large white helleborine, yellow birds nest ,the large fungus, *Amanita ovoidea* and the oak rustic moth.

1.3.3.1 Key species

Mammals:	Red squirrel*
Birds:	Nightjar*; long-eared owl
Insects:	Reddish buff moth*; small pearl-bordered fritillary; pearl-bordered fritillary*; southern wood ant*; oak rustic moth
Flowering plants:	Meadow thistle; sneezewort; yellow birds-nest; large white helleborine
Fungi:	*Amanita ovoidea; Amanita echinocephala; Sarcosphaera crassa.*

1.3.3.2 Key sites

Bouldnor Forest (SINC)
Brighstone Forest (SINC)
Parkhurst Forest (SSSI/ SINC)
Firestone Copse (SSSI/ SINC)
Barton / Osborne Estate (SINC)



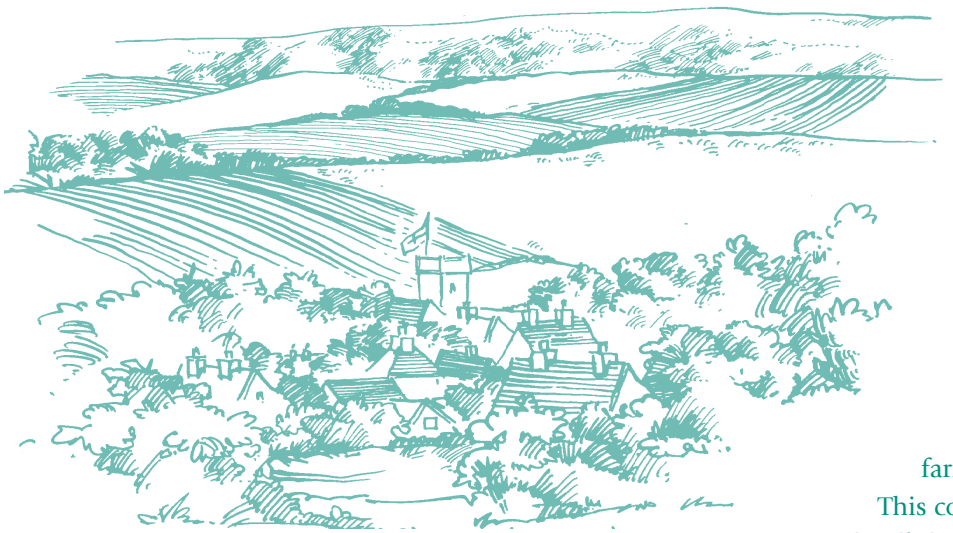
Ventnor Downs (SSSI)
The Undercliff. (part SINC)

1.3.4 Factors affecting the habitat

- Decreases in the structural/age diversity of stands and forests
- Clear felling and replanting that disrupts other elements of the forest ecosystem through erosion or effects on water bodies.

2 FARMLAND

2.1 ARABLE. "Cereal Field Margins" are a Priority Habitat.



Isle of Wight farmland – the view from Golden Hill

2.1.1 Definition

Arable land is land under cultivation, set-aside or temporary grassland, tilled at least once every five years. The most significant crops are cereals but gardens, allotments and nurseries also contribute significantly to the resource.

2.1.2 The resource

An estimated 12,047 hectares of farmland on the Island is arable. This constitutes nearly 32% of the Island's land surface.

2.1.3 Nature conservation importance

Field cow-wheat

Arable land is not of high nature conservation significance, but it does have some value. Much of the wildlife interest is restricted to the field edges or headlands, where rare arable plants may be found. However, for some species, such as certain ground-nesting birds, the whole field is important. Adjoining hedgerows can be important and are included under Ancient Hedgerows. Arable land is particularly valuable for a range of declining farmland birds including skylark, grey partridge and corn bunting. A large number of insects and other invertebrates spend part of their life cycles in cereal fields. Many of these species are a potential food source for birds and mammals. Most arable land depends on the seed bank and dormancy to ensure that populations survive in years when optimum growth conditions are absent. This means that many can survive, despite spraying and dense crops, reappearing when the right conditions return. Arable ground can be important for a specialised suite of rare bryophytes. Allotments, gardens and other tilled land not managed on an intensive basis can also be important for some species.

2.1.3.1 Key species

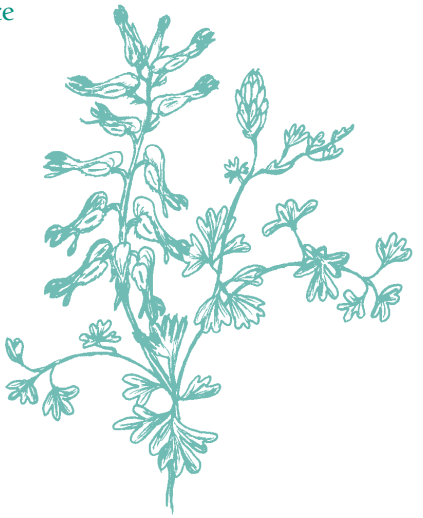
Mammals:	Brown hare*
Birds:	Skylark*; grey partridge*; corn bunting*; turtle dove*
Flowering Plants:	Martin's ramping fumitory; purple ramping fumitory*; corn

buttercup; cornflower*; small-flowered catchfly*; lesser quaking grass

Bryophytes: *Weissia squarrosa; Tortula rhizophylla*

2.1.3.2 Key sites

The extent and distribution of biologically valuable fields is comparatively poorly understood although some areas which are important for arable birds, for hares or for arable weeds have been identified. One allotment site (Lake Allotments) is an SSSI for its arable weed flora. Around 25 fields have been identified as supporting nationally scarce arable weeds when conditions are favourable. These include fields on chalk, greensand and tertiary clay soils. An area in the southwest alongside the Military Road is known to still support important populations of birds requiring stubble fields for feeding, although the corn bunting is currently in decline.



Purple ramping fumitory

2.1.4 Factors affecting the habitat

- Substantial applications of nitrogen and the widespread use of insecticides and herbicides.
- Removal of hedgerows and small patches of semi-natural habitat.
- Change from spring to autumn sown cereals which has caused loss of feeding opportunities on winter stubble and loss of suitable conditions in the spring for ground nesting birds.
- Inappropriate husbandry practices such as spraying out hedge bases.
- Simplification of crop rotation cycle, including a decline in the use of root crops in stock-rearing areas, use of pre-emergence weed killers, and rapid re-seeding of grassland in rotation cycles.
- Improved drainage of large areas of low-lying arable land.
- Lack of information on key sites.

2.2 IMPROVED GRASSLAND

2.2.1 Definition

These are defined as species-poor, grass dominated swards, often sown for agricultural or recreational use, or created by modification of unimproved grasslands by fertilisers and selective herbicides. They are particularly characterised by the abundance of rye grasses and white clover. Where not managed as pasture, improved grasslands are often mown regularly. Wet grasslands of this type are not included here.

2.2.2 The resource

There is no reliable estimate of the extent of this resource but improved grasslands account for the great majority of all grasslands found in rural and urban areas.

2.2.3 Nature conservation importance

These sites are ecologically very poor due to intense management. Fertiliser use in particular stimulates the growth of competitive grasses at the expense of other species. However, they can be utilised by wildlife due to the cyclic nature of cultivation (cutting and spraying). Ground nesting birds will take up these sites even if their nests are subsequently destroyed, particularly if populations are strong in some areas. The only known pair of lapwing nesting away from the coast in 1998 was in an improved grassland site which is not intensively managed for silage. The trend from hay-making to silage production has decreased the limited value of this habitat significantly in recent years. Some improved coastal grazing pastures are important as high tide wader roosts for

wading birds and provide grazing for wintering wildfowl, particularly brent goose and wigeon.

2.2.3.1 Key species

Mammals:	Brown hare*
Birds:	Skylark*; lapwing; Brent goose; wigeon; curlew; golden plover

2.2.4 Factors affecting the habitat

- Afforestation
- Attempts at conversion to species rich grasslands
- Increase in silage production and use of grass as foodstuff
- Recreation and amenity grassland require less intense management
- Reversion of derelict industrial sites and waste sites to grassland

2.3 ANCIENT HEDGEROWS "Ancient and/or Species Rich Hedgerows" are a Priority Habitat.

2.3.1 Definition

Ancient hedgerows tend to be those which support the greatest diversity of plants and animals. They are usually defined as those which were in existence before the Enclosure Acts passed between 1720 and 1840. However, ancient hedgerows are not necessarily species-rich. For instance, many hedges around old settlements are dominated almost exclusively by English elm. Species-rich hedgerows generally contain at least five native woody species.

2.3.2 The resource

The extent of ancient hedgerows on the Island is not known, but the Island is in a part of the country with a predominantly ancient landscape. It is believed that the proportion of species-rich hedgerows is high, with concentrations on the north side of the Island. Hedgerows adjacent to roads, tracks and wooded ground tend to be particularly species-rich. The rate of hedgerow loss is unknown but nationally, between 1984 and 1990, the net loss of hedgerow length in England was estimated as 21% (Institute of Terrestrial Ecology report). This loss was the result of a combination of removal and neglect. A further survey between 1990 and 1993 showed that hedgerow loss was continuing, although at a slower rate.

Dormouse

2.3.3 Nature conservation importance

Despite changes in agricultural practice, most hedges are still valued by farmers as field boundaries despite the introduction of stock fencing. Recent research has demonstrated the value of hedges as a source of beneficial insects that control agricultural pests and that pollinate crops.

Hedgerows can be important habitats in their own right. They can be especially important for farmland birds, bats and dormice. They are an essential refuge for a great many woodland and farmland plants and animals and provide hibernacula sites for herptiles. They can also act as wildlife corridors and can be particularly important for the dispersal of woodland mammals.

2.3.3.1 Key species

Mammals:	Dormouse*; red squirrel*; bat species*
Birds:	Corn bunting*; linnet*; bullfinch*; grey partridge*; turtle dove*
Lepidoptera:	Brown hairstreak; White-letter hairstreak
Flowering plants:	Greater broomrape; wild service tree; small-leaved lime; black mullein; dwarf elder

2.3.3.2 Key sites

Although it is not possible to identify key sites at this stage, some areas such as at Newtown, Pan to Downend, Havenstreet and Freshwater have concentrations of ancient and/or species-rich hedgerows.

2.3.4 Factors affecting the habitat

- Removal for agricultural and development purposes.
- Unsympathetic cutting practices such as cutting all hedges on a farm in every year, cutting during the bird breeding season and cutting hedgerow trees.
- Loss of hedgerow trees through senescence and felling without the encouragement of replacements.
- Neglect leading to a change into lines of trees and the development of gaps.
- Pesticides and fertiliser drift, or direct application, into hedge bottoms leading to nutrient enrichment and decline in species diversity.
- Increased stocking rates, particularly of sheep, leading to hedgerow damage and the need to fence fields. The presence of fences reduces the agricultural necessity for hedge maintenance and so hastens their decline.
- Erosion of banks alongside tracks and roads through abrasion by vehicles.
- Lack of data on the extent and quality of the resource.

3 LOWLAND UNIMPROVED GRASSLANDS AND HEATHLANDS

3.1 UNIMPROVED NEUTRAL GRASSLANDS "Lowland Meadows" are a Priority Habitat.

Grassland

3.1.1 Definition

These are meadows and pastures which occur on soils which are neither markedly acid nor basic, and which have not been subject to any significant degree of agricultural intensification. They are frequently colourful with flowers and alive with insects.

Over 90% of unimproved neutral grasslands have been lost on the Island

3.1.2 The resource

Neutral grassland has succumbed very substantially to the modernisation of agriculture since the last War and today occurs very infrequently. Between 1930 and 1984, unimproved lowland grassland has decreased by an estimated 97% in England and Wales (UK Steering Group 1995) and in recent decades, the rate of loss in some areas has increased. Neutral grassland has proved particularly difficult to map. There has not been a comprehensive habitat survey of the Island and moreover, the dividing line between unimproved and semi-improved grassland is vague. Only better examples have been mapped here (Fig. 4). An estimated 151 hectares of MG5 grassland remains on the Island which represents approximately 1% of the South East Region resource. Scattered fragments have survived particularly on the clay soils on the north of the Island and there is a concentration around the Newtown Estuary. However, this figure should be viewed with caution as it includes an element of semi-improved grassland and it excludes road verges, some of which contribute significantly to the resource, and some areas of seasonally-inundated grassland.

Green-winged orchid

Some of the richest sites survive today as hay meadows but many are unmanaged and consequently declining in value. Additionally, the Island still has significant areas of semi-improved grasslands which could be recoverable and these have not been adequately mapped to date.

3.1.3 Nature conservation importance

Most neutral meadows survive in a landscape of hedges and small woods and this enhances their nature conservation importance. However, neutral meadows are of high nature conservation value in their own right for their complement of flowering plants and invertebrates. Newtown Ranges is the largest area of unimproved neutral hay meadow on the Island and is particularly species rich with a total of 77 flowering plant species recorded.

An interesting and distinctive vegetation has become established on nutrient-poor clay soils on the north of the Island, giving rise to clay heaths. Today, these occur in a very fragmented state, principally in the Cranmore area, and are dominated by grasses and herbs rather than by ericaceous shrubs, but they still support a concentration of nationally and locally scarce species.

3.1.3.1 Key species

Mammals:	Brown hare*
Birds:	Grey partridge*; skylark*; barn owl
Reptiles:	Adder; grass snake; common lizard
Insects:	Reddish buff moth*; small pearl-bordered fritillary; marbled white; long-winged conehead
Flowering Plants:	Yarrow broomrape; pale dog violet; heath dog violet; yellow bartsia; corky-fruited water dropwort; green-winged orchid; French oat-grass.

3.1.3.2 Key sites

The richest unimproved meadows at Newtown have been designated as SSSIs but most unimproved grasslands do not have this protection. All remaining identified sites have been proposed as SINCs. Some survive as mown grassland within cemeteries.

Newtown MOD Ranges (SSSI)
Brading Marshes (SSSI)
Harts Farm meadows, Newtown (SSSI)
Locks Farm meadow (SSSI)
Ningwood Common and Cranmore heaths (SINC)
Calbourne meadows (SINC)

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3.1.4 Factors affecting the habitat

- Unattractive payments for retention of permanent pasture under sympathetic management regimes compared with subsidy support for more intensive land uses.
- Change of generation and type of ownership, as old farmers die and holdings change hands, leading to improvement or neglect.
- Ploughing and reseeding, and application of artificial fertilisers eg as part of intensification of dairying.
- Over-grazing particularly by horses.
- Abandonment and neglect.
- Sudden changes in management.
- Change from hay to silage production with earlier and more frequent cutting.

Figure 4 Distribution of Unimproved and Semi-Improved Neutral Grassland

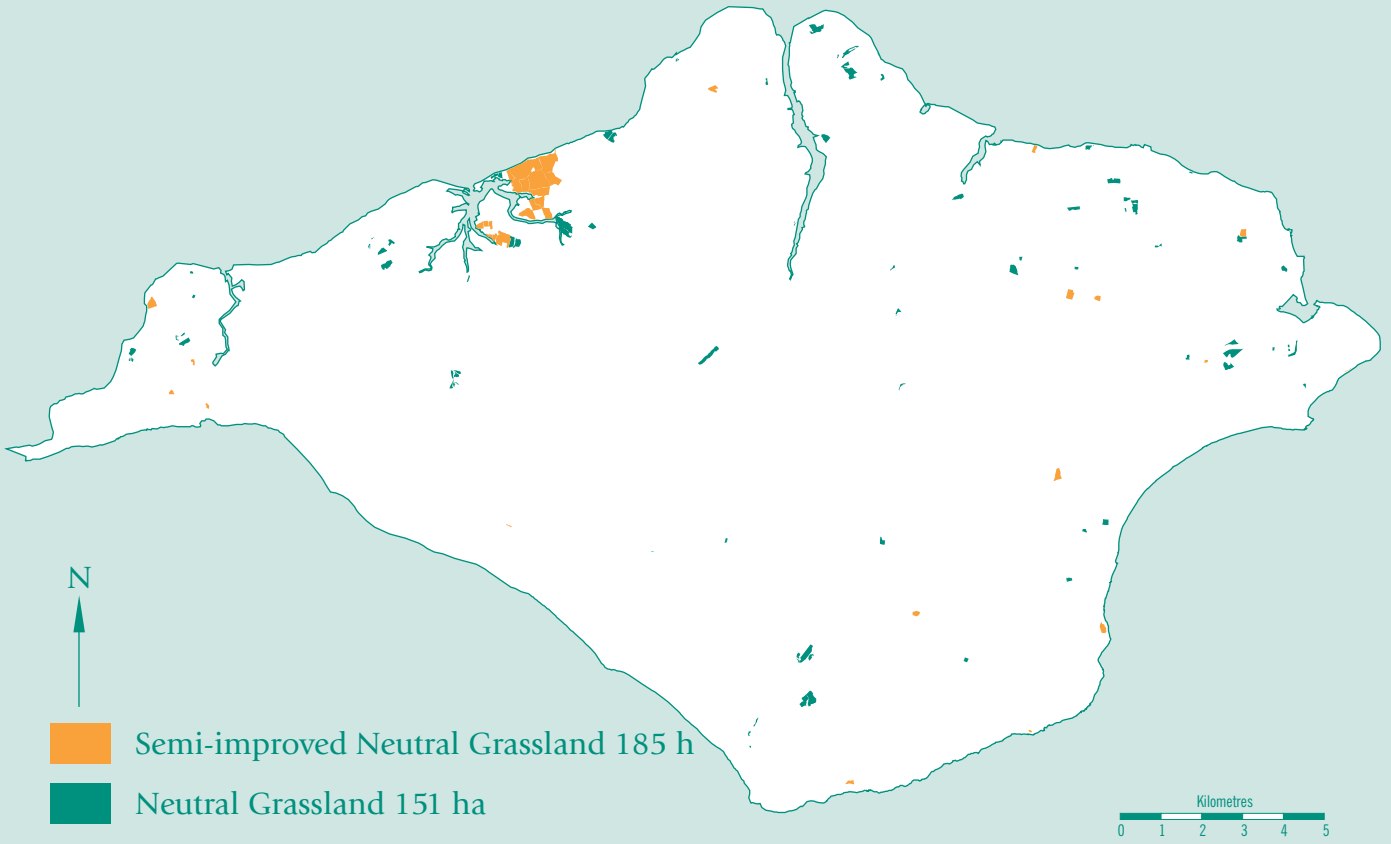
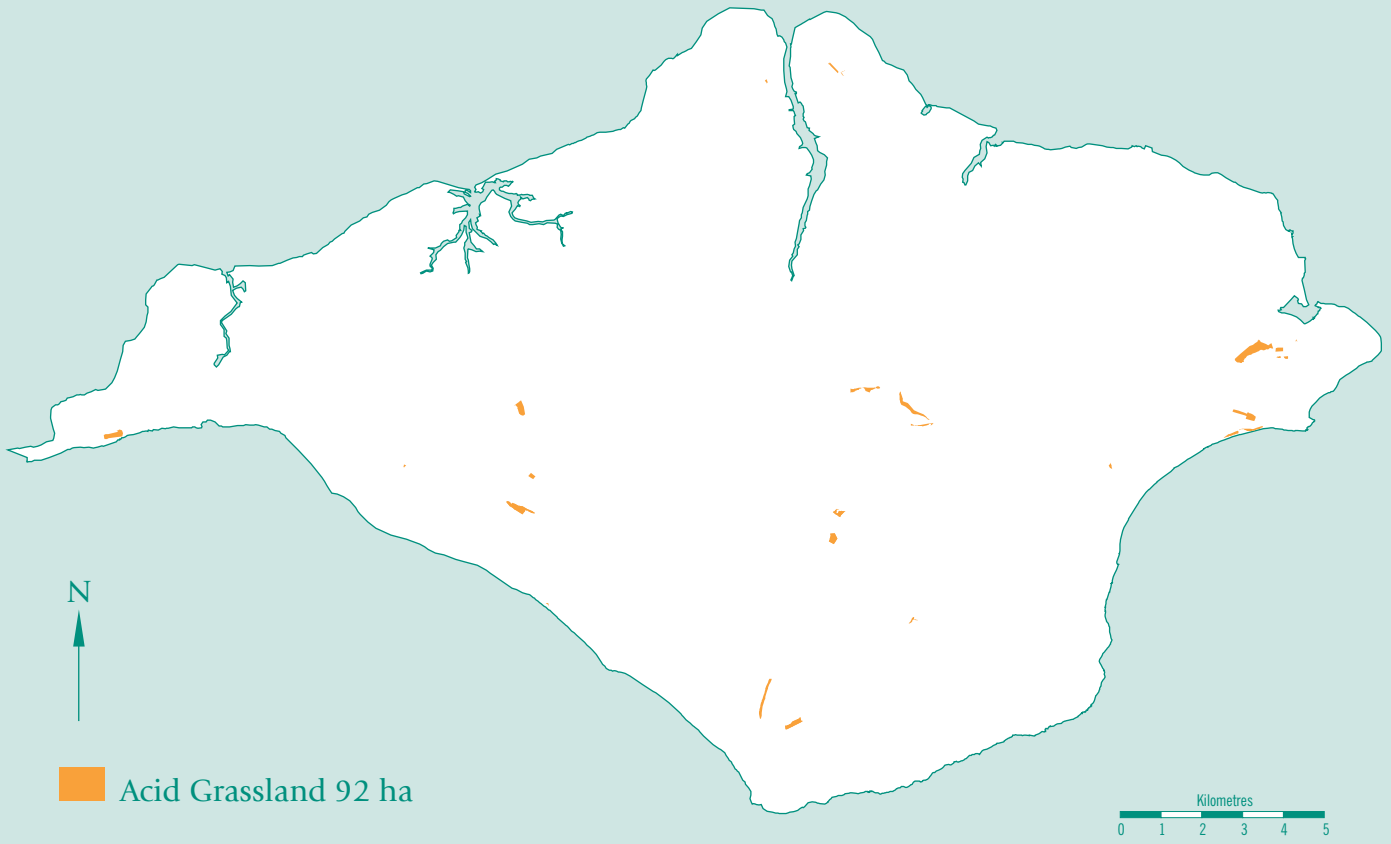


Figure 5 Distribution of Acid Grassland



3.2 ACID GRASSLANDS "Lowland Dry Acid Grassland" is a Priority Habitat.

3.2.1 Definition

These are unimproved grasslands established over acidic rocks, generally sandstones. The complex geology of the Island has led to a base-rich influence on at least a part of many of these grasslands, rendering the distinction between acidic and neutral grasslands problematical. This has made an assessment of the resource difficult. Many smaller areas of acidic grassland will be contained as mosaics within neutral grassland, maritime grassland and heathland categories. Acid grassland, as considered here, is established on low pH substrates, on dry, frequently parched soils.

3.2.2 The resource

Unimproved acid grassland is comparatively scarce in lowland Britain. About 91.5 hectares of unimproved acid grassland survive on the Island (Fig. 5). This is considered to be a low estimate.

3.2.3 Nature conservation importance

Acid grassland comprises a range of communities but these are generally species poor and lacking in rare species. The most characteristic community is a fescue-bent grassland which may contain a few herbs, notably heath bedstraw, tormentil, dog violet and field woodrush. Bristle bent dominated grassland forms a distinctive community but this is of limited extent and covered within the heathland audit. Two very rare communities found in restricted areas of Brading Marshes floodplain are dominated by mat grass and wavy hair grass respectively. A localised parched acid grassland dominated by sheep's fescue, bent grass and sheep's sorrel is more widespread, and can be enriched by ephemeral annuals. These can include locally rare species.

3.2.3.1 Key species

Reptiles:	Common lizard
Flowering plants:	Mat grass; knawel; suffocated clover; spring vetch.

3.2.4 Factors affecting the habitat

- Unattractive payments for retention of permanent pasture under sympathetic management regimes compared with subsidy support for more intensive land uses.
- Change of generation and type of ownership, as old farmers die and holdings change hands, leading to improvement or neglect.
- Ploughing and reseeding, and application of artificial fertilisers eg as part of intensification of dairying.
- Abandonment and neglect.
- Change from hay to silage production with earlier and more frequent cutting.

Early gentian

3.3 CALCAREOUS GRASSLANDS "Lowland Calcareous Grassland" is a Priority Habitat.

3.3.1 Definition

These are species-rich grasslands, sometimes co-existing with variable amounts of scrub, which have developed over base-rich soils. The overwhelming bulk of this grassland is found on chalk, with a tiny amount surviving over a narrow outcrop of Bembridge limestone and some occurring on highly fossiliferous lime-rich clays exposures on coastal cliffs.

3.3.2 The resource

The extent of calcareous grassland has fluctuated with the fortunes of the agricultural

sector, with a major decline through and since the Second World War. Unimproved chalk grassland has survived best on the steep scarp slopes where either grazing or coastal exposure has inhibited succession to scrub and woodland and the most extensive areas survive in the west of the Island. The Island has a nationally significant concentration of chalk grassland sites. A recent calculation has shown that 653 hectares are present, excluding significant areas of scrub (Fig. 6). This represents approximately 10% of the South-east resource, itself a key region for chalk grassland. Clearly, chalk grassland is one of our most important habitats. The few small areas of limestone grassland are important locally.

The Island has more than 10% of the south-east region's chalk grassland

3.3.3 Nature conservation importance

Chalk grassland is one of the richest and most distinctive wildlife habitats in this country. The calcareous grasslands of the Island range from those of European importance for their flora, through those of national significance, to those of importance for the local biodiversity of the County. Many species of plants and invertebrates are restricted to this habitat and are sensitive to grazing management. Much of the chalk grassland, particularly in West Wight, shows affinities with that of Purbeck in Dorset, to the west.

A particular feature is the influence of the coast which has given rise to extensive maritime chalk cliffs and clifftop grassland (covered under maritime cliffs habitat statement) supporting populations of several nationally rare and scarce plants and invertebrates. A strong maritime influence on the south facing slopes at the western end of the Island has resulted in a distinctive grassland community. There are also important fragments of rich terricolous lichen assemblages.

Scrub can be a prominent feature on some sites. Species-rich scrub / grassland mosaics can result in increased plant and animal diversity, particularly benefiting invertebrates, but this requires careful balanced management to retain the interest. The downs in the west Wight are often capped with clay with flint deposits supporting gorse scrub, and in a few places, a chalk heath community.

Adonis blue butterfly

A narrow band of Bembridge Limestone is exposed on the north side of the Island but has been largely cultivated. A few fragments of unimproved grassland survive, principally in churchyards, cemeteries and around old quarries. These are of local importance.

Calcareous clays on slumped cliffs can also support calcareous grassland communities.

3.3.3.1 Key species

Mammals:	Brown hare*
Birds:	Skylark*
Lepidoptera:	Adonis blue*; chalkhill blue; Duke of Burgundy; chalk carpet*; bordered gothic*; feathered brindle; auriferous pearl
Orthopterans:	Stripe-winged grasshopper
Flowering plants:	Early gentian*; burnt-tip orchid; bastard toadflax; dwarf chickweed; dropwort.
Lichens:	*Fulgensia fulgens, Squamarina cartilaginea*

3.3.3.2 Key sites

The Island has a nationally significant chalk grassland resource (5-10% of national resource). Four SSSIs have been put forward as candidate SACs under the Habitats Regulations for their internationally important populations of early gentian. Two SSSIs have been classified as Grade 1 in the Nature Conservation Review. There are a total of 13 SSSIs which include calcareous

The Island has more plants of Early Gentian than anywhere else in the world

Figure 6 Distribution of Calcareous Grassland

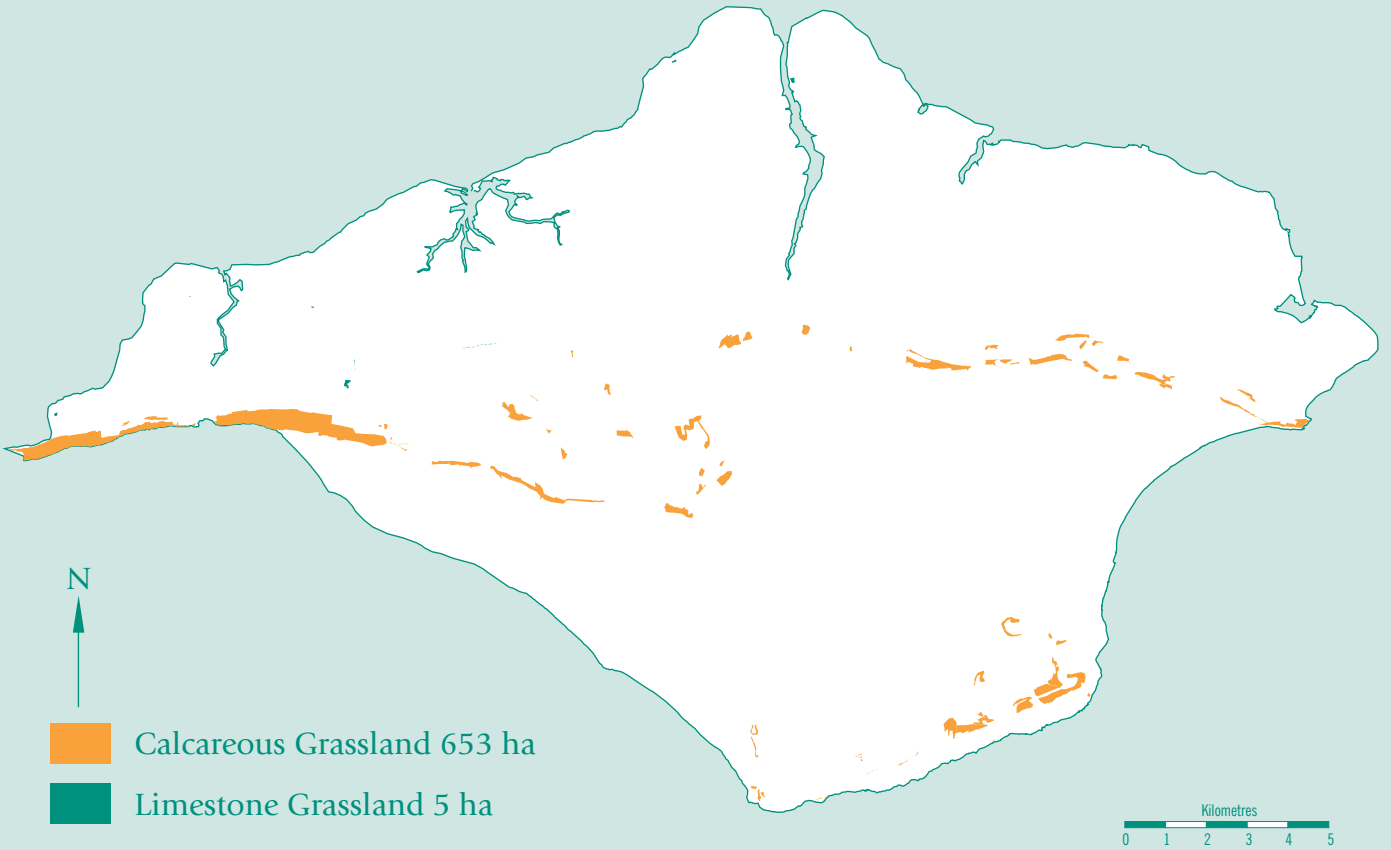
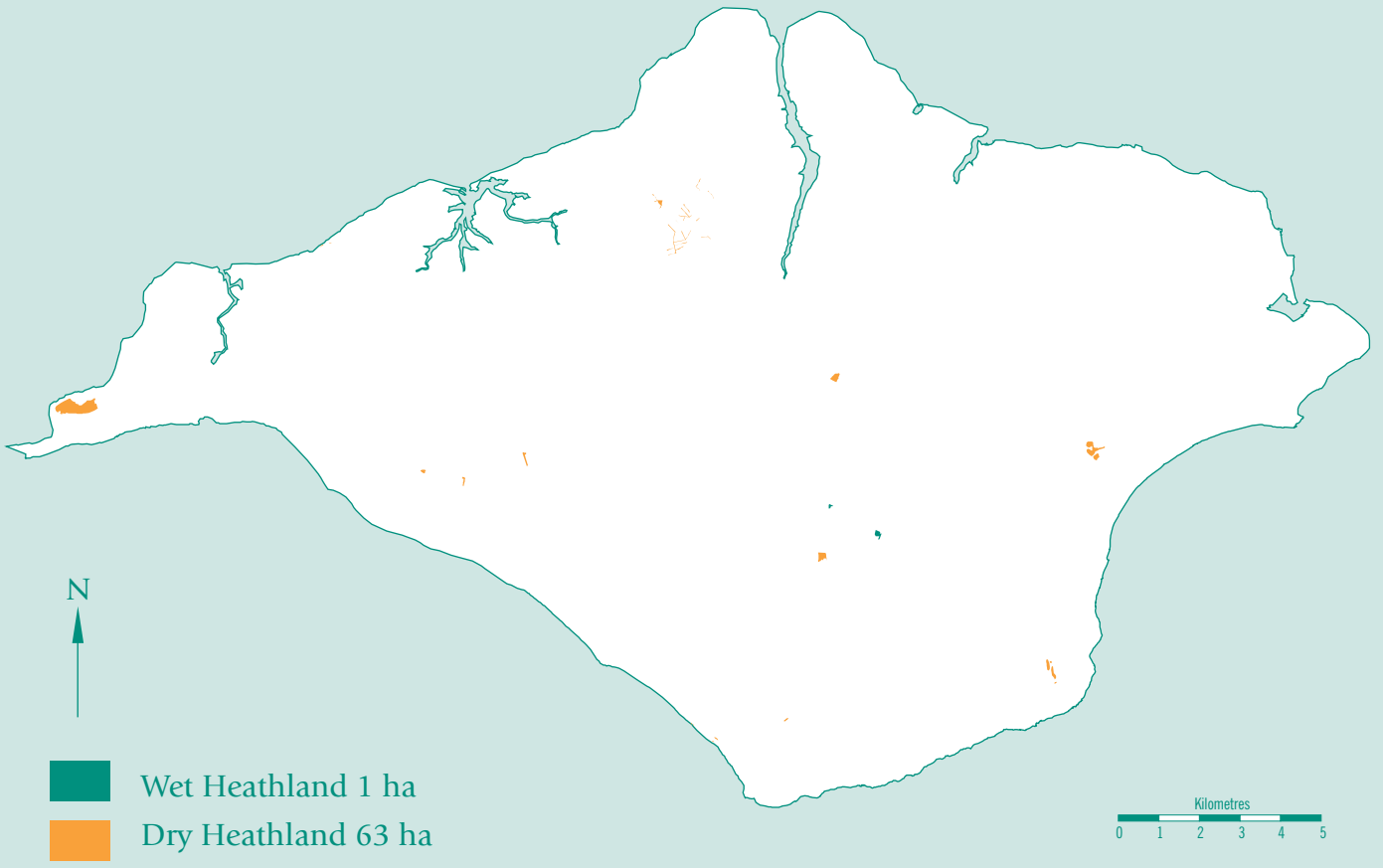


Figure 7 Distribution of Heathland



grassland, but this does not cover all sites, the remainder of which are proposed as SINCs.

Compton Down (cSAC, SSSI)
West High Down (cSAC, SSSI)
Mottistone Down (cSAC, SSSI)
Ventnor Downs (cSAC, SSSI)
Arreton Down (SSSI)
Bembridge Down (SSSI)
Calbourne Down (SSSI)
Garstons Down (SSSI)
Rew Down (SSSI, LNR)
Shide Quarry (SSSI, LNR)
Prospect Quarry (SSSI)
Knighton Down (SINC)
Brighstone Down (SINC)

3.3.4 Factors affecting the habitat:

- Neglect leading to invasion of rough grasses and scrub.
- Inappropriate grazing intensity
- Change in stock type (eg sheep to cattle or increase in horse grazing)
- Fertiliser application and non-selective herbicide use on weed species.
- Motorcycle scrambling
- General trend from agriculture to recreation.

3.4 LOWLAND HEATH

"Lowland Heathland" is a Priority Habitat.

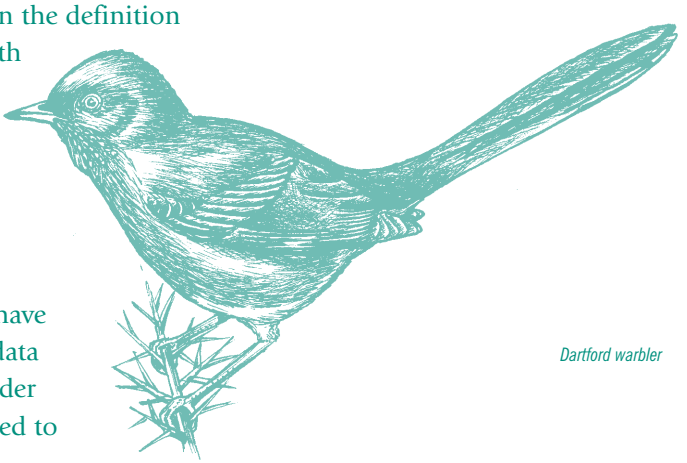
Lack of grazing permits scrub growth, threatening unimproved grassland and heathland habitats

3.4.1 Definition

These are lowland open, uncultivated areas dominated by small ericaceous shrubs on nutrient poor soils. Associated acidic grassland, scrub and scattered trees may be present amongst the predominant dwarf shrub vegetation. Lowland heath may be wet or dry although wet heath is very poorly represented today. As defined, the resource excludes acid and neutral grassland which may contain low percentages of ericaceous shrubs, and extensive stands of bracken and gorse scrub.

3.4.2 The resource

In 1984, the entire resource was calculated at 133 hectares representing just 0.5% of the Southeast regional resource. A more recent critical evaluation within the definition given above, has given a figure of 63 hectares of dry heath together with 3 hectares of wet heath (Fig. 7). Sites which may once have carried dry heathland but where ericaceous shrubs are rather poorly represented today have been excluded from these calculations. Such sites include clay heaths on the north side of the Island (included within neutral grasslands) and chalk heaths surviving on top of the downland ridge. Bracken stands have not been included; there is currently insufficient survey data to map these accurately. However, stands of bluebells under bracken have been mapped (Fig. 3) as these are considered to have particular nature conservation value having been originally derived from woodland, and conforming to the NVC stand type W25.



Dartford warbler

An estimated 82% of lowland heath has been lost on the Island in the last century

3.4.3 Nature conservation importance

Lowland heath is an internationally scarce and ecologically important habitat and this is recognised by its inclusion on Annex 1 of the EU Habitats Directive and in the UK Biodiversity Action Plan. The habitat is poorly represented on the Island today although several hundred years ago, large areas of probably mixed heathland habitats would have been present. These included heathland areas associated with wood pasture, particularly around Parkhurst Forest but also in the vicinity of Wootton and Sandown. Large areas would have been a mosaic of heathland habitats maintained by drift grazing with sheep. A considerable area of lowland heath (82 %) has been lost this century from the Island (Chatters, 1985) and there are insufficient areas remaining to give a representation of the full range of types once found. Much of the area which has survived has succeeded to bracken or gorse scrub, making lowland heath perhaps our scarcest surviving habitat. This reflects a national trend where lowland heath losses have been estimated at 85 % over the past 200 years. Heathland dominated by ericaceous shrubs survives today in close association with bristle bent grassland, bracken and scrub. The Ventnor downs are capped by a thick layer of acid flint gravels and support a typical dry heathland vegetation. Many of the major Island sites suffered damage due to aggregate mining and have been lost subsequently due to agriculture and forestry. Some of the smaller sites still have these pressures on them, though restoration programmes have been initiated on Bleak Down. Many species restricted to lowland heath are absent from the Island today as they require large tracts for their survival.

3.4.3.1 Key species

Birds:	Dartford warbler
Reptiles:	Adder; common lizard
Insects:	Mottled grasshopper; slender ground hopper; keeled skimmer
Flowering plants:	Cross-leaved heath; bilberry; heath rush
Bryophytes:	*Hylocomium splendens*

The Island is the last native British site of the Reddish Buff moth

3.4.3.2 Key sites

The most important sites are included within SSSIs but smaller, locally important sites have been proposed as SINCs.

Headon Warren (SSSI)
Luccombe Down (SSSI)
Sandown Golf Course (SINC)
Bleak Down (SINC)

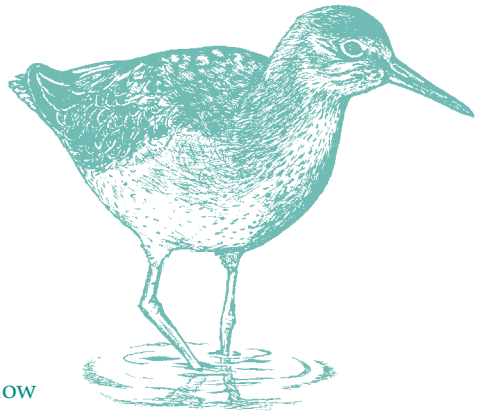
3.4.4 Factors affecting the habitat

- Neglect and scrub encroachment
- Agricultural improvement
- Afforestation
- Inappropriate management
- Development
- Recreational pressures and lack of public awareness
- Hotter and drier summers leading to fires

3.5 GRAZING MARSH "Coastal and Floodplain Grazing Marsh" is a Priority Habitat.

3.5.1 Definition

This is an open landscape type in which the predominant vegetation is wet grassland (which may have been agriculturally improved) and fen meadows, divided by a network of ditches. They may be periodically inundated. Grazing marshes may lie on coastal plains, usually behind seawalls, or in river floodplains. The grasslands on coastal plains may have a brackish element and can grade into saltmarsh.



Redshank

3.5.2 The Resource

This is a difficult category to define and it has not been fully quantified. Current estimates, which may need to be revised, are that there are around 560 ha of grazing marsh (Fig. 8). Parts of the resource are covered within habitat types considered elsewhere, including rivers and streams, unimproved neutral grasslands, wetlands and open standing water.

3.5.3 Nature conservation importance

The vast majority of grazing marsh is comprised of improved grassland of low conservation interest. However, the improved and semi-improved grasslands of the east Yar valley sustain some of the highest populations of barn owls in the country. The conservation interest is greater on land which has not been drained or otherwise agriculturally improved. Wet grazing marsh can provide important habitat for breeding and wintering wetland birds. Most important of these are the coastal grazing marshes of Brading/Bembridge Marshes. The ditch systems of some grazing marshes harbour uncommon aquatic plants and characteristic invertebrates such as rare water beetles. Grazing marshes also support water voles.

3.5.4 Key species

Mammals:	Water vole*; bat species*
Birds:	Teal; lapwing; redshank; snipe; barn owl
Flowering plants:	Divided sedge; brackish water crowfoot

3.5.5 Key sites

Brading Marshes represents the only significant area of this habitat on the Island and the most extensive on the central South Coast. It is a part of the Solent & Southampton Waters SPA and an SSSI. The ditch system on Sandown Levels (SINC) supports locally distinctive vascular plant and invertebrate communities.

3.5.6 Factors affecting the habitat

- Agricultural intensification, land drainage and flood defence works leading to loss of habitat and hydrological continuity.
- Groundwater and surface water abstractions.
- Floodplain development pressures.
- Agricultural pollution leading to eutrophication.
- Inappropriate ditch management.

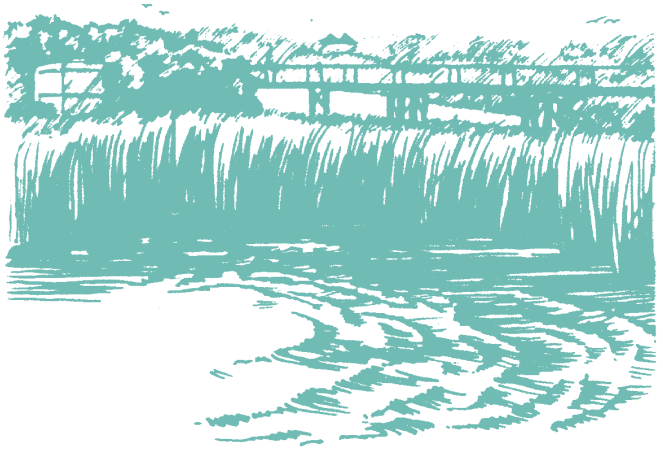
4 FRESHWATER SYSTEMS

4.1 WETLANDS: FENS, SWAMPS (INCLUDING REEDBEDS) AND MARSHES "Fens" and "Reedbeds" are Priority Habitats.

4.1.1 Definition

These are wetland sites, where the water table lies above, at or slightly below the ground surface for most of the year. There are several habitats which are considered here. They vary in the soils on which they occur, the movement of water through them, and the dominant vegetation and they are frequently associated with open water.

Fens are peatlands receiving water and nutrients from the soil, rock and groundwater as well as from rainfall. They include floodplain fens and mires associated with springs and flushes. Swamps are characterised by water table levels at or above the soil surface for most of the year.



An Island Wetland

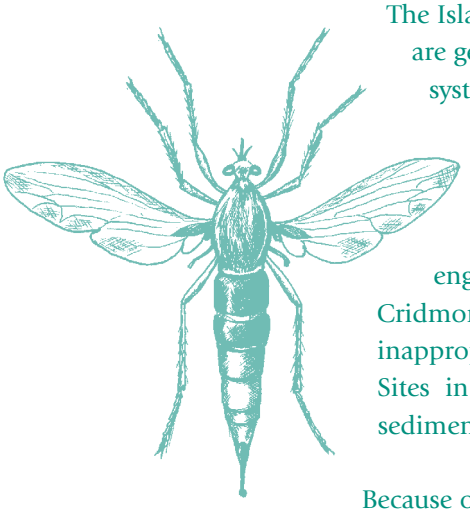
They tend to have species-poor vegetation in comparison with fens and may be dominated by a single species, very often by Common Reed, or by Sea Club-rush where the water is brackish.

Marsh is a rather ill-defined term but has been taken to refer to vegetation occurring on mineral soil that has a water table close to the surface for most of the year but not usually above ground level. Reedbeds are habitats which have become dominated by common reed. The habitat may be wet or dry, and may be fresh or saline. Reedbeds can become established on fens and marshes, usually as a result of lack of management. Wet woodlands which are at least occasionally flooded are considered under the Semi-natural broad-leaved woodland habitat category.

4.1.2 The resource

Because the wetland habitats covered here are diverse and can be sorted by a number of vegetation classifications, it has been difficult to quantify their full extent. Marshland is extensively developed within the river flood-plains, particularly in the Eastern Yar, but much of this is unsuitably managed to benefit nature conservation, or unmanaged. However, there are calculated to be 80.7 hectares of biologically-rich marsh and just 6.3 hectares of biologically-rich fens, flushes and mires. In addition, there are some 77.8 hectares of reedbed and this constitutes 1.5% of the national resource. However, few of these are good quality reedbeds, most having arisen from reed colonising other habitats of value (Fig. 8).

4.1.3 Nature conservation importance



Hornet robberfly

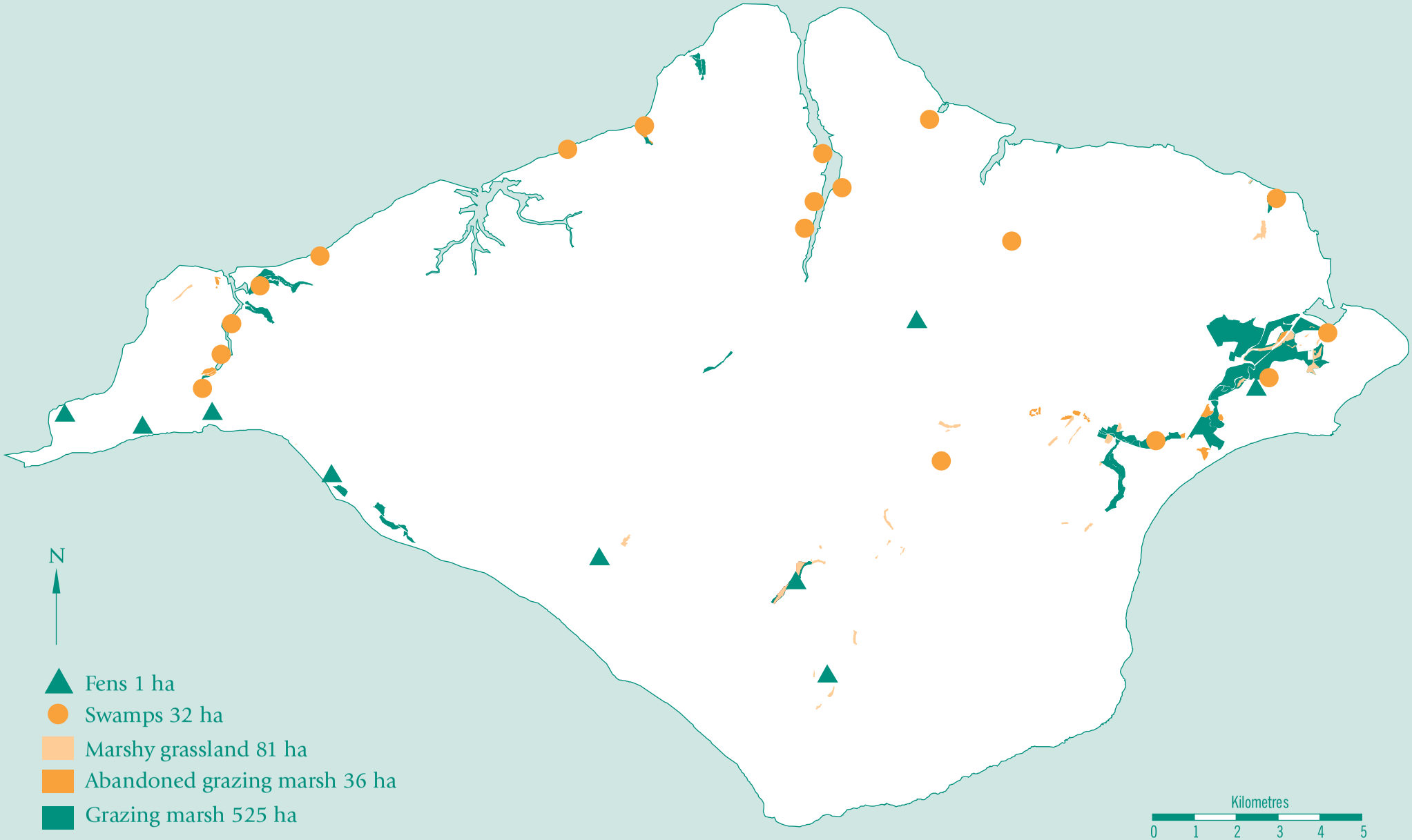
The Island has a diverse wetland resource, but it is highly fragmented and the sites are generally small and of poor quality. Wetlands are dynamic semi-natural systems and much of the Island resource of fen and marsh has now degraded to reed-dominated tall fen. In addition, much of the reedbed resource has been created by the flooding of abandoned low-lying pasture. As a result, there has been an increase in poor quality reedbed since the last War, and a decrease in good quality wetland habitats, exacerbated by changes in river engineering and drainage. Many good wetland sites that are left, such as Cridmore and the bogs of Bohemia and Munsley are still threatened by inappropriate landuse of surrounding land or management of the water courses. Sites in the East Yar valley and Medina are at risk through pollution and sedimentation, as a result of intensive agricultural activity on the river edge.

Because of the scarcity of fen and swamp habitat, many species associated with these habitats are locally rare or have become extinct. Indeed, it is considered that this habitat has suffered the greatest number of local extinctions over the last two hundred years. Although the Island is comparatively well-off for reedbeds, the lack of large good quality sites has contributed to a paucity of reedbed specialist species.

4.1.3.1 Key species

Mammals:	Water vole*
Birds:	Reed bunting*; Cetti's warbler; bearded tit; water rail
Diptera:	Hornet robber-fly *(Asilus crabroniformis)**
Molluscs:	Demoulin's whorl snail*

Figure 8 Distribution of Wetlands



Vascular plants:	Galingale; marsh fern; wood horsetail; bog myrtle; petty whin; round-leaved sundew; pale butterwort; bog asphodel; common cottongrass; cyperus sedge; greater spearwort; meadow thistle
Bryophytes	*Pallavicinia lyelli; Odontoschisma sphagni* (both liverworts) .

4.1.3.2 Key sites

Brading Marshes is a part of an SPA for its wetland bird interest. Some important sites have been designated SSSIs but other, locally important and species rich wetlands are proposed as SINCs.

Afton Marsh Local Nature Reserve (SSSI, LNR)
Brading Marshes (SPA, Ramsar, SSSI)
East Yar Valley between Sandown Levels and Horringford, including Alverstone Marshes SSSI
Cridmore Bog (SSSI)
Bohemia bog (SINC)
Munsley bog (SINC)

4.1.4 Factors affecting the habitat

- No statutory protection for key fen and mire sites.
- Small total area of habitat
- Loss of area due to drying out by drainage and abstraction
- Lack of appropriate management
- Eutrophication
- Pollution of freshwater supplies
- Siltation
- Sea level rise in coastal sites

Rivers and adjoining wetlands have been substantially damaged by historic river engineering and drainage

4.2 RIVERS AND STREAMS

4.2.1 Definition

These comprise all flowing and semi-flowing freshwater rivers (down to the point where a saline influence becomes dominant) and streams, together with tufa springs and spring-fed mires in headwater systems, and artificial channels such as ditches.

4.2.2 The resource

On the Island, the length of all watercourses is estimated to be some 270km. The main rivers comprise the East Yar and the Medina and their tributaries. A few spring-fed mires survive in head waters. Tufa-depositing springs are present in the Undercliff between Ventnor and St Catherine's Point.

4.2.3 Nature conservation importance

It is believed that Island rivers are naturally impoverished in species compared with those on the mainland because of geographical isolation; high levels of iron, and low flow rates add to the problem. It has been further exacerbated by modification of the major water courses for land drainage and agricultural practice which have resulted in siltation and pollution. Generally, therefore, the resource is of poor quality with unmodified stretches surviving only around headwaters, and where streams flow through woodlands. However on the positive side, the isolation from the mainland has meant that, to date, the Island is the only county in England without a feral mink population and this may be linked to the presence of high populations of water vole and some waterfowl. Some ditches in the Sandown and Alverstone areas were formerly noted for their flora, and a few still exhibit notable assemblages of plants and invertebrates.

There are no particularly rich sites although headwaters of some streams, such as the Caul Bourne, can be relatively rich and unpolluted for short stretches. The nationally rare liverwort, *Southbya nigrella*, occurs in two places in the U.K., one of which is a tufa spring at St Catherine's Point.

4.2.3.1 Key species

Mammals:	Water vole*
Birds:	Kingfisher
Fish:	Brook lamprey; bullhead
Insects:	Beautiful demoiselle; a water beetle *(Helophorus alternans)*
Flowering plants:	Opposite-leaved pondweed; brackish water-crowfoot
Bryophytes:	*Southbya nigrella, Crataneuron commutatum*

4.2.4 Factors affecting the habitat

- Ground water and surface water abstraction
- Intensive land drainage
- Inappropriate management of adjacent land, channels and banks
- Development on floodplains
- Intensive aquaculture
- Increased use for recreational activity
- Spread of invasive species

Most countryside ponds have been damaged or lost through pollution, infilling, neglect or inappropriate management

4.3 EUTROPHIC STANDING WATER "Eutrophic Standing Waters" are a Priority Habitat.

4.3.1 Definition

This habitat group refers to open water bodies such as lakes, reservoirs, gravel pits and ponds, which may be artificial or not, and which hold water for at least four months of the year. They are naturally rich in nutrients and typical of lowland Britain. Their waters can support large amounts of vegetation and a wide variety of animals.

4.3.2 The resource

The number of ponds and other bodies of water is not accurately known but at least 330 ponds are recorded on maps, two-thirds of which occur to the north of the chalk ridge. The condition of these ponds is not known although anecdotal information suggests that many are heavily shaded, overgrown or polluted. The number of reservoirs is considerable but unquantified. Most open water bodies are small (less than 2 hectares). The largest are the Bembridge lagoons, although these are brackish water and considered under Coastal Saline Lagoons.

4.3.3 Nature conservation importance

It is believed that there has been a substantial loss of small ponds over the last hundred years. Established ponds in semi-natural settings can hold a rich variety of aquatic plants, invertebrates and amphibians. Ephemeral ponds on slumped cliffs of the south coast are probably important biologically but they have not been adequately surveyed. Although new ponds and, in particular, reservoirs are being constructed, they are not equivalent in value to long-established bodies and their design and stocking often discourages all but pioneer species.

4.3.3.1 Key species

Mammals:	Water vole*; Daubenton's bat
Reptiles:	Grass snake
Amphibians:	Great crested newt*
Dragonflies:	Keeled skimmer; downy emerald; gold-ringed dragonfly; emerald damselfly

Flowering plants: Alternate water-milfoil; tubular water-dropwort

4.3.3.2 Key sites

Clayden pond, Porchfield Ranges (SSSI)
Elmsworth Farm ponds, Porchfield (SSSI)
Whale Chine cliff ponds (SSSI)
Afton Marsh (SSSI, LNR)
Carisbrooke Waterworks pond (SINC)
Kitbridge ponds, Newport

4.3.4 Factors affecting the habitat

- Infilling
- Land drainage
- Neglect leading to scrub invasion or siltation
- Surrounding habitat loss
- Lack of management
- Conflicting advice on design and management
- Inappropriate restoration
- Agricultural intensification
- Over-abstraction
- Introductions of alien species
- Fishery practices
- Recreation leading to disturbance or damage
- Waterfowl stocking

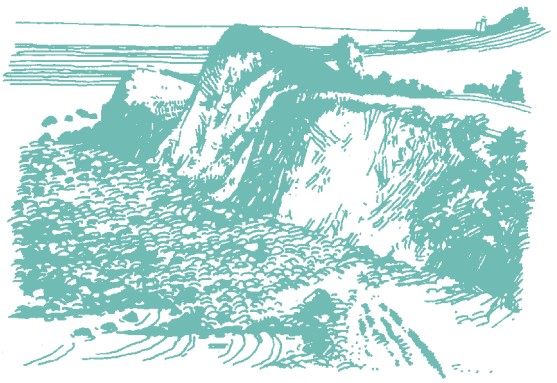
5 COASTAL HABITATS

5.1 MARITIME CLIFFS "Maritime Cliffs and Slopes" are a Priority Habitat.

5.1.1 Definition

Maritime cliffs are formed at the junction between the land and the sea where a break in slope is formed by slippage and/or erosion by the sea. The slopes formed range from shallow to vertical and vary in height and geology. Soft rock cliffs are characterised by slips, seepages and areas of slumped cliff face that gradually become vegetated. Chalk cliffs are characterised by sheer faces with small, but important, plant communities and ledges that can provide important nesting sites for seabirds. Exposure to wind and salt spray, together with geology, is one of the key determinants of the vegetation type which develops along maritime cliffs.

Isle of Wight coastal scene



5.1.2 The resource

The Isle of Wight cliffs are a significant biological resource in a regional context. There are some 53km of maritime cliff around the Island's coastline, representing around 35% of the South-east resource. The range of habitats present on the cliffs includes maritime grassland and coastal scrub (Figs. 9 and 10).

5.1.3 Nature conservation importance

The Island has a particularly rich and varied sea cliff resource. It is of national geological and ecological significance for its chalk cliffs and landslips. The Island's maritime cliffs are one of nine lengths of

Figure 9 Distribution of Maritime Grassland

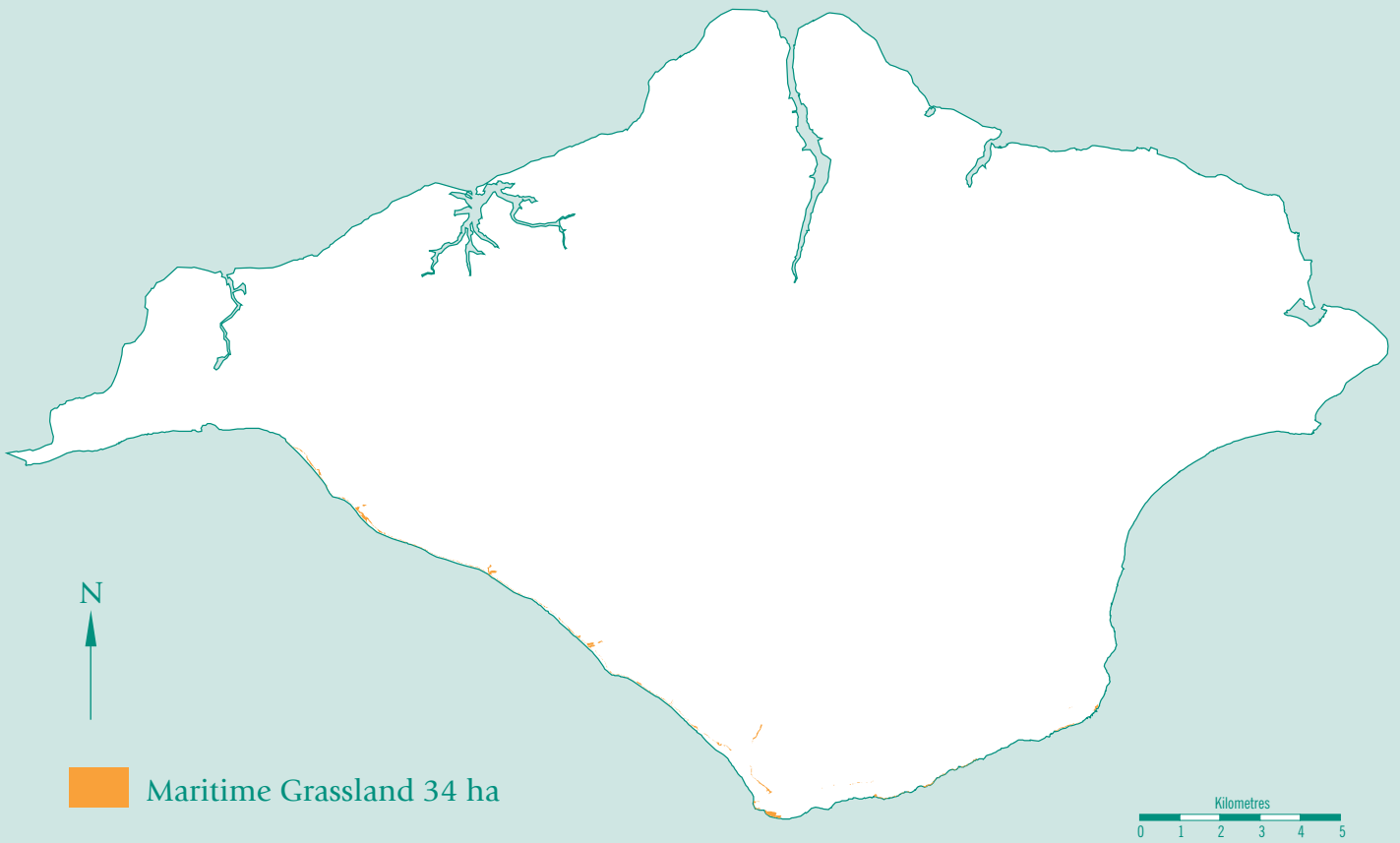
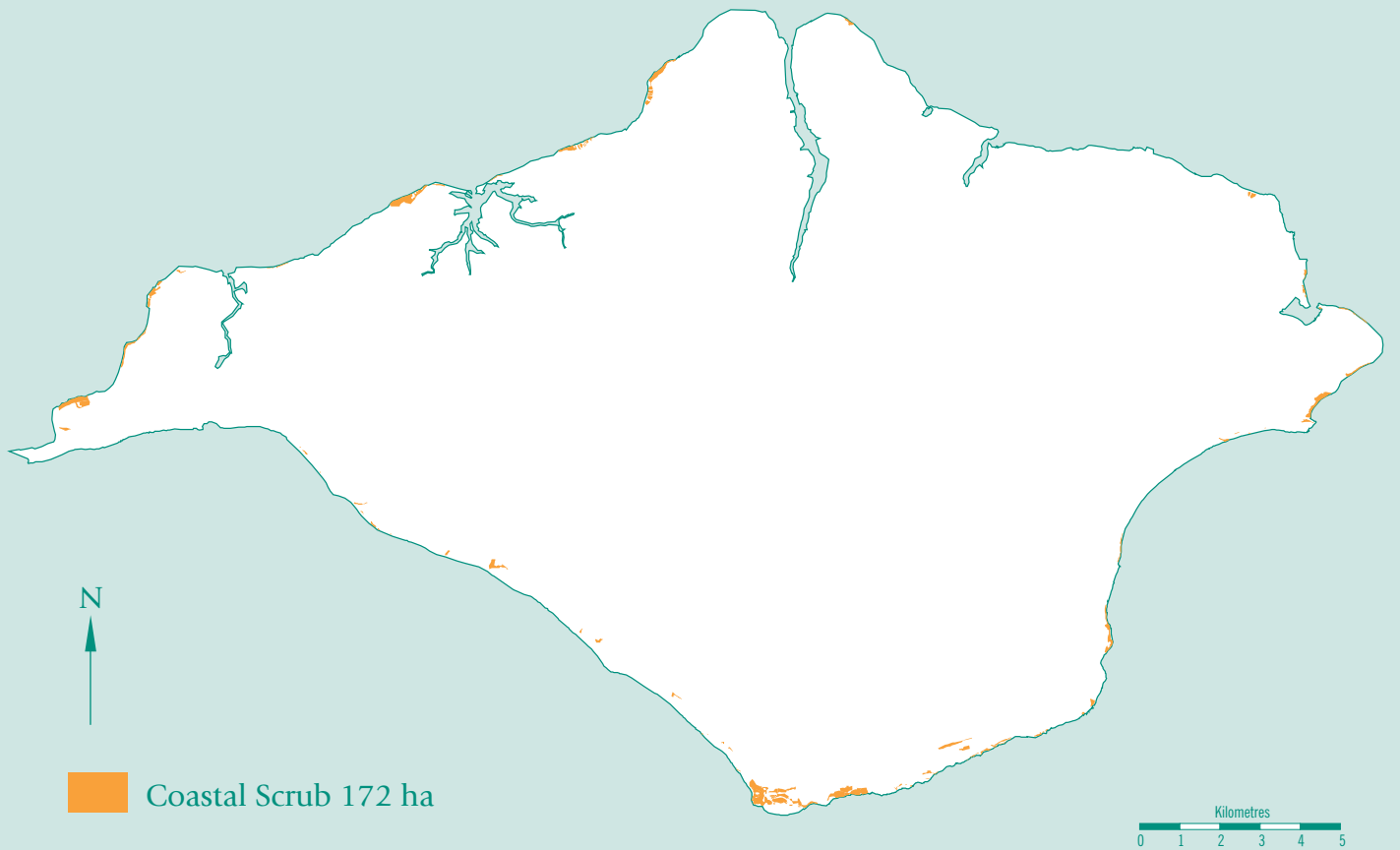


Figure 10 Distribution of Coastal Scrub



coastline in the UK nominated as Vegetated seacliffs of the Atlantic and Baltic coasts' candidate Special Areas of Conservation (SAC) under the EC Habitats Directive for their cliff features, and one of only two which include substantial representation of soft cliffs.

The coastline is characterised by a wide variety of erosional processes. The seacliff habitat extends inland along the inner greensand cliff above the Undercliff, which is itself a large, ancient pre-existing landslide complex. The inner cliffs supports some of the best Island examples of maritime hard cliff vegetation, principally at the western end of this exposure.

The habitats which develop on the cliffs and slopes are particularly varied, dependent upon soil type, ground stability and water source. There is generally a high proportion of bare ground compared with other semi-natural habitats. The vegetation forms a transition from maritime species to terrestrial communities further inland. Some habitat types, such as calcareous grassland and heathland are partly covered elsewhere. In addition, soft cliffs on sheltered parts of the coast can develop undercliff vegetation of woodland, scrub, tall herb and rank grassland. There is an unusual example of a perched dune on the clifftop at Chale.

Glanville fritillary butterfly

The seacliffs and slopes frequently support rich and specialised plant and animal communities, many on the northern limit of their range. The combination of friable soils, hot substrates and open conditions maintained by cliff slippages offer a continuity of otherwise very restricted microhabitats and these support many rare invertebrates which are confined to such sites. Seepages, springs and pools provide the wet muds required by many species of solitary bees and wasps for nest building, and also provide suitable conditions for a rich assemblage of other invertebrates and rare plants. Ponds, which can be transient in nature, are important for breeding amphibia. Chalk cliffs at the eastern and western extremities hold significant populations of breeding seabirds. Algal communities on the lower parts of the chalk cliffs are covered under the Rocky Seabed habitat. Cliffs are also important as geomorphological features and for their geological exposures.

5.1.3.1 Key species

Birds:	Peregrine; herring gull; cormorant; shelduck; razorbill; guillemot; raven; shag
Lepidoptera:	Glanville fritillary; Isle of Wight wave; six-belted clearwing; dew moth; square-spot dart; crescent dart; beautiful gothic; a micro-moth (*Metzneria littorella*)
Coleoptera:	Golden tiger beetle (*Cicindella germanica*)*; three weevils (*Baris analis, Otiorhynchus igustici and Cathormiocerus socius*); a click beetle (*Anostirus castaneus*)*; a rove beetle (*Bledius crassicollis*)
Hymenoptera:	A solitary bee (*Osmia xanthomelana*)*; a mining bee (*Lasioglossum angusticeps*)*; a potter flower bee (*Anthophora retusa*); a digger wasp (*Psen atratinus*); a parasitic bee (*Nomada conjugens*)
Diptera:	A beefly (*Bombylius minor*)*; a cranefly (*Limonia goritiensis*)
Hemiptera:	A shorebug (*Saldula arenicola*)
Diplopoda:	A millipede (*Trachysphaera lobata*)
Molluscs:	*Truncatella callicratis*
Flowering plants:	Early gentian*; oxtongue broomrape; field cow-wheat; hoary stock; Nottingham catchfly; curved hard-grass.
Bryophytes:	*Acaulon triquetrum*; Southbya nigrella; Philonotis marchica;*

The Island has around 35% of the South-east region's unprotected soft cliffs

Cololejeunea rossettiana; Porella obtusata; Cephaloziella baumgartneri; Blasia pusilla

Lichens: *Fulgensia fulgens; Cryptolechia carneolutea*

5.1.3.2 Key sites:

All of the undefended cliffs along the southwest coast and parts of the southeast coast have been proposed within the South Wight Maritime candidate SAC for their vegetated sea cliff habitat.

Hanover Point to St Catherine's Point (cSAC, SSSI)
Headon Warren & West High Down cliffs (cSAC, SSSI)
Culver headland and Redcliff (cSAC, SSSI)
Bouldnor & Hamstead cliffs (cSAC, SSSI)
St Catherine's Point to Bonchurch cliffs (cSAC, SSSI)
Luccombe Chine and ledges SINC

Solitary bee

5.1.4 Factors affecting the habitat

- Interruption of natural processes of erosion by coastal defence and stabilisation schemes.
- Many of the unique maritime habitats and species of the coast are dependent upon such processes which provide bare ground for colonisation. Visitor pressures and recreational activities can have detrimental effects on cliff vegetation and nesting birds. Cultivation of clifftop vegetation which has truncated the natural zonation between maritime and terrestrial vegetation resulting in a loss of diversity.
- Lack of grazing causing scrub encroachment leading to the loss of maritime grassland communities.
- Trampling can cause loss of plant species diversity and new access paths can increase erosion or lead to demands for additional stabilisation works.
- Coast protection may prevent the removal of eroded material by the sea and obscure important rock exposures.
- Lack of knowledge of inaccessible sites, invertebrates and appropriate forms of management.

The Island is the only place in Great Britain for the Glanville Fritillary butterfly

5.2 VEGETATED SHINGLE "Coastal Vegetated Shingle" is a Priority Habitat.

5.2.1 Definition

These are coastal stony banks above high tide mark. They can occur as fringing beaches or as spits at estuary mouths.

5.2.2 The resource

Vegetated shingle is a nationally rare habitat. Although there are very few shingle areas on the Island's coast and they are of limited extent, several sites are considered to be of regional importance for their representation of southern vegetation communities. There is an estimated 3.3 hectares (Fig. 11). Sites are restricted to the north coast and are invariably contained within SSSIs and within the SPA and Solent and Southampton Waters candidate Maritime SAC. The best examples are the spits at the entrance to Newtown Harbour. Others spits occur at Wootton Creek and King's Quay and the foreshores at Thorness Bay and Quarr are examples of shingle barriers.

5.2.3 Nature conservation importance

Vegetation will establish on shingle beaches when the structure is stable and there is a matrix of finer material such as sand or silt. The seaward edge supports a particularly distinctive if sparse

Little tern

flora including sea kale, sea knotweed and yellow horned poppy. Certain invertebrate species are dependent upon shingle vegetation. There is a small but important group of Red Data Book beetles dependent upon undisturbed shingle beaches with seaweed; they probably also require adjoining low clay cliffs into which they can escape. Birds, including ringed plover and oystercatcher, use shingle beaches as breeding sites.

5.2.3.1 Key species

Birds:	Common tern; ringed plover; oystercatcher
Coleoptera:	Three rove beetles (*Medon procoferus, M.ripicola and Halobrecta princeps*)
Arachnids:	A spider (*Haplodrassus minor*)
Flowering plants:	Sea knotgrass; sea heath, golden samphire, Ray's knotgrass

5.2.4 Factors affecting the habitat

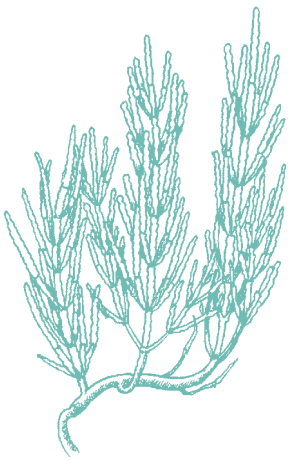
- Unmanaged recreational access to shingle resulting in disturbance and compaction of the surface by vehicles, trampling of plant communities and disturbance to ground nesting birds.
- Coastal defence infrastructures and offshore gravel extraction which impact on the sediment supply reaching shingle structures.

The Island has some of the best examples of undeveloped estuaries in the South-east region

5.3 SALTMARSH "Coastal Saltmarsh" is a Priority Habitat.

5.3.1 Definition

These are intertidal or tidally-influenced vegetated habitats that develop along soft, sheltered coasts with shallow shores, generally within estuaries. They are a transition habitat between the intertidal mudflats and sand, and the coastal hinterland which may be grazing marshes, dunes or shingle or woodland. Rather rarely on the Island's coastline, saltmarsh may be truncated by the presence of sea walls. The habitat as described excludes sea couch dominated, species-poor high saltmarsh.



Glasswort

5.3.2 The resource

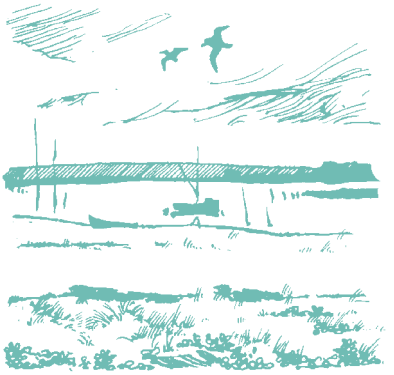
There are calculated to be some 159.3 hectares of vegetated saltmarsh habitat (Fig. 11). This represents around 3.6 % of the Southeast regional resource

5.3.3 Nature conservation importance

Saltmarshes are distributed along the Solent coastline within comparatively small estuaries. They form a key component of the Solent and Southampton Waters SPA and candidate Maritime SAC. 80 % of the Island resource is concentrated in two sites, at the estuary of the Western Yar and at Newtown. The Medina and East Yar estuaries in contrast have lost much of their semi-natural saltmarshes to reclamation, increasing demand for recreational boating facilities, development of water-side industries and homes, and the natural processes of erosion leading to coastal squeeze.

Mixed saltmarsh is a particularly valuable resource and those in the Solent are notable for their concentration of nationally scarce flowering plant species. Although saltmarshes in the Solent are considered to be generally of recent origin (less than 120 years old), some on the Island, principally in parts of the Newtown estuary, are believed to be much older, and they are not dominated by cord grass. However, the 17 hectares which have developed at Newtown since the breach of the sea wall in 1954 are more typical of the cord grass swards of the Solent coast. The Island's saltmarshes contribute to the international importance of the Solent as an important resource for wading birds and wildfowl. They act as high tide refuges for birds feeding on adjacent

mudflats, as breeding sites for waders and gulls and as a source of food for passerine birds particularly in autumn and winter. In winter they may also be used as feeding grounds for Brent goose, teal and wigeon. Areas with high structural and plant diversity, particularly where freshwater seepages provide a transition from fresh to brackish conditions, can be important for invertebrates. The intimate relationship between saltmarsh vegetation and other coastal habitats such as shingle structures, sand dunes and intertidal flats means that they need to be considered as a functional unit.



An Isle of Wight salatmarsh landscape

5.3.3.1 Key species

Birds:	Brent goose; Mediterranean gull; redshank; common tern
Insects:	various Diptera spp
Molluscs:	looping snail (*Truncatella subcylindrica*)
Flowering plants:	small cord grass; lax-flowered sea lavender; Borrer's saltmarsh-grass; golden samphire; slender hare's ear; bulbous foxtail grass; marsh mallow; divided sedge; sea heath; perennial glasswort; one-flowered glasswort; curved hard-grass

5.3.3.2 Key sites

98% of the resource is contained within the Solent and Southampton Water SPA, candidate SAC and Ramsar sites. A small number of sites which have not been notified as SSSI are covered by SINCs.

West Yar (cSAC, SPA, Ramsar, SSSI)
Newtown estuary (csac, SPA, Ramsar, NNR, SSSI)
Thorness Bay (cSAC, SPA, SSSI)
Werrar Marshes (cSAC, SPA, Ramsar, SSSI)
King's Quay (cSAC, SPA, Ramsar, SSSI)
St Helen's Millpond (SPA, Ramsar, SSSI)

Important coastal habitats are under threat from sea level rise and climate change

5.3.4 Factors affecting the habitat

- Sea level rise and coastal squeeze
- Pollution
- Localised eutrophication
- Recreation and disturbance
- Development pressure
- Coastal defences and dredging
- Grazing regimes
- Cord-grass colonisation
- Sediment disturbance and re-distribution

5.4 SAND DUNES "Coastal sand Dunes" are a Priority Habitat.

5.4.1 Definition

These are windblown sand formations that may be stable or shifting, together with their associated slacks, grassland and scrub.

5.4.2 The resource

Sand dunes are a scarce resource on the Island's coast and indeed all along the English Channel coast. There is an estimated 15.36 hectares, representing around 2% of the South-east resource (Fig.

The Island is a stronghold in the South-east region for species occurring in brackish lagoons

12). (The majority of the South-east resource is accounted for by the major dune system of Sandwich Bay). However, St Helen's Duver is considered to be of regional importance, because of the scarcity of this habitat on the South Coast. There are examples of spit dunes on the sandy promontories at the entrance to Bembridge Harbour and the Western Yar together with a sand dune community on the banks of Ryde Canoe Lake. The seaward edges of these dunes are artificially constrained and as a result, much of the habitat is stabilised. However, there is a small but important example of a dynamic dune system in its early, mobile phase at the mouth of Bembridge Harbour. A small, but remarkable perched sand dune occurs on a clifftop at Ladder Chine on the south-west coast.

5.4.3 Nature conservation importance

Sand dunes provide a unique habitat for a rich community of highly specialised plant and animal species. St Helen's Duver is the best local example; it supports the richest concentration of flowering plants per area of anywhere on the Island. Plant species associated with sandy soils are currently (2000) showing increases in numbers and distribution. Sea buckthorn dune scrub is present on the spit dunes at the entrance to Bembridge Harbour.

5.4.3.1 Key species

Hymenoptera:	Bee wolf *(Philanthus triangulum)*
Lepidoptera:	Sand dart; shore wainscot
Flowering Plants:	Smooth cat's-ear; bulbous meadow-grass; autumn squill; suffocated clover; clustered clover; dune fescue; bearded fescue

5.4.3.2 Key sites

All sites are within SSSIs and most sites are included within the Solent and Southampton Water candidate SAC.

St Helen's Duver (SSSI)
Norton Spit (cSAC, SSSI)

5.4.4 Factors affecting the habitat

- Coastal defence works reducing sediment movement.
- Excessive dune stabilisation, especially seaward edges of foredunes, leading to lack of sand movement.
- Increasing tourism leading to excessive erosion and disturbance to wildlife.
- Invasive non-native species such as sea buckthorn and tree lupin.
- Rising sea levels, possible increased storm events causing coastal squeeze' and direct loss of habitat.

5.5 COASTAL SALINE LAGOONS "Saline Lagoons" are a Priority Habitat.

5.5.1 Definition

These are bodies of brackish or saline water, usually open and shallow, and always separated from the adjacent sea by a barrier which may be permeable.

5.5.2 The resource

The Solent and Poole Harbour area supports the highest density of saline lagoons in England. 8.5 hectares of saline lagoons have been identified along the Island's northern coastline (Fig. 12). Although this is a small extent and a tiny proportion of the South-east resource, it includes some nationally important examples. The total figure does not include the 15 hectares of Wootton Millpond which has differently been interpreted as a lagoon, or a fully tidal estuarine inlet.

Figure 11 Distribution of Vegetated Shingle and Saltmarsh

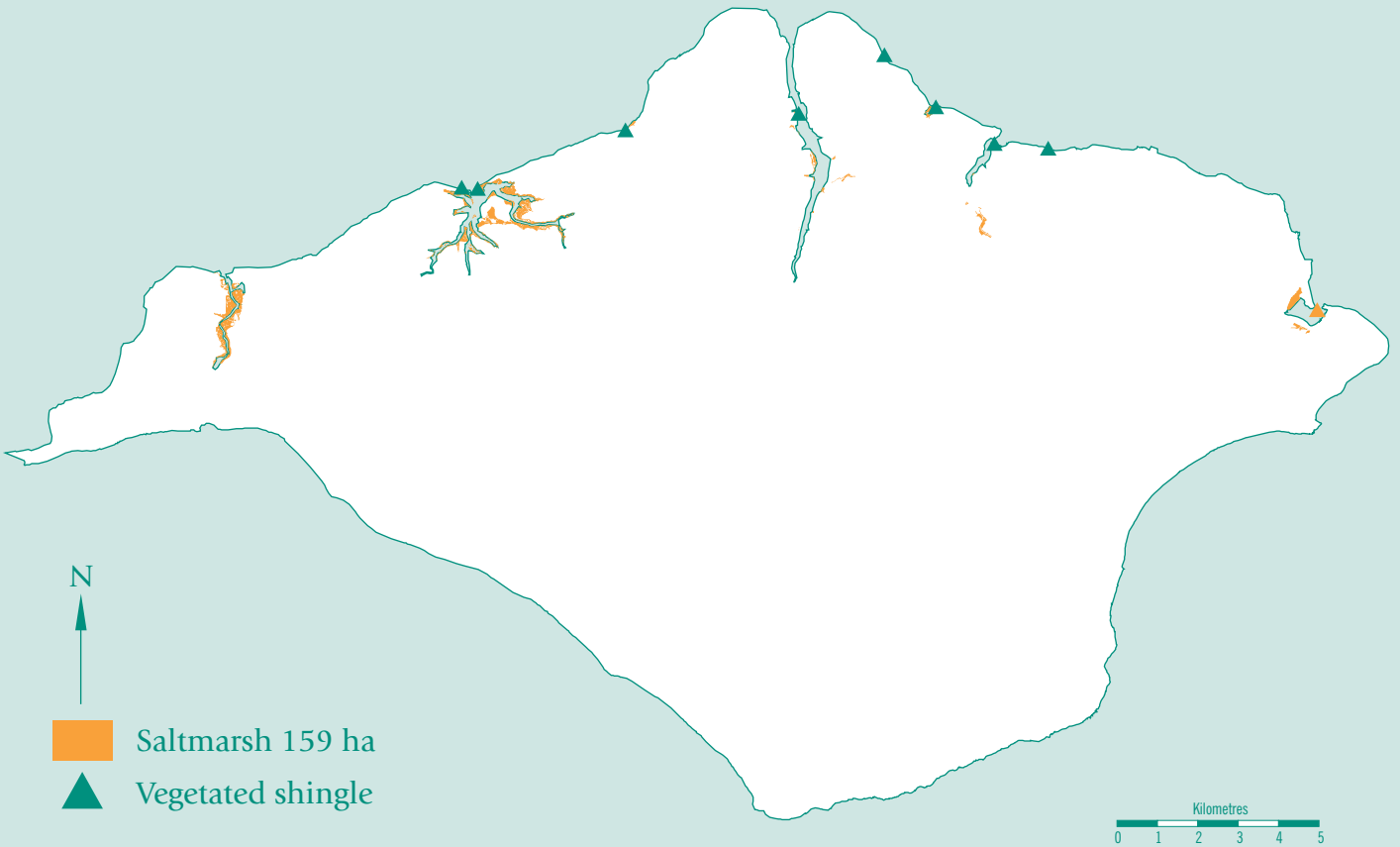
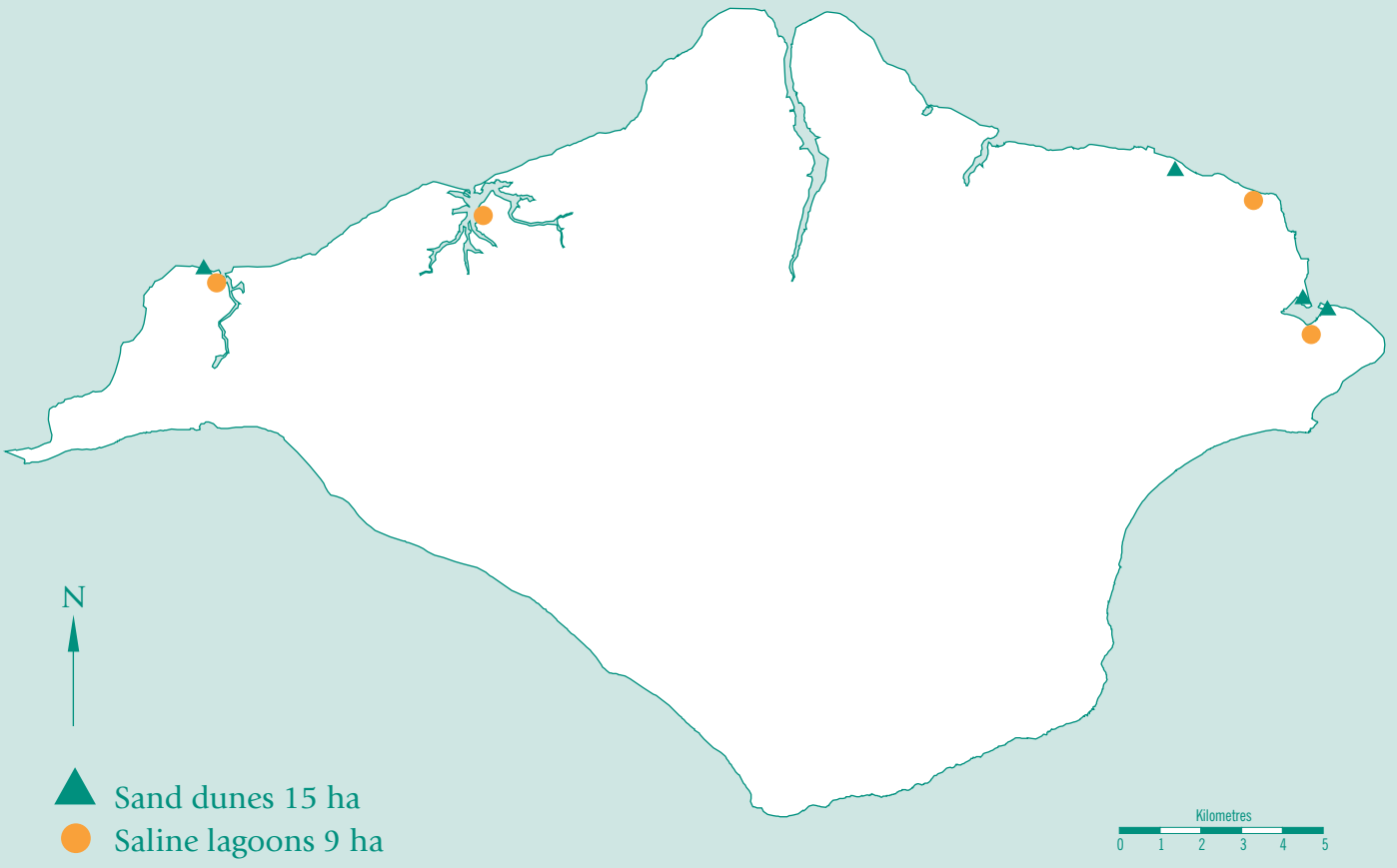
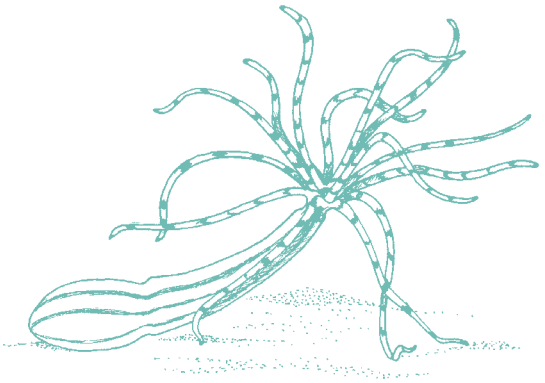


Figure 12 Distribution of Sand Dunes and Saline Lagoons





Starlet sea anemone

5.5.3 *Nature conservation importance*

Saline lagoons are a nationally rare habitat, largely confined to the south and east coasts of England, where they are relatively transient features. There are only a limited number of species able to tolerate the extreme conditions found within them; but they include a significant number of specialists which are not, or rarely, found elsewhere. Lagoons possess a characteristic invertebrate fauna that shows little regional variation, even within Europe. In Britain, several of these species are very rare and are protected under the Wildlife & Countryside Act 1981. These include the starlet sea anemone in its type locality, Bembridge Harbour lagoon, and a lagoonal worm. True lagoons support only three types of aquatic vegetation – stands of green algae, sea-grasses and similar plants, and occasionally stoneworts. The foxtail stonewort, which occurs in the Bembridge Harbour lagoon, is protected under the Wildlife & Countryside Act 1981. However, much of the area of lagoon beds is bare sediment, devoid of vegetation.

5.5.3.1 *Key species*

Flowering plants:	Spiral tasselweed
Charophytes:	Foxtail stonewort *(Lamprothamnium papulosum)*
Cnidarians:	Starlet sea anemone *(Nematostella vectensis)**
Polychaetes:	A lagoonal worm *(Alkmaria romijni)*
Crustaceans:	Lagoon sand shrimp *(Gammarus insensibilis)**
Insects:	A water beetle *(Paracymus aeneus)**

5.5.3.2 *Key sites*

Lagoons are a priority habitat type' under Annex 1 of the EC Habitats Directive and the Bembridge lagoons have been put forward as a part of the Solent lagoons SAC. Eight sites have been identified on the Island of which four are particularly important biologically.

Bembridge lagoons (SAC, SSSI)
Yar Bridge, Yarmouth (SSSI)
Newtown Quay lagoon (SAC, SSSI)

5.5.4 *Factors affecting the habitat*

- Lagoons are often relatively short-lived as a result of natural coastal dynamic changes. In a wholly natural system, some lagoons will be lost by either turning to freshwater or by returning to a fully saline state as their barriers are eroded or lost. However, as some are lost, others form and so a whole range of lagoonal habitats would be present at any one time. The influence of man's activities prevents this from taking place.
- Saline lagoons are fragile habitats susceptible to minor changes in their retaining barriers and salinity regimes.
- Pollution, in particular nutrient enrichment leading to eutrophication, can have major detrimental effects as lagoons have a very limited ability to buffer changes in water quality.
- Lagoons may be seen as candidates for infilling or land claim as part of coastal development.
- Many sites are predicted to be lost as a result of sea level rise, however this also presents the opportunity for the creation of new lagoonal habitat.

Increasing visitor pressure is causing a deterioration in biodiversity of some coastal sites

5.6 SEAGRASS BEDS/INTERTIDAL FLATS "Seagrass Beds", "Mudflats", "Sheltered Muddy Gravels" and "Sublittoral sands and gravels" are Priority Habitats.

5.6.1 Definition

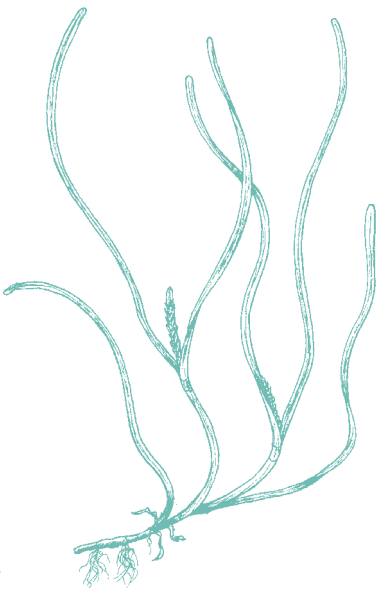
Intertidal flats are sedimentary habitats created by deposition in low energy coastal environments, particularly estuaries and sheltered bays. They are not vegetated by flowering plants, apart from the seagrass beds occurring along very sheltered stretches of coast.

5.6.2 The resource

There are some 275 hectares of mudflats within estuaries, representing just 0.14% of the national resource (Figs. 13 & 14). Additionally, 103 hectares of intertidal mudflats and 450 hectares of intertidal sandflats have been identified along the north coast of the Island, outside of the estuaries. The largest extent of intertidal sediments in the Solent is found along the sheltered north-eastern shore of the Island, between Fishbourne and Horestone Point. This is the only major zone of sediment accumulation within the coastal cell stretching from Selsey Bill to Portland. Sediment accretion is believed to be derived from erosional processes on the south coast of the Island, although Ryde Sands may also be supplied from the Solent. At low tide, a particularly wide range of sediments are exposed over this stretch of coastline, grading from the fine estuary muds of Wootton Creek, through cobbles and boulders at Pelhamfield to the extensive sandflats at Ryde, which reach a maximum width of almost 2 km.

5.6.3 Nature conservation importance

Intertidal flats are extremely productive biologically and they can be characterised in terms of their benthic fauna and their ability to support internationally important populations of wildfowl and waders as winter feeding grounds. Typically, twelve species of wildfowl and twenty species of wader regularly use the Island's estuaries.



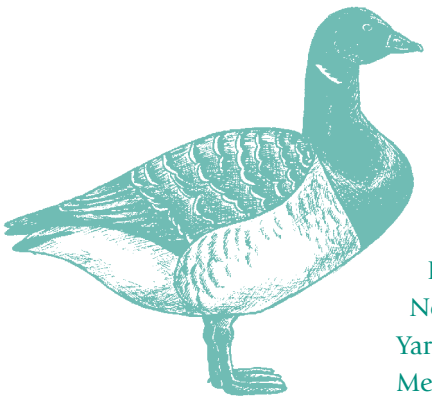
Eel grass

Holme & Bishop (1980) split the sedimentary shore communities of the Solent and Southampton Water into five main types: crustacean-polychaete, sandmason worm, lugworm, carpet shell and furrow shell. Mudflats are characterised by high biological productivity and abundance of organisms, but low diversity with few rare species. They are also important nursery areas for flatfish. Sheltered muddy gravel habitats can be extremely species-rich, especially in fully marine conditions, because the complex nature of the substratum supports a high diversity of both infauna and epifauna.

Intertidal sediments along the north coast of the Island can also support beds of three species of eelgrass and these extend into the sublittoral. All three species are nationally scarce and, additionally, extensive seagrass beds are highly productive because organic material released from decaying grass provides an important nutrient source for marine ecosystems. The plants themselves provide attachment for invertebrates and algae and the stabilised substrate can support a rich infauna. Extensive beds can provide important nursery and feeding grounds for a variety of juvenile fish. Intertidal beds can be a vital food source for brent geese and wigeon.

5.6.3.1 Key species

Birds:	Brent goose; teal; sanderling; bar-tailed godwit; black-tailed godwit; turnstone; wigeon
Tunicate:	A sea squirt *(Molgula oculata)*
Crustaceans:	Mantis shrimp *(Meiosquilla desmaresti)*
Molluscs:	Native oyster; *Hydrobia ventrosa*



Brent goose

Bryozoan: *Amathia pruvoti*
Flowering plants: Eelgrass; narrow-leaved eelgrass; dwarf eelgrass

5.6.3.2 Key sites

All sites are included within either the Solent and Southampton SPA or the candidate SAC, or both.

Ryde Sands (SPA, SSSI)
Newtown estuary (SPA, cSAC, Ramsar, NNR, SSSI)
Yar estuary (SPA, cSAC, Ramsar, SSSI)
Medina estuary (SPA, cSAC, Ramsar, SSSI)
Bembridge Harbour (SPA, Ramsar, SSSI)
Wootton Creek (SPA, Ramsar, SSSI)

5.6.4 Factors affecting the habitat

- Sea level rise
- Lack of ecological information
- Anchoring and mooring issues
- Coastal development including coastal protection and beach cleaning
- Shellfish collecting and bait digging
- Water pollution (pollution/eutrophication)
- Recreation and disturbance
- Sediment disturbance and re-distribution due to dredging

The Island has the best examples of intertidal and offshore reefs in the South-east region

5.7 ROCKY SEABED/EXTENSIVE SHALLOW SUBLITTORAL ROCK/ COASTAL WATERS

"Littoral and Sub-littoral Chalk", "*Sabellaria spinulosa* Reefs", "Sub-littoral Sands and Gravels" and "Mud Habitats in Deep Water" are all Priority Habitats.

5.7.1 Definition

Exposed areas of littoral and sub-littoral hard substrates, typically consisting of bedrock reefs and boulder plains, out to 6 nautical miles from baselines.

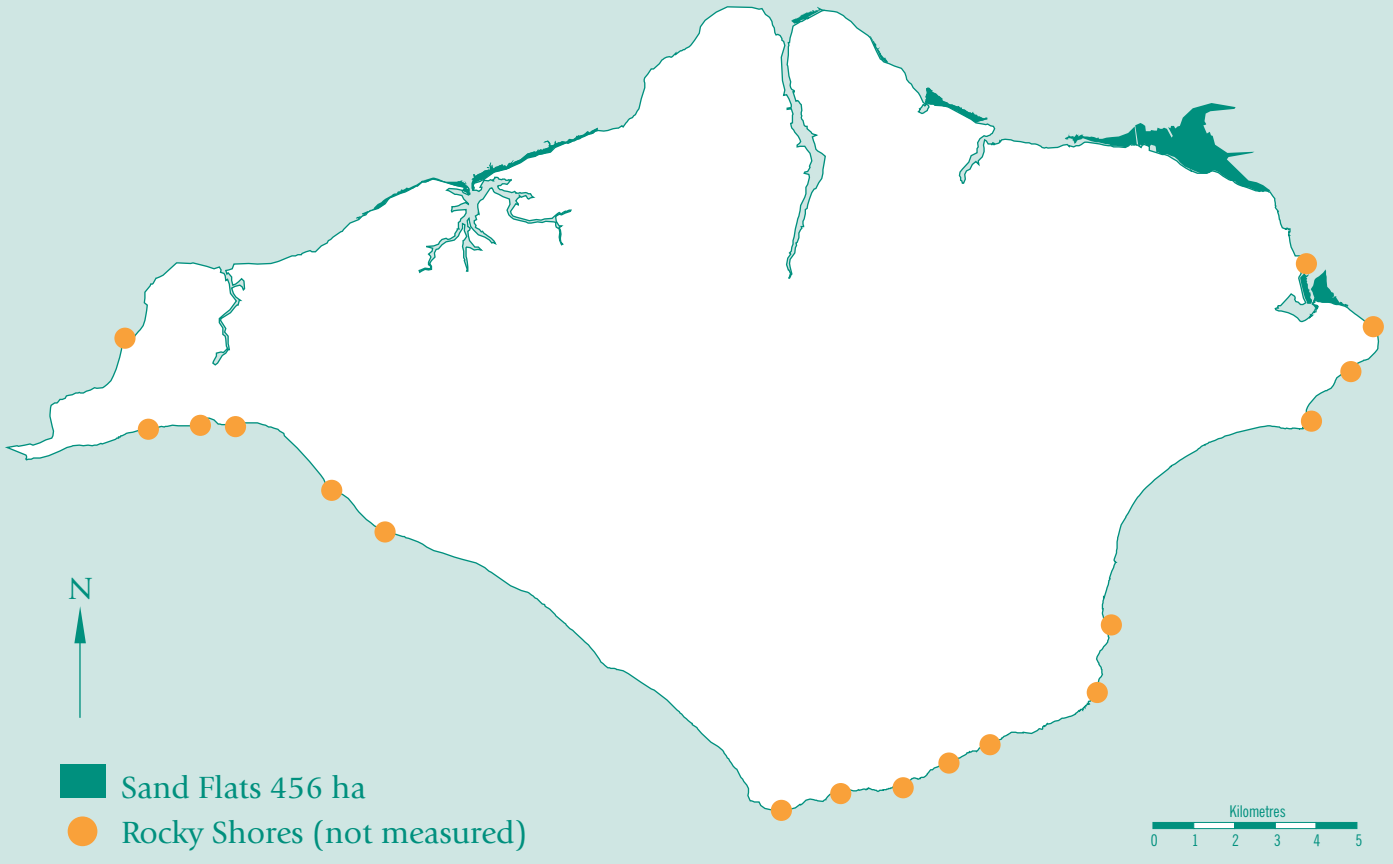
5.7.2 The resource

Intertidal and sub-tidal reefs in the Solent and Poole Bay area occur mainly around the Isle of Wight. The extent of this habitat is unknown, in part due to the difficulties and expense of surveying the seabed. However, it does include an estimated 133 hectares of intertidal reef habitat, these being rocky shores which extend into the sublittoral, and an additional 8.6 hectares of rocky shore which does not extend into the sublittoral (Fig. 8). Littoral rock is limited to the limestone outcrops at the eastern end of the Island, the boulder shore along the Undercliff between Ventnor and St Catherine's Point, and the ironstone reefs at Hanover Point. Sublittoral rock consists largely of rocky reefs which fringe the coastline, particularly adjacent to hard cliffs and shore, in particular limestone outcrops at Bembridge and chalk outcrops at Culver Cliff and the Needles.

The greatest proportion of European coastal chalk (57%) and many of the best examples of littoral and sublittoral chalk habitats are located on the coast of England. The range of chalk intertidal, cliff and cave habitats off the Island's coast create a diverse range of habitats and communities, which are of international nature conservation importance. The chalk is vertically bedded, in contrast to the more general horizontal bedding elsewhere. There are also diverse sandstone, clay bedrock, flints and deep boulder fields.

Figure 13 Distribution of Mudflats

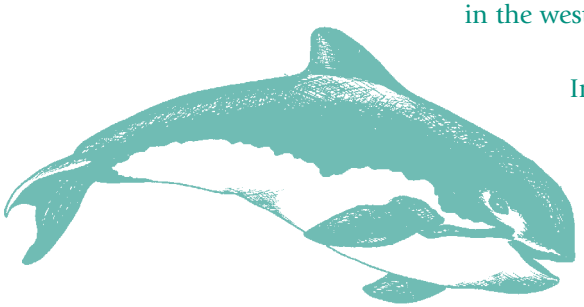
Figure 14 Distribution of Sand Flats and Rocky Shores



5.7.3 Nature conservation importance

In South-East England, sublittoral communities are generally limited and low in species-richness, due to the high levels of turbidity, siltation and scouring of the coastal waters. However, the Island's coast, falling at the outer edge of the south-east region is generally biologically richer, and infra-littoral communities are more diverse and extend into deeper waters. Offshore reefs, which can extend into the intertidal, are one of the features of interest within the South Wight Maritime candidate SAC. A number of sites are of particular importance for their marine communities. The limestone rock at Bembridge provides a variety of habitats which support a rich diversity of marine life in the intertidal and sub-tidal. Some species are at the eastern edge of their range. The chalk cliffs at Culver and Freshwater to Alum Bay display rare chalk cliff algal communities, ranked as being respectively the fourth and fifth most important in the country. The most varied chalk topography is found around the Needles and Alum Bay with sublittoral cliffs, caves, gullies and boulder slopes. This area also supports the greatest range of sub-tidal fauna. The Island's offshore seabed includes some of the most important sub-tidal British chalk reefs, representing over 5% of Europe's coastal chalk exposures. The undisturbed cobble and boulder shore in the Yar Estuary has important communities associated with wave-sheltered, but current swept reefs.

Bedrock varies and includes: soft chalk, particularly important where strong tidal streams increase habitat diversity; limestone platforms, which support the richest biota as a result of the range of horizontal and vertical faces and crevices; sandstone boulders; and clay bedrock outcrops occurring in the western Solent where there is tidal scour.



Harbour porpoise

In addition, biological reefs can form as a result of reef building creatures. *Sabellaria spinulosa* reefs comprise dense, sub-tidal aggregations of this small, tube-building polychaete worm. They are solid, but fragile and massive structures, several centimetres thick, raised above the seabed and persisting for many years often over predominantly sediment areas. As such, they provide a biogenic habitat that allows many other associated species to colonise.

The presence of shipwrecks provide artificial reefs for marine communities, a resource that is scarce throughout the sublittoral as a whole.

The marine habitats of the Island are of great biogeographical significance, and support some of the richest plant and animal communities in the area. The waters form the northern limit for a number of more southerly species. They also mark a boundary between the warmer waters of the western Channel and the cooler waters from the east, providing a transition between warm-temperate (Boreal-Lusitanian) and cold-temperate (Boreal) provinces and their associated biogeographical elements.

5.7.3.1 Key species

There is frequently insufficient knowledge to assess adequately the status of marine species, although some species are known to be rare. Other species are of particular biogeographic importance, occurring at the current margins of their range. As either more data becomes available, or populations change, the status of species will require re-evaluation. However, the southern England coast between Hayling Island and Lyme Regis (Marine Region 9) is considered to be comparatively rich in nationally rare and scarce marine species. Areas around the east and west of the Island contain particular concentrations of rare and scarce benthic species.

Cetaceans:	Harbour porpoise (*Phocena phocoena*)*; Bottle-nosed dolphin (*Tursiops truncatus*)*; Pilot whale (*Globicephala melas*)*; Killer whale (*Orcinus orca*)*
Fish:	Common goby (*Pomatoscistus microps*); Sand goby (*P. minutes*); Twaite shad (*Alosa fallax*)*; Smelt (*Osmerus eperlanus*); Basking shark (*Cetorhinus maximus*); Tope (*Galearhinus galeus*); Porbeagle shark (*Lamna nasus*); Common skate (*Raja batis*)*; Bass (*Dicentrarchus labrax*)
Molluscs:	Native oyster (*Ostrea edulis*)*; Lagoon snail (*Palludinella littorina*); Dogwhelk (*Nucella lapillus*); Lagoon cockle (*Cerastoderma glaucum*); Variable scallop (*Chlamys varia*); A sea slug (*Aeolidiella alderi*)
Bryozoans:	*Epistomia bursaria*
Cnidarians:	"Ginger tiny anemone" (*Isozoanthus sulcatus*)
Red Algae:	*Gracillaria bursa-pastoris; Grateloupia filicina var.luxurians*
Brown Algae:	*Padina pavonia; Zanardinia prototypus*

Marine litter kills wildlife such as seabirds and dolphins

5.7.3.2 Key sites

Key Sites	Whitecliff Bay and Bembridge Ledges (cSAC, SSSI) St Helen's Ledges (SSSI) Much of the intertidal and sublittoral around the southern coastline of the Island is included within the South Wight Maritime candidate SAC.

5.7.4 Factors affecting the habitat

The threats to marine wildlife and habitats transcend county boundaries ubiquitous. The main threats to marine and coastal species and habitats are considered to be:

- Habitat loss and degradation
- Pollution
- Over-exploitation of fish stocks
- Introduction of alien species.

Table 1 Isle of Wight BAP Habitat Classification

I.W. BAP Classification	Steering Group Broad Habitat Types	Priority Habitat
Semi-natural Broadleaved Woodland	1. Broadleaved, mixed and yew woodland	Wet woodland
Parkland & pasture Woodland	1. Broadleaved, mixed and yew woodland	Lowland wood pasture and parkland
Plantation Woodland	2. Coniferous woodland	
Arable	4. Arable and horticultural	Cereal field margins
Improved Grassland	5. Improved grassland	
Ancient Hedgerows	3. Boundary and linear features	Ancient and/or species rich hedgerows
Unimproved Neutral Grasslands	6. Neutral grassland	Lowland meadows
Acid Grasslands	8. Acid grassland	Lowland dry acid grassland
Calcareous Grasslands	7. Calcareous grassland	Lowland calcareous grassland
Lowland Heath	10. Dwarf shrub heath	Lowland heathland
Grazing Marsh	5. Improved grassland	Coastal and floodplain grazing marsh
Wetlands: Fens, Swamps (including reedbeds) and Marshes	11. Fen, marsh and swamp	Purple moor grass and rush pastures Fens Reedbeds
Rivers and Streams	14. Rivers and streams	Chalk rivers
Eutrophic Standing Water	13. Standing open water and canals	Eutrophic standing waters
Maritime Cliffs	Supra littoral rock	Maritime cliff and slopes
Vegetated Shingle	Supra littoral sediment	Coastal vegetated shingle
Saltmarsh	Littoral sediment	Coastal Saltmarsh
Sand Dunes	Supra littoral sediment	Coastal sand dunes
Coastal Saline Lagoons	Inshore sediment	Saline lagoons
Seagrass Beds/ Intertidal Flats	Littoral sediment Inshore sediment	Seagrass beds Sheltered muddy gravels Mudflats
Rocky Seabed/ Extensive shallow Sublittoral Rock Coastal waters	Littoral rock Inshore rock Inshore sediment	Littoral and Sublittoral Chalk *Sabellaria spinulosa* reefs Mud Habitats in Deep Water Sublittoral Sands & Gravels

Table 2 National BAP Priority Species which are considered to be extinct on the Island

Species	Group	Approximate date of last record
European Otter	Mammals	1954? (Breeding)
Cirl Bunting	A Bird	1950's
Bombus sylvarum	A Bee	1930
Marsh Fritillary	Butterfly	1956 (Native population)
Mole Cricket	A Cricket	1976
Field Cricket	A Cricket	1930's
Poronia punctata	A Fungus	1924
Caloplaca luteoalba	A Lichen	Late 1800s
Pseudocyphellaria aurata	A Lichen	Mid 1800s

SPECIES

Framework of the Species Audit

The Species Audit identifies species of concern occurring in the Isle of Wight. The following criteria have been used for selecting these species:

The Island is a stronghold for Dormouse, Water Vole and Barn Owl

1. National BAP Priority Species.

Those species listed by the UK Biodiversity Group, amalgamated from the original short' and middle' list species in Biodiversity: the UK Steering Group Report). These are classified as species which qualify for one or more of the following categories -

- Species which are globally threatened
- Species which are rapidly declining in the UK, ie by more than 50% in the last 25 years.

2. Species of National Conservation Concern.

Those species on the long' list in Biodiversity: the UK Steering Group Report. These are classified as species which qualify for one or more of the following categories -

- Threatened endemic and other globally threatened species
- Species where the UK has more than 25% of the world or appropriate biogeographical population.
- Species where numbers or range have declined by more than 25% in the last 25 years.
- In some instances where the species is found in fewer than 15 ten km squares in the UK
- Species which are listed in the EU Birds or Habitats Directives, the Bern, Bonn or CITES Conventions, or under the Wildlife & Countryside Act 1981 and the Wildlife Order (Northern Ireland) 1985.

The Island has 13 of Britain's 16 resident bat species

3. Species listed in the relevant national Red Data Books or lists.

4. Locally important species

Those species identified as being locally important by virtue of their rarity, rapid decline and/or isolation. Also species for which the Island holds regionally important populations.

SPECIES AUDIT TABLES

Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
MAMMALS						
Arvicola terrestris	Water Vole	1	Rivers and Streams	Fens, Marsh and Swamp		Common Stable
Barbastella barbestellus	Barbastelle Bat	2	Mosaic		Rare	Not known
Eptesicus serotinus	Serotine Bat	2	Mosaic		Common	Stable
Globicephala melas	Pilot Whale	2	Coastal waters		Not known	Not known
Lepus europaeus	Brown Hare	1	Lowland meadows	Lowland calcareous grassland	Common	Stable
Lutra lutra	European Otter	1	Saltmarsh		Rare	Not known
Meles meles	Badger	2	Lowland meadows	Broad-leaved mixed woodland	Common	Stable
Micromys minutus	Harvest Mouse	3	Lowland meadows		Rare	Not known
Muscardinus avellanarius	Dormouse	1	Broad-leaved mixed woodland	Ancient and/or spp rich hedgerows	Common	Stable
Mustela erminea	Stoat	2	Lowland meadows	Broad-leaved mixed woodland	Common	Not known
Mustela nivalis	Weasel	2	Lowland meadows	Broad-leaved mixed woodland	Common	Not known
Myotis mystacinus	Whiskered Bat	2	Mosaic		Occasional	Not known
Myotis daubentoni	Daubenton's Bat	2	Mosaic		Occasional	Stable
Myotis bechsteinii	Bechstein's Bat	2	Mosaic		Scarce	Stable
Myotis nattereri	Natterer's Bat	2	Mosaic		Occasional	Not known
Nyctalus noctula	Noctule Bat	2	Mosaic		Occasional	Decreasing
Orcinus orca	Killer Whale	2	Coastal waters		Not known	Not known
Phocoena phocoena	Harbour Porpoise	1	Coastal waters		Rare	Decreasing
Pipistrellus pipistrellus	Pipistrelle Bat	1	Mosaic		Common	Not known
Pipistrellus nathusii	Nathusius's Pipistrelle	3	Mosaic		Rare	Not known
Plecotus austriacus	Grey Long-eared Bat	2	Mosaic		Rare	Not known
Plecotus auritus	Brown Long-eared Bat	2	Mosaic		Common	Stable
Rhinolophus ferrumequinum	Greater Horseshoe Bat	1	Mosaic		Rare	Decreasing
Sciurus vulgaris	Red Squirrel	1	Broad-leaved mixed woodland	Ancient and/or spp rich hedgerows	Common	Stable
Sorex araneus	Common Shrew	2	Lowland meadows	Lowland dry acid grassland	Common	Not known
Sorex minutus	Pygmy Shrew	2	Lowland meadows	Lowland dry acid grassland	Common	Not known
Tursiops truncatus	Bottle-nosed Dolphin	2	Coastal waters		Not known	Not known
BIRDS						
Podiceps auritus	Slavonian Grebe (wintering)	2	Coastal waters		Localised	Stable
Phalacrocorax carbo	Cormorant	2	Maritime cliffs & slopes	Coastal waters	Common	Stable
Phalacrocorax aristotelis	Shag	2	Maritime cliffs & slopes		Scarce	Stable
Egretta garzetta	Little Egret	2	Mudflats	Broad-leaved mixed woodland	Scarce	Increasing
Cygnus olor	Mute Swan	2	Fen, marsh and swamp	Saltmarsh	Common	Not known
Branta bernicla	Brent Goose (wintering)	2	Saltmarsh	Grazing marsh	Common	Increasing
Tadorna tadorna	Shelduck	2	Mudflats	Coastal waters	Localised	Not known
Anas penelope	Wigeon (wintering)	2	Saltmarsh	Mudflats	Common	Not known
Anas strepera	Gadwall (wintering)	2	Eutrophic standing waters	Mudflats	Localised	Not known
Anas crecca	Teal (wintering)	2	Mudflats	Fen, marsh and swamp	Common	Stable
Anas platyrhynchos	Mallard	2	Eutrophic standing waters	Rivers & streams	Common	Not known
Anas acuta	Pintail (wintering)	2	Coastal waters	Saltmarsh	Localised	Stable
Anas clypeata	Shoveler (wintering)	2	Eutrophic standing waters	Coastal waters	Localised	Stable
Aythya ferina	Pochard	2	Eutrophic standing waters	Coastal waters	Localised	Decreasing
Aythya fuligula	Tufted Duck	2	Eutrophic standing waters		Localised	Not known
Bucephala clangula	Goldeneye (wintering)	2	Coastal waters		Localised	Stable
Circus cyaneus	Hen Harrier (wintering)	2	Lowland meadows		Scarce	Stable
Buteo buteo	Buzzard	2	Broad-leaved mixed woodland	Lowland meadows	Localised	Increasing
Falco tinnunculus	Kestrel	2	Lowland meadows	Lowland dry acid grassland	Common	Stable
Falco peregrinus	Peregrine	2	Maritime cliffs & slopes		Localised	Increasing
Perdix perdix	Grey Partridge	1	Arable & horticultural		Scarce	Decreasing
Rallus aquaticus	Water Rail	2	Reedbeds	Fen, marsh and swamp	Localised	Stable
Haematopus ostralegus	Oystercatcher	3	Mudflats	Littoral rock	Localised	Stable
Charadrius hiaticula	Ringed Plover	2	Coastal vegetated shingle	Mudflats	Scarce	Decreasing
Pluvialis apricaria	Golden Plover (wintering)	2	Saltmarsh	Mudflats	Localised	Not known
Pluvialis squatarola	Grey Plover (wintering)	2	Mudflats	Saltmarsh	Localised	Not known
Vanellus vanellus	Lapwing	2	Mudflats	Improved grassland	Localised	Decreasing
Calidris canutus	Knot (wintering)	2	Mudflats	Saltmarsh	Localised	Not known

Habitats in orange type are Priority Habitats in the UK Biodiversity Action Plan

Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
Calidris alba	Sanderling (wintering)	2	Littoral sediment		Scarce	Stable
Calidris maritima	Purple Sandpiper (wintering)	2	Littoral rock		Scarce	Decreasing
Calidris alpina	Dunlin (wintering)	2	Mudflats	Saltmarsh	Common	Not known
Lymnocryptes minimus	Jack Snipe (wintering)	2	Fen, marsh and swamp	Lowland meadows	Localised	Decreasing
Gallinago gallinago	Snipe	2	Fen, marsh and swamp	Lowland meadows	Localised	Decreasing
Scolopax rusticola	Woodcock	2	Broad-leaved mixed woodland		Localised	Not known
Limosa limosa	Black-tailed Godwit (wintering)	2	Mudflats	Lowland meadows	Localised	Not known
Limosa lapponica	Bar-tailed Godwit (wintering)	2	Littoral sediment	Saltmarsh	Scarce	Decreasing
Numenius arquata	Curlew (wintering)	2	Mudflats	Saltmarsh	Common	Stable
Tringa totanus	Redshank	2	Mudflats	Lowland meadows	Localised	Decreasing
Arenaria interpres	Turnstone (wintering)	2	Sheltered muddy gravels	Littoral rock	Localised	Stable
Larus melanocephalus	Mediterranean Gull	2	Littoral sediment	Inshore sediment	Rare	Increasing
Larus fuscus	Lesser black-backed Gull	2	Maritime cliffs & slopes	Littoral rock	Scarce	Not known
Larus argentatus	Herring Gull	2	Maritime cliffs & slopes	Littoral rock	Localised	Stable
Sterna hirundo	Common Tern	2	Coastal vegetated shingle	Coastal waters	Scarce	Not known
Sterna albifrons	Little Tern	2	Coastal vegetated shingle	Coastal waters	Rare	Decreasing
Uria aalge	Guillemot	3	Maritime cliffs & slopes	Coastal waters	Scarce	Decreasing
Streptopelia turtur	Turtle Dove	2	Broad-leaved mixed woodland		Scarce	Decreasing
Tyto alba	Barn Owl	2	Mosaic		Localised	Stable
Asio otus	Long-eared Owl	2	Coniferous woodland	Broad-leaved mixed woodland	Localised	Stable
Asio flammeus	Short-eared Owl (wintering)	2	Lowland meadows		Scarce	Stable
Caprimulgus europaeus	Nightjar	2	Broad-leaved mixed woodland	Lowland heathland	Localised	Decreasing
Alcedo atthis	Kingfisher	2	Rivers & streams	Eutrophic standing waters	Scarce	Stable
Picus viridis	Green Woodpecker	2	Wood pasture & parkland		Common	Stable
Dendrocopos major	Great Spotted Woodpecker	2	Broad-leaved mixed woodland		Common	Stable
Dendrocopos minor	Lesser Spotted Woodpecker	2	Broad-leaved mixed woodland		Rare	Not known
Alauda arvensis	Skylark	1	Improved grassland		Common	Stable
Hirundo rustica	Swallow	2	Built-up areas & gardens		Common	Not known
Delichon urbica	House Martin	2	Built-up areas & gardens		Common	Not known
Anthus pratensis	Meadow Pipit	2	Lowland meadows	Lowland calcareous grasslands	Common	Stable
Anthus petrosus	Rock Pipit	2	Littoral rock	Maritime cliffs & slopes	Localised	Not known
Motacilla cinerea	Grey Wagtail	2	Rivers & streams		Scarce	
Motacilla alba	Pied Wagtail	2	Mosaic		Common	Stable
Prunella modularis	Dunnock	2	Ancient and/or spp rich hedgerows	Built-up areas and gardens		Stable
Luscinia megarhynchos	Nightingale	2	Broad-leaved mixed woodland		Localised	Decreasing
Saxicola torquata	Stonechat	2	Lowland heathland	Maritime cliffs & slopes	Localised	Not known
Oenanthe oenanthe	Wheatear	2	Lowland calcareous grassland	Maritime cliffs & slopes	Rare	Stable
Turdus pilaris	Fieldfare (wintering)	2	Ancient and/or spp rich hedgerows	Lowland meadows	Common	Stable
Turdus philomelos	Song Thrush	1	Broad-leaved mixed woodland	Built-up areas and gardens	Common	Decreasing
Turdus iliacus	Redwing (wintering)	2	Ancient and/or spp rich hedgerows	Lowland meadows	Common	Stable
Cettia cetti	Cetti's Warbler	2	Reedbeds	Fen, marsh and swamp	Scarce	Stable
Acrocephalus schoenobaenus	Sedge Warbler	2	Reedbeds	Ancient and/or spp rich hedgerows	Localised	Stable
Acrocephalus scirpaceus	Reed Warbler	2	Reedbeds	Fen, marsh and swamp	Common	Stable
Sylvia undata	Dartford Warbler	2	Lowland heathland		Localised	Not known
Sylvia curruca	Lesser Whitethroat	2	Ancient and/or spp rich hedgerows		Common	Not known
Sylvia communis	Whitethroat	2	Ancient and/or spp rich hedgerow		Common	Not known
Sylvia borin	Garden Warbler	2	Broad-leaved mixed woodland		Localised	Not known

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Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
Sylvia atricapilla	Blackcap	2	Broad-leaved mixed woodland	Boundary and linear features	Common	Stable
Phylloscopus collybita	Chiffchaff	2	Broad-leaved mixed woodland		Common	Stable
Phylloscopus trochilus	Willow Warbler	2	Broad-leaved mixed woodland		Common	Decreasing
Regulus regulus	Goldcrest	2	Coniferous woodland	Broad-leaved mixed woodland	Common	Stable
Regulus ignicapillus	Firecrest	2	Coniferous woodland	Broad-leaved mixed woodland	Scarce	Increasing
Muscicapa striata	Spotted Flycatcher	2	Broad-leaved mixed woodland	Built up areas & gardens	Scarce	Decreasing
Parus palustris	Marsh Tit	2	Broad-leaved mixed woodland		Localised	Decreasing
Parus ater	Coal Tit	2	Coniferous woodland	Broad-leaved mixed woodland	Common	Stable
Parus caeruleus	Blue Tit	2	Broad-leaved mixed woodland	Built-up areas and gardens	Common	Stable
Parus major	Great Tit	2	Broad-leaved mixed woodland	Ancient and/or spp rich hedgerows	Common	Stable
Certhia familiaris	Treecreeper	2	Broad-leaved mixed woodland		Common	Stable
Corvus corax	Raven	3	Maritime cliffs & slopes		Scarce	Increasing
Carduelis chloris	Greenfinch	2	Ancient and/or spp rich hedgerows	Built-up areas and gardens	Common	Stable
Carduelis carduelis	Goldfinch	2	Mosaic		Common	Stable
Carduelis cannabina	Linnet	2	Ancient and/or spp rich hedgerows	Arable & horticultural	Common	Decreasing
Pyrrhula pyrrhula	Bullfinch	2	Broad-leaved mixed woodland	Arable & horticultural	Common	Decreasing
Emberiza citrinella	Yellowhammer	2	Boundary and linear features	Arable & horticultural	Common	Not known
Emberiza schoeniclus	Reed Bunting	2	Reedbeds	Fen, marsh and swamp	Localised	Decreasing
Miliaria calandra	Corn Bunting	2	Arable & horticultural	Boundary and linear features	Localised	Decreasing
REPTILES						
Anguis fragilis	Slow-worm	2	Arable & horticultural	Lowland meadows	Common	Not known
Natrix natrix	Grass Snake	2	Lowland meadows	Ancient and/or spp rich hedgerows	Common	Not known
Podarcis muralis	Wall Lizard	3	Built-up areas & gardens		Rare	Stable
Vipera berus	Adder	2	Lowland meadows	Lowland dry acid grassland	Common	Not known
AMPHIBIA						
Bufo bufo	Common Toad	2	Mosaic		Common	Not known
Rana temporaria	Common Frog	2	Mosaic		Common	Not known
Triturus helveticus	Palmate Newt	2	Mosaic		Common	Not known
Triturus cristatus	Great Crested Newt	1	Mosaic		Occasional	Not known
Triturus vulgaris	Smooth Newt	2	Mosaic		Common	Not known
FISH						
Alosa alosa	Allis shad	1	Coastal waters		Believed extinct	
Alosa fallax	Twaite Shad	1	Coastal waters		Rare	Not known
Cetorhinus maximus	Basking Shark	2	Coastal waters		Rare	Not known
Cottus gobio	Bullhead	2	Rivers & streams		Occasional	Not known
Dicentrarchus labrax	Bass	3	Coastal waters		Common	Not known
Galeorhinus galeus	Tope	2	Coastal waters		Rare	Increasing
Lamna nasus	Porbeagle Shark	2	Coastal waters		Rare	Not known
Lampetra planeri	Brook Lamprey	2	Rivers & streams		Scarce	Not known
Osmerus eperlanus	Smelt	2	Coastal waters		Rare	Not known
Pomatoschistus minutus	Sand Goby	2	Coastal waters		Common	Not known
Pomatoschistus microps	Common Goby	2	Coastal waters		Common	Not known
Raja batis	Common Skate	1	Coastal waters		Rare	Declining
ANTS, BEES AND WASPS						
Bombus sylvarum	Shrill Carder Bee	1	Lowland calcareous grasslands		Believed extinct	
Bombus humilis	Brown-banded Carder Bee	2	Lowland meadows		Believed extinct	
Bombus subterraneus	Short-haired Bumble Bee	2	Coastal Sand Dunes		Believed extinct	
Cerceris quinquefasciata	A solitary wasp	3	Maritime cliffs & slopes		Believed extinct	
Formica rufa	Southern Wood Ant	3	Broad-leaved mixed woodland		Occasional	Not known
Lasioglossum angusticeps	A mining bee	2	Lowland calcareous grassland		Scarce	Not known
Nomada armata	A cuckoo bee	3	Lowland meadows		Believed extinct	
Nomada errans	A nomad bee	2	Lowland dry acid grassland	Lowland meadows	Not known	Not known
Osmia xanthomelana	A mason bee	2	Maritime cliffs & slopes		Rare	Not known

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BEETLES						
Agriotes sordidus	A click beetle	3	Coastal vegetated shingle		Rare	Stable
Anisodactylus poeciloides	A ground beetle	2	Saltmarsh		Rare	Not known
Anostirus castaneus	A click beetle	3	Maritime cliffs & slopes		Rare	Not known
Apion matricela	A weevil	3	Coastal vegetated shingle		Rare	Not known
Bembidion andreae	A ground beetle	3	Maritime cliffs & slopes		Rare	Not known
Bledius crassicollis	A rove beetle	3	Maritime cliffs & slopes		Rare	Not known
Cathormiocerus socius	A weevil	3	Maritime cliffs & slopes		Scarce	Not known
Cicindela germanica	A tiger beetle	2	Maritime cliffs & slopes		Rare	Stable
Dromius vectensis	A ground beetle	3	Coastal vegetated shingle	Maritime cliffs & slopes	Rare	Not known
Drypta dentata	A ground beetle	3	Coastal sand dunes		Rare	Not known
Elaphrus uliginosus	A ground beetle	3	Maritime cliffs & slopes		Rare	Not known
Halobrecta princeps	A rove beetle	3	Coastal vegetated shingle	Maritime cliffs & slopes	Scarce	Not known
Harpalus parallelus	A ground beetle	2	Lowland calcareous grassland	Maritime cliffs & slopes	Rare	Not known
Harpalus dimidiatus	A ground beetle	2	Lowland calcareous grassland		Rare	Not known
Harpalus cupreus	A ground beetle	3	Arable & horticultural		Rare	Not known
Harpalus cordatus	A ground beetle	1	Coastal sand dunes		Rare	Not known
Heterocerus fusculus	A mud-dwelling beetle	3	Maritime cliffs & slopes		Rare	Not known
Medon ripicola	A rove beetle	3	Coastal sand dunes	Coastal vegetated shingle	Rare	Not known
Medon pocoferus	A rove beetle	3	Maritime cliffs & slopes		Rare	Not known
Otiorhynchus ligustici	A weevil	3	Maritime cliffs & slopes		Rare	Not known
Paracymus aeneus	A water beetle	2	Saline lagoons		Rare	Not known
Thinobius brevipennis	A rove beetle	3	Maritime cliffs & slopes		Rare	Not known
BUTTERFLIES						
Lysandra bellargus	Adonis Blue	2	Lowland calcareous grassland		Occasional	Stable
Thecla betulae	Brown Hairstreak	2	Ancient and/or spp rich hedgerows		Rare	Not known
Lysandra coridon	Chalkhill Blue	2	Lowland calcareous grassland		Occasional	Stable
Argynnis aglaia	Dark Green Fritillary	3	Lowland calcareous grassland	Lowland meadows	Occasional	Stable
Hamearis lucina	Duke of Burgundy	2	Lowland calcareous grassland		Scarce	Decreasing
Melitaea cinxia	Glanville Fritillary	2	Lowland meadows	Lowland calcareous grassland	Occasional	Stable
Hipparchia semele	Grayling	3	Lowland calcareous grassland	Lowland heathland	Scarce	Stable
Boloria euphrosyne	Pearl-bordered Fritillary	2	Broad-leaved mixed woodland		Scarce	Decreasing
Argynnis paphia	Silver-washed Fritillary	2	Broad-leaved mixed woodland		Occasional	Not known
Cupido minimus	Small Blue	2	Lowland calcareous grassland		Scarce	Not known
Boloria selene	Small Pearl-bordered Fritillary	2	Lowland meadows	Broad-leaved mixed woodland	Rare	Decreasing
CRICKETS AND GRASSHOPPERS						
Ectobius pallidus	Tawny Cockroach	3	Lowland calcareous grassland	Lowland meadows	Occasional	Not known
Ectobius panzeri	Lesser Cockroach	3	Lowland calcareous grassland	Lowland meadows	Scarce	Not known
Ectobius lapponicus	Dusky Cockroach	3	Lowland calcareous grassland	Lowland meadows	Scarce	Not known
Gryllotalpa gryllotalpa	Mole Cricket	1	Lowland meadows		Believed extinct	
Gryllus campestris	Field Cricket	2	Lowland calcareous grassland		Believed extinct	
Metrioptera roeselii	Roesel's Bush-cricket	3	Saltmarsh		Rare	Not known
Nemobius sylvestris	Wood Cricket	3	Broad-leaved mixed woodland		Occasional	Stable
Platycleis albopunctata	Grey Bush-cricket	3	Lowland meadows	Lowland calcareous grassland	Occasional	Stable
Stenobothrus lineatus	Stripe-winged Grasshopper	3	Lowland calcareous grassland		Scarce	Not known
Tetrix ceperoi	Ceperoi's Groundhopper	3	Lowland meadows	Lowland calcareous grassland	Occasional	Not known
CRUSTACEA						
Apherusa ovaipesa	A Shrimp	3	Inshore sediment		Not known	Not known
Balanus perforatusa	A Barnacle	3	Littoral rock		Occasional	Not known
Chthamalus montaguia	A Barnacle	3	Littoral rock		Occasional	Not known
Chthamalus stellatusa	A Barnacle	3	Littoral rock		Occasional	Not known
Gammarus insensibilis	Lagoon Sand Shrimp	1	Saline lagoons		Scarce	Notknown
Meiosquilla desmaresti	Mantis Shrimp	3	Inshore sediment		Common	Not known
Synisoma lancifer	A Shrimp	3	Littoral rock		Rare	Stable

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DRAGONFLIES AND DAMSELFLIES						
Aeshna grandis	Brown Hawker	3	Eutrophic standing waters		Scarce	Stable
Calopteryx virgo	Beautiful Demoiselle	3	Eutrophic standing waters		Occasional	Stable
Coenagrion pulchellum	Variable Damselfly	3	Eutrophic standing waters		Rare	Stable
Cordulegaster boltonii	Golden-ringed Dragonfly	3	Eutrophic standing waters	Rivers & streams	Occasional	Not known
Lestes sponsa	Emerald Damselfly	3	Eutrophic standing waters		Scarce	Stable
Libellula quadrimaculata	Four-spotted Chaser	3	Eutrophic standing waters		Rare	Stable
Orthetrum coerulescens	Keeled Skimmer	3	Eutrophic standing waters		Rare	Stable
Platycremis pennipes	White-legged Damselfly	3	Rivers & streams		Rare	Decreasing
Sympetrum sanguineum	Ruddy Darter	3	Eutrophic standing waters	Rivers & streams	Occasional	Stable
FLIES						
Asilus crabroniformis	A robber fly	1	Lowland meadows	Lowland calcareous grassland	Rare	Not known
Bombylius discolor	A beefly	2	Lowland meadows	Lowland dry acid grassland	Occasional	Stable
Callicera aurata (C.aenea)	A hover-fly	3	Broad-leaved mixed woodland		Rare	Not known
Criorhina ranunculi	A hover-fly	3	Broad-leaved mixed woodland		Rare	Not known
Epistrophe diaphana	A hover-fly	3	Broad-leaved mixed woodland	Lowland meadows	Scarce	Not known
Eumerus ornata	A hover-fly	2	Broad-leaved mixed woodland		Rare	Not known
Limonia goritensis	A cranefly	2	Maritime cliffs & slopes		Rare	Not known
Mallota cimbiciformis	A hover-fly	3	Broad-leaved mixed woodland		Rare	Not known
Metasyrphus nitens	A hover-fly	3	Broad-leaved mixed woodland		Rare	Not known
Myopites inulaedyssentericae	A gall-fly	3	Lowland meadows		Scarce	Not known
Myopites eximia	A gall-fly	3	Saltmarsh	Coastal vegetated shingle	Rare	Not known
Pelecocera tricincta	A hoverfly	3	Broad-leaved mixed woodland	Lowland heathland	Rare	Not known
Pocota personata	A hover-fly	3	Wood pasture & parkland		Rare	Not known
Stratiomys potamida	A soldier fly	3	Maritime cliffs & slopes		Rare	Not known
Terellia vectensis	A picture-winged fly	3	Lowland calcareous grassland	Lowland heathland	Rare	Not known
Urophora spoliata	A picture-winged fly	3	Lowland calcareous grassland		Rare	Not known
Volucella inanis	A hover-fly	3	Maritime cliffs & slopes	Broad-leaved mixed woodland	Scarce	Not known
Volucella zonaria	A hover-fly	3	Maritime cliffs & slopes		Rare	Not known
Volucella inflata	A hover-fly	3	Broad-leaved mixed woodland		Scarce	Not known
Xanthandrus comtus	A hover-fly	3	Broad-leaved mixed woodland		Rare	Not known
MILLIPEDES						
Trachysphaera lobata	A Millipede	2	Saltmarsh	Coastal sand dunes	Rare	Not known
MOLLUSCS						
Aeolidia alderi	Sea Slug	3	Littoral rock	Littoral sediment	Occasional	Not known
Cerastoderma glaucum	Lagoon Cockle	3	Saline lagoons		Common	Not known
Chlamys varia	Variable Scallop	3	Inshore sediment		Occasional	Not known
Gibbula umbilicalis	Purple Topshell	3	Littoral rock		Common	Not known
Hydrobia ventrosa	Lagoon Snail	2	Saline lagoons		Rare	Not known
Melarhaphe neritoides	Small Periwinkle	3	Littoral rock		Common	Not known
Modiolus modiolus	Horse Mussel	2	Inshore rock	Littoral rock	Occasional	Not known
Nucella lapillus	Dog Whelk	2	Littoral rock		Common	Increasing
Ostrea edulis	Native Oyster	1	Sheltered muddy gravels		Scarce	Not known
Paludinella littorina	Lagoon Snail	2	Littoral rock		Rare	Not known
Patella ulyssiponensis	Limpet	3	Littoral rock		Common	Not known
Patella depressa	Limpet	3	Littoral rock		Common	Not known
Scrobicularia plana	Furrow-shell	3	Littoral sediment		Rare	Not known
Truncatella subcylindrica	Looping Snail	2	Littoral rock		Rare	Not known
Vertigo moulinsiana	A Snail	1	Fens	Reedbeds	Rare	Not known
MOTHS						
Metzneria littorella	A micro-moth	3	Maritime cliffs & slopes		Rare	Not known
Mompha sturnipennella	A micro-moth	3	Broad-leaved mixed woodland		Rare	Not known
Mecyna flavalis flaviculalis	Auriferous Pearl	3	Lowland calcareous grassland		Rare	Not known
Leucochlaena oditis	Beautiful Gothic	2	Maritime cliffs & slopes		Occasional	Stable

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Sedina buettneri	Blair's Wainscot	3	Fens		Believed extinct	
Heliophobus reticulata	Bordered Gothic	2	Lowland calcareous grassland		Believed extinct	
Selidosema brunnearia	Bordered Grey	3	Lowland heathland		Believed extinct	
Oria musculosa	Brighton Wainscot	2	Arable & horticultural		Believed extinct	
Hypena rostralis	Buttoned Snout	2	Lowland meadows		Occasional	Stable
Scotopteryx bipunctaria	Chalk Carpet	1	Lowland calcareous grassland		Common	Stable
Euphyia biangulata	Cloaked Carpet	3	Ancient and/or spp rich hedgerows		Occasional	Stable
Pechipogo strigilata	Common Fan-foot	2	Broad-leaved mixed woodland		Scarce	Not known
Earias clorana	Cream-bordered Green Pea	3	Fens		Scarce	Stable
Apamea oblonga	Crescent Striped	1	Saltmarsh	Fens	Rare	Decreasing
Agrotis trux	Crescent Dart	3	Maritime cliffs & slopes		Common	Stable
Synanthedon tipuliformis	Currant Clearwing	3	Arable & horticultural		Rare	Stable
Catocala sponsa	Dark Crimson Underwing	2	Broad-leaved mixed woodland		Believed extinct	
Anticollix sparsata	Dentated Pug	3	Fens	Broad-leaved mixed woodland	Rare	Decreasing
Setina irrorella	Dew Moth	3	Maritime cliffs & slopes		Common	Stable
Cyclophora pendularia	Dingy Mocha	2	Lowland heathland		Rare	Decreasing
Idaea sylvestraria	Dotted Border Wave	3	Lowland heathland		Scarce	Stable
Conistra rubiginea	Dotted Chestnut	3	Broad-leaved mixed woodland		Occasional	Stable
Aporophyla australis	Feathered Brindle	3	Lowland calcareous grasslands		Common	Increasing
Apoda limacodes	Festoon	2	Broad-leaved mixed woodland		Common	Stable
Adscita statices	Forester	2	Lowland meadows	Lowland dry acid grassland	Rare	Decreasing
Tyta luctuosa	Four-spotted	2	Lowland meadows		Believed extinct	
Cossus cossus	Goat Moth	2	Wet woodland		Rare	Decreasing
Pempelia genistella	Gorse Knot-horn	3	Lowland calcareous grassland	Lowland heathland	Rare	Not known
Lasiocampa trifolii	Grass Eggar	3	Lowland heathland	Coastal sand dunes	Believed extinct	
Pachycnemia hippocastanaria	Horse Chestnut	3	Lowland heathland		Scarce	Stable
Idaea humiliata	Isle of Wight Wave	3	Lowland calcareous grassland		Believed extinct	
Meganola albula	Kent Black Arches	3	Broad-leaved mixed woodland		Common	Stable
Mythimna l-album l-album	Wainscot	3	Maritime cliffs & slopes		Common	Increasing
Eupithecia plumbeolata	Lead-coloured Pug	3	Broad-leaved mixed woodland	Ancient and/or spp rich hedgerows	Rare	Decreasing
Agrotis cinerea	Light Feathered Rustic	2	Lowland calcareous grasslands		Occasional	Stable
Archiearis notha	Light Orange Underwing	3	Broad-leaved mixed woodland		Scarce	Stable
Cepphis advenaria	Little Thorn	3	Broad-leaved mixed woodland		Common	Increasing
Synaphe punctalis	Long-legged Tabby	3	Coastal vegetated shingle	Coastal sand dunes	Rare	Not known
Dolicharthria punctalis	Long-legged China-mark	3	Lowland calcareous grassland	Coastal vegetated shingle	Scarce	Not known
Mecyna asinalis	Madder Pearl Pyralid	3	Maritime cliffs & slopes		Occasional	Not known
Hypenodes humidalis	Marsh Oblique-barred	3	Lowland heathland		Rare	Decreasing
Mythimna favicolor	Mathew's Wainscot	2	Saltmarsh		Occasional	Decreasing
Cyclophora annulata	Mocha	3	Broad-leaved mixed woodland		Common	Stable
Hemaris tityus	Narrow-bordered Bee Hawk	2	Lowland meadows	Lowland calcareous grassland	Believed extinct	
Nephopteryx angustella	Narrow-winged Knot-horn	3	Boundary and linear features	Lowland calcareous grassland	Rare	Not known
Phibalapteryx virgata	Oblique Striped	3	Coastal sand dunes		Rare	Decreasing
Eilema sororcula	Orange Footman	2	Broad-leaved mixed woodland		Common	Increasing
Jodia croceago	Orange Upperwing	2	Broad-leaved mixed woodland		Believed extinct	
Polia bombycina	Pale Shining Brown	2	Lowland calcareous grassland		Believed extinct	
Eupithecia pimpinellata	Pimpinel Pug	3	Lowland calcareous grassland		Rare	Decreasing
Atolmis rubricollis	Red-necked Footman	3	Broad-leaved mixed woodland		Occasional	Stable
Acosmetia caliginosa	Reddish Buff	2	Lowland meadows		Rare	Stable
Simyra albovenosa	Reed Dagger	3	Reedbeds		Rare	Decreasing
Elaphria venustula	Rosy Marbled	3	Broad-leaved mixed woodland		Rare	Increasing
Scopula emutaria	Rosy Wave	3	Saltmarsh		Rare	Stable
Catarhoe rubidata	Ruddy Carpet	3	Maritime cliffs & slopes	Ancient and/or spp rich hedgerows	Occasional	Stable
Synanthedon flaviventris	Sallow Clearwing	3	Broad-leaved mixed woodland	Lowland heathland	Rare	Decreasing
Agrotis ripae	Sand Dart	3	Coastal sand dunes		Scarce	Not known

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Mythimna litoralis	Shore Wainscot	3	Coastal sand dunes		Occasional	Not known
Chilodes maritimus	Silky Wainscot	3	Reedbeds		Common	Stable
Bembecia scopigera	Six-belted Clearwing	3	Maritime cliffs & slopes	Lowland calcareous grassland	Rare	Decreasing
Aleucis distinctata	Sloe Carpet	3	Mosaic		Rare	Decreasing
Chlorissa viridata	Small Grass Emerald	3	Lowland heathland		Rare	Decreasing
Meganola strigula	Small Black Arches	2	Broad-leaved mixed woodland		Common	Stable
Euxoa obelisca grisea	Square-spot Dart	3	Maritime cliffs & slopes		Common	Stable
Cucullia asteris	Star-wort	2	Saltmarsh	Broad-leaved mixed woodland	Believed extinct	
Cynaeda dentalis	Starry Brindled Pearl	3	Mosaic		Rare	Not known
Eudonia lineola	Striped Grey	3	Boundary and linear features	Maritime cliffs & slopes	Rare	Not known
Eupithecia distinctaria	Thyme Pug	3	Lowland calcareous grassland		Rare	Decreasing
Microstega hyalinis	Translucent Straw Belle	3	Lowland calcareous grassland	Mixed woodland	Rare	Not known
Eupithecia valerianata	Valerian Pug	3	Lowland meadows		Believed extinct	
Parascotia fuliginaria	Waved Black	3	Broad-leaved mixed woodland	Lowland heathland	Rare	Not known
Archanara sparganii	Webb's Wainscot	1	Fens	Eutrophic standing waters	Occasional	Stable
Schrankia taenialis	White-line Snout	2	Broad-leaved mixed woodland	Lowland heathland	Common	Increasing
Cosmia diffinis	White-spotted Pinion	2	Ancient and/or spp rich hedgerows		Believed extinct	
Cucullia absinthii	Wormwood	3	Maritime cliffs & slopes		Rare	Not known
Eupithecia millefoliata	Yarrow Pug	3	Coastal sand dunes		Common	Increasing
Synanthedon vespiformis	Yellow-legged Clearwing	3	Broad-leaved mixed woodland		Rare	Stable
SEA ANEMONE GROUP						
Actinia fragacea	Strawberry Beadlet Anemone	3	Littoral rock		Common	Not known
Anthopleura balli	Anemone	3	Littoral rock		Rare	Not known
Aiptasia mutabilis	Anemone	2	Inshore rock		Rare	Not known
Aureliana heterocera	Anemone	3	Inshore rock		Rare	Not known
Isozoanthus sulcatus	Anemone	3	Inshore rock	Inshore sediment	Rare	Not known
Nematostella vectensis	Starlet Sea Anemone	1	Saline lagoons		Scarce	Stable
SEA MATS						
Amathia pruvoti	Bryozoan	3	Littoral rock		Rare	Not known
Epistomia bursaria	Bryozoan	3	Littoral rock		Not known	Not known
Pentapora foliaceae	Rose Coral	3	Inshore rock		Occasional	Not known
SPONGES						
Dercitus bucklandia	A sponge	3	Inshore rock		Not known	Not known
Stellata grubiia	A sponge	3	Inshore rock		Not known	Not known
Stelligera stuposa	A sponge	3	Inshore rock		Not known	Not known
Suberites massa	A sponge	3	Inshore sediment		Rare	Not known
SPIDER GROUP						
Aceria schmardai	An eriophid mite	3	Lowland calcareous grasslands		Rare	Not known
Argiope bruennichi	Wasp Spider	3	Lowland meadows	Lowland dry acid grassland	Occasional	Stable
Aulonia albimana	A wolf spider	2	Lowland meadows		Rare	Not known
Episinus maculipes	A spider	2	Broad-leaved mixed woodland		Scarce	Not known
Eriophyes ilicis	An eriophid mite	3	Broad-leaved mixed woodland		Rare	Increasing
Pardosa paludicola	A wolf spider	2	Lowland meadows	Broad-leaved mixed woodland	Rare	Not known
TRUE BUGS						
Aphrodes aestuarinus	A leafhopper	3	Saltmarsh		Rare	Not known
Aphrophora alpina	A froghopper	3	Lowland heathland	Broad-leaved mixed woodland	Rare	Not known
Macrosteles fieberi	A leafhopper	3	Saltmarsh	Fen, marsh and swamp	Rare	Not known
Megalonotus dilatatus	A ground bug	3	Broad-leaved mixed woodland	Lowland dry acid grassland	Rare	Not known
Microvelia pygmaea	A semi-aquatic bug	3	Eutrophic standing waters	Fen, marsh and swamp	Rare	Not known
Oliarus leporinus	A froghopper	3	Saltmarsh		Rare	Not known
Paralimnus phragmitis	A leafhopper	3	Saltmarsh	Fen, marsh and swamp	Rare	Not known
Psammotettix albomarginatus	A leafhopper	3	Lowland dry acid grassland		Rare	Not known
Saldula arenicola	A shorebug	3	Maritime cliffs & slopes		Scarce	Not known

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Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
Sehirus dubius	A shield bug	3	Lowland calcareous grassland		Rare	Not known
Tettigometra impressopunctata	A froghopper	3	Lowland calcareous grassland		Rare	Not known
Trichochermes walkeri	A jumping plant louse	3	Boundary and linear features		Rare	Not known
Trigonotylus psammaecolor	A mirid bug	3	Coastal sand dunes		Rare	Not known
Tuponia carayoni	A capsid bug	3	Coastal sand dunes		Scarce	Not known
TUNICATES						
Mogula oculata	A tunicate	3	Inshore rock		Rare	Not known
WORMS						
Alkmaria romijni	A tentacled worm	2	Saline lagoons		Rare	Stable
Maxmulleria lankesteri	A spoon worm	3	Inshore sediment		Not known	Not known
ALGAE						
Gracilaria bursa pastoris	Red alga	3	Littoral rock		Occasional	Not known
Grateloupia filicina var luxurians	Red alga	3	Littoral rock		Occasional	Not known
Himanthalia elongata	Thong weed	3	Littoral rock		Rare	Not known
Laminaria ochroleuca	Brown kelp	3	Inshore rock		Rare	Not known
Lamprothamnium papulosum	Foxtail Stonewort	1	Saline lagoons		Rare	Not known
Padina pavonia	Peacock's Tail	3	Littoral rock		Scarce	Not known
Zanadinia prototypus	Brown alga	3	Inshore rock		Rare	Not known
FUNGI						
Amanita ovoidea		3	Broad-leaved mixed woodland		Rare	Stable
Amanita echinocephala		3	Broad-leaved mixed woodland		Rare	Not known
Boletus satanus	Satan's Bolete	1	Broad-leaved mixed woodland	Coniferous woodland	Believed extinct	
Cantharellus cinereus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Collybia acervata		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Collybia proxila		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius varius		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius subtortus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius multiformis		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius crassus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius violaceus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Cortinarius balteocumatilis		3	Broad-leaved mixed woodland		Rare	Not known
Creolophus cirrhatus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Entoloma nitidum		3	Lowland dry acid grassland		Rare	Not known
Hygrocybe calyptraeformis	Pink Waxcap	3	Lowland meadows		Rare	Not known
Lactarius mairei		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Lepiota ignivolvata		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Leucoagaricus badhamii		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Leucoagaricus marriagei		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Leucoagaricus georginae		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Limacella glioderma		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Melanophyllum eyrei		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Mycena seynii		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Pseudocraterellus sinosus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Ramaria broomei		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Ramariopsis crocea		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Rozites caperatus		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Russula decipiens		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Russula azurea		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Russula lilacea		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Russula persicina		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Sparassis laminosa		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Suillus fluryi		3	Broad-leaved mixed woodland		Rare	Not known
Tricholoma pessundatum		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Tricholoma atrosquamosum		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known

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Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
Xerocomus leonis		3	Boundary and linear features	Broad mixed woodland	Rare	Not known
Plectania melastoma		3	Broad-leaved mixed woodland	Coniferous woodland	Rare	Not known
Sowerbyella radiculata		3	Broad-leaved mixed woodland		Rare	Not known
LICHENS						
Anaptychia runciata	A lichen	3	Maritime cliffs & slopes		Rare	Decreasing
Anaptychia ciliaris	A lichen	3	Wood pasture & parkland	Ancient and/or spp rich hedgerows	Rare	Decreasing
Bacidia incompta	A lichen	2	Boundary and linear features		Believed extinct	
Crtyptolechia carneolutea	A lichen	3	Broad-leaved mixed woodland		Rare	Decreasing
Fulgensia fulgens	"Scrambled-egg lichen"	2	Lowland calcareous grassland	Maritime cliffs & slopes	Scarce	Stable
Lobaria pulmonaria	"Lungwort"	3	Broad-leaved mixed woodland		Rare	Decreasing
Physcia tribacioides	Southern Grey Physcia	2	Boundary and linear features		Believed extinct	
Rocella phycopsis	A lichen	3	Built-up areas & gardens	Wood pasture & parkland	Scarce	Stable
Usnea articulata	A lichen	3	Broad-leaved mixed woodland	Ancient and/or spp rich hedgerows	Scarce	Decreasing
Wadeana dendrographa	A lichen	3	Broad-leaved mixed woodland		Rare	Stable
LIVERWORTS						
Anthoceros agrestis		3	Lowland meadows	Arable & horticultural	Rare	Decreasing
Blasia pusilla		3	Maritime cliffs & slopes		Rare	Stable
Cephalozia macrostachya		3	Fens		Rare	Decreasing
Cephaloziella baumgartneri		3	Maritime cliffs & slopes		Rare	Stable
Cephaloziella stellulifera		3	Lowland dry acid grassland	Lowland calcareous grassland	Rare	Decreasing
Cephaloziella hampeana		3	Lowland heathland	Lowland meadows	Believed extinct	
Cephaloziella turneri		3	Lowland dry acid grassland	Lowland calcareous grassland	Rare	Not known
Cladopodiella fluitans		3	Fens		Believed extinct	
Cololejeunea minutissima		3	Broad-leaved mixed woodland		Common	Stable
Cololejeunea rossettiana		3	Maritime cliffs & slopes		Rare	Not known
Lophocolea fragrans		3	Broad-leaved mixed woodland		Rare	Stable
Lophozia bicrenata		3	Lowland heathland	Built-up areas and gardens	Believed extinct	
Marchesina mackaii		3	Maritime cliffs & slopes	Broad-leaved mixed woodland	Believed extinct	
Mylia anomala		3	Fens	Lowland heathland	Rare	Decreasing
Pallavicinia lyellii	Veilwort	2	Fens	Wet woodland	Rare	Decreasing
Phaeoceros laevis		3	Maritime cliffs & slopes		Rare	Stable
Porella obtusata		3	Lowland calcareous grassland	Maritime cliffs & slopes	Rare	Not known
Porella arboris-vitae		3	Lowland calcareous grassland	Broad-leaved mixed woodland	Scarce	Decreasing
Ptilidium pulcherrimum		3	Broad-leaved mixed woodland	Wood pasture & parkland	Rare	Not known
Reboulia hemisphaerica		3	Maritime cliffs & slopes		Believed extinct	
Riccardia latifrons		3	Fen, marsh and swamp		Rare	Not known
Riccia fluitans		3	Eutrophic standing waters		Rare	Decreasing
Riccia glauca		3	Arable & horticultural		Scarce	Decreasing
Riccia sorocarpa		3	Arable & horticultural		Scarce	
Scapania undulata		3	Broad-leaved mixed woodland		Rare	Not known
Scapania nemorea		3	Broad-leaved mixed woodland	Lowland heathland	Rare	Not known
Scapania aspersa		3	Lowland calcareous grassland	Maritime cliffs & slopes	Believed extinct	
Southbya nigrella	Blackwort	2	Maritime cliffs & slopes		Rare	Not known
MOSSES						
Acaulon triquetrum	Triangular Pygmy Moss	2	Lowland calcareous grasslands	Maritime cliffs & slopes	Believed extinct	
Bryum bornholmense		3	Maritime cliffs & slopes		Rare	Not known
Bryum torquescens		3	Lowland calcareous grassland	Boundary and linear features	Rare	Decreasing
Bryum canariense		3	Maritime cliffs & slopes		Rare	Not known
Bryum ruderale		3	Arable & horticultural	Boundary and linear features	Rare	Not known
Bryum intermedia		3	Maritime cliffs & slopes	Built-up areas and gardens	Rare	Not known
Bryum dunense		3	Built-up areas & gardens		Rare	Decreasing
Campylopus pyriformis v azorica		3	Fen, marsh and swamp		Scarce	Not known
Chenia rhixophylla		3	Arable & horticultural		Rare	Not known
Cinclidotus fontinaloides		3	Rivers & streams		Rare	Stable
Conardia compactum		3	Inland rock		Believed extinct	
Drepanocladus aduncus		3	Eutrophic standing waters		Rare	Not known
Ephemerum serratum v. minutissimum		3	Arable & horticultural	Broad-leaved mixed woodland	Rare	Not known

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Eurhynchium schleicheri		3	Broad-leaved mixed woodland	Boundary and linear features	Believed extinct	
Hertzogiella seligeri		3	Broad-leaved mixed woodland		Rare	Not known
Hylocomium splendens		3	Lowland heathland	Maritime cliffs & slopes	Rare	Decreasing
Hypnum lindbergii		3	Broad-leaved mixed woodland		Rare	Not known
Leptobarbula berica		3	Built-up areas & gardens		Scarce	Not known
Leptodon smithii		3	Built-up areas & gardens		Common	Decreasing
Leptodontium gammascens		3	Built-up areas & gardens		Believed extinct	
Leucodon sciuroides		3	Broad-leaved mixed woodland	Inland rock	Rare	Decreasing
Microbryum rectum		3	Lowland calcareous grassland		Scarce	Not known
Microbryum davillianum		3	Arable & horticultural		Rare	Decreasing
Microbryum floerkeanum		3	Lowland calcareous grassland	Arable & horticultural	Scarce	Not known
Microbryum curvicolle		3	Lowland calcareous grassland		Scarce	Decreasing
Mnium stellare		3	Maritime cliffs & slopes		Rare	Stable
Orthotrichum tenellum		3	Broad-leaved mixed woodland		Rare	Not known
Orthotrichum striatum		3	Broad-leaved mixed woodland		Rare	Not known
Philonotis marchica		2	Maritime cliffs & slopes		Rare	Stable
Plagiothecium ruthei		3	Fen, marsh and swamp	Wet woodland	Rare	Decreasing
Pleurozium schreberi		3	Lowland heathland		Rare	Decreasing
Pohlia lutescens		3	Boundary and linear features	Rivers & streams	Rare	Not known
Pohlia camptotrachel		3	Fens		Rare	Not known
Pohlia lescuriana		3	Broad-leaved mixed woodland		Rare	Not known
Pterogonium gracile		3	Broad-leaved mixed woodland	Inland rock	Rare	Not known
Rhynchostegiella curviseta		3	Rivers & streams		Scarce	Not known
Scorpiurium circinatum		3	Inland rock		Common	Stable
Seligeria calcarea		3	Lowland calcareous grassland		Scarce	Not known
Syntrichia latifolia		3	Built-up areas & gardens		Rare	Not known
Syntrichia papillosa		3	Built-up areas & gardens		Rare	Not known
Tortula viridifolia		3	Maritime cliffs & slopes		Rare	Decreasing
Trichostomopsis umbrosa		3	Built-up areas & gardens		Rare	Decreasing
Zygodon virdissimus v stirtonii		3	Inland rock		Rare	Not known
FERNS						
Equisetum sylvaticum	Wood Horsetail	3	Wet woodland	Fen, marsh and swamp	Rare	Not known
Osmunda regalis	Royal Fern	3	Lowland heathland	Maritime cliffs & slopes	Rare	Decreasing
Adiantum capillus-veneris	Maidenhair Fern	3	Built-up areas & gardens		Rare	Not known
Dryopteris carthusiana	Narrow Buckler-fern	3	Wet woodland		Scarce	Not known
Asplenium marinum	Sea Spleenwort	3	Maritime cliffs & slopes		Rare	Stable
Thelypteris palustris	Marsh Fern	3	Fen, marsh and swamp	Wet woodland	Rare	Decreasing
Oreopteris limbosperma	Lemon-scented Fern	3	Lowland meadows	Wet woodland	Rare	Not known
FLOWERING PLANTS						
Juniperus communis	Juniper	3	Lowland calcareous grassland		Rare	Not known
*Nuphar lutea**	Yellow Water-lily	3	Eutrophic standing waters		Rare	Not known
Helleborus viridis	Green Hellebore	3	Broad-leaved mixed woodland		Rare	Decreasing
Ranunculus arvensis	Corn Buttercup	2	Arable & horticultural		Rare	Decreasing
Ranunculus trichophyllus	Thread-leaved Water-crowfoot	3	Eutrophic standing waters		Rare	Not known
Ranunculus lingua	Greater Spearwort	3	Fens	Reedbeds	Rare	Decreasing
Papaver hybridum	Rough Poppy	3	Arable & horticultural		Rare	Not known
Papaver argemone	Prickly Poppy	3	Arable & horticultural		Rare	Not known
Fumaria bastardii	Tall Ramping-fumitory	3	Arable & horticultural		Rare	Not known
Fumaria vaillantii	Few-flowered Fumitory	3	Arable & horticultural		Rare	Not known
Fumaria purpurea	Purple Ramping-fumitory	2	Arable & horticultural		Rare	Not known
Fumaria reuteri	Martin's Ramping-fumitory	2	Arable & horticultural		Rare	Stable
Myrica gale	Bog Myrtle	3	Rivers & streams		Rare	Decreasing
Chenopodium urbicum	Upright Goosefoot	3	Arable & horticultural		Scarce	Not known
Salicornia pusilla	One-flowered Glasswort	3	Saltmarsh		Scarce	Not known
Chenopodium glaucum	Oak-leaved Goosefoot	3	Arable & horticultural		Scarce	Not known

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Salsola kali	Prickly Saltwort	3	Coastal vegetated shingle		Rare	Not known
Sarcocornia perennis	Perennial Glasswort	3	Saltmarsh		Common	Stable
Silene nutans	Nottingham Catchfly	3	Maritime cliffs & slopes		Rare	Stable
Cerastium pumilum	Dwarf Mouse-ear	3	Lowland calcareous grassland		Occasional	Not known
Silene noctiflora	Night-flowered Catchfly	3	Arable & horticultural		Rare	Decreasing
Silene gallica	Small-flowered Catchfly	2	Arable & horticultural		Rare	Decreasing
Dianthus deltoides	Maiden Pink	3	Coastal sand dunes		Rare	Not known
Moenchia erecta	Upright Chickweed	3	Coastal sand dunes	Lowland dry acid grassland	Rare	Decreasing
Silene uniflora	Sea Campion	3	Maritime cliffs & slopes	Coastal sand dunes	Scarce	Stable
Stellaria neglecta	Greater Chickweed	3	Boundary and linear features	Broad-leaved mixed woodland	Scarce	Not known
Scleranthus annuus	Annual Knawel	3	Lowland dry acid grassland	Arable & horticultural	Rare	Decreasing
Sagina subulata	Heath Pearlwort	3	Lowland heathland		Rare	Stable
Polygonum maritimum	Sea Knotgrass	2	Coastal vegetated shingle		Rare	Not known
Rumex hydrolapathum	Water Dock	3	Eutrophic standing waters	Fen, marsh and swamp	Scarce	Not known
Fallopia dumetorum	Copse Bindweed	3	Broad-leaved mixed woodland		Believed extinct	
Polygonum oxyspermum	Ray's Knotgrass	3	Coastal vegetated shingle		Rare	Notknown
Limonium humile	Lax-flowered Sea Lavender	3	Saltmarsh		Scarce	Not known
Tilia cordata	Small-leaved Lime	3	Broad-leaved mixed woodland		Rare	Stable
Althaea officinalis	Marsh Mallow	3	Saltmarsh		Occasional	Stable
Drosera rotundifolia	Common Sundew	3	Fens		Rare	Decreasing
Viola palustris	Marsh Violet	3	Fen, marsh and swamp	Wet woodland	Scarce	Decreasing
Viola canina	Heath Dog Violet	3	Lowland dry acid grassland		Rare	Not known
Viola lactea	Pale Dog Violet	3	Lowland dry acid grassland		Rare	Not known
Frankenia laevis	Sea-heath	3	Saltmarsh	Coastal vegetated shingle	Rare	Not known
Populus nigra ssp betulifolia	Black Poplar (native)	3	Maritime cliffs & slopes		Rare	Decreasing
Salix repens	Creeping Willow	3	Fen, marsh and swamp	Maritime cliffs & slopes	Rare	Decreasing
Crambe maritima	Sea Kale	3	Coastal vegetated shingle		Scarce	Not known
Lepidium ruderale	Narrow-leaved Pepperwort	3	Built-up areas & gardens		Rare	Not known
Arabis hirsuta	Hairy Rockcress	3	Lowland calcareous grassland		Rare	Not known
*Lepidium heterophyllum**	Smith's Pepperwort	3	Built-up areas & gardens		Rare	Not known
Rorippa sylvestris	Creeping Yellowcress	3	Arable & horticultural		Rare	Not known
Brassica oleracea	Wild Cabbage	3	Lowland calcareous grassland	Maritime cliffs & slopes	Rare	Not known
*Barbarea verna **	American Wintercress	3	Built-up areas & gardens	Boundary and linear features	Rare	Not known
Cochearia officinalis	Common Scurvy-grass	3	Maritime cliffs & slopes		Rare	Stable
*Lobularia maritima**	Sweet Alison	3	Maritime cliffs & slopes		Rare	Stable
*Impatiens capensis**	Orange Balsam	3	Maritime cliffs & slopes		Rare	Not known
Oenanthe fistulosa	Tubular Water Dropwort	3	Grazing marsh	Rivers & streams	Rare	Not known
Anthriscus caucalis	Bur Chervil	3	Coastal sand dunes		Rare	Increasing
Oenanthe silaifolia	Narrow-leaved Water Dropwort	3	Lowland meadows		Believed extinct	
Bupleurum tenuissimum	Slender Hare's-ear	3	Saltmarsh		Scarce	Not known
Eryngium maritimum	Sea Holly	3	Coastal sand dunes		Rare	Decreasing
Berula erecta	Lesser Water-parsnip	3	Fens	Maritime cliffs & slopes	Rare	Not known
Torilis arvensis	Spreading Hedge Parsley	3	Arable & horticultural		Rare	Not known
Scandix pecten-veneris	Shepherd's Needle	2	Arable & horticultural		Believed extinct	
Centaurium tenuiflorum	Slender Centaury	2	Maritime cliffs & slopes		Believed extinct	
Gentianella anglica	Early Gentian	1	Lowland calcareous grassland		Occasional	Stable
Hyoscyamus niger	Henbane	3	Coastal sand dunes	Coastal vegetated shingle	Rare	Not known
Atropa belladona	Deadly Nightshade	3	Broad-leaved mixed woodland		Rare	Not known
Calystegia soldanella	Sea Bindweed	3	Coastal sand dunes		Rare	Increasing
Menyanthes trifoliata	Bogbean	3	Fens	Fen, marsh and swamp	Scarce	Decreasing
Pulmonaria longifolia	Narrow-leaved Lungwort	3	Broad-leaved mixed woodland		Scarce	Not known
Myosotis secunda	Creeping Forget-me-not	3	Rivers & streams		Rare	Not known
Marrubium vulgare	White Horehound	3	Maritime cliffs & slopes		Rare	Stable
Thymus pulegioides	Large Thyme	3	Lowland heathland		Believed extinct	
Galeopsis angustifolia	Red Hemp-nettle	2	Arable & horticultural		Believed extinct	
Clinopodium acinos	Basil Thyme	3	Lowland calcareous grassland		Rare	Not known
Clinopodium menthifolium	Wood Calamint	2	Broad-leaved mixed woodland		Rare	Stable

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Hippuris vulgaris	Marestail	3	Eutrophic standing waters		Rare	Decreasing
Callitriche obtusangula	Blunt-fruited Water Starwort	3	Eutrophic standing waters		Scarce	Not known
Callitriche platycarpa	Various-leaved Water Starwort	3	Eutrophic standing waters		Scarce	Not known
Callitriche hamulata	Intermediate Water Starwort	3	Eutrophic standing waters		Scarce	Not known
Misopates orontium	Lesser Snapdragon	3	Arable & horticultural		Scarce	Decreasing
Parentucellia viscosa	Yellow Bartsia	3	Lowland meadows	Maritime cliffs & slopes	Rare	Decreasing
Veronica agrestis	Green Field Speedwell	3	Arable & horticultural		Rare	Not known
Verbascum nigrum	Dark Mullein	3	Boundary and linear features		Rare	Not known
Pedicularis sylvatica	Lousewort	3	Lowland meadows	Fen, marsh and swamp	Scarce	Not known
Melampyrum arvense	Field Cow-wheat	2	Lowland calcareous grassland	Arable & horticultural	Rare	Stable
Veronica scutellata	Marsh Speedwell	3	Fens		Believed extinct	
Orobanche purpurea	Yarrow Broomrape	3	Lowland dry acid grassland	Lowland calcareous grassland	Scarce	Not known
Orobanche artemisiae-campestris	Oxtongue Broomrape	2	Maritime cliffs & slopes		Rare	Not known
Orobanche hederae	Ivy Broomrape	3	Broad-leaved mixed woodland	Maritime cliffs & slopes	Common	Increasing
Orobanche rapum-genistae	Greater Broomrape	2	Lowland dry acid grassland		Rare	Not known
Utricularia australis	A Bladderwort	3	Eutrophic standing waters		Believed extinct	
Pinguicula lusitanica	Pale Butterwort	3	Fens		Rare	Not known
Jasione montana	Sheepsbit Scabious	3	Maritime cliffs & slopes	Lowland dry acid grassland	Rare	Not known
Sambucus ebulus	Dwarf Elder	3	Boundary and linear features		Rare	Not known
Valerianella eriocarpa	Hairy-fruited Cornsalad	3	Maritime cliffs & slopes		Rare	Not known
Valerianella rimosa	Broad-fruited Corn Salad	2	Arable & horticultural		Rare	Decreasing
Valerianella dentata	Narrow-fruited Corn Salad	2	Arable & horticultural		Rare	Not known
Valeriana dioica	Marsh Valerian	3	Fen, marsh and swamp	Lowland meadows	Rare	Not known
Senecio viscosus	Sticky Groundsel	3	Built-up areas & gardens		Rare	Not known
Cirsium dissectum	Meadow Thistle	3	Lowland meadows	Fens	Rare	Decreasing
Chamaemelum nobile	Chamomile	2	Lowland dry acid grassland		Rare	Stable
Pilosella peleteriana	A Hawkweed	3	Maritime cliffs & slopes		Rare	Not known
Lactuca virosa	Great Lettuce	3	Coastal vegetated shingle	Built-up areas and gardens	Rare	Not known
Tephroseris integrifolia	Field Fleawort	3	Lowland calcareous grassland		Believed extinct	
Artemisia absinthium	Wormwood	3	Maritime cliffs & slopes		Rare	Not known
Achillea ptarmica	Sneezewort	3	Lowland dry acid grassland	Lowland meadows	Scarce	Decreasing
Erigeron acer	Blue Fleabane	3	Lowland calcareous grassland	Lowland dry acid grassland	Rare	Decreasing
Anthemis arvensis	Corn Chamomile	3	Arable & horticultural		Rare	Not known
Hypochaeris glabra	Smooth Catsear	2	Coastal sand dunes		Rare	Not known
Filago pyramidata	Broad-leaved Cudweed	2	Arable & horticultural		Believed extinct	
Filago vulgaris	Common Cudweed	3	Arable & horticultural	Lowland heathland	Rare	Not known
Inula crithmoides	Golden Samphire	3	Saltmarsh	Coastal vegetated shingle	Scarce	Not known
Seriphidium maritimum	Sea Wormwood	3	Saltmarsh		Rare	Not known
Centaurea cyanus	Cornflower	2	Arable & horticultural		Rare	Not known
Filago minima	Small Cudweed	3	Lowland heathland	Lowland dry acid grassland	Rare	Increasing
Silybum marianum	Milk Thistle	3	Arable & horticultural	Lowland calcareous grassland	Rare	Not known
*Butomus umbellatus**	Flowering Rush	3	Fen, marsh and swamp		Rare	Decreasing
Baldellia ranunculoides	Lesser Water-plantain	3	Fen, marsh and swamp		Rare	Not known
Stratiotes aloides	Water Soldier	3	Eutrophic standing waters		Rare	Decreasing
Triglochin palustre	Marsh Arrowgrass	3	Lowland meadows	Fen, marsh and swamp	Scarce	Decreasing
Groenlandia densa	Opposite-leaved Pondweed	3	Rivers & streams	Chalk rivers	Rare	Not known
Potamogeton polygonifolius	Bog Pondweed	3	Eutrophic standing waters	Fen, marsh and swamp	Scarce	Not known
Ruppia cirrhosa	Spiral Tasselweed	3	Saline lagoons		Rare	Not known
Zostera noltii	Dwarf Eel-grass	3	Seagrass beds		Occasional	Not known
Zostera angustifolia	Narrow-leaved Eel-grass	3	Seagrass beds		Occasional	Not known
Zostera marina	Eel-grass	3	Seagrass beds		Occasional	Not known
Arum italicum ssp. neglectum	Italian Lords and Ladies	3	Broad-leaved mixed woodland		Occasional	Stable

1= National BAP Priority Species 2=National BAP Long List Species 3=Isle of Wight BAP Species

Latin name	English name	BAP status	Primary habitat	Subsidiary habitat	Local abundance	Local population trend
Lemna gibba	Fat Duckweed	3	Eutrophic standing waters		Rare	Decreasing
Spirodela polyrhiza	Greater Duckweed	3	Eutrophic standing waters		Rare	Decreasing
Juncus subnodulosus	Blunt-flowered Rush	3	Fens	Maritime cliffs & slopes	Rare	Not known
Juncus squarrosus	Heath Rush	3	Lowland heathland	Fen, marsh and swamp	Rare	Decreasing
Eleogiton fluitans	Floating Club-rush	3	Eutrophic standing waters		Believed extinct	
Carex divisa	Divided Sedge	3	Saltmarsh		Occasional	Not known
Isolepis cernua	Slender Club-rush	3	Maritime cliffs & slopes	Fen, marsh and swamp	Rare	Not known
Carex curta	White Sedge	3	Fens		Rare	Decreasing
Carex pseudocyperus	Cyperus sedge	3	Fens	Reedbeds	Rare	Not known
Eleocharis multicaulis	Many-stalked Spike-rush	3	Lowland heathland		Rare	Not known
Carex panicea	Carnation Sedge	3	Lowland meadows	Fens	Scarce	Decreasing
Eleocharis uniglumis	Slender Spike-rush	3	Fen, marsh and swamp	Eutrophic standing waters	Rare	Not known
Carex extensa	Long-bracted Sedge	3	Saltmarsh		Scarce	Not known
Eriophorum angustifolium	Common Cottongrass	3	Fens		Rare	Decreasing
Cyperus longus	Galingale	3	Fen, marsh and swamp	Eutrophic standing waters	Rare	Decreasing
Trichophorum cespitosum	Deergrass	3	Lowland heathland	Fen, marsh and swamp	Rare	Not known
Briza minor	Lesser Quaking-grass	3	Arable & horticultural		Rare	Not known
Festuca filiformis	Fine-leaved Sheep's Fescue	3	Lowland heathland	Lowland dry acid grassland	Rare	Not known
Alopecurus bulbosus	Bulbous Foxtail	3	Grazing marsh		Scarce	Not known
Puccinellia distans	Reflexed Saltmarsh-grass	3	Saltmarsh		Rare	Not known
Gastridium ventricosum	Nit-grass	3	Lowland calcareous grassland	Maritime cliffs & slopes	Rare	Not known
*Anisantha diandra**	Great Brome	3	Coastal sand dunes		Rare	Not known
Glyceria maxima	Reed Sweet-grass	3	Eutrophic standing waters		Rare	Not known
Poa infirma	Early Meadow-grass	3	Maritime cliffs & slopes	Built-up areas and gardens	Scarce	Increasing
Spartina maritima	Small Cord-grass	3	Saltmarsh		Rare	Stable
Poa bulbosa	Bulbous Meadow-grass	3	Coastal sand dunes	Maritime cliffs & slopes	Scarce	Increasing
Spartina x townsendii	Townsend's Cord-grass	3	Saltmarsh		Rare	Not known
Parapholis incurva	Curved Hard-grass	3	Saltmarsh	Maritime cliffs & slopes	Scarce	Not known
Vulpia fasciculata	Dune Fescue	3	Coastal sand dunes		Rare	Increasing
Vulpia ciliata ssp. ambigua	Bearded Fescue	3	Coastal sand dunes		Rare	Increasing
Phleum arenarium	Sand Cat's-tail	3	Coastal sand dunes		Rare	Not known
Nardus stricta	Mat-grass	3	Lowland dry acid grassland	Purple moorgrass & rush pasture	Rare	Not known
Elytrigia juncea	Sand Couch	3	Coastal sand dunes		Rare	Not known
Puccinellia rupestris	Stiff Saltmarsh-grass	3	Saltmarsh		Rare	Not known
Narthecium ossifragum	Bog Asphodel	3	Fens		Rare	Decreasing
Scilla autumnalis	Autumn Squill	3	Coastal Sand Dunes		Rare	Stable
Allium oleraceum	Field Garlic	3	Lowland calcareous grassland		Rare	Not known
*Crocus vernus**	Spring Crocus	3	Lowland meadows		Rare	Decreasing
Ophrys sphegodes	Early Spider Orchid	2	Lowland calcareous grassland		Rare	Decreasing
Cephalanthera damasonium	White Helleborine	3	Broad-leaved mixed woodland		Rare	Increasing
Gymnadenia conopsea ssp. densiflora	Marsh Fragrant Orchid	3	Maritime cliffs & slopes	Fen, marsh and swamp	Rare	Decreasing
Orchis ustulata	Burnt Orchid	2	Lowland calcareous grassland		Believed extinct	
Coeloglossum viride	Frog Orchid	3	Lowland calcareous grassland		Rare	Decreasing
Aceras anthropophorum	Man Orchid	3	Lowland calcareous grassland		Believed extinct	
Ophrys insectifera	Fly Orchid	3	Mosaic		Rare	Decreasing
Gymnadenia conopsea ssp. conopsea	Fragrant Orchid	3	Lowland calcareous grassland		Rare	Not known
Epipactis palustris	Marsh Helleborine	3	Lowland heathland	Maritime cliffs & slopes	Rare	Decreasing

Habitats in orange type are Priority Habitats in the UK Biodiversity Action Plan

THE WAY FORWARD: PROGRESSING THE BIODIVERSITY ACTION PLAN

At least 72 species are known to have become extinct on the Island in the last 50 years

This audit highlights the important contribution which the Isle of Wight makes to the biodiversity of South East England and to the UK. The Island retains an extraordinary richness despite its small size. Large areas of the coastline and offshore habitats are identified as being of international importance, and there are nationally significant extents of soft cliff and chalk grassland habitat. These and other habitats provide home for many species of national conservation concern. Additionally, there are many habitats and species of local importance.

Despite its richness, there are many threats facing the biodiversity of the Island, and it would be folly to be complacent. There are, for instance, at least 72 species which are considered to have become extinct locally within the last fifty years and many more species which are in decline. Most of these losses can be attributed to habitat change or loss. If these losses are not to continue we must reverse the trends. What is required is more than just protecting what is there; we must look towards restoring and re-creating habitats.

The Greater Horseshoe Bat has declined form two large breeding colonies to a single individual in the last 100 years

The audit and assessment is a significant milestone in the Biodiversity Action Plan process. It is important because it should provide an objective, factual and non-controversial basis from which to consider priorities and the development of local habitat and species action plans. It is hoped that it will promote involvement and enthuse the wider BAP partnership. The next important and difficult stage is to set local targets. These need to be realistic and measurable, so that the success of the BAP process can be assessed over the short, medium and long term. The ultimate success of the biodiversity process depends upon everyone's support in order to halt the decline in loss of habitats and species.

GLOSSARY OF ABBREVIATIONS AND TERMS

Agenda 21	Environmental action plan for the next century, endorsed at the Earth Summit.
Arachnids	A group of invertebrates including spiders and mites.
BAP (Biodiversity Action Plan)	The UK Government's plan for the protection and sustainable use of biodiversity, published in 1994. It represents a commitment to joint action nationwide through the securing and better use of resources. It provides the framework for the delivery of biodiversity locally through Local Biodiversity Action Plans.
Biodiversity	The variety of life on Earth or any given part of it.
Bryophyte	A major group of plants comprising mosses and liverworts.
Bryozoan	A group of mainly marine colonial animals including sea mats and moss-animals.
Carr	Woodland developed in waterlogged conditions generally dominated by willows and alder.
cSAC (Candidate Special Area of Conservation)	A site proposed by the UK Government under EC Directive 92/43 on the conservation of natural habitats and of wild fauna and flora
Cetaceans	Large mammals such as dolphins, porpoises and whales which live in the sea.
Cnidarians	Soft-bodied, flower-like aquatic creatures including sea anemones and jellyfish.
Coleoptera	A large group of insects comprising beetles.
Diplopoda	A group of invertebrates comprising millipedes.
Diptera	A large group of insects comprising the true flies.
EC Directive	A European Community legal instrument, binding on all Member States but leaving the methods of implementation to national Governments, and which must, therefore, generally be transposed into national legislation.
GIS (Geographic Information System)	A computer-based system used for mapping and analysis of sites and habitats.
HAP (Habitat Action Plan)	A document which describes the current status of a priority habitat, sets 10-15 year targets and objectives for its management, restoration and/or creation, and proposes the actions necessary to achieve them.
Habitat	A place in which a particular plant or animal lives. Often used in a wider sense, referring to major assemblages of plants and animals found together.
Habitats Directive	This requires Member States to take measures to maintain or restore natural habitats and wild species at a favourable conservation status in the Community, giving effect to both site and species conservation objectives.
Habitat Regulations	The Conservation (Natural Habitats etc.) Regulations 1994 make provision for the purposes of implementing the Habitats Directive.
Hymenoptera	A group of insects comprising ants, bees and wasps.
Lepidoptera	A group of insects comprising butterflies and moths.
LNR (Local Nature Reserve)	An area of land that is of species nature conservation interest locally. LNRs are declared and managed by local authorities under the National Parks and Access to the Countryside Act 1949.

MG5	A type of vegetation community characteristic of unimproved neutral grasslands.
NNR (National Nature Reserve)	An area of high nature conservation value, managed to provide opportunities for research or to preserve animals or plants and geological or physiographical features of special interest. NNRs are declared by English Nature under the National Parks and Access to the Countryside Act 1949 or the Wildlife and Countryside Act 1981.
Polychaetes	A group of segmented worms with bristles.
Priority Habitat	A habitat category targeted for action through a UK Habitat Action Plan. There are currently 47 priority habitats.
Ramsar site	A site designated as a wetland of international importance under the Ramsar Convention of Wetlands of International Importance, especially as waterfowl habitat.
SAP (Species Action Plan)	A 10 -15 year conservation plan for a species based upon knowledge of its ecological and other requirements, which identifies the actions needed to stabilise and improve its status.
Saproxylic	Communities of insects and other invertebrates dependent upon dead and decaying wood.
SINC (Site of Importance for Nature Conservation)	A non-statutory wildlife site, but recognised by Planning Authorities in Unitary Development Plans.
SPA (Special Protection Area)	A site designated under Article 4 of EC Directive 79/409 on the conservation of wild birds. Together SACs and SPAs form a network of European sites known as Natura 2000.
SSSI (Site of Special Scientific Interest)	An area of land notified under the Wildlife & Countryside Act 1981 as being of special nature conservation interests, as notified by English Nature.
Tunicates	Soft bodied marine creatures, generally referred to as sea squirts.
W25	A vegetation community dominated by bracken with brambles together with a field layer of bluebells.

BIBLIOGRAPHY

Bevis, J., Kettell, R. & Shepard, B.
1978. Flora of the Isle of Wight. Newport, Isle of Wight: Isle of Wight Natural History & Archaeological Society.

Brough, P., Gibbons, B. & Pope, C.
1986. The Nature of Hampshire & the Isle of Wight. Buckingham: Barracuda Books.

Chatters, C. 1985.
The Rangelands of the Isle of Wight. Unpublished report to the Isle of Wight Council.

Cheverton, J.M.
1989. Breeding Birds of the Isle of Wight. Newport, Isle of Wight: Isle of Wight Natural History & Archaeological Society.

English Nature
1993. Strategy for the 1990s - Natural Areas - setting nature conservation objectives. A consultation paper. Peterborough: English Nature.

English Nature
1998 Isle of Wight - Natural Area Profile. Peterborough: English Nature.

Fowler, S.L.
1995. Review of nature conservation features and information within the Solent & Isle of Wight Sensitive Marine Area. Report to the Solent Forum Strategic Guidance Subgroup.

Goater, B.
1974. The Butterflies & Moths of Hampshire and the Isle of Wight. Faringdon, Berks: E.W. Classey Ltd

Goater, B.
1992. The Butterflies and Moths of Hampshire and the Isle of Wight: additions and corrections. Peterborough: JNCC.

Preece, R.C.
1980. An Atlas of the Non-marine Mollusca of the Isle of Wight. Newport, Isle of Wight; Isle of Wight Council.

UK Biodiversity Group
1998-1999. Tranche 2 Action Plans Vols. I to V. Peterborough: English Nature.

UK Government
1994. Biodiversity The UK Action Plan. London: HMSO

UK Steering Group Report
1995 Biodiversity Vol.2: Action Plans. London: HMSO.

Various papers in Proceedings of Isle of Wight Natural History & Archaeological Society and IW Bird Reports

Wicks, D. & Cloughley, P. (Eds.)
1998. The Biodiversity of South East England: An Audit and Assessment. Hants & IW Wildlife Trust.

Wynne,G. et al
(1995). Biodiversity Challenge (2nd ed.) Sandy: RSPB

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