

Sound of Barra possible Special Area of Conservation (pSAC) consultation

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations, with over 30 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

Introduction

Scottish Environment LINK's Marine Taskforce welcomes the opportunity to comment on the proposal to designate the Sound of Barra as a Special Area of Conservation (SAC) under the Habitats Directive¹. We strongly support the proposed designation of the Sound of Barra as a SAC. As set out in the consultation document, this designation would make an important contribution towards completion of the Natura 2000 network within UK waters.

Furthermore, designation would contribute towards the creation of an ecologically coherent network of marine protected areas as required under the Marine (Scotland) Act 2010. Such a network, designated according to best available science and managed to meet conservation objectives, is an essential pillar of the Scottish Government's nature conservation strategy. The network must protect and regenerate our seas, helping us to achieve Scotland's shared vision for a clean, healthy, safe, biologically diverse and productive marine environment.

We therefore strongly encourage Scottish Ministers to accept Scottish Natural Heritage's advice and designate the Sound of Barra as an SAC for sandbanks, reefs and harbour seals for the reasons set out below.

We also believe the bottlenose dolphin (*Tursiops truncatus*) population found within the Sound of Barra fulfil the criteria for a feature identified as a primary reason for selecting the site, as set out in Annex III of the Habitats Directive. We therefore request further consideration of bottlenose dolphin to be incorporated into the proposal as a feature for which the site is designated. This should include full consideration of existing effort-based field data held by Scottish Association for Marine Science but not published.

In our response to the consultation below, we comment on: a) the information included in the current consultation; and b) the scientific rationale for designation of the bottlenose dolphin as a feature of this site. Included in the annex is our assessment of bottlenose dolphin against SAC site selection criteria.

¹ Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora

A) Response to information provided by consultation and associated documents

Scientific rationale for designation of sandbanks, reefs and harbour seal

We stress that designation decisions must be based solely on the ability of the features within the site to meet the Annex III criteria. We believe that a compelling scientific rationale for the designation of the Sound of Barra as an SAC has been set out by SNH for the following qualifying features: sandbanks which are slightly covered by seawater all the time; reefs and, harbour seal (*Phoca vitulina*). In particular, we would like to highlight the following comments from the consultation documents as particularly relevant to their designation:

- *The Sound of Barra has large, well developed seagrass beds (c. 3.6km²).*
- *Maerl beds area also widely spread (c. 9km²) with patches of live maerl forming a thin and actively growing crust over the greater deposits of dead maerl. This live maerl is important to ensure the continuous supply of this habitat, which functions as a whole unit to provide a valuable habitat for many species.*
- *The Sound of Barra probably has the largest maerl beds (~9km²) found in the UK. The live maerl is often sparsely distributed but the habitat it provides is of good conservation value.*
- *The Sound of Barra extends the geographic range of sandbanks protected in SACs by 60km².*
- *The Sound contains 19 reef biotopes (habitat types), which compares favourably to other SACs such as those in Loch Sunart and the Firth of Lorn SAC.*
- *The nearest SAC sites with reefs in them are Sunart, Loch nam Madadh and Lochs Duich, Long and Alsh. The Sound of Barra would extend the geographic range of SACs with reefs by 60km².*
- *The Sound of Barra is the only site identified for harbour seals in the Outer Hebrides, a region where the species is found in significant numbers, and therefore is an important addition to the UK group of sites.*
- *The Sound of Barra has consistently supported a significant breeding population of harbour seals since the 1970's.*
- *The features of the habitat which are essential for harbour seals are in good condition in the Sound of Barra.*
- *The nearest SAC site with harbour seals is Ascrib, Isay and Dunbega. The Sound of Barra would extend the range of SACs with harbour seals by approximately 70km.*

Representation of features across their geographic range is an important component to ensure a network of protected areas is ecologically coherent. Extending the range of SACs for the features above will make an important contribution towards ensuring Scotland's network of marine protected areas includes adequate geographic representation of reefs, sandbanks and harbour seals in Scotland. Presently, there are no designated marine SACs for the harbour seal in the Outer Hebrides which means that the network of sites across the UK fails to represent the geographic range of the species. Designating the Sound of Barra as an SAC would contribute to filling this gap.

We welcome the recognition sponges, sea snails, seaweeds, worms and barnacles are typical species of reef areas. It would be appropriate to identify crab and lobster here

too. In addition cockle and scallop should be recognised as typical features of sandbanks.

The consultation notes 'considerable changes' in the seagrass have occurred near areas of recent structural developments. While these changes are reported not to have an overall adverse effect on the integrity of the sandbanks based on a 2006 survey over a relatively short timescale, it is acknowledged that human influences in the Sound, such as the Eriskay causeway and fish farms, may yet cause further changes. In addition, the consultation also highlights the decline in harbour seal numbers from 1992 until 2011. The Scottish Government must ensure that site specific work is undertaken to assess if features are currently in Favourable Conservation Status before the need for restoration is dismissed. It is unclear from the consultation what the reference to the features' condition was based on. The site should be in Favourable Conservation Status to conclude there is "no need to consider restoration possibilities". Particularly in light of the considerable changes to seagrass and decline in harbour seal numbers identified, we seek clarity on what the conclusion to not consider restoration possibilities was based on, and if any assessment of features' condition was carried out in keeping with the Common Standards Monitoring.

We draw your attention to the general duty in Part 2 of the Marine (Scotland) Act 2011 to protect and, where appropriate, *enhance* the health of the Scottish marine area. With the acknowledgement of human influences in the Sound which may cause further changes, and depending on the current and future status of the features, we believe this may be an appropriate situation to enhance the health of the Sound.

We agree with SNH advice that maerl and seagrass are particularly sensitive to physical disturbance. Therefore, we support SNH's advice that fishing gears which are towed over the seabed or dig into the sediment in some way (such as scallop dredging and hydraulic fishing methods) have the potential to be the most damaging. Again, as highlighted by SNH, the risk of damage to the reef feature arises mostly from physical disturbance by mobile gear.

Other socio-economic activities already present within the boundaries of the site as currently drawn and which may have a bearing on the conservation of the site include the harbour and anchorage at North Bay, including the fish processing plant, the two harbours on Eriskay, the harbour at Ludaig and the airport.

We look forward to future consultation on appropriate management of the site following designation. We hope further information relating to site condition, sub-habitat distribution, fishing activity and other socio-economic activities will be provided in order to facilitate these discussions.

We note that the boundary lines have been drawn to include the known extent of the reef and sandbank habitats. Although further site data to identify the full extent of the features is not available, it is highly likely that the sandbank and reef features would continue beyond the proposed boundary. It is therefore important that wider seas measures, such as regional marine planning and Inshore Fisheries Group management plans, recognise the sensitivity of these features where they occur and take action to protect them. This approach is in keeping with principle 2.5e of the Scottish

Government's guidelines on the selection of nature conservation MPAs and development of the MPA network² which states:

'management of MPAs should be integrated with wider marine management. By providing the framework within which all marine management will occur, marine planning will help ensure better integration between the needs of Nature Conservation MPAs and those of surrounding areas.'

We reiterate, the decision to designate the SAC must be based solely on consideration of the Annex III criteria.

B) Further information required in consultation

While we strongly support the rationale for designating the Sound of Barra for reefs, sandbanks and harbour seal, we also believe there is a strong scientific case for designating the site for bottlenose dolphin. This section highlights the rationale behind this. A full assessment of the Sound of Barra bottlenose dolphin population against the Habitats Directive Annex III site selection criteria can be found in the Annex to this response.

Scientific rationale for designation of Bottlenose dolphin

According to the Explanatory Notes to the Natura 2000 Standard Data Form³, it is obligatory to document *all* occurrences of Annex II species within SACs and provide information on these occurrences (Aish and Johnston 2009). If the population is classed as non-significant, then explanation should be provided as to why (CEC 1995). Again, we reiterate decisions relating to designation of features should be made solely on the ability to meet Annex III criteria.

In 2008, the population of bottlenose dolphin in the Sound of Barra was assessed by marine mammal experts at JNCC and SNH against the Annex III criteria. The population was deemed to be a qualifying feature of the site (C grade). However, during a meeting of the Protected Areas Committee on 26 August 2008, it was requested that bottlenose dolphin be downgraded as a present species (D grade), but not a qualifying feature. The Committee felt longer term data collection was required.

We understand the decision to include dolphins as a D grade was based on just one published paper (Grellier and Wilson 2003), and we are not aware of any marine mammal experts present at the meeting of the Protected Areas Committee.

Since 2008, further assessment of the population has been carried out and guidance provided. Article 4 of the Directive sets out that for the selection and designation of SACs, Member States must prepare lists of sites "*based on relevant scientific information*".

A recently published report commissioned by SNH assesses the distribution, abundance and population structure of bottlenose dolphins in Scottish waters (Thompson *et al* 2011). This adds to the relevant and more recent scientific information provided by statutory nature conservation agencies in 2008.

Furthermore, in preparing guidance for harbour porpoise and other highly mobile species, JNCC state "*for highly mobile species, the 'national population' is much less relevant, ecologically, than a biologically-meaningful population. Although geostatistical referencing can be used to designate sites on the basis of national population, it assumes that the artificial division of biological populations along national boundaries will*

² www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/mpaguidelines

translate into adequate conservation for the species and maintenance of favourable conservation status at the national level” (Pinn, amended 2009). This advice, produced since the 2008 assessment of the population, provides a clear steer of how to consider proportional population size.

The case to re-assess and identify bottlenose dolphin as a qualifying feature in selection of the Sound of Barra as an SAC is apparent. Having applied the Habitats Directive’s Annex III selection criteria and guiding principles, using the evidence and guidance now available, we strongly believe the species should be a B grade at this site.

Our full assessment of the Sound of Barra population can be found in the annex to this response. The key points of this assessment are below. These are the key aspects in accordance with the Habitats Directive Annex III selection criteria⁴ and guiding principles for migratory species⁵. We therefore believe a formal re-assessment of the population should be carried out for this consultation.

- **Sightings of bottlenose dolphin in the Sound of Barra have been relatively predictable over many years** (Grellier & Wilson 2003; Thompson *et al* 2011). It appears these animals have a very small range and they have been encountered during every visit to the area between 1995 and 2007 (Thompson *et al* 2011).
- The proposed area has a **good population density in relation to neighbouring areas** of the north and west coast of Scotland, and Ireland’s northern coast.
- The Sound of Barra bottlenose dolphin **population is estimated to represent 2.6-7.5% of the Scottish coastal population**, using the 200-300 animals that Thompson *et al* (2011) suggest occur regularly in Scottish coastal waters. While the size of the population makes up a small proportion of the populations living in European waters, considering the proportion at this more biologically-meaning scale is in line with JNCC’s guidance for designing SACs for Harbour porpoise and other highly mobile, wide ranging marine species (Pinn, amended 2009). The guidance states that the ‘national population’ is much less relevant ecologically than a biologically-meaningful population. This approach was also adopted by the UK for reporting favourable conservation status of cetaceans under the Habitats Directive. Therefore, for the purposes of evaluating the relative importance of the Sound of Barra for bottlenose dolphins, as JNCC undertook for harbour porpoise, the context should be the biologically meaningful population and not the national population.
- Dolphins inhabiting the west coast of Scotland appear to belong to two discrete communities: one using the waters around the Sound of Barra, and the other using waters of the Inner Hebrides and the mainland coast. Photo-identification has shown no encounter with bottlenose dolphins contained mixed groups from these two communities (Thompson *et al* 2011). This is key since **the population shows a high degree of isolation**, even though geographically these two populations are relatively close.
- For proposed sites for species in Annex II that are native to a Member State’s territory, Article 4.1 of the Habitats Directive states that:

“For animal species ranging over wide areas these sites shall correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction. For aquatic species which range over wide areas, such sites will be proposed only where there is a

⁴ Council Directive 92/43/EEC of 21 May 1992

⁵ Commission of the European Community (CEC). 2007. Guidelines for the establishment of the Natura 2000 network in the marine environment. European Commission DG Environment. 112 pp.

clearly identifiable area representing the physical and biological factors essential to their life and reproduction.”

The Sound of Barra encompasses various features which could provide enhanced foraging opportunities for feeding on aggregations of prey items, including coastal headlands, strong tidal currents, tidal races and eddies. The site provides prey species of sufficient quantity, quality and availability to support individual growth, reproduction and development if the prey in question are considered significant in the bottlenose dolphin diet. Much of the proposed SAC was found to be composed of biotopes with very high species diversity (Bates *et al* 2004). Calves have been observed in this population during annual surveys (Thompson *et al* 2011). This provides clearly defined breeding, nurturing/feeding areas (i.e. physical and biological factors essential to life and reproduction) according to the criteria in Pinn (amended 2009). **The features of habitat important for the species are reported to be in good conservation condition.**

We therefore recommend that the Sound of Barra bottlenose dolphin population be considered for inclusion in the proposed designation of the Sound of Barra Special Area of Conservation.

Should an assessment find the population to not be significant in relation to the SAC designation, we would welcome justification of that position.

Management of the area for bottlenose dolphins

We look forward to further discussions on the management of the area, but reiterate that the designation of an SAC must be based solely on scientific grounds. However, we are not aware of any activity taking place within the site that would require management measures to be put in place to protect the bottlenose dolphin population at present. Nonetheless, recognising the bottlenose dolphin as a feature of this site would provide the ability to enable protection of this iconic species, including with respect to any possible future activities, and preserve the areas outstanding natural heritage for future generations.

ANNEX: ASSESSMENT OF THE INTEREST FEATURE AGAINST SELECTION CRITERIA

A full explanation of the application of the site selection criteria can be found on the JNCC website: <http://www.jncc.gov.uk/page-1473>.

Below we consider if bottlenose dolphins qualify as a feature in the Sound of Barra SAC, under Criterion 1 of Annex III of the EU Habitats Directive. If the CEC (2007) guidelines for the establishment of the Natura 2000 network in the marine environment and the associated protocol are followed for the Sound of Barra, the scoring would be as follows.

a) Size and density of the population (defined by the following five attributes)

i) Continuous or regular presence (subject to seasonal variation)

When considering the 6 year period 1995-2007 covered by Thompson *et al.* (2011), bottlenose dolphins have been consistently recorded during dedicated effort watches within the proposed boundary. Dolphins inhabiting the west coast of Scotland appear to belong to two discrete communities: one using the waters around the Sound of Barra and the other using the waters of the Inner Hebrides and the mainland coast. Photo-identification data showed that no encounter with bottlenose dolphins contained mixed groups from these two communities. The Sound of Barra dolphins have a very small range and they were encountered during every visit to the area. *These records confirm the continuous presence of bottlenose dolphins within this area.*

Continuous or regular presence is **grade A (excellent conservation)**.

ii) Good population density (in relation to neighbouring areas)

Density estimates are provided in Reid *et al.* (2003) in the JNCC Cetacean Atlas. These demonstrate a good density estimate in relation to neighbouring areas on the north and west coasts of Scotland and the coast of northern Ireland.

Resulting in a **grade B**.

iii) High ratio of young to adult during certain periods of the year

Calf-adult ratio per year, where calves were observed:

2006: 1 calf observed out of 13-15 animals = 6.7 – 7.7 % of the group is calves

2011: 2 calves out of 13-15 animals = 13.3 – 15.4 % of the group is calves

A **grade D** is awarded for this feature.

iv) Other biological elements

No specific behavioural studies have been published from the study area.

At present this attribute is therefore **graded unknown**.

v) Proportional population size

The combination of dedicated photo-identification studies and third party reports of sightings suggest that a relatively small number of bottlenose dolphins (200-300 individuals) occur regularly in Scottish coastal waters (Thompson *et al* 2011). Data from 2006 and 2007 comprised a total of 13-15 individuals in the Sound of Barra, none of which were seen elsewhere, and four of which were re-sightings of individuals seen in 1995/1998 (Thompson *et al* 2011). Therefore, the Sound of Barra population makes up 2.6 - 7.5% of the Scottish coastal population based on there being 13-15 animals.

This attribute is scored **grade B**.

When considered collectively, the overall assessment of overall size and density of population is grade B.

b) Degree of conservation of features of the habitat that are important for the species concerned and restoration possibilities

The area encompasses various features which could provide enhanced foraging opportunities for feeding on aggregations of prey items, including coastal headlands, strong tidal currents, tidal races and eddies. The site provides prey species of sufficient quantity, quality and availability to support individual growth, reproduction and development if the prey in question are considered significant in the bottlenose dolphin diet. Much of the pSAC was found to be composed of biotopes with a very high species diversity (Bates *et al.*, 2004).

It is quite likely that there may be multiple interests in sites with Annex I sandbank habitat in shallow offshore waters, as this habitat is used by sandeel, which are prey for several of the Annex II species concerned. The latter aspect of multiple interest will be considered when determining any site boundaries for any of the Annex II species (Aish and Johnston, 2009).

These features are in good conservation condition and are **graded B**.

c) Degree of isolation of the population

Bottlenose dolphins have been consistently recorded during dedicated effort within the proposed boundary (Grellier & Wilson 2003; Thompson *et al* 2011). Dolphins inhabiting the west coast of Scotland appeared to belong to two discrete communities: one using the waters around the Sound of Barra and the other using the waters of the Inner Hebrides and the mainland coast. Photo-identification data showed that no encounter with bottlenose dolphins contained mixed groups from these two communities (Thompson *et al* 2011). The Sound of Barra dolphins have a very small range and they were encountered during every visit to the area. *These records confirm the degree of isolation of bottlenose dolphins within this area.*

Grade A is awarded.

d) Global assessment

When the individual grades a) – c) are combined the overall Global assessment is a Grade B.

Annex II species	Overall size and density (a)	Conservation of features (b)	Isolation of population (c)	Global assessment (d)
Bottlenose dolphin <i>Tursiops truncatus</i>	B	B	A	B

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