



Managing MPAs: Getting it right for Scotland

Scotland's coasts and seas are amongst the most diverse in the world. We must act now to ensure we do not destroy these unique and beautiful environments, together with the **natural resources we all rely on.**

Managing our seas

Our amazing marine and coastal environment influences all life in Scotland. As we look to the sea to provide more food, energy and services we all rely on, we are increasing pressures on this already fragile environment. The Marine (Scotland) Act 2010 provides us with the tools to successfully manage these pressures and radically alter the face of marine nature conservation. Now we must use them to achieve Scotland's vision of a **clean, healthy, safe, productive and biologically diverse marine and coastal environment**.

A coherent network of Marine Protected Areas is central to the Scottish Government's strategy for marine nature conservation. As with the designation of MPA boundaries, we must use the best available science to develop appropriate management measures for each site.

However, effective management of MPAs will also require collaboration and support from all who use the sea. Involving citizens in the MPA process is essential. This will enable us to maximise the social, economic and ecosystem benefits provided by a well-managed network of MPAs.

There will be challenges along the way. Strong political will must be maintained to drive forward the changes that will safeguard our seas now, and for generations to come.

A variety of management measures will be needed. Here we highlight some of those recommended by the Scottish Association for Marine Science in its report: *'Making the case for sound management of Marine Protected Areas'* (see www.scotlink.org).

Seamounts

These undersea mountains, with peaks of over 1km, influence their physical environment downstream, supply species to neighbouring regions and act as stepping stones in long-distance dispersal of species.

Management measures should include:

- recognition of critical role as habitat, including for mobile species;
- adaptive approach to climate change and ocean acidification;
- use of buffer zones;
- adoption of a precautionary management approach due to lack of data.



How should we use... ?

Statutory management measures

A variety of organisations will be responsible for the success of MPA management measures. Statutory management measures provide clear direction and a level playing field, ensuring all organisations play their part in the protection and recovery of Scotland's marine environment.

Marine Conservation Orders

Conservation Orders, made under the Marine (Scotland) Act 2010, could be implemented to reduce

specific pressures in specific locations, thus avoiding conflict caused by a blanket-approach to protection.

EIA and SEA

Strategic Environmental Assessment and Environment Impact Assessments should be a key component of fisheries management, just as for other industries. These tools would take account of the environmental, economic and social contributions made by Scotland's fishing industry and so help manage cumulative effects alongside other key activities.



Tidally swept communities

The Flame Shell, Horse Mussel beds and Maerl beds are all part of these communities. Their slow growth, long life and poor recruitment make them vulnerable to disturbance while population recovery is difficult.

Management measures should include:

- spatial planning of mobile fishing gear and aquaculture, which may include closed areas;
- mapping of community locations;
- improved long-term monitoring, research and conservation biology including recovery studies.

Mobile species

Mobile species like seabirds, cetaceans, and basking sharks benefit from habitat protection at different life stages, including breeding and feeding. Areas for socialising, nursing and resting are also essential as are movement corridors connecting critical habitats. Consideration of all these aspects is crucial to long-term survival.

Management measures should include:

- protection of critical habitats and movement corridors at sea;
- seaward extension on existing land-based site protection;
- scientific research and monitoring;
- promotion or creation of codes of conduct;
- zonation.



Management measures explained:

Spatial planning of activities incompatible with conservation objectives

Consideration of priority habitats and species should be taken at initial planning stages; if proposed activities will hinder objectives then management measures must be applied to reduce impact, including relocation of the activity if necessary.

Zonation

Different levels of protection within a single MPA will provide a tailored approach to localised marine spatial planning. Areas of high sensitivity, or in need of recovery, may benefit from higher restrictions, such as No-Take-Zones, whereas other areas may be capable of supporting certain activities.

Buffer zones

Direct damage can occur to the edge of protected features from surrounding activities. Features can also be indirectly affected by the disturbance of nearby sediments. Including a buffer zone in an MPA can help reduce these impacts.

Movement corridors

Connecting critical habitats at sea is vital to ensure that animal hotspots do not become isolated and long-term population viability is safeguarded. Movement corridors help an MPA network thrive, and are particularly important for mobile species, including fish, cetaceans, pinnipeds, seabirds and invertebrates.

Scotland's unique marine ecosystem can be given the chance to thrive with the aid of a well-managed network of Marine Protected Areas. Not only will this safeguard the goods and services we all rely on, but also make our seas more resistant to climate change and other human impacts. To achieve this, the right management measures must be put in place. We urge the Scottish Government to:

1. Take decisive action to protect our seas

Maintain strong political will to deliver challenging decisions. For example, where activities pose a risk to protected features, management decisions must be taken to safeguard conservation objectives. This may include re-location of activities.

Beneficial activities within sites should be encouraged, while damaging activities must be managed. The tools of the Marine (Scotland) Act should be used to achieve this.

Wider measures must contribute to MPA management. This includes spatial planning and regulatory levers such as the Inshore Fishing Act.

Focus on the long-term design and management of MPAs. Sites must be linked by corridors to improve resilience and natural movement of species.

2. Strive for greater support of MPAs

Ensure a common understanding amongst all stakeholders of the vital role of MPAs in

safeguarding goods and services.

Proactively engage fisheries and other sectors in the development of local management plans. In line with other sectors, fisheries should undergo environmental assessments.

Clearly define MPA objectives in a transparent and inclusive manner. This will build trust and allow assessment of an MPA's success.

3. Improve understanding of our marine environment

Invest in research of ecological, social and economic factors that impact MPAs.

Adopt a precautionary approach to management where understanding and data availability is limited.

Base MPA management and decision making on the best available scientific knowledge.

Carry out long-term monitoring to allow for revision of management measures when necessary.

'Making the case for the sound management of Marine Protected Areas' is an independent scientific report produced by the Scottish Association for Marine Science for Scottish Environment LINK's Marine Taskforce. A full copy of the report, and information on the Marine Taskforce members, can be found at www.scotlink.org

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