

# Guidelines for the selection of biological Areas of Special Scientific Interest (ASSIs) on the Isle of Man

**Volume 1:** Background, guiding principles and Priority Sites Criteria



**Isle of Man  
Government**

*Reiltys Ellan Vannin*

# Guidelines for the selection of biological Areas of Special Scientific Interest (ASSIs) on the Isle of Man

This document sets out the background, rationale, guiding principles and minimum criteria for the selection of Areas of Special Scientific Interest (ASSIs) on the Isle of Man. It is one of a series of documents intended to provide a sound scientific basis for the selection of legally protected areas on and around the Island.

The Wildlife Act 1990 provides the basis for the designation of ASSIs on the Isle of Man. Reasons for designation may include terrestrial, marine or geological importance of a site, or a combination of features. Please note that the criteria detailed in this document are for the selection of land-based ASSIs for biological reasons. These may include coastal and intertidal zones down to the astronomical low tide limit, but the selection of strictly Marine Nature Reserves is covered by a separate, companion document. Criteria for ASSIs selected primarily for their earth science importance (geological and physiographical features) will also be treated separately. An ASSI may contain a mix of features of importance from any or all of the above categories, which often occur in association. In such cases, more than one set of criteria may be applicable.

The purpose of the ASSI system is to safeguard a series of sites which are individually of high natural heritage importance and which collectively represent the diversity of habitats, species and geological and geomorphological features on the Isle of Man. The aim of the Criteria is to provide a logical and consistent basis for site selection, using recognised nature conservation principles. The Criteria also enable Manx sites to be placed in a wider context, so that internationally threatened and vulnerable biodiversity, for which the Island has a shared responsibility, can be taken into account.



Bee orchid *Ophrys apifera*, a protected species restricted to two sites on the Island

# Volume 1 – General guidelines

## Contents

Part 1: Background and rationale.....	3
1.1 Statutory wildlife protection on the Isle of Man.....	3
Table 1: summary of nature conservation site protection measures on the Isle of Man.....	4
1.2 Aims of the Manx biological ASSI system .....	4
1.3 The Manx context.....	5
1.4 ASSI designation - the reasons.....	7
1.5 ASSI designation - the process.....	8
1.6 Types of site selection criteria .....	9
Part 2: General principles.....	11
2.1 Naturalness and scientific importance .....	11
2.2 Dates of records and use of population data.....	11
2.3 Boundaries.....	11
2.4 Habitat assemblages.....	12
2.5 Fragmented sites .....	13
2.6 Significance of species.....	13
2.7 Marine species and habitats .....	13
2.8 Geological and physiographical sites .....	13
2.9 Monitoring .....	13
2.10 Revision of site status.....	14
Part 3: Priority Sites Criteria.....	15
3.1 Checklist of Priority Sites Criteria.....	15
3.2 Using the Priority Sites Criteria .....	17

Part 4: Detailed selection guidelines, and Part 5: Bibliography and references are contained within **Volume 2**.

# Part 1: Background and rationale

## 1.1 Statutory wildlife protection on the Isle of Man

The Wildlife Act 1990 enables habitats and species to be protected by law. Section 27 of the Act includes the following provision:

(1) *Where the Department, after consultation with the Wildlife Committee is of the opinion that any area of land is of special interest by reason of any of its flora, fauna, or geological or physiographical features, it may notify that fact to-*

- (a) the Department of Local Government and the Environment; and*
- (b) to every owner and occupier of any of that land.*

Such areas of land include Areas of Special Scientific Interest (ASSIs). The Wildlife Act 1990 also provides for the designation of Areas of Special Protection (e.g. for birds), Marine Nature Reserves, National Nature Reserves, and a range of specific measures designed to protect individual bird, animal and plant species. There are a range of other designations applicable to the Isle of Man, including locally important Wildlife Sites and internationally recognised Ramsar Sites. ASSIs therefore fit into a range of protective measures, based on the level of importance of the site as follows:

- **Undesignated areas.** The abundance of improved farmland habitats in the wider countryside, whilst important for some species, makes it usually the lowest priority for designation as a protected area. Likewise, semi-improved habitats along the coast and in the wider countryside which don't meet the criteria for designation as a Wildlife Site are unlikely to receive special protection on the grounds of nature conservation. However, these habitats may occasionally fall within areas under the protection of Manx National Heritage (see below), and are all protected to a certain extent by agricultural codes of practice and planning regulations. It should also be remembered that some important wildlife species, such as Chough, depend on productive farmland which is subject to ordinary farming practices. These species would not normally be protected through designating their habitat but by conservation management agreements (under Section 30 of the Wildlife Act 1990).
- **Wildlife Sites.** This is a non-statutory designation, used widely throughout the British Isles as a site protection system which is generally operated by local planning authorities and/or the Wildlife Trusts. On the Isle of Man, Wildlife Sites are a voluntary designation, selected using criteria designed by the Manx Wildlife Trust and agreed amongst relevant organisations;
- **Bird Sanctuaries.** Designated under the Protection of Birds Acts 1932 & 1955, and remain protected although this legislation has now been superseded by the Wildlife Act 1990;
- **Areas of Special Protection.** May be designated under Section 13 of the Wildlife Act 1990 in order to extend the provision of the Wildlife Act for certain species in certain areas, e.g. the Area of Special Protection for Birds at the Ayres Gravel Pit;
- **Areas of Special Scientific Interest (ASSIs).** Detailed in this document;
- **National Nature Reserves (NNRs).** Designated under Section 31 of the Wildlife Act 1990, may be on private or public land, and may be subject to protective byelaws. NNRs are likely to be of ASSI quality or higher, i.e. of national importance;
- **Marine Nature Reserves.** Designated under Section 32, are also of national importance for nature conservation, and may also be protected with byelaws;
- **Land in the ownership of the Manx National Trust** (administered as Manx National Heritage). This land is protected under the Manx Museum and National Trust Act (1959-1982), which provides for the protection of places 'of natural interest or beauty' and places of historic interest. This includes wildlife, historic buildings and also the landscape setting and physical features within it. Whilst land owned by Manx National Heritage

will not always be acquired on the basis of its wildlife alone (since cultural heritage and landscape setting may also be important factors), the fauna and flora of that land is protected by byelaws whether they are of local, Manx national, or international value.

- Similarly, some **Manx Wildlife Trust reserves** may meet the criteria for ASSI designation while other areas may meet Wildlife Site selection criteria;
- **Ramsar Sites** are internationally important wetland sites chosen according to criteria agreed by parties to the Ramsar Convention on Wetlands (1971). The Isle of Man is a signatory to this convention, and thus has an obligation to investigate potential Ramsar Sites on the Island. Such sites will be of ASSI or higher status;
- **Emerald Network** sites are internationally important wildlife areas comparable with the European Union’s Natura 2000 network. Sites consist of Areas of Special Conservation Interest designated under a recommendation of the Bern Convention (to which the Isle of Man is signatory). Thus, although not part of the EU and its Natura 2000 network (which includes Special Areas of Conservation in the UK), the Island may still designate internationally important sites at the same level. If designated, these sites are likely to include the most important ASSIs on the Island.

**Table 1: summary of nature conservation site protection measures on the Isle of Man**

Scale of priority for protection					
Greater priority		←————→			Lesser priority
Ramsar Sites	National Nature Reserves (NNRs)	Wildlife Sites	Habitats in farmland and wider countryside	Improved farmland	
Emerald Network Sites	Areas of Special Scientific Interest (ASSIs)				
	Marine Nature Reserves (MNRs)				
	Areas of Special Protection (ASPs)				
	Bird Sanctuaries				
Manx National Trust land – could apply to any of the above.					

## 1.2 Aims of the Manx biological ASSI system

-

## 1.3 The Manx context

### An Island-based approach

The Selection Criteria have been written to fulfil the needs of wildlife conservation in the context of the Isle of Man as a Crown Dependency, with its own Wildlife Act. Sites will be selected based on what is important for the Island as a nation rather than as if it were a county of the UK.

The reasons for an Island-based approach, rather than simply using the JNCC criteria for SSSIs in the UK, are:

- the need to retain areas of habitat and populations of species that are rare on the Island, even if they are commoner elsewhere, to maintain the biodiversity of the Island;
- the isolation of the Island, resulting in limited prospects for natural recolonisation from surrounding land masses if species are lost and become extinct here;
- because small populations are more vulnerable to extinction, therefore wider habitat protection may be needed in order to maintain a viable population;
- to ensure the protection of any species or habitats which show a distinctly Manx characteristic not found elsewhere.

The objective is to maximise the conservation of species biodiversity through protection of their habitats. Sites will therefore be considered on the basis of their Island-wide/national, British Isles or international/European importance. The aim is for the ASSI series to include at least one good example of each main semi-natural habitat type and assemblage. For very scarce and important habitats, such as saltmarsh, the majority of examples will require protection.

### The Island's origins and ecology

The Isle of Man was joined to Britain by a land bridge until around nine thousand years ago (Allen 1978). The melt water from the ice sheet led to the rise in sea levels which cut off the various British islands and separated them from the Continent. The present day native flora and much of the fauna are descended from the species that colonised after the retreat of the last ice sheet. During the last Ice Age the Island was covered by an ice sheet and no evidence of glacial refuges (small pockets of land not covered by ice) has been found. It became separated from the rest of the British Isles by the formation of the Irish Sea during the melting of the ice. Isolated islands which have been cut off for many thousands of years usually have endemic species. Although no Manx endemic species have been identified there are likely to be sub-species or genotypes specific to the Island.

Some species moving north with the warming climate would have reached the Island before others. The formation of the Irish Sea cut the Island off from further terrestrial invasion, but some animals would have arrived before then. Later immigrants would have arrived naturally by air or sea. Not all the Manx fauna have clear origins however: for example, one of the mysteries of migration and colonisation is how the lesser mottled grasshopper came to the Isle of Man and yet is found nowhere else in the British Isles.

The Isle of Man is much smaller than mainland Britain and we know, through the study of island biogeography, that the number of fauna species on an island is related to its size. Small islands also have a high turnover of species because small, isolated populations are prone to extinction, both from strong climatic events and man-induced changes.

Island biodiversity is normally lower than that of the adjacent larger landmasses. The Isle of Man follows this pattern. *"In every plant and animal order (except the wholly freshwater ones) that has so far been adequately worked, with striking consistency Man proves to have two thirds of the Irish total and two-fifths of the British"* (Allen 1984). There is thus a noticeable difference between the Manx fauna and that of mainland Britain. A number of mammal species are absent, including the badger, otter, voles and the British weasel. Likewise some birds which are resident in Britain are rarely seen on the Island, such as woodpeckers and buzzards.

Mann is closest to Galloway (16 miles), Cumbria and Ulster in that order. Wales is rather further off. Although the Manx ecology generally reflects this position, the situation is tempered by the mild oceanic climate, which has led to a low frequency and severity of frost and more hospitable conditions for some species than would normally be expected given the northerly latitude.

The Island is 227 square miles in area (58,793 hectares) and within this landmass the geology affects the landform and soil type, which in turn affect the development of habitats.

Woodland animals might have been commoner in the past before most of the trees were cleared by early settlers. Most of the present woodland on the Island has been planted within the last hundred and fifty years. A few sites have older plantations and some very small remnants of natural woodland are thought to survive; the woodland fauna on the Island is correspondingly restricted.

Of the Island's birds, the dipper and corn bunting seem to have been lost as breeding species, corncrakes continue to breed but only in extremely low numbers, but the fulmar established a breeding population from 1936, and the hen harrier, which has been a non-breeding visitor since 1900, established a significant breeding population in the last quarter of the twentieth century. However, the buzzard, although expanding in distribution in the UK, is seen only rarely, passing through. The merlin, another raptor breeding on moorlands, is also rarely seen in the breeding season.

The Island has a good variety of habitats, but some of them are of very limited extent, and are very remote from similar areas that could act as source populations. Hence they are vulnerable to loss of rarer and more specialised fauna which would have little chance of re-colonising from similar habitats nearby.

Despite having less overall species richness than the UK, the Island is home to several species of special interest. It is particularly noted for the lesser mottled grasshopper, which is found nowhere else in the British Isles. Although the great auk became extinct from Mann as elsewhere, the Island still remains a stronghold for species of the rocky west coast of Europe, such as the chough and peregrine falcon. Some coastal species are found here at the northern edge of their range, such as the centipede *Schendyla peyerimhoffi*, found on beaches.

## **Climatic factors and vegetation communities**

Climatic factors have had a marked effect on the distribution and variety of vegetation communities on the Isle of Man. The Island lies at the same latitude as the north of England and Northern Ireland, and has a correspondingly short growing season for plants. However, it benefits from the warming effects of North Atlantic Drift, and tends not to receive the sharp frosts and heavy snows found at the same latitude further east. Thus it has a generally wet and windy maritime climate, with a longer growing season and less precipitation than the Hebridean islands, but colder conditions than islands off the coast of Wales and Cornwall.

Conditions are extremely variable from one part of the Island to another: the highest point of Snaefell barely falls within the range of British arctic-alpine vegetation, with permanently cold and exposed conditions, whilst the south coast can provide very warm and sunny situations, almost comparable with the level of warmth and light found on south-facing coasts in the south west of the UK. Precipitation levels in drier parts of the Island, such as Port St Mary, are, on average, less than half the levels in the wettest areas, such as Laxey. This wide variety of climatic conditions has led to a situation where hardly any two areas of semi-natural vegetation are exactly the same in terms of biodiversity.

The National Vegetation Classification (NVC), as detailed in *British Plant Communities* (Rodwell *et al*, JNCC 1995), provides valuable comparative descriptions of plant communities and will be consulted during selection of ASSI habitats. However, some vegetation communities on the Isle of Man only partially match National Vegetation Classification types. This may be due to the "in-between" position in relation to other parts of the British Isles, the low level of sampling on the Island whilst the NVC was being researched, or the naturally low biodiversity typical of this and other islands. For example, the few areas of calcareous grassland (CG in the NVC) on the Island may show characteristics of CG2, CG10 and maritime swards all within the same vegetation community. Likewise the Manx "curragh", today dominated by mature tallows and with a few larger trees (once much more open wetland), does not quite fit the usual woodland or wet scrub ("willow carr") NVC description.

The poor match which sometimes occurs between Manx habitats and NVC types does not necessarily mean that these habitats are degraded examples of the type; they may be characteristic, diverse Manx habitats of high

wildlife importance that have developed a slightly different species composition to UK vegetation communities identified during the NVC research. In view of this, NVC types alone are not considered sufficient to provide a set of criteria for selecting a series of ASSIs representative of all the Island's characteristic semi-natural habitats. Other factors, for example presence or absence of rare species with a restricted distribution on the Island, will also be taken into account. The relationship between the Selection Criteria and the NVC is detailed in Part 3 of this document.

## 1.4 ASSI designation - the reasons

### Conserving biodiversity

The importance of conserving the richness and abundance of wildlife is widely recognised. A range of international conventions exist in order to further the protection of biodiversity for the benefit of future generations. In 1992 the Convention on Biological Diversity met and highlighted the importance of maintaining biodiversity for the health of the earth and its people. The Convention has over one hundred and fifty signatories who are committed to conserving habitats and species and managing biodiversity sustainably. Other international conventions include the Berne Convention on the Conservation of European Wildlife and Natural Habitats, which urges contracting parties (which include the Isle of Man) to establish a network of protected sites and identify those of European importance (the "Emerald Network"). The Bonn Convention on the Conservation of Migratory Species of Wildlife Animals, and related agreements on bats and migratory water birds, require the conservation of habitats for such species, as the loss of a site used for one part of the life cycle of a species (See 1.1 above) may jeopardise its survival by breaking the links.

The chief aim of international wildlife conventions is to prevent further extinctions of species in the wild and ensure their sustainability for future generations. The Isle of Man is not immune to the threat of extinctions; they can happen at the global scale down to the local scale as people change their environment. On the Manx scale some species have gone extinct in the last 100 years (eg ringlet butterfly and dense-flowered orchid), but other more mobile or adaptive species have arrived naturally (eg collared doves).

The process of designating biological ASSIs on the Isle of Man has one overriding aim:

**To conserve the Island's biodiversity by ensuring that good examples of all the Island's native species populations, and the characteristic habitats they rely upon, are protected by law from activities that are known to jeopardize, damage, or destroy them.**

This aim will be achieved, not just by identifying and designating a suitable series of ASSIs as "areas on a map", but also by working with landowners and users to help them undertake the best management for the Island's most important wildlife sites.



*Round-leaved sundew Drosera rotundifolia, on a site managed for its moorland and bog*



## **Early surveys**

You can't conserve something until you know what you have, how many there are and where they are. Over the centuries various enthusiastic individuals and groups have recorded the flora and fauna of the Island, mostly concentrating on certain plant or animal groups. The first comprehensive habitat survey was carried out in the early 1970s, when the government commissioned an ecological survey from the Nature Conservancy Council and the Institute of Terrestrial Ecology. In 1975 they published their report, which identified potential national nature reserves and smaller "Sites of Ecological Importance". The latter were envisaged as having comparable statutory status to the UK's Sites of Special Scientific interest and (in Northern Ireland) Areas of Special Scientific Interest, (SSSIs/ASSIs). These 34 sites, and the criteria used to select them (see below), are listed in Garrad (1990).

It wasn't until 1991 that a systematic land use and habitat survey was undertaken by Government. Shortly after the passing of the Wildlife Act in 1990 the Department of Agriculture Fisheries and Forestry set up the Ecological Survey team to map the Island's habitats and land uses, using Phase 1 survey techniques developed by the Nature Conservancy Council in the UK. The largest areas of lowland semi-natural vegetation thought to have the best potential wildlife conservation value were then mapped at Phase 2 level. Meanwhile the Biological Records Centre was established at the Manx Museum to hold all the biological information. These surveys provide the basis for the list of sites to be evaluated as ASSIs for their habitat importance - a list which includes and enlarges on the 34 sites in NCC (1975). Other sites may also be considered, either on the basis of species interest or where new information indicates high importance.

## **What proportion of the land should be designated ?**

In 1998 a programme for achieving full coverage of ASSIs was initiated. The target has been estimated to be a minimum of **10%** of the area of the Island (5,650 ha), until a proper evaluation of biodiversity has been undertaken. This figure was based on a comparison with the situation in the UK, where in Scotland the percentage is 12.8% (Scottish Natural Heritage figure for 2002) and in England 7% (English Nature, 2002).

Site protection is only one part of the process of conserving the Island's biodiversity. Many species depend on farmed land and other habitats in the wider countryside, therefore the ASSI network must be complimented by other measures such as the Agri-environment Scheme and the assignment of Areas of Special Protection (ASP) – see 1.1 above.

## **1.5 ASSI designation - the process**

### **Consultation and decision-making**

The Wildlife Committee is a statutory body established by the Wildlife Act 1990 to act as a scientific advisory committee for all matters arising from the Act. The Committee consists of advisers from DAFF and other government bodies as well as academic and research organisations. This is the forum for considering designation proposals.

Sites will be selected on the basis of the criteria contained within this document, and on the professional judgement of the DAFF Wildlife Office staff in conjunction with the Wildlife Committee. The legal relationship and implications of ASSI designation on land already protected by other legislation, such as the Manx Museum and National Trust Act (1959-1982), will be defined. The recommendations arising from this process will then be referred to the Department for agreement and ratification.

A leaflet explaining the designation process based on the procedures laid down in the Wildlife Act 1990 is available from DAFF.

## 1.6 Types of site selection criteria

### RSNC's Wildlife Sites Handbook and the Manx Wildlife Sites Handbook

Published in 1977, Version 2 of the Royal Society for Nature Conservation (RSNC – now the Royal Society for Wildlife Trusts) *Wildlife Sites Handbook* describes Wildlife Sites as having “substantive nature conservation value”. According to the recommendations of the Handbook, Wildlife Sites must reach the specified thresholds for the county or equivalent area for which they are written (e.g. the Isle of Man).

The Manx Wildlife Site selection criteria are couched in similar terms to the criteria in the RSNC Handbook. Whilst the Ratcliffe criteria are recognised, the need for ease of use has condensed the Wildlife Sites criteria into statements. For example “All H1 (NVC *Calluna vulgaris-Festuca ovina*) grasslands greater than 2.0 ha should be Wildlife Sites”. This effectively incorporates an assessment of botanical diversity, typicalness, size and habitat rarity.

The ASSI and Wildlife Site systems (statutory and voluntary) operate side by side, so that sites not meeting the ASSI criteria but still having substantive wildlife value may qualify as Wildlife Sites.

### The “Ratcliffe criteria” methodology

Ratcliffe (1977) was the first to publish criteria by which sites should be selected. As Ratcliffe explained these are criteria which have “*by general agreement and established practice, become accepted as a means of judging the nature conservation value of a defined area of land*”. The Ratcliffe approach was to become the main rationale for the UK Nature Conservancy Council (now Joint Nature Conservation Committee or JNCC) “Guidelines for selection of biological SSSIs” (see **1.6.3**, below) .

Some of the Ratcliffe criteria might be termed primary criteria:

- Size (extent)
- Naturalness
- Typicalness
- Rarity
- Fragility
- Diversity (of habitat, structure, plant community and species)
- Position in the ecological/geographical unit

Others are secondary criteria:

- Recorded history
- Potential value (if restored)
- Intrinsic appeal

### Manx first evaluation

The criteria applied to the Isle of Man by the Nature Conservancy Council (NCC/ITE 1975; Garrad *per* Robinson & McCarroll, 1990) are generally referred to as the Garrad criteria. These are more specific versions of Ratcliffe's criteria. They are heavily biased towards botanical and vegetation characteristics of sites, making little use of fauna, probably because it is less well known (especially the invertebrates) and often dependent on the flora and habitats in any case. Under these criteria, Manx sites are considered on the basis of the:

- Presence of plants not found elsewhere on the Island
- Presence of plants rare on Mann (fewer than 10 sites)
- Presence of plants rare in this area of the Island
- Number of plant species present.
- Degree to which plant assemblage is representative of the habitat
- Degree to which plant assemblage is markedly unusual for the habitat
- Variety of plant species present
- Presence of unusual plant communities
- Presence of representative plant communities
  
- Presence of assemblages or habitats that are

- a) rare in Mann
- b) rare in this area of the Island
- c) rare in British Isles as a whole
- d) rare in northwest Europe
- Diversity of habitats
- Major bird uses
  - a) passage on migration
  - b) wintering
  - c) breeding

**Both the Ratcliffe and Garrad criteria are broadly relevant to all site selection, whether for habitat or species interest. In view of this, a "checklist" for assessing the quality of potential ASSIs, based on the Ratcliffe approach, is contained in Part 3 of this document, entitled Priority Sites Criteria.**

### **Guidelines for Selection of Biological SSSIs in the UK**

In 1989 the then Nature Conservancy Council (now the Joint Nature Conservation Committee) published a detailed set of criteria for selecting Sites of Special Scientific Interest in the UK. With a lengthy introduction and rationale based on the "Ratcliffe criteria" (see above), the detailed guidelines cover all the habitat types and species groups which at the time were considered relevant to the selection of protected sites. Each habitat and species group is given its own chapter, with a description, classification information and specific guidance on the minimum criteria for site selection. These chapters are periodically updated as new information becomes available. This widely-used approach has been followed in **Parts 3 and 4** of this document, entitled **Priority Sites Criteria** and **Detailed Selection Guidelines**.



*Surveying ponds at Rosehill Quarry, Billown, prior to ASSI assessment; the site was subsequently selected as an ASSI, and designated in December 2005.*

## Part 2: General principles

The criteria by which Manx biological ASSIs are to be selected have been written according to the following general principles. These are applicable throughout, regardless of the habitats or species in question.

### 2.1 Naturalness and scientific importance

**The ASSI criteria are designed to take into account the fact that much of the Island's native biodiversity exists within semi-natural habitats that have been shaped by human activities. However, as is the practice elsewhere, site protection is more likely to be considered a priority if the habitats involved are considered to be unusually pristine examples, exceptionally diverse, a recognised locally distinctive type, or impossible to restore once degraded or lost.**

There has been much discussion amongst conservationists about the relative importance of natural, semi-natural and recently-established habitats for biodiversity. This is chiefly due to the fact that a high proportion of native British Isles species have survived through colonising man-made environments during and following the removal of their original ecological niches. The ASSI criteria reflect the prevailing scientific opinion that all habitats with a high complement of native species, in communities which form an interdependent ecosystem, should be valued for their contribution to biodiversity conservation.

Semi-natural habitats are important both for the communities they support, and for the individual rare species that may occur there (especially species that don't occur anywhere else on the Island). Longstanding semi-natural habitats that have resulted from traditional land management practices tend to be more diverse and contain more rare species than farmland where regular rotations and modern fertilising systems are practiced. However, some more recent activities, such as quarrying, may also result in important areas of wildlife value. In the interests of biodiversity conservation, such sites will not be ruled out of the ASSI selection process just because they are not strictly "natural".

### 2.2 Dates of records and use of population data.

**Sites will be assessed using the most recent species and habitat data available. A potential ASSI will not be disqualified from selection on the grounds of deficient data; however, in such cases efforts will be made to confirm the importance of the site prior to designation as a matter of priority.**

The acceptable dates for species records which are used in order to assess sites will vary with the species or group. In general, invertebrate and lower plant surveys are less frequent than bird and vascular plant surveys, therefore older records sometimes have to be accepted for use with invertebrate or lower plant-based criteria. Rarity evaluations will make use of the best species distribution information available at the time. If new information comes to light indicating that a species is significantly more common or more rare than previously thought, a site proposed for designation may require a re-evaluation.

### 2.3 Boundaries

**Each ASSI should be large enough to provide adequate site-based protection for the feature(s) for which it has been designated. Site boundaries will therefore be defined with the aim of encompassing all the key ecological features for which the ASSI has been selected, plus any fringing or linking habitats without which the ecology of the site could not be protected, even if those fringing habitats do not in themselves contain key features.**

Well-defined boundaries are crucial to the success of any network of protected sites. In defining ASSI boundaries there are two potentially conflicting considerations:

1. The boundary should be the minimum necessary -
  - a) to avoid unnecessary restrictions on land owners;
  - b) to maintain the site integrity and high standards of the ASSI system;
  - c) to reduce unnecessary work and expenditure by DAFF in processing consents and negotiating management agreements.
2. At the same time the boundary must be large enough to protect the site adequately, by ensuring that all scientifically important features are included and that an appropriate conservation management regime can be maintained.

In defining boundaries it should be possible to explain to individual landowners why their land is included in the site while other lands are not. DAFF should therefore be able to demonstrate that a consistent, logical and methodical approach to defining site boundaries has been employed. Providing effective control of management could involve designating all land within the site up to the nearest stock-proof boundary, especially on hill land. This may not necessarily be practical or desirable where large areas of land with minimal nature conservation value are included. A common-sense approach is therefore required to balance the considerations above.

The main principle in defining ASSI boundaries is that all land of prime scientific interest must be included. Boundaries must be clearly indicated, showing any hedges, streams or other linear features which are considered to be part of the designation. Other semi-natural habitats will also be included where they are considered vital for the survival of the key ecological features for which the site has been selected. This might include:

- crucial feeding areas for a rare species, linking habitats without which the overall interest on the site would be threatened by fragmentation, hydrological features on which the habitat depends, or
- other less-diverse habitats without which the most important habitats and species on an ASSI could not be adequately protected.

In cases where less diverse areas are included within the ASSI boundary, they will be subject to the same level of protection as the rest of the site; they are not separate or expendable. (This is **not** the same as "protection zones", in which a landowner may additionally enter into a voluntary agreement on areas outside of the ASSI to further enhance its protection, e.g. by not using sprays close to an ASSI boundary.)

Where semi-natural vegetation is very extensive (e.g. upland moorland), boundaries can be difficult to define, in which case man-made or natural landmarks may be chosen as all or part of an ASSI boundary for ease of identifying and managing the area.

Minor roads, tracks and parking areas may be included within sites, as may un-inhabited buildings and ruins (including some farm buildings), masts, aerials, poles and other minor man-made features. However, where houses and cultivated gardens are surrounded by land meeting the designation criteria they will be excluded from the ASSI boundary.

## 2.4 Habitat assemblages

**The Criteria are generally arranged into common habitat types for ease of reference. However the ASSI selection process takes into account the importance of mosaic habitat communities, including examples of natural zonation of successional stages in vegetation development, and valuable, often mixed habitat corridors, as well as good examples of individual habitats.**

Whilst ASSIs can be selected on the basis of one criterion, they can also contain several important habitats and features. This is vital for the conservation of species which are dependent on the presence of several interrelated habitat types, e.g. invertebrates which have both aquatic and terrestrial life stages, and species using marginal habitats. It is also important in the Manx context, where large, homogeneous sites are rare, and the majority of semi-natural vegetation consists of a mix of different but interrelated habitats. Therefore, although most habitat types have special-case selection criteria which are enough to justify ASSI selection in their own right (eg. "best example of species-rich wet grassland on the whole Island"), in general each habitat will be considered in the light of other, complementary site features. The selection criteria have been designed to reflect this.

## 2.5 Fragmented sites

**Some ASSIs may be chosen which consist of several small, non-contiguous sites.**

This is appropriate for such habitats as ponds, native woodland fragments, and hay meadows where they, as a group, contribute jointly to the survival of more mobile species in the area. It is recognised that these fragments can be more vulnerable than larger sites, and that linking "corridors" may form an important part of their conservation. Because of this, some fringing and/or linking habitats may need to be included within an ASSI boundary, as outlined in 2.4 above.

## 2.6 Significance of species.

**Selection of sites for the species they support will require an evaluation of species rarity and vulnerability. The presence of species on relevant schedules of the Wildlife Act will be a prime consideration when assessing potential ASSIs.**

Wildlife Act schedules will be subject to periodic review. Species protected under the Wildlife Act 1990 are scheduled on the basis of rarity, level of threat to survival, vulnerability to exploitation, "red data book" status, and existing obligations under international conventions. They therefore represent the species of highest nature conservation importance on the Island.

It is recognised that some significant species are not and cannot be protected by designation of their habitat alone. For example, it is not intended to designate bat roosts in people's homes as ASSIs.

## 2.7 Marine species and habitats

**ASSI designation may extend to land covered temporarily or permanently by water. In practice, ASSI boundaries will extend as far as the astronomical low tide line but not beyond, incorporating intertidal habitats but not open sea.**

Wider marine site protection will be covered by the selection of Marine Nature Reserves, for which a different set of site selection criteria will be applied. See the companion document: *Guidelines for the Selection of Marine Nature Reserves*.

## 2.8 Geological and physiographical sites

**ASSIs may be selected on the grounds of geological and/or geomorphological importance, in which case separate criteria will be used. In many cases overlap with biological sites is likely. ASSI citations will make clear the main reasons for designation, so that site conservation management can be prioritised accordingly.**

See the companion document: *Guidelines for the Selection of Geological and Physiographical ASSIs*.

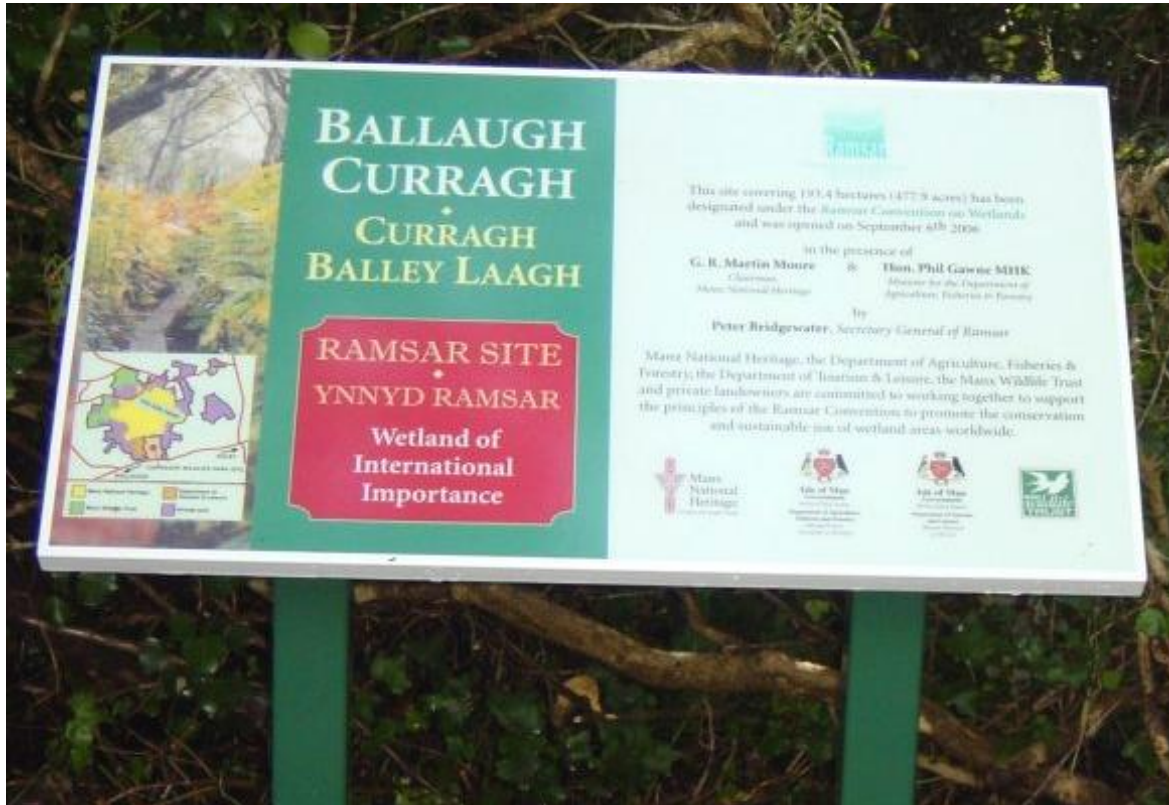
## 2.9 Monitoring

A basic principle of management on the majority of ASSIs is that the scientific interest of an area is largely the result of the sympathetic management practices employed by the past and present land managers, and that this interest is often dependent upon the management practices continuing. The success of the ASSI system therefore depends on the co-operation of the owners and occupiers and continuing appropriate land management practices. As land managers they need to know what makes their land of scientific interest. Therefore citations for sites require to be concise, clear and comprehensive statements of the scientific interest of the site. However, because of the complexity of the ecological system described, the citation cannot describe the area in its entirety, nor provide the justification for every single feature or species which is present.

Full information upon which to base site selection decisions is not always available and conservation priorities change with time and wider European ecological change. It is therefore important to continue gathering information, monitoring sites and reviewing the site network. This is an integral part of the site evaluation and selection procedure.

## 2.10 Revision of site status

Ecological systems are in a state of flux and species' arrival and disappearance usually cannot be managed. Hence, inclusion of new sites as well as de-notification of sites which no longer meet the criteria are options which are open to DAFF. Very careful consideration will be given to the removal of protected status from a site or part of it. There will be a presumption against de-notification, in favour of remediation and management to regain the wildlife interest for which it was originally designated. If this proves impossible, denotification will only be undertaken on sound scientific reasons, after a thorough survey has been carried out to re-find species or other features for which the site was originally designated.



*The newly-unveiled board commemorating the designation of Ballaugh Curragh ASSI as a Ramsar Wetland of International Importance – September 2006.*

# Part 3: Priority Sites Criteria

All ASSIs will be chosen because they have special scientific interest which contributes to the aims and principles for ASSI selection as described in Parts 1 and 2. For example, they might be the only example of a very rare habitat without which the Island's biodiversity would be diminished, or they might represent a priority site for conservation of key habitats and species. Once a site has been shown to support one or more habitats and/or species that merit inclusion within the Island's ASSIs, the next stage is to assess the quality of the site compared with other examples, so that the sites which best meet the aims of the ASSI selection process are identified.

**Section 1.6** above lists the Ratcliffe criteria that have long been used for the assessment and selection of protected sites throughout the British Isles. These criteria have been used as a basis for the following Checklist for assessing the quality of a potential ASSI:

## 3.1 Checklist of Priority Sites Criteria

### Size

#### ***priority sites:***

- the site is an exceptionally large area of an important natural or semi-natural habitat e.g. the largest on the Island or the largest within a distinct region of the Island;
- the site supports an exceptionally large and/or thriving population of an important species (as defined in the Species Criteria);
- the site supports a high proportion of the total area of an important habitat or the total numbers of an important species on the Island and/or in a wider international context.

### Location

#### ***priority sites:***

- the scientific interest of the site is dependent on a rare or unique combination of site-related factors such as geology, aspect, soil type, microclimate, hydrology or altitude. Consequently if the site was damaged or destroyed, the habitat and species communities present would be irreplaceable;
- the site supports habitats or species which are on the very edge of their natural range.

### Diversity

#### ***priority sites:***

- the site contains a high proportion of species typical of the habitat as it is found on the Island in its most favourable condition;
- the site contains a range of semi-natural habitats in close proximity;
- a range of successional stages of habitat development are present on the site;
- the habitats present exhibit a wide range of natural structural diversity.

### Rarity, fragility and vulnerability

#### ***priority sites:***

- the habitats and/or species present are internationally rare or vulnerable to loss, damage or exploitation;
- the habitats and/or species present are rare and/or fragile or otherwise vulnerable to loss, damage or exploitation, on the Isle of Man.

### Naturalness and Representativeness

#### ***priority sites:***

- the site contains all the typical species and assemblages - including stages of succession, subtypes and variations - for which a habitat type is considered scientifically important on the Island;
- the site is an excellent representative of a habitat or species population that forms a distinctive element of Manx biodiversity;
- the site is the only example of a particular habitat sub-type or variation that cannot be protected elsewhere;
- the site represents an excellent example of a mosaic of associated habitats typical of the Manx situation, e.g.



coastal, upland;

- compared with other examples on the Island, the habitat present is notable for its lack of human disturbance, introduced plant or animal species, mechanical damage, litter, agricultural spray drift or other factors which could adversely affect the vegetation structure and/or species composition or community.

## **Ecological position**

### ***priority sites:***

- the site forms part of an important, larger ecological unit which would be reduced in value as a whole if the site was damaged or destroyed;
- the site forms a vital part of a sequence of habitats all of which are required in order to conserve a key population of an important species (e.g. semi-aquatic invertebrates).



*Patches of coastal grassland at Poyll Vaaish ASSI form part of a series of interrelated coastal habitats*

## **History**

### ***priority sites:***

- the nature conservation interest of the site is dependent on a rare or unique combination of historical factors such as long-term land use and management patterns;
- the habitats and species present have become established over a very long period of time and consequently represent a finite resource on the Island, as they could not be replaced or substituted in the short or medium term.

## **Research value**

### ***priority sites:***

- the site provides the best or only example of a situation where a threatened or declining habitat or species of high nature conservation interest for which there is a research need may effectively be studied;
- the site has one or more features of nature conservation importance that would not ordinarily qualify for ASSI selection, but which are known to be declining or having to adapt due to factors which cannot be prevented, and for which research over the medium or long term is crucial for the success of conservation efforts elsewhere.

## 3.2 Using the Priority Sites Criteria

The checklist of Priority Sites Criteria is referred to throughout the detailed ASSI Selection Criteria in Part 4, and is applicable to each habitat type and species group. Where there is a choice to be made about which site to designate, the checklist should be used as a guide to site selection as follows:

- **For the very rarest habitats and species, simply fulfilling the minimum requirements as listed in the detailed selection criteria is likely to be enough to warrant selection.**

Example: species-rich neutral grassland is a rare and diverse habitat which is known to have suffered a severe decline throughout the British Isles, therefore all examples of this habitat over a certain minimum size may qualify for selection.

- **All other sites will be selected because they not only fulfil the minimum habitat or species requirements, but also meet at least one of the Priority Sites Criteria.**

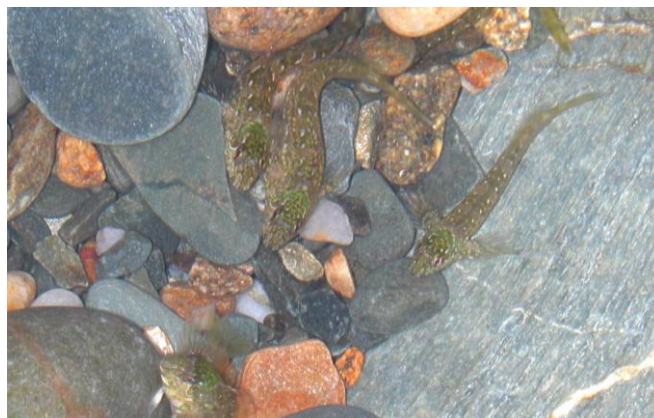
Example: unimproved acid grassland is an important wildlife habitat on the Island but is much more widespread than neutral grassland. Examples of this habitat will only be considered if they not only meet the minimum size threshold, but also fit at least one of the Priority Sites Criteria as well, such as being an exceptionally good representative of the type.

- **A site will generally be considered to be of a higher quality than a similar site which meets fewer Priority Sites Criteria, although exceptional cases will be considered on their individual merit.**

Example: of two areas of unimproved acid grassland, both of which are above the minimum size threshold for the habitat, a site which has a high proportion of the total area of acid grassland on the Island is less likely to be selected as an ASSI than a similar site which not only has a high proportion of the total habitat area, but also fits several other Priority Sites Criteria -such as supporting species which are on the edge of their natural range, and forming part of an important, larger ecological unit.

- **Site selection may be subject to further prioritisation based on a range of factors depending on the species and habitats in question. Where relevant, this will be explained in the detailed selection criteria for each habitat type or species population.**

Example: for some grassland habitats, examples will be selected that fulfil minimum size criteria and fit at least one Priority Site Criterion, with further priority being given to sites that form part of a larger habitat mosaic.



*Common blenny or Shanny, Liphophrys pholis, in rockpool at Dhoon Glen ASSI – a prime example of a priority site for its wide range of interrelated habitats*



**Cover pictures** show protected species found on ASSIs in the Isle of Man:

Lesser mottled grasshopper *Stenobothrus stigmaticus*

Pyramidal orchid *Anacamptis pyramidalis*

Lapwing *Vanellus vanellus*

Isle of Man Cabbage *Coincya monensis subsp. monensis*

**The information in this document can be provided in large print, on request.**

DAFF  
January 2008

©2003-2008 Isle of Man Government Department of Agriculture, Fisheries and Forestry  
The contents of this document are the property of the Department of Agriculture,  
Fisheries and Forestry, and should not be copied without its permission.