



# Seas Fit For Scotland

## Marine Protection and Sustainable Use in the 21st Century

From Mesolithic shellfish gatherers to the fishing communities, aquaculturists, oilmen and wider society of the 21st century, the prosperity of Scotland has throughout history depended upon her bountiful seas. Yet by extracting fish, shellfish and minerals from Scottish seas and disposing of industrial, agricultural and sewage waste into them, we have long taken these life-giving waters for granted.

Representing over 75% of her jurisdictional area, Scotland's seas support:

- a diverse range of marine habitats
- 13,000 species of marine flora and fauna
- 71% of the UK fishery
- a burgeoning yet inadequately regulated aquaculture industry
- an oil industry expanding into the North Atlantic



However, tell-tale signs of ecological stress are showing. Escapes and pollution from farmed salmon, toxic algal blooms, overexploitation of commercial fish stocks, destruction of ancient deepwater coral, radioactive hotspots, littered beaches and sewage pollution make regular news.

A comprehensive, coordinated marine conservation strategy for Scotland is vital, not only for the enormous variety of life found in our seas but also for the coastal communities that depend upon them for their livelihoods.



### Scottish Environment LINK Marine Task Force Vision

*"The vision of the Scottish Environment LINK Marine Task Force is healthy, productive seas that can sustain thriving coastal communities in perpetuity."*

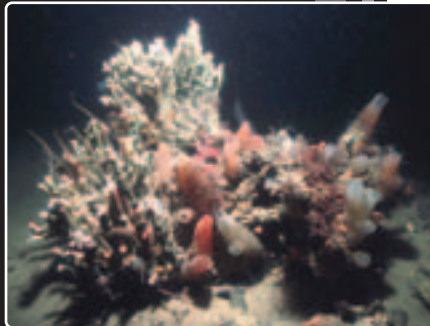
Such a vision requires a marine and coastal environment where habitats and species are protected and, if degraded, restored where practicable to their former condition; living and non-living marine resources are used sensitively; coastal and marine developments are managed in an integrated, sustainable manner; and pollution from land-based and offshore sources is eliminated.

The historic re-establishment of The Scottish Parliament provides an ideal opportunity for Scotland to lead the way in developing and implementing a marine management system that will safeguard this precious resource for our future. In its second term, Parliament must begin to make real progress in fostering stewardship of our coasts and seas.



An agenda  
for action by  
the Scottish  
Environment  
LINK Marine  
Task Force

Scotland has over 10,000km of coastline. From migrating whales and dolphins, to anemone and sponge encrusted sea caves and arches, the surrounding seas support an amazing diversity of life:



Spectacular and diverse serpulid reefs are unique in Europe to Loch Creran - one of many biological treasures beneath Scottish seas.



Stunning flame shells (*Limaria hians*) build nests which are fragile havens for marine biodiversity.



Leatherback turtles (*Dermochelys coriacea*) follow the Gulf Stream to Scotland and beyond to feed on rich supplies of jellyfish.

# Scotland's Marine Environment

**Internationally important seabird, mammal and shark populations** including: the largest gannet colony in the world at St Kilda; globally important colonies of skuas and other seabirds; 32% of the world's grey seals (95% of the UK population); 24% of UK common seals; the most northerly populations of bottlenose dolphin in the world; 23 other species of whales and dolphins; the basking shark, the largest fish of northern seas; and the mighty leatherback turtle.

**Sea lochs** in Great Britain are unique to Scotland. These 'fjord'-like deepwater habitats close to land, support a diverse range of sea-bed communities including: maerl beds, excellent examples of which can be found in Lochs Sween and Torridon; Serpulid reefs, known in Europe only in Loch Creran; biologically rich nests of spectacular flame shells; commercially important Norway lobster; parks of beautiful giant sea-pen and relic ice-age species such as the warty seasquirt *Styela gelatinosa*.

**Spectacular rocky reefs, sea caves and arches**, such as at St Abbs Head, St Kilda, Firth of Lorne and Papa Stour, Shetland, pulsating with colourful soft corals, anemones and sea-squirts, thriving on plankton and food particles delivered by strong tidal currents.

**Biologically rich estuaries**, including Scotland's Firths, providing refuge for worms, shellfish and occasionally sea grass (one of only a few truly marine flowering plants), representing important larders for fish and migrating waders and wildfowl.

**Tranquil lagoons**, such as Loch Stenness, Orkney, are home to important communities of brackish water algae, fish and invertebrates. They vary widely in composition from fresh to seawater.

**Mysterious deepwater habitats** 80km to the west of Scotland between 140 and 1,500m, including biologically diverse hard-coral (*Lophelia*) and sponge communities, and bizarre-looking fish such as deepwater anglers, rabbitfish, orange roughy and scabbardfish.

**Once-thriving coastal communities** which for centuries relied upon formerly vast stocks of oily fish (eg. herring, sprat, mackerel) and whitefish (cod, whiting, haddock, saithe) for their livelihood. The Scottish fishing fleet currently employs 7,330 people on a total of 2,585 boats, however the livelihoods of the smaller operators are increasingly at risk from escalating fishing pressure.

## Challenges Facing Scotland's Marine Environment

Over 77 Acts govern activities relating to the marine and coastal environment in Scotland. These have evolved on an *ad hoc* basis, often in response to emerging economic pressures such as salmon farming or oil exploration. There exists neither a coordinated strategy to integrate the legislation nor a Government policy framework to advise or support bodies with marine duties.

With the adoption of Annex V 'Protection of the Ecosystems and Biological Diversity of the Maritime Area' of the OSPAR Convention in 1998, the challenge for the Scottish Parliament is to integrate management and legislation regarding the following activities in the marine and coastal environment:

**Coastal development** including ports, coastal defences, power stations, military operations, refineries, causeways, bridges, marinas, business parks, malls and, of increasing relevance in remote west coast communities, wave and tidal power generation.

**Shipping** - The Firth of Forth (41.1 Million tonnes of traffic in 2000) and Sullom Voe, Shetland (38.2Mt in 2000) are respectively the fourth and fifth largest UK ports. Sullom Voe alone accounts for 20% of all crude oil traffic in the UK, much of which navigates the biologically sensitive waters of the Minch.

**Oil exploration** - As North Sea reserves become depleted, new oil fields are being exploited in the NW Atlantic, including the Foinaven, Schiehallion and Clair fields west of Shetland.

**Fisheries** - Scottish vessels account for >60% by value and >70% by weight of all landings by the UK fleet. With some three-quarters of commercial stocks outside safe biological limits, trawlers from France, Spain, Ireland, Scotland and the Faeroe Islands are moving offshore west of Scotland, expanding a highly sensitive deepwater fishery.

**Salmon farming** - Salmon production has trebled in Scotland since 1990. The estimated 70 million farmed salmon produced annually outnumber by more than 1,000 to 1 the 55,000 wild salmon caught. Wild salmon have disappeared from many of Scotland's rivers; west coast salmon are down by 91% since 1960. The perceived benefits of this industry to local economies must be balanced with issues of chemical use, pollution, escapes and regional eutrophication. Between 60 and 85% of salmon farming revenue in Scotland is earned by overseas multinationals.

**Pollution** - Approximately 70% of the Scottish population live within 10km of the coast, concentrating particularly around the busy Firths of the central belt. In 2001, 15% of Scottish bathing waters (9 beaches out of 60) failed the minimum EC Mandatory Standard for bathing water quality. Industrial, sewage and litter pollution from urban areas continues, whilst diffuse pollution can cause eutrophication and elevated algal concentrations in coastal waters.

## Achieving Seas Fit For Scotland

A co-ordinated approach to marine nature conservation in Scotland requires the collaboration of all stakeholders: statutory government bodies; environmental, social sector and other NGOs; local authorities; businesses and representatives of key sectors such as the fishing and aquaculture industries.

The LINK Marine Task Force welcomed the widespread ratification of the WWF Edinburgh Declaration on stewardship of our oceans. Progress with the UK Government's Marine Stewardship Report and the Review of Marine Nature Conservation also marks a growing recognition of the need for the protection and sustainable use of our coasts and seas.

Whilst positive initiatives are underway, there is still much that the Scottish Environment LINK Marine Task Force believes needs to be done. There is currently a lack of joined-up thinking in the Scottish Executive with regard to the marine environment. In particular, there is no properly resourced overarching framework that provides standards for consultation and decision-making about marine activities. To rectify this, we urge the Parliament and Executive to advance the following actions in the next term of the Scottish Parliament:

### Creating the right Statutory Framework

- Clear identification of a Scottish Minister with responsibility for the marine environment.
- A duty on the Scottish Executive and all statutory bodies to protect the marine environment, whilst promoting good stewardship of marine resources.
- Clarification of the roles of the statutory agencies with respect to the marine environment and harmonisation of their monitoring and reporting systems.
- Creation of a unifying marine planning system.
- A statutory requirement to undertake a Strategic Environmental Assessment of all relevant plans, policies and programmes, including those for fisheries and aquaculture.

- Introduction of domestic legislation to cover the whole of our seas – whether through a specific Oceans Act and/or amendments to existing legislation.

### Conservation of Sites, Habitats and Species

- Full designation at sea of internationally important sites under the EU Habitats and Wild Birds Directives.
- Implementation in Scottish waters of the measures required under the EU Habitats Directive to account for disturbance of whales, dolphins and porpoises.
- Statutory backing and funding for Local Biodiversity Action Plans.
- Designation of Marine Environmental High Risk Areas (MEHRAs) for shipping.
- Debate on and designation of Marine National Parks.
- The reform of Scottish wildlife legislation to fully address the protection of nationally and internationally important marine sites, species and habitats including:
  - identification and designation of nationally important sites in Scotland
  - extension of powers of arrest to unlawful activities within those sites
  - emergency and stop orders to prevent damaging activities
  - restoration powers where sites have been damaged

### Fisheries Management

- Introduction of a system of local and environmentally sustainable fisheries management for Scotland.
- Full participation in the process of reforming the EC Common Fisheries Policy pressing for integration of the ecosystem approach, zonal management and precautionary principle throughout the management of Europe's fisheries.
- Reformation of the Regulating Orders system.
- Piloting No-Take Zones to protect marine biodiversity and enhance fisheries.

### Aquaculture

- Relocation and removal of inappropriately sited fish farms.
- Transferral of aquaculture planning powers from The Crown Estate to Local Authorities.
- Review of the Locational Guidelines for fish farming to include assessment of the carrying capacity of Scotland's coastal waters for fish farming and to encourage environmentally sustainable farming practices.
- Incorporation of the Precautionary Principle in developing culture of new farmed species (eg. cod, haddock).
- Promotion and economic encouragement of organic finfish and shellfish farming as alternatives to intensive finfish farming.



Both the shipping and oil industries have impacts off and onshore.



The *Nephrops* (Langoustine, prawn or scampi) fishery is one of many valuable yet ecologically precarious fisheries in Scottish waters.



Dwindling stocks of fish such as Atlantic cod (*Gadus morhua*) affect Scottish fishermen, particularly smaller operators.

### Non-living Marine Resources

- Sustainable management of oil exploration and development activities in the North Sea and Atlantic Frontier.
- Strategic and sustainable development of offshore wind, wave and tidal energy generation.

### Integrated Coastal Zone Management

- Ensure a statutory basis for Integrated Coastal Zone Management through a fully resourced Scottish Coastal Strategy.
- Introduction of Shoreline Management Plans.
- Implementation of the Water Framework Directive to take full account of the ecological quality of coastal waters and uses to which these waters are put.

### Marine Pollution

- Elimination of inadequately treated sewage to coastal and marine waters, including aquaculture sewage pollution.
- Identification of the cause of toxic algal blooms and implementation of measures to counteract them.
- Reduction in diffuse nutrient pollution from agriculture and identification of Nutrient Vulnerable Zones.
- Reduction at source of litter inputs to the coastal and marine environment and statutory routine monitoring and responsibility for aquatic litter.

### Education

- Incorporation of marine conservation issues into school, college, fisheries college and industry curricula.



## Concluding Statement

Although a small nation, Scotland has a comparatively large proportion of north-west European seas. Scotland is therefore a major stakeholder, with significant responsibility for conservation of the marine biodiversity and protection of the livelihoods of coastal communities, not only of Scotland but also of Europe as a whole. The second term of the Scottish Parliament provides new legislative, policy making and organisational prospects. The Scottish Parliament and Executive must seize this opportunity to safeguard the marine and coastal splendour that surrounds Scotland for the benefit of marine life and future generations. Member bodies of Scottish Environment LINK look forward to helping realise this opportunity.

*Established in 1987, Scottish Environment LINK have already produced and contributed to a range of invaluable marine related publications for lobbying, reference and consultation purposes, including:*

*Marine Charter: A call for reform of how our seas are managed and protected (in conjunction with Wildlife and Countryside Link and Wales WCL, 2001)*

*Leaping in the Dark: Review of Environmental Impacts of Marine Salmon Farming in Scotland and Proposals for Change (1997) by Alison Ross*

*The Marine Environment: An Audit (1997) by Sue Gubbay*

*All At Sea? Coastal Zone Management – The Case for Scotland (1993)*

*Marine Fishfarming In Scotland: A Discussion Paper (1988)*

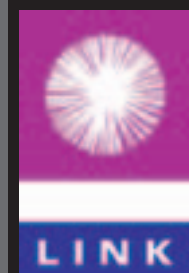
**Scottish Environment LINK is the liaison body for voluntary sector environmental organisations in Scotland. The following are members of the Scottish Environment LINK Marine Task Force:**



MARINE CONSERVATION  
SOCIETY



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Scottish Environment LINK  
Tel: 01738 630804  
[www.scotlink.org](http://www.scotlink.org)  
email: [enquiries@scotlink.org](mailto:enquiries@scotlink.org)