



WWF Marine Health Check Update 2009

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The WWF Marine Health Check series, previously published in 2000 and 2005, aims to provide an evolving overview of the well-being and status of 'flagship' habitats and species that live in the seas around the UK. The findings have revealed mixed fortunes for marine life but highlight clearly that much of our marine biodiversity remains under threat from a multitude of human activities, from fishing to oil and gas exploitation, and emerging threats such as the impacts of human-induced climate change. This update considers how the current UK Marine and Coastal Access Bill might improve the status of the flagship species and habitats.

The UK Marine and Coastal Access Bill and Devolved Legislation

Parliament is currently debating the UK Marine and Coastal Access Bill and we expect this to become law in late 2009. This legislation will establish a network of marine protected areas, called Marine Conservation Zones and a holistic planning system. A single agency, called the Marine Management Organisation will also be set up to manage English waters and UK offshore regions (for non-devolved activities). The Scottish Marine Bill is being scrutinised by the Scottish Parliament and will also introduce new marine protected areas, a marine planning system and an equivalent body to the Marine Management Organisation, called Marine Scotland. The Northern Ireland Executive is expected to produce its own marine legislation by 2012. The majority of the Marine and Coastal Access Bill will apply to Wales, although secondary legislation will also be required.



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Farmed Atlantic salmon held in a Scottish loch

Flagship species

Atlantic salmon (*Salmo salar*)



A male (front) and female Atlantic salmon, *Salmo salar*, from the River Avon in Scotland.

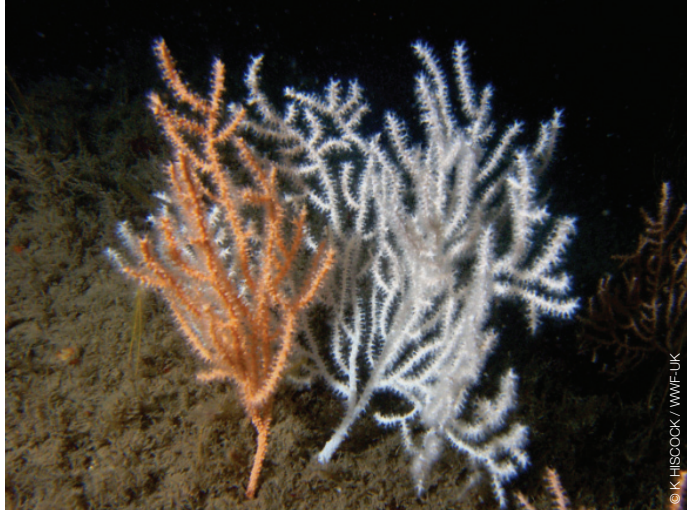
2009: Continuing to decline

The Atlantic salmon, *Salmo salar*, is found throughout Britain and Ireland and spends most of its adult life at sea, living in fresh water during its reproductive and nursery phases.

Salmon stocks have continued to decline over the past 30 years despite targeted management measures and some improvements in water quality. North Atlantic catches plummeted 80% between 1970 and 2000. As well as a decline in abundance, the condition of salmon is currently a cause for concern.

The Marine and Coastal Access Bill could be used to increase the level of protection for salmon in estuaries, not only through the designation of Marine Conservation Zones, but through integration with current piecemeal coastal and estuary measures. Integration is necessary to manage the cumulative pressures on migrating salmon.

Pink sea fan (*Eunicella verrucosa*)



Eunicella verrucosa is normally pink; however, white varieties are sometimes seen.

2009: Mostly stable, but no evidence of recovery in previously degraded sites

The pink sea fan, *Eunicella verrucosa*, is one of the most exotic of our sea bed species. It thrives only in the south-west of Britain where, at a few locations, it can occur in 'forests'.

Although pink sea fans are no longer in overall decline, populations are classified as degraded as a result of past and continuing damaging activities, such as dredging for scallops, and have not shown signs of recovery from damage. As well as being a nationally important species, pink sea fans are often found with a variety of other sensitive species, such as sponges. The Marine and Coastal Access Bill provides an opportunity to increase the level of protection afforded to these long-lived, fragile species via Marine Conservation Zones. This is vitally needed to ensure recovery and guard against the possibility of further damage.

Horse mussel (*Modiolus modiolus*)



Horse mussel (*Modiolus modiolus*) beds provide a valuable refuge for a multitude of species including tube worms, anemones, brittle stars and sea urchins

2009: Stable but no sign of recovery in damaged areas, such as Strangford Lough

Horse mussel beds act as living reefs and provide a habitat and refuge for many other species. Without human interference, horse mussel beds are extremely long-lasting, stable structures. However, due to their poor rate of growth, beds are very slow to recover from any damage. It is possible that beds may in fact never recover from severe damage, particularly that caused by trawling, e.g. for queen scallops which are often associated with horse mussel beds.

The designation of Marine Conservation Zones and similar protected areas will provide an opportunity to adapt the level of protection to restrict damaging activities, thereby ensuring that the habitat is able to recover and is not further damaged. Furthermore, the replication of protected sites covering the full geographical range of this species will be required to provide protection if, as predicted, its natural range alters due to increased sea temperatures as a result of climate change.

Harbour porpoise (*Phocoena phocoena*)



Harbour porpoise showing gill net entanglement marks around its mouth, head and fins.

© Cornwall Wildlife Trust

2009: Stable in wide-ranging populations but declining in local areas

The harbour porpoise, *Phocoena phocoena*, is the smallest of the cetaceans found around the UK. It is also the most heavily protected species, being listed in 23 directives, statutes and conventions. Despite this, populations continue to be threatened by human activities, and incidental capture or 'bycatch'. Of all the marine mammals, the harbour porpoise is the most frequently affected by bycatch in the north east Atlantic, with 20% of strandings attributed to bycatch.

In 2008, OSPAR listed the harbour porpoise as under threat/in decline in the Greater North Sea and the Celtic Sea.

The Marine and Coastal Access Bill presents the opportunity, via a strategic marine planning system, to manage areas important to the harbour porpoise alongside human activities. A number of activities are having direct impacts on the harbour porpoise and we must use the legislation to address this. The Bill also offers the potential to designate Marine Conservation Zones that could have a number of levels of protection, which could potentially vary seasonally to account for the different uses of certain areas by the porpoise at different times of the year.

Seagrass (*Zostera spp.*) beds



Eelgrass *Zostera marina* in Salcombe harbour.

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2009: Degraded

Seagrass beds are rich habitats for marine life and important sources of food for wading birds as well as a spawning and nursery habitat for many types of fish. In the 1930s, seagrass abundance was affected by disease and there are still no signs of recovery. Beds are also being damaged by activities such as anchoring and by trawling for cuttlefish, which can cause physical impacts and lead to fragmentation of the habitat. Seagrass beds are important habitats for other species, for example a breeding population of seahorses has been recorded at Studland Bay, Dorset.

Designation of Marine Conservation Zones, provided by the Marine and Coastal Access Bill, should be used to increase protection of this important habitat in order to allow recovery. The Bill also gives stronger powers and explicit duties to manage inshore fisheries in England to further conservation, which should lead to greater protection for marine habitats, including seagrass beds, and their inhabitants.

Deep-water coral (*Lophelia pertusa*) reefs



Lophelia pertusa.

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2009: Continued decline

Deep-water coral reefs occur worldwide, generally at depths in excess of 200m, beyond the reaches of surface light. The reef structure provides shelter for a wide range of species such as fish and crabs and creates a habitat for non-mobile species such as sponges and barnacles. For many years, deep-water trawlers have been fishing long-lived and slow growing fish from the area of these reefs, often destroying the reefs in the process. Deep-sea fishing is now widespread and it is likely that currently unknown reefs are sustaining damage before they have been discovered.

Deep-water corals are also threatened by climate change and are more vulnerable than tropical corals. Climate change is increasing the acidity of the oceans and this is likely to be a significant threat to corals in our oceans.

Much more information from surveys is now available, pointing to the location of sites that need to be protected from fishing. The designation of an ecologically coherent network of marine protected areas through the Marine and Coastal Access Bill and EU legislation could help to build resilience in marine ecosystems to climate change.

WWF's recommendations for the UK Marine and Coastal Access Bill

The 2009 update of the Marine Health Check shows that seagrass, Atlantic salmon and deep-water corals continue to decline, despite some conservation and management measures. The pink sea fan, harbour porpoise and horse mussel reefs have not declined further since 2005, but continue to be threatened and damaged by specific activities in particular areas. The UK Marine and Coastal Access Bill must be used to halt the decline in biodiversity and ensure its recovery to achieve clean, healthy and biodiverse seas. WWF's priorities for the Marine and Coastal Access Bill and its implementation, which are highlighted in the Marine Health Check Update 2009, are:



Newlyn, Britain's busiest commercial port for UK fishing boats

The full report will be published in the Autumn entitled – *The Marine Health Check - Update 2009* prepared by the Marine Life Information Network (MarLIN) at the Marine Biological Association of the UK.

- Marine Conservation Zones must be identified using sound scientific criteria alone. The socio-economic consequences of designation should only be considered where the desirability of designating two or more areas is equal and will not compromise the ability to achieve an ecologically coherent network of sites.
- Marine Conservation Zones should have different levels of protection to address the variation in threats to and conservation of species and habitats. Highly protected Marine Conservation Zones are needed for especially vulnerable, sensitive or threatened species and habitats.
- The Bill must not include a blanket defence for sea fishing against causing damage to a Marine Conservation Zone. Sea fishing must be compliant with the requirements of the Marine Conservation Zone because it can be one of the most common causes of harm to marine wildlife.
- In order to adapt to changes in effectiveness and the impacts of climate change, the boundaries of Marine Conservation Zones may need to remain flexible.
- Conservation objectives for Marine Conservation Zones need to be explicit, as ambiguity can lead to ineffective protection and failure to meet objectives. Robust management plans provide a key mechanism to achieve this and should be produced for all Marine Conservation Zones.
- The Marine Management Organisation should have a proactive role in our seas with a remit to 'further' sustainable development.
- The Marine Management Organisation must be a statutory advisor to the Infrastructure Planning Commission when considering developments that impact on the marine and coastal environment.
- The Marine Management Organisation and equivalent devolved bodies must deliver a consistent and coordinated approach across borders and the boundaries between land and sea. Marine plans should be based on ecosystems, not administrative boundaries, and should be produced for all UK seas.
- Inshore fisheries management in England and Wales should ensure sustainable fisheries management and reduce bycatch.

The mission of WWF is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- reducing pollution and wasteful consumption



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