Protecting our marine environment through the Marine Bill

defra
Department for Environment
Food and Rural Affairs

The Government's vision is for:

clean, healthy, safe, productive and biologically diverse oceans and seas

Foreword

Our seas are important. We use the seas not just for fish to eat but for many other resources on which jobs and livelihoods depend; for tourism and recreation too. Therefore damage to marine life, habitats and ecosystems has serious knock-on effects for all of us. Protecting our marine environment is a high priority.

We are already protecting and improving our marine environment in many ways. For example, pollution has been reduced to the extent that it does not generally affect the open seas. Licensing of activities such as oil extraction and aggregate dredging ensures that they do not cause unacceptable environmental impacts. Biodiversity Action Plans are helping to identify the needs of threatened species, such as the basking shark and sandy ray, and to put measures in place to help populations to grow and recover.

We need to accommodate a wide range of activities and uses to meet people's needs. That is where the Marine Bill comes in. Our proposals will be a huge step forward in marine planning and protection. The Marine Bill will allow us to plan effectively for competing activities while protecting marine life and habitats.

By 2012, I want to see an extended network of marine protected areas conserving the richness of our marine environment. I am keen that all stakeholders should be fully involved and consulted as part of identifying and managing the network.

Jonathan Shaw, MP

Minister for Marine, Landscape and Rural Affairs and
Minister for the South East

Typical shallow rocky reef community found in the south and west of England – © David Peake

The UK marine environment

The UK has one of the world's richest marine environments. As an island nation we are responsible for a sea area over three times larger than our land area. It includes shallow coastal waters and ocean depths of over 2000 metres as far as 350 nautical miles (650 km) off the north-west of Scotland. In these deep waters, habitats include cold-water corals and rocky reefs. We have about 20,000 km of coastline (roughly equivalent to half way round the world) which also has a diversity of habitats including sandy beaches, sheltered lagoons, muddy estuaries and rocky shores.

Our seas are home to a huge variety of animals and plants, ranging from whales and dolphins to sponges and sea anemones. Over 8000 species have been recorded in our seas, mainly in the shallow waters. The number of recorded plants and animals continues to grow as scientists investigate the immense diversity of micro-organisms such as plankton and bacteria living in our seas.

Short-beaked common dolphin seen regularly off the Cornish coasts © Chris Gomershall (rspb-images.com)

Anemones with sea squirts found on rocky reefs – © JNCC

Why protect our marine environment?

Activities such as fishing and extracting aggregates, oil and gas all affect our marine environment. We have damaged many habitats, for example by some fishing methods and by boat anchor chains dragging through seagrass beds. Pressures from commercial activities have caused a decline in a number of species, including spiny dogfish and porbeagle and even extinctions, for example of the angel shark in parts of UK waters. Species such as the common skate and fan shell are no longer common. We need to protect rare, threatened and valued habitats and species.

But we need to do more. Our seas regulate our climate, for example by conveying heat from the Tropics via the Gulf Stream. They also help to dampen extreme weather events, for example rocky reefs deflecting heavy waves. Marine ecosystems supply life support services on whose conservation our survival depends, for example plankton absorbs carbon that would otherwise contribute to global warming. The seabed can help to reduce climate change through carbon capture and storage in offshore oil wells. Seas also provide renewable energy resources, such as offshore windfarms and wave power.

> “Pressures from commercial activities have caused a decline in a number of species”

Angel shark – © Simon Rogerson

Rockpools – © Steve Trewhella

Diverse marine ecosystems provide a range of goods and services which we need. A wide variety of species in our marine environment helps to ensure that it can adapt to climate change and continue to supply food and raw materials for us, including ingredients for medicines, such as anti-inflammatory and potentially cancer-fighting drugs. Activities such as fishing provide economic benefits as well as social benefits by supporting coastal communities.

Cold-water coral reefs and rocky reefs are often important feeding and nursery grounds for fish. Plankton are at the bottom of the food chain for lots of species, including many commercial fish; and many micro-organisms, such as bacteria, are important for recycling nutrients from dead plants and animals.

Our seas are already showing the effects of climate change and we must ensure that marine ecosystems are sufficiently healthy to be resilient, as far as possible, in the face of changing conditions; and that we plan for those changes.

Our seas offer us opportunities for recreation, such as angling enjoyed by over one million people each year, sailing and diving. They have aesthetic, spiritual and cultural value which inspires and enriches our lives and contributes to national identity. They are also an educational resource.

We have a moral and ethical obligation to conserve the marine environment for future generations. The diversity of our marine life has intrinsic value.

It is difficult to establish the monetary value of the benefits we receive from our marine environment, but these should not be overlooked because they are vital to our survival, our economy and our well-being.

Our marine protected area network

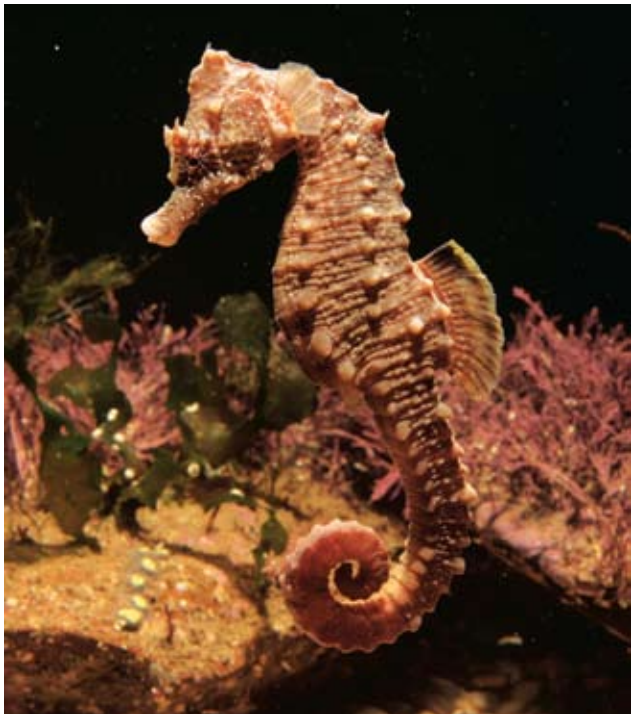
One of the ways of protecting our marine environment is through networks of marine protected areas. Our current network is limited – we only protect 2.2% of UK waters for marine conservation. We have three types of marine protected areas: Special Areas of Conservation for habitats of European importance, such as reefs and sandbanks; Special Protection Areas for seabirds of European importance, such as puffins and gannets; and Marine Nature Reserves for nationally important habitats and species. We also have some voluntary marine protected areas.

Currently in the UK, we have 76 coastal Special Areas of Conservation for habitats, for example the Wash and North Norfolk Coast area protecting reefs and sandbanks. We have 72 coastal Special Protection Areas, such as Morecambe Bay which protects a wide range of seabirds including oystercatchers and curlew. Our nature conservation agencies are identifying more sites both inshore and beyond 12 nautical miles (22 km) from the coast. Natural England is also reviewing the condition of current sites around the English coast to ensure that management measures can bring them into a good state of conservation by 2012. However, these sites only allow us to protect habitats and species of European importance, not national importance. The great majority of the UK sea area and the species which depend on the sea cannot be protected by European sites.

So far, we have three Marine Nature Reserves, for example Lundy Island in the Bristol Channel. Lundy is protected from damaging fishing activities through a 'No Take Zone' introduced by the local Sea Fisheries Committee. In themselves however, Marine Nature Reserves have limited powers for protecting the marine environment and can only be designated up to three nautical miles (5.6 km) from the coast.

Oystercatcher – © Ray Kennedy (rspb-images.com)

We want to strengthen and improve marine conservation. By 2012 we are aiming to have an 'ecologically coherent network' of well-managed marine protected areas. An 'ecologically coherent network' means a network of sites big enough to protect rare, threatened and valued habitats throughout our seas; with sites close enough together for species to move between them; and enough sites to conserve a range of habitats that are vital for the health of marine ecosystems. Research by the University of Bangor for Defra suggests a network of sites covering 14-20% of our seas may be sufficient to protect internationally important species and habitats.



Short-snouted seahorse mainly found along the south coast of England – © Steve Trewhella

Great (King) scallop found in sites around UK coast © Jim Greenfield/Image Quest Marine

How will the Marine Bill help to protect our marine environment?

The Marine Bill will provide a number of tools to help us to improve our marine environment:

- Marine Conservation Zones will provide a mechanism to protect nationally important species and habitats.
- Marine planning will help us to find space for the competing range of activities in our seas, for example fishing, windfarms and gravel extraction and manage them in a holistic way. We will be working with stakeholders to secure space for these activities, as well as for nature conservation.
- Modernised sea fisheries legislation will provide a much clearer focus on managing inshore fishing activities to protect important marine habitats and biodiversity.
- The Marine Management Organisation will regulate marine activities and help enforce laws to protect the marine environment.

Plumose Anemones found on rocky reefs around the UK
© Sally Sharrock

Stony reef found in UK offshore waters to the north, supporting a range of marine life including feather stars and anemones
© DTI/DEFRA/JNCC 2006 (SEA7 Survey)

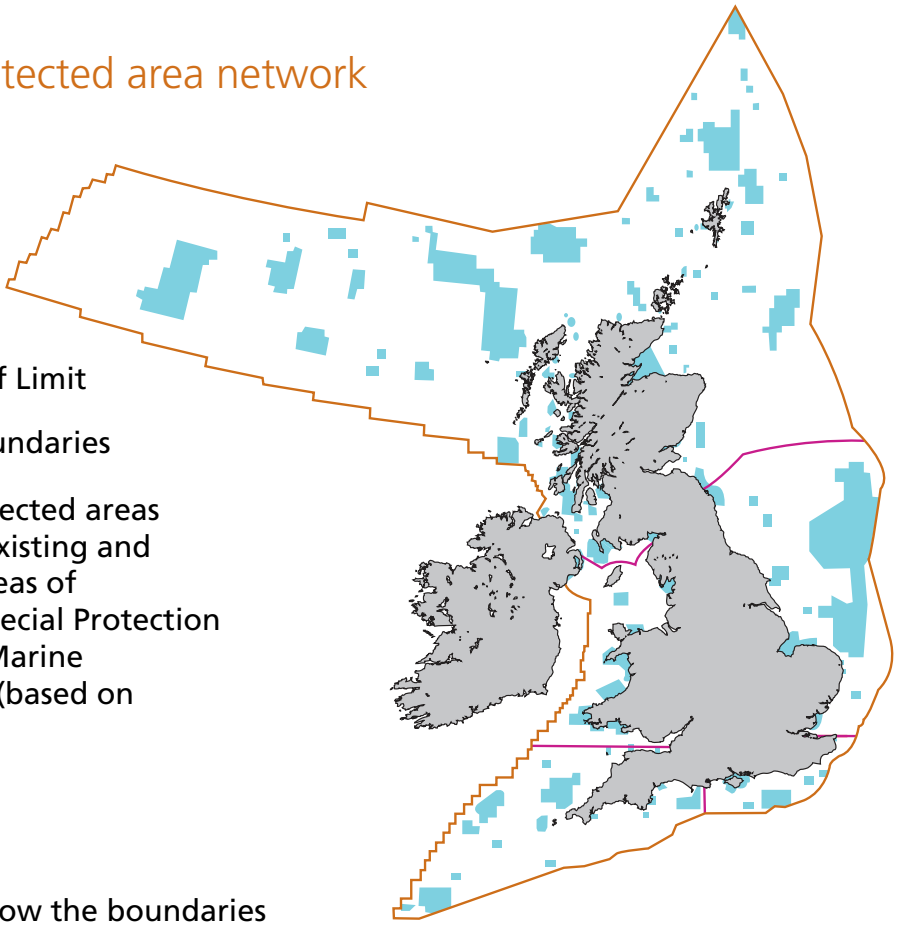
Marine Conservation Zones

Marine Conservation Zones will be a new type of marine protected area and a key part of the marine protected area network. They will allow us to protect habitats and species which we consider of national importance, more effectively and over wider areas than Marine Nature Reserves (which they will replace).

Varying levels of protection will be given to individual sites, from restricting certain activities, to 'Highly Protected Marine Reserves', where no damaging activities will be allowed. We are considering how much of the network needs this high level of protection to deliver the conservation benefits we are seeking – and how this would fit with our wider objectives for the sea.

Our network of marine protected areas will help to halt the decline in biodiversity by including the full range of UK habitats and species and conserving areas where there are rare and threatened species and habitats. It will provide areas of good quality habitat which help to ensure that the marine environment is healthy and able to deliver the many goods and services we rely on.

Illustrative marine protected area network



UK Continental Shelf Limit

Regional project boundaries

Possible marine protected areas network including existing and proposed Special Areas of Conservation and Special Protection Areas and possible Marine Conservation Zones (based on research for Defra).

0 **300 kilometres**

This illustration does not show the boundaries of the Devolved Administrations' territorial waters and does not include these waters in considering the network

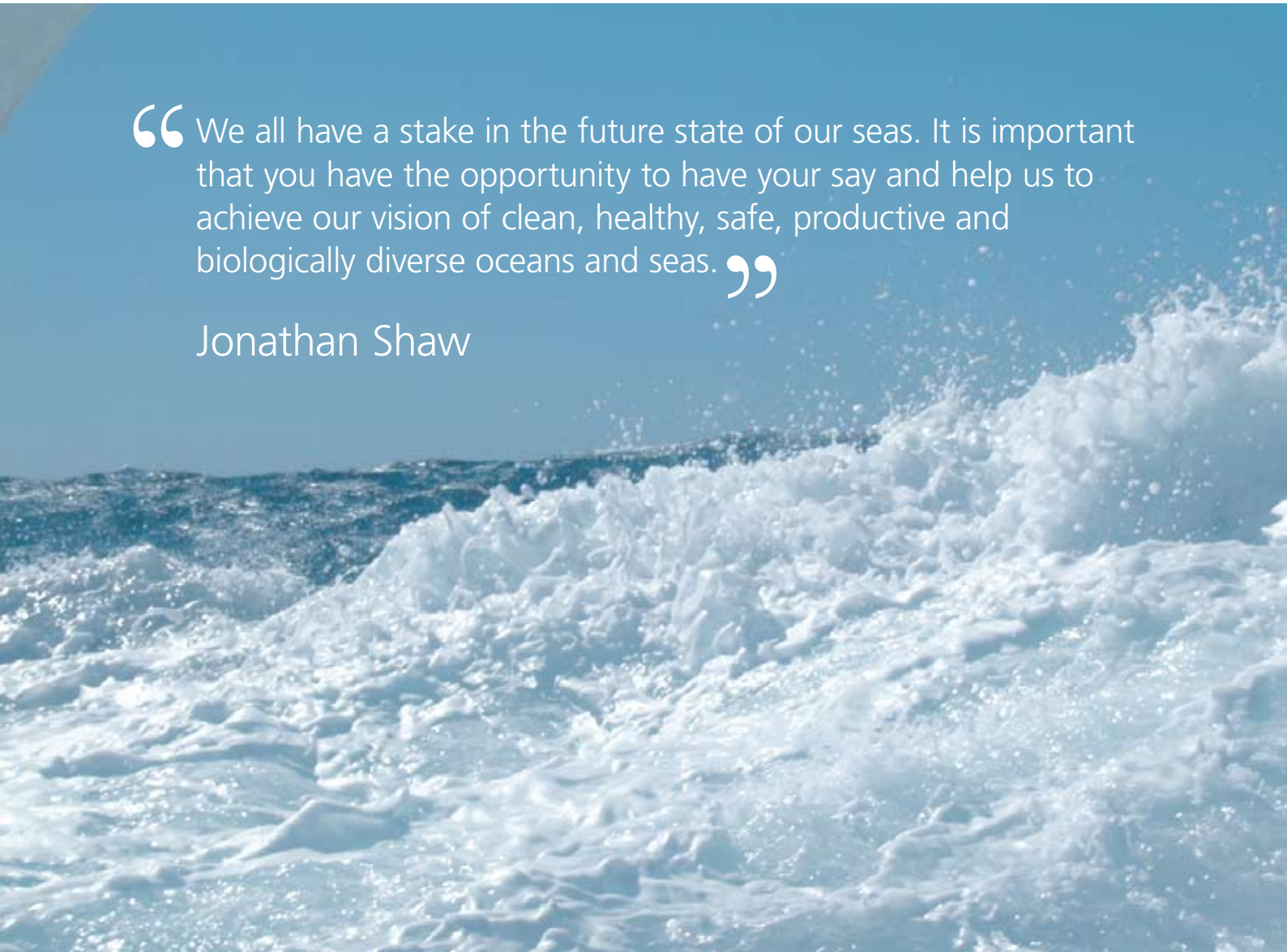
Credit: Cefas Photo Library

Your chance to join in

The Government wants communities and all marine users to have a say in the design of the marine protected area network.

In south-west England a regional partnership project – 'Finding Sanctuary' – is underway. This is a stakeholder-led project, with the Joint Nature Conservation Committee (JNCC) and Natural England working with the partnership to design a network which provides sites of sufficient size and spacing for healthy marine ecosystems. Project officers are working with local industries, fishermen and wildlife groups to map areas of economic activity and of ecological importance and to begin to develop proposals for a network.

The JNCC and Natural England are developing proposals to set up similar projects for other regional seas, including the North Sea and English Channel. We are talking to the devolved administrations in Scotland, Wales and Northern Ireland about whether they wish to work on partnership projects for the Irish Sea and the seas around Scotland.



"We all have a stake in the future state of our seas. It is important that you have the opportunity to have your say and help us to achieve our vision of clean, healthy, safe, productive and biologically diverse oceans and seas."

Jonathan Shaw

Where you can get more information

You can find out more about the Marine Bill at **www.defra.gov.uk/environment/water/marine/uk/policy/marine-bill/index.htm** and about Marine Conservation Zones, existing marine protected areas and how to join in a regional marine protected area project at **www.defra.gov.uk/marine/biodiversity/index.htm**

You can contact Defra's Marine Biodiversity team, Zone 1/05, Temple Quay House, 2, The Square, Temple Quay, Bristol BS1 6EB. Email: **marinebiodiversity@defra.gsi.gov.uk**

A sea slug found around the UK coast – © Sally Sharrock

Kelp forest found mainly along the west coast of the UK in shallow rocky waters © JNCC (Sue Scott)

COVER IMAGE Sunset Cup Coral, found at Portland Bill, Lyme Bay, off Plymouth Sound, the Isles of Scilly and Lundy. © Jim Greenfield/imagequestmarine.com