

2016 NORTH SEA EXPEDITION

TOWARDS A STRONGER MPA NETWORK

October 2016, OSPAR ICG-MPA (Mallorca, Spain)

NORTH SEA MPAS: GAPS AND THE NEED FOR DATA

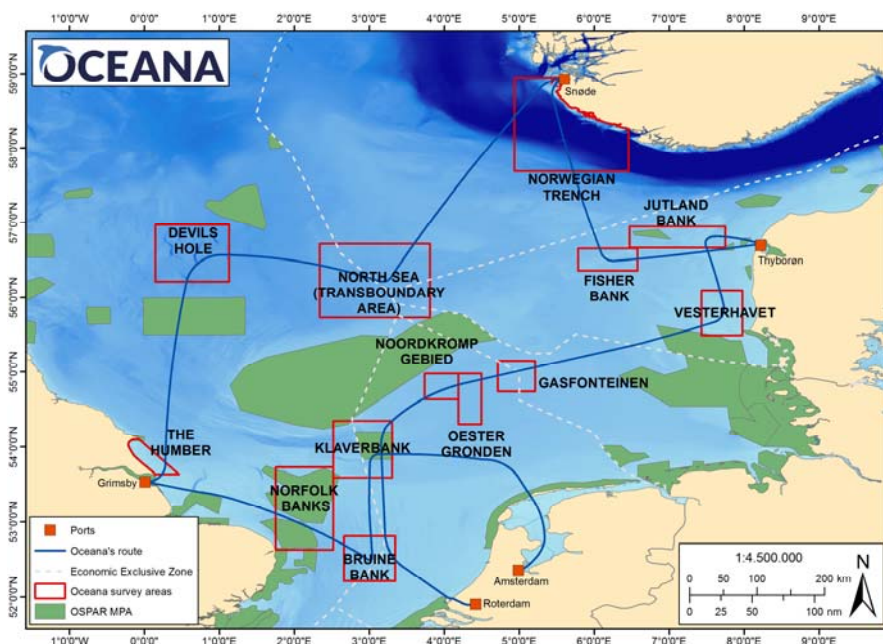
The North Sea (OSPAR Region II: Greater North Sea) is one of the busiest seas in the world. The impacts of intense anthropogenic activities in the area, including industrial fisheries and fossil fuel extraction, have perturbed the natural state of its ecosystems, which currently face major problems such as pollution, overfishing, habitat disturbance and eutrophication.

At the same time, in comparison with other OSPAR regions, the North Sea has the greatest percentage of protected areas (ca. 14%), with Denmark accounting for the highest percentage of coverage, followed by the United Kingdom (see Table 1) (OSPAR 2014¹). However, most North Sea MPAs are relatively coastal; 63% are found within 1 nm from shore, and only 11% of MPAs occur in offshore waters (beyond 12 nm), about which less information is generally known (EEA 2015²). Moreover, many existing MPAs in the region lack effective management.

To help address these issues, with the aim of strengthening the network of North Sea MPAs, Oceana carried out a two-month expedition* during July-August 2016, in the waters of Denmark, Netherlands, Norway, and the United Kingdom (see Expedition Route). Using a remotely operated vehicle (ROV) with a high-definition camera, professional SCUBA divers, and through grab sampling, Oceana collected first-hand data on species, habitats and communities in areas of potential ecological importance. The findings of these surveys are intended to be used to improve marine protection, both by developing proposals for new MPAs where gaps exist, and by strengthening the management of existing areas.

*Oceana was able to carry out this expedition thanks to the generous support of the Dutch Postcode Lottery

EXPEDITION ROUTE



14%
of the Greater North Sea is protected, yet major gaps in the MPA network remain, particularly beyond 12 nm in the Exclusive Economic Zones.

PRELIMINARY FINDINGS

A total of 73 ROV dives, 15 SCUBA dives, and 187 grab samples were done within thirteen study areas, down to a maximum depth of 234 m. Sampling was carried out in areas that are currently unprotected, and inside some protected areas (e.g., Jyske Rev, Lillefiskerbanke and Klaverbank). Only limited research had previously been carried out in some of the areas studied (e.g., Devil’s Hole), and once analysed, the findings are expected to add significantly to knowledge of the marine communities in these sites.

In total, Oceana documented roughly 700 species across a diverse range of habitats. Most of the survey areas were dominated by soft bottoms (i.e., sand and mud), sometimes also with rocky areas present. Other habitats of interest included: areas characterised by cnidarians, with a high abundance of anemones, and occasionally soft corals, sea-pens and gorgonians; kelp forests; *Sabellaria* reefs; and sponge aggregations.

Surveys identified potential areas of conservation importance, including areas where OSPAR-listed species and habitats were present (Box 1), such as sea-pen and burrowing megafauna communities.

Among the areas surveyed were some that appear to provide important habitat for a range of commercial fishes, such as cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*) and flatfishes (e.g., *Limanda limanda*, *Pleuronectes platessa*), and crustaceans such as Norway lobster (*Nephrops norvegicus*) and edible crab (*Cancer pagurus*).

The expedition also documented impacts of widespread human disturbance, including evidence of bottom trawling, discarded or ‘ghost’ fishing nets, and extensive infrastructure such as oil platforms, cables, pipelines, and wind farms.

Box 1. Species and habitats listed by OSPAR as threatened and/or declining that were identified during the expedition

SPECIES

INVERTEBRATES

Arctica islandica

Ostrea edulis

BIRDS

Rissa tridactyla

Larus fucus fucus

FISH

Gadus morhua

Raja clavata

MAMMALS

Phocoena phocoena

HABITATS

Coral gardens

Deep-sea sponge aggregations

Sabellaria spinulosa reefs

Sea-pen and burrowing megafauna communities

Table 1. Coverage of OSPAR MPAs in the North Sea region, by Countries and broken down by Territorial Waters (TW), and the Exclusive Economic Zone (EEZ)

COUNTRIES	MPA COVERAGE		
	TW [%]	EEZ [%]	Total [%]
<u>DENMARK</u>	55%	45%	17.3%
<u>NETHERLANDS</u>	30%	70%	13.2%
<u>NORWAY</u>	98%	2%	4.1%
<u>UNITED KINGDOM</u>	22%	78%	16.5%



Gadus morhua © OCEANA

ADVANCING PROTECTION UNDER OSPAR

The findings of the expedition will form the basis of proposals to establish or enlarge MPAs and strengthen their management, particularly in light of existing ecological insufficiencies. Data will also be shared with national authorities, scientists, and other organisations, to support broader efforts to protect the North Sea. Oceana's preliminary findings indicate a number of currently unprotected areas where OSPAR-listed species and habitats occur, which may be priority areas for protection.

The new data gathered on the biological importance of key areas should be further used by OSPAR Countries to address gaps in their network, to designate new MPAs, and to strengthen MPA management. This should support the North-East Atlantic Strategy to improve the coherence of the broader OSPAR MPA network to preserve biodiversity, help restore depleted fish stocks, and enhance the resilience of ecosystems against human activities and climate change.

Preliminary findings include areas where OSPAR-listed species and habitats occur, and may be important for protection.



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¹ OSPAR 2014. Status Report on the OSPAR Network of Marine Protected Areas.

² EEA 2015. Spatial analysis of marine protected area networks in Europe's seas. EEA Technical report No 17/2015.