

## UK MPA Centre

### Topic Note

#### A history of marine protected areas in the UK

*The following text is adapted and updated from Mitchell and Hiscock (1996)*

#### 1. Introduction

Concerns about human impacts on the environment began at the end of the 19th century but gained particular strength following the Second World War with the government report *Conservation of Nature in England and Wales* (Command. 7122, 1947) and the subsequent National Parks and Access to the Countryside Act 1949. The nature conservation movement in the UK was initially dominated by terrestrial naturalists and ornithologists. The lack of consideration of the marine environment was exacerbated by most of it being out of sight and poorly known - so much so that *A Nature Conservation Review* (Ratcliffe, 1977) did not include marine habitats on rocky shores or below low water mark. The *Review* included intertidal sediment flats, but almost entirely for their ornithological interest. *A Nature Conservation Review* provided the basis for identifying an extensive representative series of Sites of Special Scientific Interest (SSSIs). These were sites with statutory protection and could include intertidal areas and could thus be considered the first designation to protect marine biodiversity. However, very few were to be established because of their marine biological interest. There was conservation effort in the marine environment but this was directed at sustaining fisheries, and only the closure of areas to fisheries or restrictions on the use of mobile gear were measures likely to help wildlife conservation, albeit incidentally.



Plate 1. Salcombe harbour was one of the few intertidal SSSI to be established primarily for their marine biological interest. A rich muddy gravel shore photographed in 1986.

## 2. The early development of marine conservation and mpa's

Our current approach to marine wildlife conservation can be traced back to 1965 when a group of marine biologists and scientific divers wrote to the Natural Environment Research Council (NERC) which, at the time, included the Nature Conservancy (a predecessor of the current statutory nature conservation agencies). They drew attention to the expansion of SCUBA diving as a sport in Britain and the potential threat this posed to marine life through the over-collection of organisms for food or as curios. They recommended that certain areas below the low water mark should be set aside for photography and biological study and protected from over-exploitation. From their collective experience, they suggested three possible sites for 'underwater reserves': Skomer Island in south-west Wales, St Anthony Head near Falmouth, and the Farne Islands and Holy Island in north-east England. Certain of these scientists continued to lobby NERC to give more priority to the conservation of marine wildlife in the British seas.

The wreck of the *Torrey Canyon* with subsequent oil pollution and related environmental damage in 1967 drew attention to the threat which marine life faced as a result of human activities. This event, and subsequent oil spills, have particularly contributed to greater public and political interest in the conservation of marine wildlife.

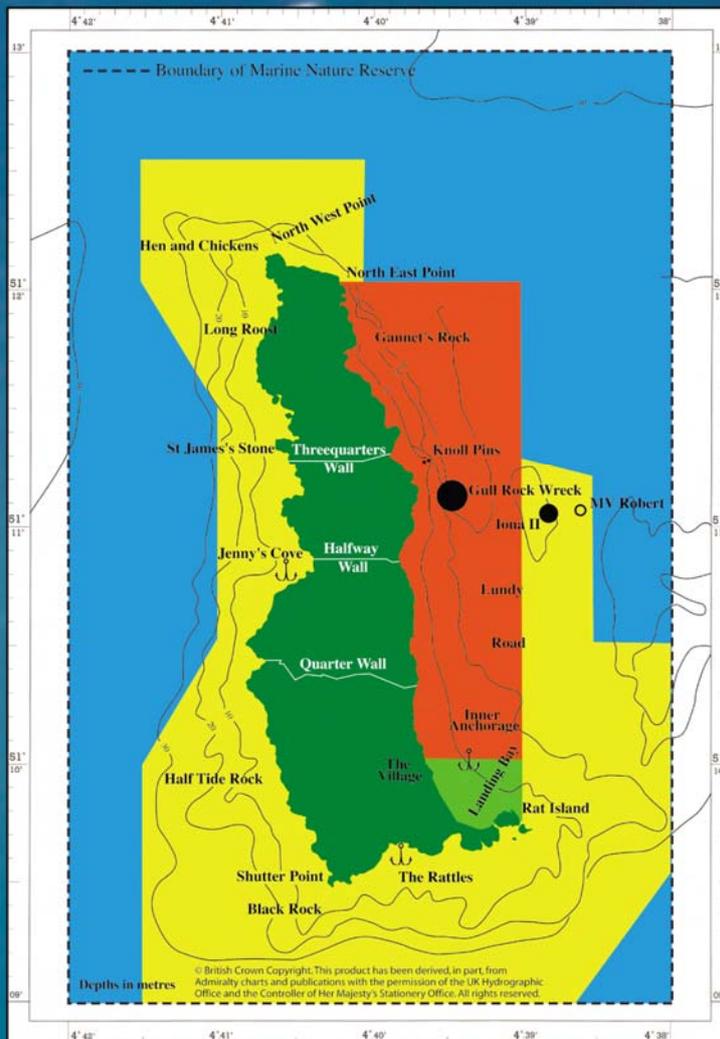
In the late 1960s there was a great deal of activity world-wide in establishing marine parks and reserves. Inevitably, questions were asked about the possibility of such areas being established in Britain. The first indication of the consideration of a formal policy for marine nature conservation in Great Britain was in 1969, when a meeting was held between NERC's nature conservation and marine science staff to discuss the need for better communication and liaison in relation to the conservation of intertidal areas. As a result of this meeting the Nature Conservancy prepared a paper entitled *Conservation policy in the shallow seas* which recommended that a scientific committee should be established to:

- review the state of knowledge of intertidal Britain;
- recommend measures for safeguarding as nature reserves areas of key importance as representative samples of major shore types or as research and educational sites, and,
- consider whether conservation measures were desirable for areas below the low water mark.

Although the proposal for setting up this committee received a positive response from those to whom it was circulated, NERC's Oceanography and Fisheries Committee advised that in the absence of strong evidence that a marine conservation problem existed due to controllable factors, the proposal should not be pursued at that time. Meanwhile, by 1971, the island authorities at Lundy in the Bristol Channel had accepted the proposal for Britain's first voluntary marine nature reserve to be established around the island (Hiscock *et al.* 1973). At about the same time, discussions were underway to establish a local nature reserve at Saltern Cove in South Devon with a boundary that extended to 2 m below chart datum level in order to protect its marine biological interest. Torbay Borough Council notified the reserve under sections 19 and 21 of the National Parks and Access to the Countryside Act 1949 in August 1973.

## Lundy Marine Nature Reserve Zoning Scheme

Lundy MNR is used by a wide variety of people. A zoning scheme has been developed, much of which is backed up by law; to enable everyone to enjoy the reserve whilst protecting this special place.



### KEY



Anchor symbol = Recommended anchorages.  
In the Landing Bay please allow clear access for the ferry



Red = No Take Zone –  
No fishing or collection of sea life of any kind\*. No anchors or diver shotlines within 100m of the Knoll Pins



Yellow = Refuge Zone –  
No fishing except potting or angling



Green = Recreational Zone –  
Restrictions as for Refuge zone but be aware of other water users



Black = Archaeological Protection Zone –  
No diving or fishing allowed (without a licence<sup>^</sup>)



Blue = General Use Zone –  
No spearfishing. All other activities allowed

\* Devon Sea Fisheries Committee byelaw.

The No Take Zone stretches north to Lat 51 12.04N, south to Lat 51 10.07N and east from Lundy's shores to Long 004 39.00W. <sup>^</sup>Licence from English Heritage

Plate 2. Lundy. Britain's first voluntary and first statutory marine nature reserve and first no-take zone established for biodiversity conservation.

**Box 1. Key dates for marine conservation**

- National Parks & Access to the Countryside Act 1949: a foundation for future measures
- 1967: Wreck of the Torrey Canyon
- 1969: Nature Conservancy: "Conservation policy in the shallow seas"
- 1969/71: Need for Marine Nature Reserves raised in Parliament
- 1971-3: NERC Working Party on Marine Wildlife Conservation
- 1971: Lundy proposed as a voluntary marine nature reserve
- 1973: Lundy voluntary marine nature reserve management plan
- 1973: Saltern Cove in South Devon notified as a reserve under sections 19 and 21 of the National Parks and Access to the Countryside Act 1949 in order to protect its marine biological interest.
- 1977: Underwater Conservation Year
- 1981: Marine Nature Reserve provisions included in the Wildlife and Countryside Act
- 1986: Lundy becomes the first statutory Marine Nature Reserve in the UK
- 1987: Marine Nature Conservation Review of Great Britain (MNCR) initiated
- 1992: UK signs the EC Habitats Directive which includes provisions for marine habitats Special Areas of Conservation (SAC)
- 1992: UK signs the Biodiversity Convention
- 1997: UK Government lists 37 possible SACs for marine habitats
- 1997: UK Government publishes plans for UK Biodiversity Action Plans
- 1998: MNCR finished (but not completed)
- 2000: Water Framework Directive enters into force
- 2000: OSPAR Annex V enters into force
- 2002: World Summit on Sustainable Development, Johannesburg (MPA's by 2012)
- 2002: Defra: 'Safeguarding our Seas: a strategy for the conservation and sustainable development of our marine environment'
- 2004: First No-Take-Zone established at Lundy
- 2004: PM's Strategy Unit publishes 'Net benefits a sustainable and profitable future for UK fisheries'
- 2004: Review of Marine Nature Conservation Working Group reports
- 2005: Defra publishes 'Charting Progress: an integrated assessment of the state of UK seas'
- 2005: Marine Bill announced
- 2006: Marine Bill consultation
- 2007: Marine Bill White Paper consultation
- 2007: Scottish Marine Bill announced

During the 1970's, a very few intertidal areas were notified under the National Parks and Access to the Countryside Act 1949 as Sites of Special Scientific Interest (SSSIs) with marine biology of cited importance. SSSIs were then essentially a means of notifying planning authorities and owners and occupiers of land of their scientific importance. The significance of SSSI notification increased after the passing of the Wildlife and Countryside Act 1981 where provisions for safeguard were increased. The designation of intertidal areas as SSSIs (Areas of Special Scientific interest – ASSI – in Northern Ireland) seemed a way to protect intertidal areas but very few were established with marine biology of cited importance (in 1994, before SSSI designations were made for any candidate SAC with intertidal area, there were 83 which mentioned marine biological interest in the citation of the 744 that included intertidal areas in Britain).

In 1971, there were further Parliamentary Questions and enquiries from the Department of Education and Science and the Council for Nature regarding the establishment of marine parks and reserves below the low water mark. In view of this renewed pressure, the Nature Conservancy's Scientific Policy Committee recommended that NERC should establish a Working Party to consider the need to protect marine life around the United Kingdom. This was agreed and, in 1971, NERC established a Working Party on Marine Wildlife Conservation to make a preliminary assessment of evidence and advise whether there was a case for additional conservation measures in the marine environment.

The specific terms of reference for this Working Party were to advise NERC, on the basis of existing knowledge of marine ecosystems, on the case for establishing marine nature reserves or other conservation measures, giving consideration to:

- the definition and identification of areas or species of special interest;
- the problem of measuring changes, distinguishing between natural and artificial factors, the extent of the pressure on marine habitats;
- the investigation necessary to quantify measures; and
- the need, if any, for protective measures.

After considering both written and oral evidence the Working Party prepared a report *Marine wildlife conservation: an assessment of evidence of a threat to marine wildlife and the need for conservation measures* (Natural Environment Research Council 1973) making a number of cautious recommendations which, *inter alia*, emphasised the need for:

- data collection schemes to be examined and made compatible;
- establishing new coastal/intertidal National Nature Reserves (NNRs) specifically for research;
- exploring the legal procedures for establishing sublittoral NNRs, and
- taking advantage of the marine biological knowledge and experience within NERC, the Fisheries Departments and the universities.

Among the papers considered by the NERC Working Party was the report *Nature Conservation at the Coast* prepared by the Nature Conservancy (1970). This reviewed the research and educational importance of coastal areas and their value as wildlife habitats. Using eight site assessment criteria, 371 sites in England and Wales were evaluated and classified into four main categories:

- a. areas of outstanding scientific importance
- b. areas of special scientific importance
- c. areas of conservation value
- d. degraded and intensively developed areas of negligible scientific importance.

Although all of these sites included intertidal habitats, in only nine cases was the marine biological interest (other than birds) specifically mentioned. The report was able to draw on information being collected about coastal areas and an initial selection of important sites by Nature Conservancy staff and others for the projected *Nature Conservation Review* (Ratcliffe 1977). However, the report was in many respects a foundation report on coastal information and a far-sighted document in respect of its proposals and recommendations, the key elements of which prescribed what is now known as 'Coastal Zone Management and Planning'.

Neither the 1970 Nature Conservancy nor the 1973 NERC reports prompted much immediate action in advancing marine nature conservation. However, with the transfer of NERC's responsibilities for nature conservation to the Nature Conservancy Council (NCC) in 1973 through the Nature Conservancy Council Act 1973, the recommendation from the NERC report (Natural Environment Research Council 1973) for another expert Working Party to review scientific information and general developments pertinent to the conservation of marine wildlife was implemented jointly by NCC and NERC. The NCC/NERC Joint Working Party on Marine Wildlife Conservation first met in 1975 and its terms of reference were interpreted to relate primarily to the littoral and sublittoral areas of the coastal zone, since active conservation policies already existed for maritime flora and fauna, seals and seabirds. In addition, consideration of commercial fish stocks were specifically excluded since they were the statutory responsibility of the Fisheries Departments.

In 1977, *A Nature Conservation Review* (NCR) was published (Ratcliffe 1977). This seminal work reported the results of the review, initiated in 1965, to describe and analyse the range of variation of the natural and semi-natural vegetation of Britain, together with its characteristic communities of plants and animals, in order to identify the most important sites which should be conserved. The *Review* did not include marine habitats except intertidal areas as a habitat for birds and their food and some saline lagoons. However, the general philosophy and strategies developed for the NCR greatly influenced those which were later adopted for the MNCR.

Following ten meetings of the NCC/NERC Working Party, during which many written papers and oral reports were considered, their report to both Councils, *Nature conservation in the marine environment*, was published (Nature Conservancy Council & Natural Environment Research Council 1979). This report recommended that NCC should develop a formal marine conservation policy and consider obtaining legislation for the establishment of marine reserves. Further recommendations covered the number, size and type of reserves required and the additional studies needed to improve the description and classification of marine communities. Particular emphasis was placed on the need to promote an informed conservation-oriented viewpoint among users of the coastal zone and the general public. The Working Party recognised that, before it would be possible to select with confidence the most appropriate sites for designation, there was a need for more consultation and supplementary survey work. The key recommendation covering MNCR-type work was:

"We recommend further consultation and discussion and, where necessary, provision of support for additional studies related to improving description and classification of the lesser known plant and animal communities; high priority should, in particular, be given to sublittoral rocky communities."

Progress has been made on all the recommendations and, in some cases, this has been substantial.

Meanwhile, a number of scientific and recreational divers with a common interest in marine conservation in British waters had promoted 1977 as Underwater Conservation Year during which a number of professionally-led amateur projects were started. These projects were continued as the Underwater Conservation Programme in 1978 and 1979, stimulating sufficient interest to prompt the formation of the Underwater Conservation Society (UCS) in 1979. UCS became the Marine Conservation Society (MCS) in 1983. From the outset, the Society recognised the need for the development of a sound scientific basis for marine conservation and actively lobbied for new legislation to allow adequate conservation below the low water mark, which was then the limit for statutory conservation sites.



Plate 3. The Wembury Voluntary Marine Conservation Area was established in 1981 and engages shore and sea users through its Advisory Group. Wembury Bay from Wembury Point.

The 1970's were also the period which saw several voluntary mpa's established with the aim of engaging local sea users in schemes of management and in developing educational opportunities. The following are the main ones established:

Lundy – management plan 1973

Eyemouth (Barefoot marine reserve)<sup>1</sup> – established 1978

St. Abbs & Eyemouth Voluntary Marine Reserve – established 1984

Wembury Voluntary Marine Conservation Area – established 1981

Helford Voluntary Marine Conservation Area

Skomer

Kimmeridge

Partly in response to the recommendations from the NCC/NERC Working Party, the Department of the Environment (DoE) set up an inter-departmental working party on marine nature reserves in 1979. The purpose of this was to consider the legal and administrative aspects of the proposals to establish statutory marine reserves below the low water mark. At the conclusion of discussions in 1981 the DoE issued a consultation paper, *The Establishment of Marine Nature Reserves*. While this was still open for comment, the opportunity arose to insert appropriate provisions for the establishment of statutory marine nature reserves in the Wildlife and Countryside Bill. Due to sustained pressure from NCC and the voluntary conservation organisations combined with particularly strong support in the House of Lords, appropriate provisions were included in the Wildlife and Countryside Act 1981. A detailed description of legislative provisions for marine nature reserves is given by Gibson (1984).

A few months after it became possible to give statutory protection to sublittoral marine areas around Great Britain, the Council of Europe's European Committee for the Conservation of Nature and Natural Resources called for a group of experts to be assembled to prepare *A Strategy for Safeguarding the Marine Benthic Biocenoses of the North Sea and Baltic by Means of a Network of Marine Parks*. The group met in 1982 and 1983 and prepared papers pertinent to their countries in 1984, reporting in 1987 (Mitchell 1987). The methods described in this document for the survey, classification and assessment of marine sites became the basis of the approach adopted by the soon-to-be-initiated Marine Nature Conservation Review of Great Britain (the MNCR).

With provisions for statutory Marine Nature Reserves (MNRs) in place, marine nature conservation assumed a higher priority in NCC, becoming a separate theme in the Corporate Plan for several years with a modest increase in resources. However, there was still a considerable shortfall in the effort required to make real advances in marine conservation. Recognising this, the Marine and Coastal Sector Review Group, responding to the World Conservation Strategy in 1983 in their report *Conservation and Development of Marine and Coastal Resources*, recommended that "The NCC should be given the resources needed to increase its level of expertise in the marine and coastal environment to take proper account of its greater responsibility in this area". Echoing this in its own contribution to the World

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<sup>1</sup> Voluntary ban on removal of shellfish by divers which led to establishment of larger St. Abbs & Eyemouth VMR

Conservation Strategy, the NCC stated that "Marine ecosystems are the Cinderella of nature conservation in Britain" and drew attention to the lack of effective legislation for protecting important marine sites and the high requirement for littoral and sublittoral resource surveys (Nature Conservancy Council 1984). Their report, *Nature Conservation in Great Britain*, recommended that a Marine Nature Conservation Review should be launched immediately to identify prospective Marine Nature Reserves and other sites of regional importance, and that negotiations should be vigorously pursued for establishing the first statutory MNR.

Meanwhile, the first seven potential marine nature reserves had been selected using a combination of available information and expert views. The same approach was also used in selecting the first tranche of non-statutory Marine Consultation Areas in Scotland in 1986 and the later additions in 1990 (the latter resulting from recommendations derived from MNCR surveys) (Nature Conservancy Council 1990).

The key recommendations for marine conservation in *Nature Conservation in Great Britain* (Nature Conservancy Council 1984) were realised in November 1986 with Lundy being declared Britain's first statutory Marine Nature Reserve and in 1987 with the initiation of the MNCR programme.



Plate 3. The island of Skomer off west Wales was the second area to receive statutory protection as a Marine Nature Reserve.

### **The 1990's**

The Intertidal Survey of Great Britain, the Marine Nature Conservation Review of Great Britain and similar surveys in Northern Ireland were the first Government-funded programmes to collect the information that would be needed to undertake objective comparisons of different areas and to identify protected areas based on scientific criteria. The data that those surveys collected provides the bulk of information used to identify marine biodiversity hotspots in this report. Unfortunately, the surveys were incomplete at the time that the European Commission Habitats Directive had to be implemented and, in any case, the selection criteria in the Directive were not compatible with the sort of scientific criteria that had been developed in the UK. Nevertheless, the Habitats Directive has led to the establishment of 56 Special Areas of Conservation for marine habitats and species in the UK (Figure 1) that are managed to protect wildlife habitats.

### **Guidelines for the identification of intertidal Sites of Special Scientific Interest (SSSI)**

SSSI extend only to low water level and are predominantly a planning measure. Several intertidal SSSI were notified for their marine biological importance in the 1970's and 1980's and many intertidal areas were included where coastal interests had been identified and it was convenient to notify the intertidal at the same time as the sand dunes, saltmarshes etc. Many intertidal SSSI are for ornithological interests or geology. In the mid 1990's, spurred by the need to identify as SSSI any areas that were to be designated as SAC, thought was applied to how intertidal and saline lagoon habitats should be selected as SSSI. The resulting criteria and guidelines for selecting SSSI are well thought-through and provide the basis for developing a meaningful series of locations for the conservation of biodiversity. The *Guidelines for Selection of Biological SSSIs: Intertidal Habitats and Saline Lagoons* were published by JNCC in 1996.

**OSPAR and RMNC criteria for identifying MPA's** Much good work to establish relevant criteria to identify potential MPAs has been undertaken since the mid 1990's by the OSPAR Commission in response to the coming-into-force of Annex V of the Convention. The criteria developed are very similar to those that were originally identified in Ratcliffe (1977) and 'marinised' in Mitchell (1987). The criteria are given in Box 2. The Review of Marine Nature Conservation (Defra, 2004) has also identified criteria for the identification of 'Nationally Important Marine Areas' but those criteria may be difficult to interpret and apply.

**Box 2.** Criteria for the identification of MPAs developed by the OSPAR Commission for the Protection of the Marine Environment of the North East Atlantic ([www.ospar.org](http://www.ospar.org)).

#### Ecological criteria/considerations

- (1) THREATENED OR DECLINING SPECIES AND HABITATS/BIOTOPES. [Include Rarity' as information on decline is often lacking.]
- (2) IMPORTANT SPECIES AND HABITATS/BIOTOPES. [Refers to global ('Proportional importance') and UK ('Regional importance') distribution and population numbers.]
- (3) ECOLOGICAL SIGNIFICANCE. [Includes 'Dependency'.]
- (4) HIGH NATURAL BIOLOGICAL DIVERSITY.
- (5) REPRESENTATIVITY.
- (6) SENSITIVITY.
- (7) NATURALNESS.

#### Practical criteria/considerations

- (1) SIZE (meaning extent of the feature being considered – usually, the bigger the better).
- (2) POTENTIAL FOR RESTORATION.
- (3) DEGREE OF ACCEPTANCE.
- (4) POTENTIAL FOR SUCCESS OF MANAGEMENT MEASURES.
- (5) POTENTIAL DAMAGE TO THE AREA BY HUMAN ACTIVITIES. [Degree of threat.]
- (6) SCIENTIFIC VALUE.

The list, with bracketed explanations, is from Hiscock (2004).

**Box 3.** Criteria for the identification of Nationally Important Marine Areas. From the Review of Marine Nature Conservation. See: [www.defra.gov.uk/wildlife-countryside/ewd/rmnc/pdf/rmnc-report-0704.pdf](http://www.defra.gov.uk/wildlife-countryside/ewd/rmnc/pdf/rmnc-report-0704.pdf)

1. **Typicalness:** the area contains examples of marine landscapes, habitats and ecological processes or other natural characteristics that are typical of their type in their natural state.

2. **Naturalness:** the area has a high degree of naturalness, resulting from the lack of human-induced disturbance or degradation; marine landscapes, habitats and populations of species are in a near-natural state. This is reflected in the structure and function of the features being in a near-natural state to help maintain full ecosystem functioning.

3. **Size:** the area holds large examples of particular marine landscapes and habitats or extensive populations of highly mobile species. The greater the extent the more the integrity of the feature can be maintained and the higher the biodiversity it is likely to support.

4. **Biological diversity:** the area has a naturally high variety of habitats or species (compared to other similar areas).

5. **Critical area:** the area is critical for part of the life cycle (such as breeding, nursery grounds/juveniles, feeding, migration, resting) of a mobile species. The assessment needs to evaluate the relative importance of the area for the species. An area for which a species has no alternative should receive a greater weighting than an area where a species has a range of alternatives for the aspect of its life cycle (e.g. is a given gravel bank the only one for a herring population to spawn on?) This will vary according to species and the part of the life cycle in question.

6. **Area important for a priority marine feature:** features that qualify as special features or which are declined or threatened should contribute to the identification of these areas. The assessment should consider whether such features are present in sufficient numbers (species), extent (habitat) or quality (habitats, marine landscapes) to contribute to the conservation of the feature.

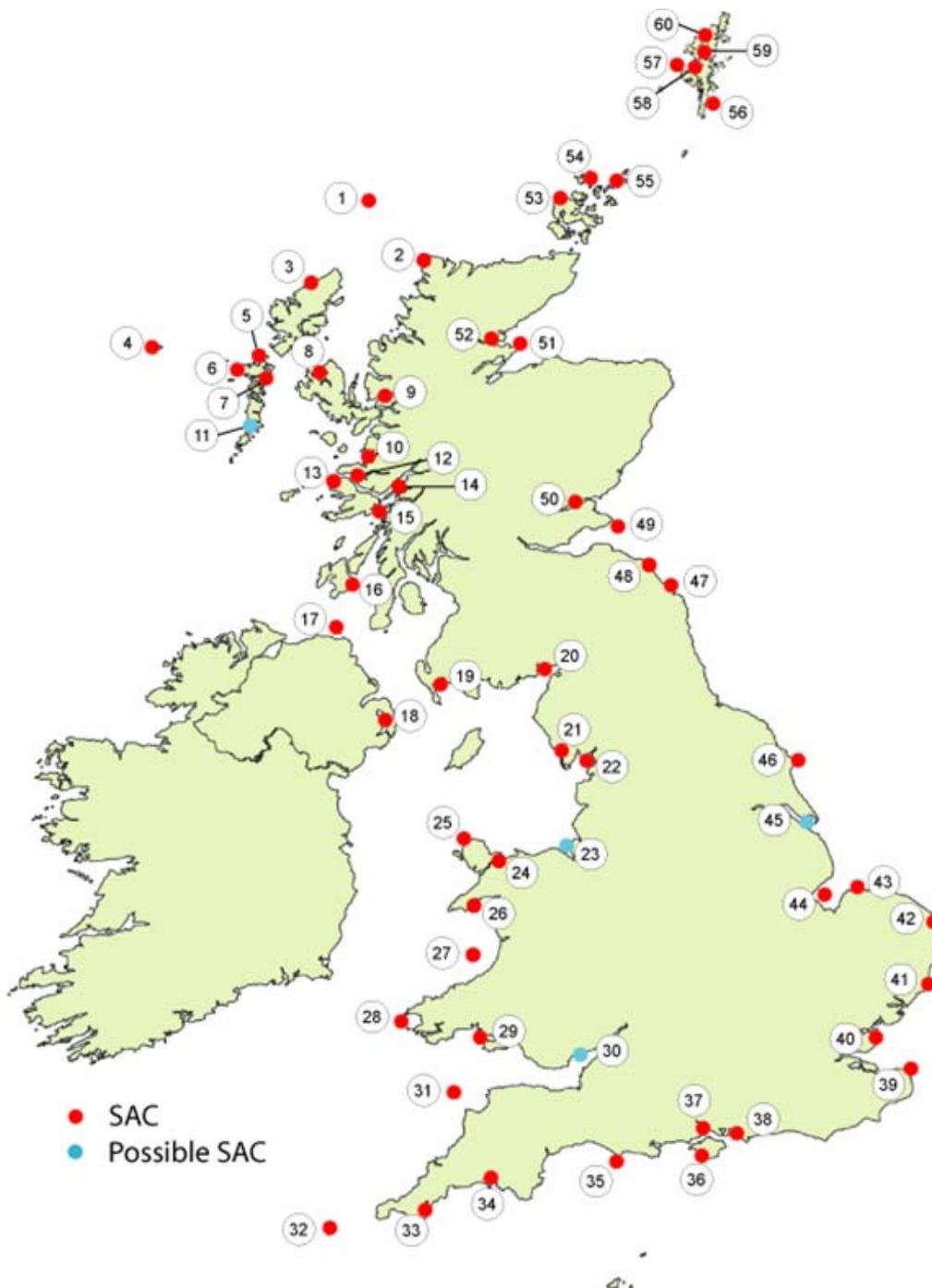


Figure 1. The location of UK Special Areas of Conservation (SAC) for marine habitats and species including possible SAC. The Darwin Mounds pSAC is not shown. Additionally, the following are draft offshore SAC: Braemer Pockmarks; Dogger Bank; Haig Fras; North Norfolk Sandbanks and Saturn reef; Scanner Pockmark; Stanton Banks; Wyville Thomson Ridge. Information derived from [www.jncc.gov.uk/page-1458](http://www.jncc.gov.uk/page-1458). Appendix 1 gives the names of each of the SAC locations.

## The new millennium

By the beginning of the 21<sup>st</sup> century, there were further initiatives underway and new emphases to take account of. Annex V of the OSPAR Convention on “The Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area”, which was adopted in 1998, entered into force in 2000 thus providing the legal basis for a recommendation, adopted in 2003, to establish, by 2010, an “ecologically coherent network of well-managed marine protected areas”. The envisaged network was to be consistent with and complementary to the Natura 2000 network and:

- protect, conserve and restore species, habitats and ecological processes which are threatened, declining or in need of protection;
- prevent degradation of, and damage to, species, habitats and ecological processes, following the precautionary approach;
- protect and conserve areas that best represent the range of species, habitats and ecological processes in the maritime area.

In 2002, the World Summit on Sustainable Development required the development of a representative network of mpa’s by 2012 based on scientific information. WWF was actively campaigning for a network of offshore mpa’s including such locations as the Dogger Bank and the Darwin Mounds (see <http://www.ngo.grida.no/wwfneap/Projects/MPA.htm>).

In the UK, much was being done to better understand the state of our seas and to consider how best to protect biodiversity. The Review of Marine Nature Conservation (RMNC) (Defra, 2004) was an important initiative and, amongst much else, identified criteria for the identification of Nationally Important Marine Features, an important starting point for the application of marine natural heritage assessment criteria, and Nationally Important Marine Areas (Connor *et al.* 2002). Another important report was *Charting Progress: an integrated assessment of the state of UK seas* (Defra, 2004). However, in the UK, the development of devolved administrations and the separate approaches being taken by the country nature conservation agencies was to mean that continuity in the development of mpa’s across the UK was an unlikely possibility. Nevertheless, proposals for a Marine Bill, which included provisions for ‘Marine Conservation Zones’ were announced in 2005 and opened for consultation in 2006 and, as a Marine Bill White Paper, in 2007. On 19 June 2007, the Scottish government announced a Marine Bill for Scotland although measures specifically to identify mpa’s were not mentioned.

Lamlash Bay on the Isle of Aran in the Clyde is a notable proposed mpa as it has been championed by local people against the inertia of the Scottish Executive, although The Petitions Committee of the Scottish Parliament is now gathering the views of a whole range of interest groups on the COAST proposals, including all fishermen, Scottish Natural Heritage and the Scottish Executive Inshore Fisheries Department.

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## Appendix 1

Special Areas of Conservation notified or being considered for submission under the Habitats Directive for Annex I and Annex II marine features. The primary reasons for notification are given followed, after “Also”, by any secondary reasons. Some Annex I Habitat titles are abbreviated. Otter are included where they appear to be using the sea for habitat. Information is derived from that given on [www.jncc.gov.uk/page-1458](http://www.jncc.gov.uk/page-1458).

Number on map	Name	Area (ha)	Status
1	North Rona (Grey seal. Also, Reefs, Sea caves)	628.53	SAC
2	Loch Laxford (Large shallow inlets & bays. Also, Reefs)	1221.33	SAC
3	Loch Roag Coastal lagoons (Coastal lagoons)	43.62	SAC
4	St Kilda (Reefs)	25467.58	SAC
5	Obain Loch Euphoirt (Coastal lagoons)	348.59	SAC
6	Monarch Islands (Grey seals)	3646.58	SAC
7	Loch nam Madadh Euphoirt (Coastal lagoons, Large shallow inlets & bays, Otter. Also, Sandbanks, Mudflats and sandflats, Reefs)	2320.38	SAC
8	Ascrib, Isay & Dunvegan (Common seal)	2585	SAC
9	Lochs Duich, Long and Alsh Reefs (Reefs)	2380.86	SAC
10	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh) (Sandbanks)	4556.65	SAC
11	Sound of Barra (Bottlenose dolphins)	5279	Possible
12	Sunart (Otter. Also Reefs)	10246.72	SAC
13	Treshnish Isles (Grey seal)	1962.66	SAC
14	Loch Creran (Reefs)	1226.39	SAC
15	Firth of Lorn (Reefs)	20975.01	SAC
16	South-east Islay Skerries (Common seal)	1498	SAC
17	Rathlin Island (Reefs, Sea caves)	3344.62	SAC
18	Strangford Lough (Mudflats & sandflats, Coastal lagoons, Large shallow inlets & bays, Reefs. Also, common seal)	15398.54	SAC
19	Luce Bay and Sands (Large shallow inlets & bays. Also, Sandbanks, Mudflats & sandflats, Reefs)	48759.28	SAC
20	Solway Firth (Sandbanks, Estuaries, Mudflats & sandflats, Sea lamprey, River lamprey. Also, Reefs)	43636.72	SAC
21	Drigg Coast (Estuaries. Also, Mudflats & sandflats)	1397.44	SAC
22	Morecambe Bay (Estuaries, Mudflats & sandflats, Shallow inlets & bays. Also Sandbanks, Coastal lagoons, Reefs)	61506.22	SAC
23	Dee Estuary/ Aber Dyfrdwy	15754.93	Possible
24	Y Fenai a Bae Conwy / Menai Strait & Conwy Bay (Sandbanks, Mudflats & sandflats, Reefs. Also, Large shallow inlets & bays, Sea caves)	26482.67	SAC
25	Bae Cemlyn/ Cemlyn Bay (Coastal lagoons)	43.43	SAC
26	Pen Llyn a`r Sarnau/ Llyn Peninsula and the Sarnau (Sandbanks,	146023.48	SAC

Number on map	Name	Area (ha)	Status
	Estuaries, Coastal lagoons, Large shallow inlets & bays, Reefs. Also, Mudflats & sandflats, Sea caves)		
27	Cardigan Bay/ Bae Ceredigion (Sandbanks, Reefs, Sea caves, Bottlenose dolphin. Also, Sea lamprey, River lamprey, Grey seal)	95860.36	SAC
28	Pembrokeshire Marine/ Sir Benfro Forol (Estuaries, Bays, Reefs, Grey seal. Also, Sandbanks, Mudflats & sandflats, Coastal lagoons, Sea caves, Sea lamprey, Allis shad, Twaite shad, Otter)	138069.45	SAC
29	Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd (Sandbanks, Estuaries, Large shallow inlets & bays, Twaite shad. Also, Sea lamprey, River lamprey, Allis shad)	66101.16	SAC
30	Severn Estuary / Môr Hafren	73487.75	Possible
31	Lundy (Reefs. Also Sandbanks, Sea caves, Grey seals)	3064.53	SAC
32	Isles of Scilly Complex (Sandbanks, Mudflats & sandflats, Reefs. Also, grey seal.)	26850.95	SAC
33	Fal and Helford (Sandbanks, Mudflats & sandflats, Large shallow inlets & bays. Also, Estuaries, Reefs)	6387.8	SAC
34	Plymouth Sound and Estuaries (Sandbanks, Large shallow inlets & bays, Estuaries, Reefs. Also Mudflats & sandflats, Allis shad)	6402.03	SAC
35	Chesil and the Fleet (Coastal lagoons)	1631.63	SAC
36	South Wight Maritime (Reefs, Sea caves)	19862.71	SAC
37	Solent and Isle of Wight Coastal lagoons (Coastal lagoons)	36.24	SAC
38	Solent Maritime (Estuaries. Also, Sandbanks, Mudflats & sandflats, Coastal lagoons)	11325.09	SAC
39	Thanet Coast (Reefs, Sea caves)	2803.84	SAC
40	Essex Estuaries (Estuaries, Mudflats & sandflats. Also Sandbanks)		SAC
41	Alde, Ore and Butley Estuaries (Estuaries. Also, Mudflats & sandflats)	1561.53	SAC
42	Benacre to Easton Baven's Lagoons (Coastal lagoons)	366.93	SAC
43	North Norfolk Coast (Coastal lagoons)	3207.37	SAC
44	The Wash and North Norfolk Coast (Sandbanks, Mudflats & sandflats, Large shallow Inlets & bays, Reefs, Common seal. Also, Coastal lagoons)	107761.28	SAC
45	The Humber Estuary	39492.89	Possible
46	Flamborough Head (Reefs, Submerged or partially submerged sea caves)	6311.96	SAC
47	Berwickshire and North Northumberland Coast (Mudflats & sandflats, Large shallow inlets & bays, Reefs, Sea caves, Grey seals)	65045.5	SAC
48	Tweed Estuary (Estuaries, Mudflats & sandflats. Also, River lamprey, Sea lamprey).	155.93	SAC
49	Isle of May (Grey seal)	356.75	SAC
50	Firth of Tay & Eden Estuary (Estuaries, Common seal. Also, Sandbanks, Mudflats & sandflats)	15412.53	SAC
51	Moray Firth (Sandbanks, Bottlenose dolphin)	151341.67	SAC

Number on map	Name	Area (ha)	Status
52	Dornoch Firth and Morrich More (Estuaries, Mudflats & sandflats, Common seal. Also, Sandbanks, Reefs)	8700.53	SAC
53	Loch of Stenness (Coastal lagoons)	791.87	SAC
54	Faray and Holm of Faray (Grey seal)	785.68	SAC
55	Sanday (Reefs, Common seal. Also, Sandbanks, Mudflats & sandflats)		SAC
56	Mousa (Common seal. Also, Reefs, Sea caves)	530.6	SAC
57	Papa Stour (Reefs, Sea caves)	2076.69	SAC
58	The Vadills (Coastal lagoons)	62.43	SAC
59	Sullom Voe (Large shallow inlets & bays. Also, Coastal lagoons, Reefs)	2698.55	SAC
60	Yell Sound Coast (Otter, Common seal)	1540.55	SAC