

Sound of Arisaig European marine site: Case History

This case history has been prepared as a record of the work undertaken on the Sound of Arisaig in establishing a management scheme for the European marine site as a means of sharing the experiences and good practice that has emerged from it.

A. General description and features of conservation importance

The Sound of Arisaig European marine site is a candidate Special Area of Conservation for the following Annex I habitats as listed in the EU Habitats Directive:

- Subtidal sandbanks (including maerl beds and *Zostera* (eelgrass) beds)

The Sound of Arisaig European marine site incorporates the outer parts of Loch Ailort, Loch Moidart and most of Loch Ceann Traigh along with the adjoining open fringe of coastal waters in West Lochaber. The area is situated between the Ardnish and Ardnamurchan peninsulas on the north west coast of Scotland where both the land and sub-sea features reflect the impact of glaciation from the last ice age. Ancient river valleys were deepened and widened into the typical U-shaped glens seen today. Where these glens reach below the present day sea level the 'drowned' coastline forms the Ailort, Moidart, and Ceann Traigh sea lochs within the Sound of Arisaig and an excellent example of a sill is found at the Loch Ailort approaches.

The UK's Joint Nature Conservation Committee (JNCC) commissioned a four-year study of the Scottish sea lochs in 1988-92 as part of the Marine Nature Conservation Review. The Biological Station Millport led the surveys of 86 sea lochs during this period including those of the Sound of Arisaig. In this survey the Sound was especially noted for its unusually high diversity of subtidal sediment habitat types, all found in a relatively small area. Of particular note was the extensive, rich and diverse beds of maerl seen in Loch Ailort, Loch Moidart (both north and south channels) and Loch Ceann Traigh.

The site also hosts some species at the northern limit of their distribution overlapping with some species at the southern limit of their distribution. There are also rare species present, found only within the maerl marine community, and a survey in 1995 recorded some species new to science.

B. Socio-economic characteristics

The area supports a small permanent population of about 500 people scattered along the coast and in settlements such as Acharacle. This population has undoubtedly had an affect on the habitat in the area over the last 100 years and it will be a significant influence on the future of the area. The area also experiences a significant seasonal fluctuation of summer visitors between April and October. Coastal development to date has been limited and no major new developments are anticipated.

The site can be divided into 5 main geographical areas for descriptive purposes:

1. Loch Ailort
2. North Channel Loch Moidart
3. South Channel Loch Moidart
4. Loch Ceann Traigh
5. The Open Coast

1. Loch Ailort

There are a number of finfish and shellfish farm leases in the area, which may be developed further in the future. There is also a finfish farming operation with extensive shore base facilities just outside the SAC at the head of the loch in the deep upper basin. The area has a number of recognised anchorages and supports a mooring association anchorage offshore from Roshven Farm. Fishing is primarily limited to the use of creels set on the rocky substrate for crustacea such as crabs and lobster. There has been some evidence of divers fishing for razor fish and surf clams which both inhabit the sediment. There may also have been some suction and hydraulic dredging activity in the past though this is not thought to have been an extensive or frequent operation.

2. North Channel Loch Moidart

There are a number of aquacultural developments and a Several Order in the North Channel mainly associated with the Sea Fish Industry Authority (S.F.I.A.). These are cage systems for halibut and seabed ranching systems for scallop on-growing trials. There is a recognised anchorage in the deep inner basin noted on the Admiralty Charts and Clyde Cruising Club publications. Fishing is almost entirely practised in the outer channel, amongst the islands on the hard rocky reefs using creels. Some scallop diving also takes place amongst the barrier islands over the sand/maerl banks. Dredging may have occurred to a limited extent in the North Channel in the past.

3. South Channel Loch Moidart

There are some aquaculture developments in this channel, principally an oyster farm in the intertidal or immediate sub-tidal on the south shore. There is a mussel farm on the north shore in the entrance to the channel though at the time of writing this was either abandoned or in the early stages of development. Fishing is restricted to creels in the main channel and around the islands in the approaches and some limited scallop diving. Some suction/hydraulic dredging has also occurred to a limited degree in the past. The channel is difficult to navigate but leads to a recognised anchorage near Castle Tioram at the head of South Channel, which is used primarily for leisure yacht purposes.

4. Loch Ceann Traigh

This loch is used extensively. There are a number of aquaculture developments and one Several Order adjacent to the southwest shoreline, protected from the prevailing wind. The Sea Fish Industry laboratories are located on the shore of this loch at Ardtoe and operate a number of aquaculture sites. The central and outer deep sections of the loch are fished using scallop dredges, creels, and benthic trawling and there is a seasonal sprat fishery in the shallow eastern side of the loch. This fishing effort varies with the seasons and from year to year as dictated by the markets, weather, and fishermen's interest. This area also attracts some scallop diving effort on the reef edges between the shallow (<20 m) and deeper (>30 m) areas. Some of the diving is in the maerl/gravel biotope locations.

5. The Open Coast

This area of open coastline is important to the local fishing communities, specifically for the creel fishermen in all depths of water and for scallop and prawn fisheries in the waters deeper than 30m. This area is used for boating and recreational diving and there are a number of moorings, notably in the small, sheltered locations along the coast such as Glen Uig Bay.

C. Relevant and competent authorities

Relevant authorities

District Salmon Fishery Board (represented by the Lochaber Fisheries Trust)

Highland Council – lead agency

John MacMillan (holder of a Several Order)

NoSWA (although has not been involved in the formation of this management scheme)
Scottish Environmental Protection Agency
Scottish Natural Heritage
Sea Fish Industry Authority.

Competent authorities

Crown Estate Commissioners
Scottish Executive Rural Affairs Department

Other stakeholders and organisations represented on the management group

Acharacle Community Council
Ardnamurchan Fishermen's Association
Arisaig Community Council
Arisaig Marina & Ardnamurchan Tourist Association
Glenuig Community Association
Landowner representatives
Mallaig & North West Fishermen's Association.
Marine Harvest McConnell
RSPB
West Highlands Moorings Association.

D. Management structure

The emphasis in this site has been to design a management structure and process which provides the stakeholders with a real decision-making role in relation to the European marine site management through the single tier management forum and topic groups. There has also been an emphasis on public meetings and face-to-face discussions involving relevant authorities and stakeholders.

A community-based approach has been employed whereby the Management Forum with its wide membership including stakeholders has taken the role of the Management Group, and management decisions are taken by topic groups. An Advisory Group is thus not required as stakeholders are part of the management structure. However there was a steering group made up of the lead agency and Scottish Natural Heritage (SNH) to oversee the work produced by the project officer and give overall guidance to the task.

The management group held a meeting about every three months. Its main function was to reach a decision through consensus on how to manage the site and its features of interest for implementation by the relevant authorities (Ras). The Chair is held alternately between the two Highland Council local members. In order to provide a more focused structure for this large management group seven Topic Groups were established to provide the Project Officer (and then the management group) with insight into the local issues to be examined with the conservation interest in order to develop the Management Scheme. The topic groups include:

- Fishing
- Development/Land Crofting
- Monitoring/Science Reviews
- Aquaculture
- Promotion and Tourism
- Moorings
- Funding

Each topic group includes members of the management group, whose function is to report the findings and recommendations of the Topic Group back to the management group for

implementation. As such the agreed decision-making structure is essentially bottom-up, in keeping with the community-based approach endorsed by the Highland Council.

E. Key events

March 1995

Site put forward for consultation which was co-ordinated by the SNH Regional Office in Fort William on behalf of the Scottish Office (SO). Drop-in meetings were held concerning the mSAC proposals. Many locals were strongly mistrustful of the proposal and expressed concern that the information about the proposal in the consultation was very basic, and merely stressed that little would change under the designation.

Summer 1995

Survey of the site for which a local fishing boat was chartered. The survey aims were to determine the extent of the habitats and to take an inventory of what marine communities were present within those habitats. This was carried out by Newcastle University as part of the Biomar Project, using acoustic survey techniques backed up with biological sampling.

June 1995

The 1st public meeting to discuss the European marine site proposal was held and attended by over 40 people. There was a considerable amount of heated discussion and objections concerning the proposal. Afterwards, many locals considered that the extreme views of some parties had misrepresented the views of many locals concerning the proposal.

April 1996

The Scottish Office (SO) and SNH met with Highland Council (HC) about mSAC proposals in their region in general, at which it was requested that further information should be made available concerning the various activities ongoing within the mSAC. In response, consultants were commissioned to report on all the activities occurring in possible mSACs in Scotland.

September 1996

Second meeting held between the SO, SNH and HC, at which agreement was reached that HC would take the lead role in the development of the European marine site management scheme. This agreement was subject to a Memorandum of Understanding drawn up between SNH (working through the administration of SAMS) and HC, whereby the site would be managed by a local Management Forum which would include local stakeholders as well as other groups, and that the RAs would be bound to implement the Management Forum's decisions within the limits of their statutory responsibilities.

October 1996

2nd public meeting at which central SNH staff explained the basis on which the site had been selected. A video of the conservation features of the site was shown and scientific survey information presented. SNH presented details of the draft conservation objectives, advice concerning activities which the Management Scheme would need to consider, and an example of what a zonation scheme for the site might look like, though this provoked objections that the management scheme appeared to be a *fait accompli*.

The site went forward as a candidate mSAC in **October 1996**.

June to August 1998

The LIFE post was created and the project officer, Peter Tevendale, was employed by HC. Efforts were initially focused on establishing a Management Forum (MF). Initial exploratory meeting of interested parties was held where membership of a management forum was established along with the local councillors as co-chair.

November 1998 to September 1999

Roles and responsibilities of RAs clarified. Agreement reached within central SNH that Regulation 33 advice should include non-statutory advice on the activities for consideration by the RAs. The Conservation Objectives were subsequently drafted and presented to the RAs. The MF and each Topic Group were provided by the project officer with a Management scheme structure and draft task plan. The MF produced a series of draft management documents.

August – November 2000

The final draft was presented to the group in August and endorsed as the consensus of the group. This was presented to the public in a meeting in October and the management strategy was published in November 2000.

E. Budget and Resources

CATEGORY	£k
Information collection	13.4
Project Officer – salary and T&S	64.9
Publicity and interpretation	9.7
Publication of management scheme	4.9
IT equipment	2.5
TOTAL	95.4

G. List of key documents

1. Natura 2000 European Marine Sites. An Introduction to Management.
SNH Management Document March 1997
2. Mapping of the benthic biotopes in the proposed Sound of Arisaig Special Area of Conservation.
By Dr John Davies & Dr J Hall-Spencer.
SNH No 83. Research, Survey and Monitoring Report. 1996
3. Maerl. An overview of dynamics and sensitivity characteristics for conservation management of marine SACs.
By D.A. Birkett, C. Maggs & M.J. Dring
Scottish Association of Marine Science (SAMS) A.M.W. Wilson. August 1998.
4. Zostera Biotopes.
By D.M. Davidson, D. J. Hughes
SAMS. Task Manager, A.M.W. Wilson. August 1998.
5. Sea pens and burrowing megafauna
By David J Huges Centre for Coastal and Marine Sciences Dunstaffinage Marine Lab, Oban.
6. Intertidal sand and mudflats & subtidal mobile sandbanks.
By M. Ellitoo. S. Nedwell. N.V. Jones S.J. Ried N.D. Cutts & K.L. Hemingway
Institute of Estuarine and Coastal Studies U of Hull.
7. A review of the effects of fishing within UK European marine sites
By S. Gubbay & P.A. Knapman. English Nature (UK Marine SACs Project).

8. Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters.
By the Scottish Executive.
9. Guidelines for managing water quality impacts within UK European marine sites.
By S. Cole et al prepared for the UK Marine SACs Project.
10. EC Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora. 21 May 1992.
11. The Conservation (Natural Habitats, etc.) Regulations 1994.
1994 No.2716 Wildlife Countryside.
By London : HMSO.

H REVIEW OF LEARNING

1. Information to support management schemes

The scientific information forming the basis of support for the management scheme has been fragmented and the management scheme process has highlighted areas that require further investigation. This in itself is not surprising and whilst this lack of knowledge was used to undermine the decision making process at the outset, enough information was available to come to an informed decision on how to manage the site. However the process did highlight that the draft conservation objectives and Regulation 33 advice was needed from the outset with some good information on where the interest features were within the site.

2. Relevant authority and stakeholder structures

There were no RA or stakeholder structures before the management forum was established for this site. The management Forum represents the only such structure to date.

3. Methods of relevant authority and stakeholder participation

All the stakeholders and RAs participated in the decision making process through the management forum and topic groups. This was a one tier structure with the topic groups in place as advisory bodies.

One-to-one meetings: These were important for sensitively progressing issues at various critical stages of the management process. They were particularly useful at facilitating a level of trust when the Regulation 33 package was first produced and helped to engender a feeling of ownership of the project and of the likely management requirements on the site.

Informal network: Due to the small population in the area, a lot of informal discussion was generated by the marine ranger and project officer outside the formal meetings. It was through this discussion that the most contentious problems were guided to a satisfactory conclusion.

4. Process and content of the management scheme document

The Management Forum decided that the management scheme document should be short, concise, and visual in appearance with the content based round the Regulation 33 advice. The topic groups gave rise to an issues paper - related to activities - which in tandem with the Regulation 33 advice and background information resulted in a first draft. The most contentious issues, usually also highlighting the vulnerable areas of the site remained to be addressed. Subsequent drafts followed in which users of the site were able to reach

compromises until a final scheme was produced and agreed by all interested parties. This was presented in a public meeting and, having received no further objections, signed off by the relevant authorities and published.

5. Interpretation and publicity

Workshops: No workshops were needed even though a workshop on the conservation objectives was offered by the project officer but not taken up. The management forum seemed happy with the content of the conservation objectives and the Regulation 33 advice and limited further discussion to the management of activities in the light of those objectives.

Expert Talks: One important talk was presented to the management group on the impact of dredging on the maerl marine communities. This clearly established the severe negative impact of this fishing activity on the interest features and the need for management of this activity within the site where the maerl was to be found.

Displays: A grant was awarded from SNH for the commission of a series of underwater photographs to be taken. A number of portable panel boards were also purchased for the display of these photos.

Leaflets: An SNH promotional leaflet was produced and distributed to great effect in the area.

Stone Plinth: An award of £4000 from the LIFE project allowed a stone plinth and metal engraved display panel to be erected at a viewpoint overlooking the site in Glenuig.

Calendar: A year 2000 calendar was published depicting images of the site.

Press coverage: Modest but positive press coverage was achieved covering the main events of producing a management scheme for the site.

Website: 'www.soundofarisaig.org' was set up and launched with the publication of the scheme.