

OSPAR developments regarding management planning for MPAs in ABNJ

David Johnson and Emily Corcoran, OSPAR Secretariat



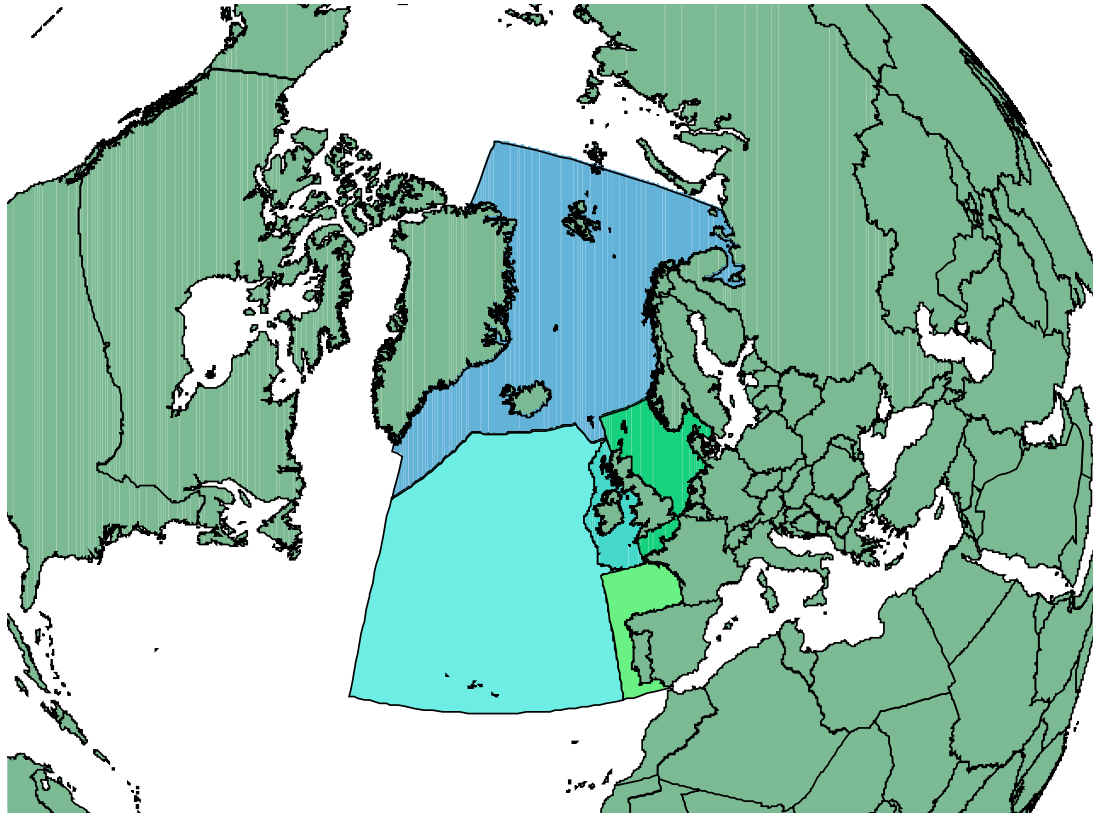
MAIA Workshop: Tools for MPA governance: management plans
A Coruna, Galicia, 11-13 June 2012

OSPAR Convention

35-year track record

Main Objectives

The Contracting Parties shall, in accordance with the provisions of the Convention, take all possible steps to **prevent and eliminate pollution** and shall take the necessary measures to **protect the maritime area against the adverse effects of human activities** so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected" (Article 1.a)



- 5 Annexes
- Guiding principles
- 15 states + EC
- NGOs / observers
- 1994 : 5 regions
- 1998 : Strategies
- 2003 : Political commitment to a coherent and well-managed MPA network

OSPAR Strategy

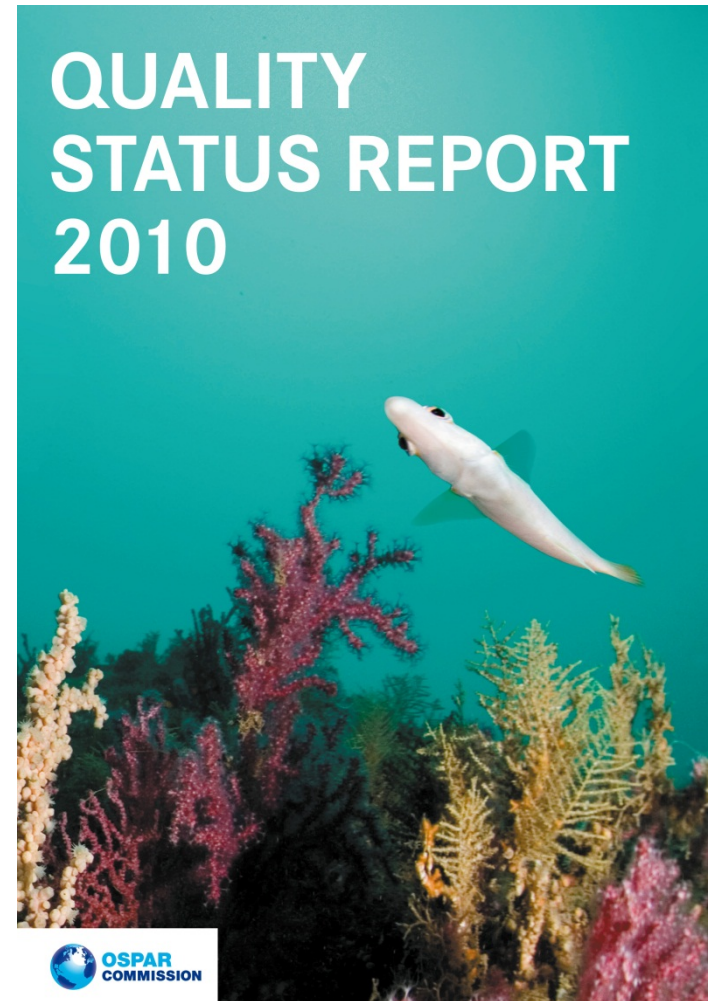
The North-East Atlantic Environment Strategy

Part I: Implementing the Ecosystem Approach

Part II: Thematic Strategies

- Biological Diversity and Ecosystems
- Eutrophication
- Hazardous Substances
- Offshore Oil and Gas Industry
- Radioactive Substances

The Joint Assessment and Monitoring Programme (JAMP)



Protection of NE Atlantic vulnerable species, habitats and ecological processes

Context

- Understanding: large knowledge gaps especially at depths >200m
- Appreciation of value: historically poor, now gathering momentum
- Global commitments: WSSD and CBD targets unlikely to be met

OSPAR:

- Annex V: complements global international legal framework
- Strategy: identify, take into account, take measures, create MPAs
- Protect from human activities: pressures increasing / changing
- Restore where practicable: problems exacerbated by climate change

Biodiversity – where do we invest our efforts?

to conserve variety of life and natural patterns

- Different measures of variation: Richness, evenness, diversity
- Different selection or weighting: Endemic, charismatic, genetic, functional, threatened, or 'all'
- Are species the appropriate focus: Habitats, communities, ecosystems, or the processes that support species

QSR 2010, Initial Assessment MSFD, habitat mapping and biomonitoring, sustainable development

Orange roughly
© JNCC.gov.uk

A large, flat, brownish fish, likely a flatfish, resting on a sandy ocean floor. The fish has a mottled pattern of brown and white spots on its body. Its head is on the left, and its tail is on the right. The background is a clear blue water column.

Philippe Guillaume, Wikipedia

A photograph of a stingray resting on a sandy bottom. The stingray is light-colored with a long, thin tail and a flat, diamond-shaped body. It is positioned diagonally across the frame, with its head towards the bottom left and its tail extending towards the top right. The sand is a mix of light and dark patches, suggesting some organic matter or just natural sand variations.

© Paul Kay

Chris Gotschalk, Wikipedia

© Crown copyright, CEFAS Photo Library

©Thomas de Lange Werneck, MAM (CO)Institute of Marine Research,
Bremen

ORANGE ROUGHY (*Hoplostethus atlanticus*) is a relatively large deep-sea fish found along the continental slope down to 1800m depth, which commonly lives for more than 100 years. Populations tend to aggregate around seamounts and canyons. This makes them very vulnerable to targeted fishing and populations have been depleted over the last 25 years within the OSPAR area and elsewhere.



Measures for seabirds (OSPAR 2011)



Special Seabirds

Measures adopted by OSPAR 2011



The OSPAR MPA network

Aims of the OSPAR MPA network are:

- To protect, conserve and restore species, habitats and ecological processes which have been adversely affected by human activities
- To prevent degradation of and damage to species, habitats and ecological processes following the precautionary principle
- To protect and conserve areas that best represent the range of species habitats and ecological processes in the maritime area

Tools developed by OSPAR

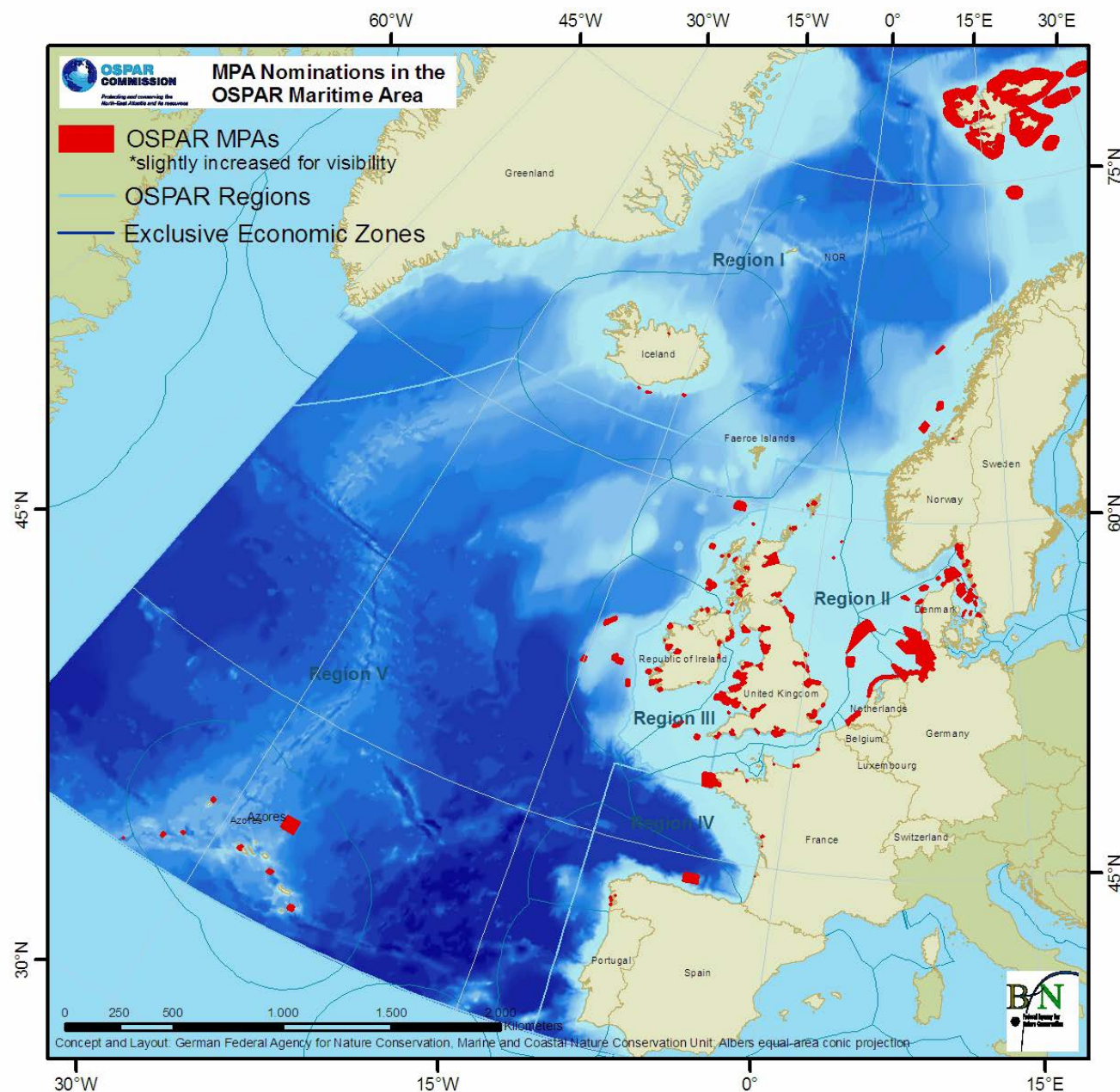
- Biogeographical classification
- Guidelines for identification and selection of MPAs (incl. criteria)
- Guidance on ecological coherence and MPA management

Status of the OSPAR MPA Network

(May 2010)

- 159 MPA
- 147 000 km²
- 1.08 % of the OSPAR Maritime Area
- 13.3 % of Territorial Waters (< 12 nm)
- Waters 0.52 % of EEZ (12-200 nm)
- 0.00 % of ABNJ (beyond 200 nm)

→ Global CBD target 10% by 2012





FAR OUT and DEEP UNDER

Protecting deep sea life on the Mid-Atlantic Ridge

The Alps under water

Imagine the Alps under water: The Mid-Atlantic Ridge (MAR) meanders along the bottom of the Atlantic between Iceland and the Azores, creating a towering barrier between east and west. Some peaks of the ridge rise more than 3,500 metres above the Atlantic abyssal plain.

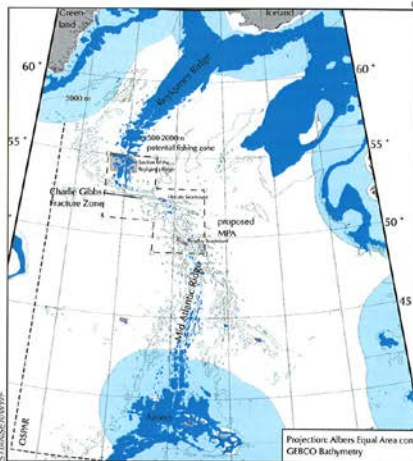
The very rugged ridge provides many ecological niches at a wide range of depths. Away from the continental shelves, the ridge supplies the only hard bottom and in some places the only shallow waters, relatively speaking, in the North Atlantic open ocean.

This diversity makes the MAR a haven for corals, sponges and other species living attached to rocky surfaces, as well as for fish, whales and sharks that feed or spawn in the shallower peaks, or use the canyons and depressions as refuge.

In a few areas, the huge ridge is cut through by profound east-west trenches, the deepest being the Charlie-Gibbs Fracture Zone. These trenches provide the only routes through which deep sea species can migrate from the abyssal plain on one side of the ridge to the other.

In order to preserve its unique species composition and habitats, WWF is proposing that a northern section of the MAR, including the Charlie-Gibbs Fracture Zone (see map), is established as a High Seas Marine Protected Area under the Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR).

A section of the Reykjanes Ridge and two smaller seamount areas, which have been closed to the destructive practice of bottom fishing since 2004 are also included.



Location of the proposed MPA (hatched) on the Mid-Atlantic Ridge. In blue the area potentially suitable for deep water bottom fishing. The NEAFC fisheries closures within the proposed area are outlined in red (Hekato, Faraday Seamounts and Reykjanes Ridge). Light blue shows the waters within national jurisdiction of coastal states.

Conservation priorities

The MAR area fits many criteria for conservation priorities set out by regional and international fora to be included in the global network of MPAs, such as OSPAR, the United Nations Food and Agriculture Organisation (FAO) and the Convention on Biological Diversity (CBD). (See box on next page)

Many habitats and vulnerable species

The fauna found north of the Charlie-Gibbs Fracture Zone is markedly different from that to the south. To the north, cold loving species like Greenland halibut and giant redfish are found, and to the south, more temperate roundnose grenadiers and alfonsoinos dominate among the fish. This variation is due to a so-called subpolar front that flows over the fracture zone.

At the front, cool northern nutrient-rich water of the Labrador Sea meet warmer Gulf Stream water, yielding an area rich in plankton production that gives rise to a wealth of marine life both in terms of species and individuals - from plankton at the base of the food web to top predating sharks.



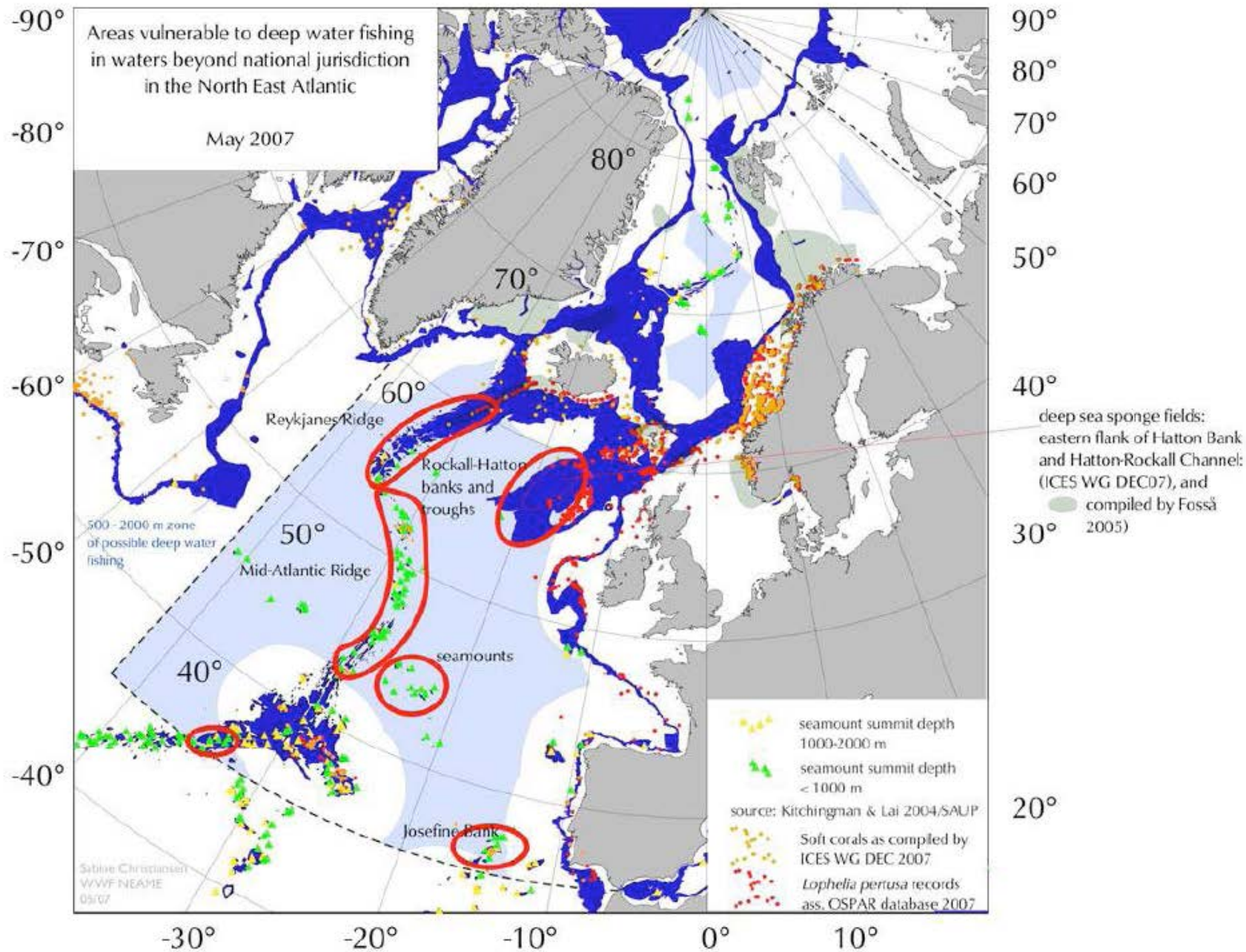
Soft corals photographed at the Mid-Atlantic Ridge by the MAR-ECO expedition.

Towards MPAs in ABNJ NGO awareness raising

- Campaigned since 2000
- History of advocating establishment of MPAs including in ABNJ
- Rainbow hydrothermal vent
- Rules of procedure require support from at least one Contracting Party
- Importance of desk study to justify selection against the OSPAR criteria
- Synergy with other recognised global selection criteria (FAO, CBD)
- CGFZ on the basis of 'vulnerability' to human uses

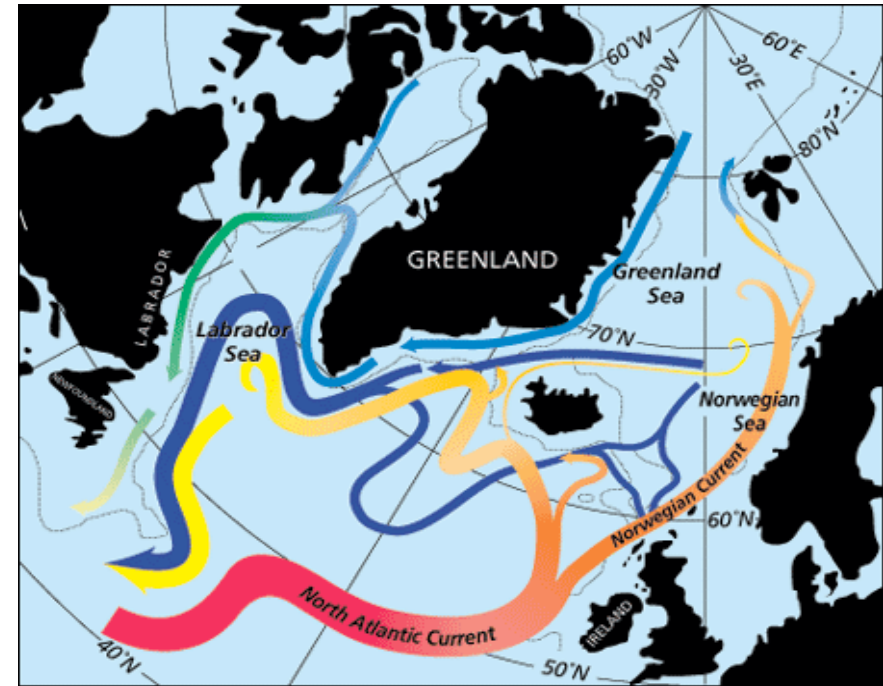
Critical catalyst

Application to Areas Beyond National Jurisdiction



2007: Charlie Gibbs Fracture Zone

- Area 324,000 km²
- Incorporates the zone of the Sub-Polar Front, an area of raised productivity
- Aggregation area for fish, marine mammals and possibly birds
- Straddles a key biogeographic divide
- Supports a wide variety of habitats across a broad depth range
- Includes many seamounts and other habitats vulnerable to fishing impacts



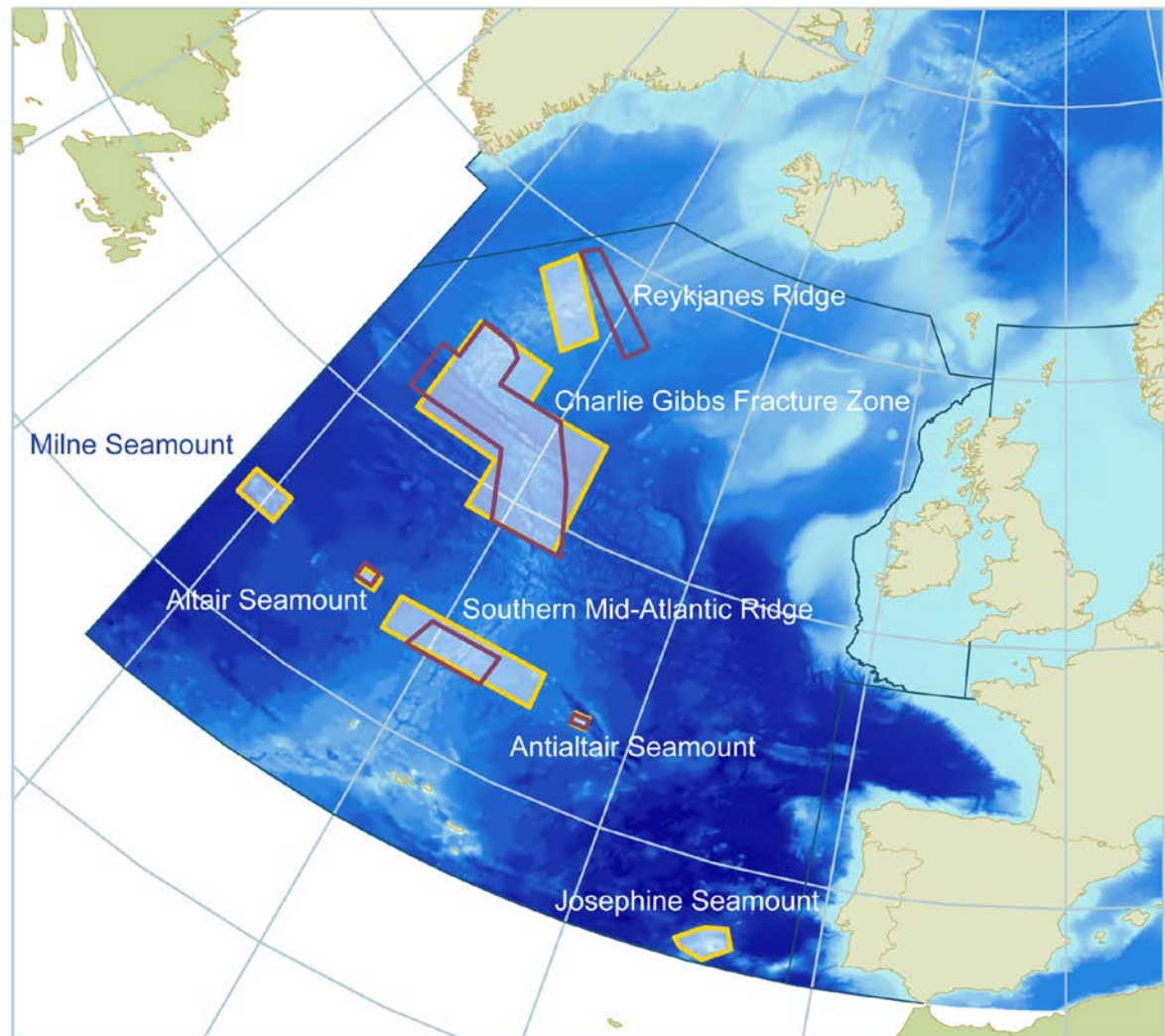
Promoted as a pilot OSPAR MPA, refined by advice from deep sea scientists, extensive area (fracture zone, seamounts, abyssal plain), OSPAR List of Threatened and/or Declining Species and Habitats

Proposed MPA network and NEAFC closures

An initial network proposed by the University of York

Rockall and Hatton Bank dropped as the weakest scientific case to justify 'vulnerability'

CGFZ --324 000 km²
Others --290 000 km²
Combined about 4 % of the OSPAR Maritime Area



OSPAR proposed MPAs in areas beyond national jurisdiction



NEAFC areas closed to bottom fisheries



Conservation objectives

Vision

General:

- Protection
- Prevent loss and promote recovery
- Prevent degradation
- Restore naturalness/richness of key ecosystems
- Provide refuge

Specific:

- Water column
- Benthopelagic layer
- Benthos
- Habitats and species of specific concern

Appendix:

- Threatened and/or declining habitats and species and features of interest

Overlap with key elements of the CGFZ proposed MPA

Milne seamount
complex only
proposed MPA
entirely in ABNJ

Timescale for decisions uncertain



North-East Atlantic Environment Summit

Ministerial Meeting of
the OSPAR Commission

Bergen, Norway,
20–24 September 2010

OSPAR's vision is of a clean,
healthy and biologically
diverse North-East Atlantic
used sustainably

201  **OSPAR
COMMISSION**

The OSPAR Ministerial Meeting

- Responded to major threats, including continued loss of biodiversity, climate change and ocean acidification
- Committed to join forces to achieve Good Environmental Status by 2020
- Agreed a new Strategy that includes targets of a 'coherent network by 2012 and a 'well-managed network' by 2016
- Found the political will to take forward an initial OSPAR Network of MPAs in ABNJ – purpose and scope:

awareness raising, information building,
marine science, new developments

→ entry into force April 2011

→ complementary to the extensive bottom fishing closures in place by NEAFC (until 31 December 2015)

→ recognised by WWF presentation of a 'Gift to the Earth' award

Management recommendation(s)

Definitions:

- Marine protected area, OSPAR network, CGFZ, CG(South) MPA, UNCLOS, EIA, SEA

Purpose and scope :

- Awareness – notification, charts
- Information building – sharing information on biodiversity and impacts
- Science – code, encourage research, reference area for climate change, monitoring, mitigation
- New developments – impacts, EIA/SEA, stakeholders
- 3rd parties - promotion

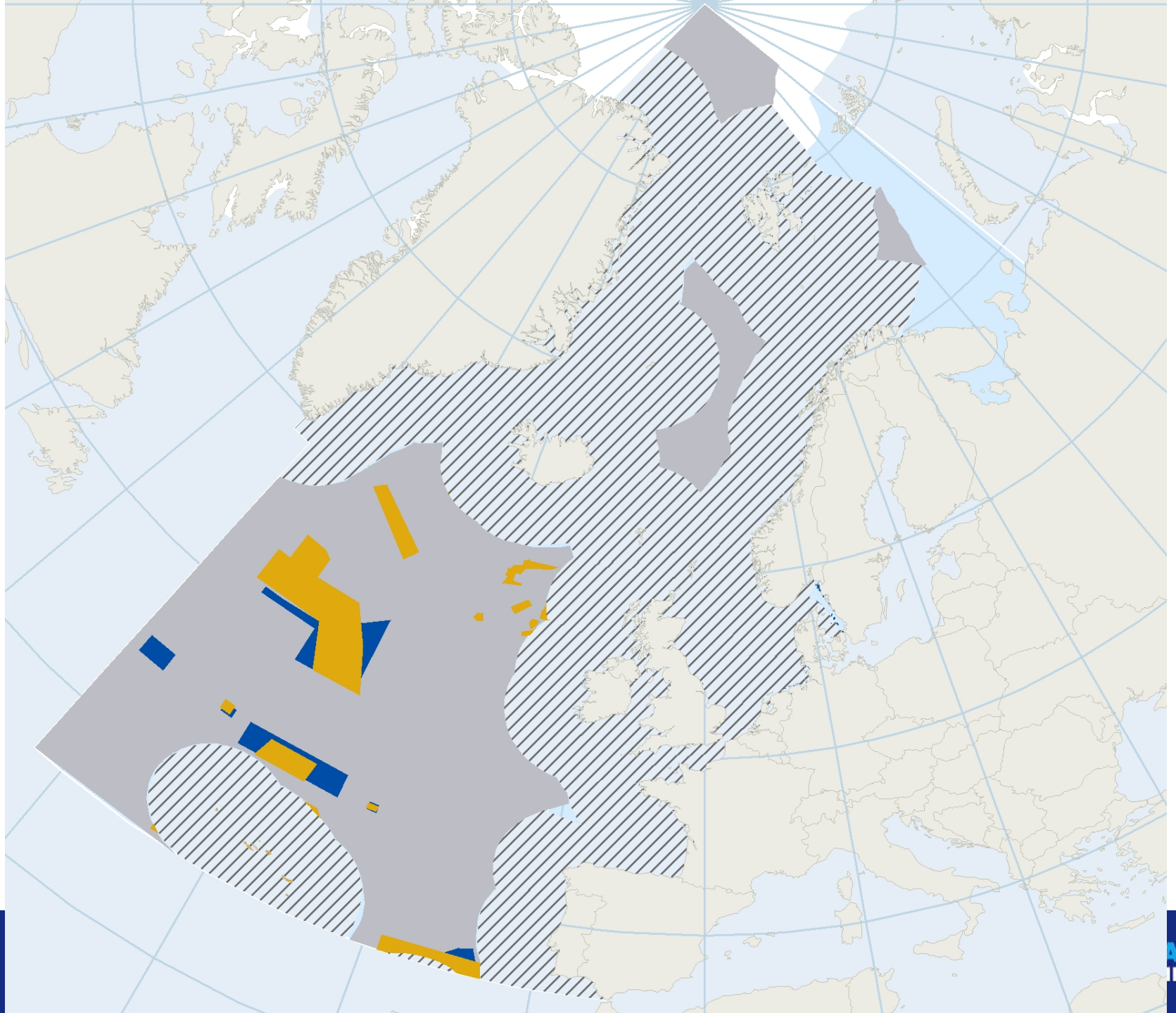
Implementation reporting :

- By 31 December 2011 (if any impact activity)

2012







How coherent is the OSPAR network?

Currently:

- coherence in purpose and by the connections between its constituent parts has not been achieved but encouraging signs

Spatial bias to coastal MPAs:

- Significant gaps, more MPAs needed offshore
- Added value of the OSPAR network?

Threatened and/or declining species and habitats

- All invertebrates, 3 of 9 bird species, 8 of 22 fish species, both turtle species, 2 of 4 mammal species, all habitats

Well-managed?

Key pressures:

- Fisheries, loss of vulnerable habitat, climate change
- Unprecedented threats increasing human activities, land-based inputs, ocean acidification

Management tools:

- Management plans, conservation objectives, biodiversity action plans, use restrictions, controls, codes of conduct, sanctuary / reference areas, EIAs, mapping and evaluation
- Issues with enforcement and timescales for recovery

Significant success stories

- Progress to protect cold water corals (including latest Norwegian MPAs: Svalbard and Bjornoya – 78,316km²)
- Wadden Sea, Mer d'Iroise, Azorean Marine Park, Darwin Mounds, El Cachucho

Bringing together relevant Competent Authorities

- Building on formal MoUs and informal dialogue (NEAFC, IMO, ISA)
- MPAs, closed areas, Special Areas, PSSAs, Areas of Environmental Interest
- UNCLOS, scientific evidence, inform notify and consult, cooperate on EIA/SEA
- Joint principles: ecosystem approach, precautionary principle, polluter pays principle, public availability of information
- General competent authority actions – e.g. pelagic fisheries
- Specific short-term actions – e.g. promotion of OSPAR Code of Conduct for deep sea science



Draft 'Collective Arrangement'

Joint principles (Madeira Process)

- Ecosystem approach
- Obligation to protect and preserve the marine environment as in the Law of the Sea Convention (Art. 192)
- Precautionary Principle
- Sustainable use of natural resources
- Use of best available scientific advice
- Application of EIA and SEA
- Polluter pays principle
- Public availability of information
- Application of BAT/BEP



Collective Arrangement

Joint management plans

International Seabed Authority

Locations mainly unknown, potential interest NE Atlantic polymetallic sulphides
No mining zone requires 'threat of serious impact'
ISA has no responsibility with respect to bioprospecting

Marine Spatial Planning

Socio-economics

EBSAs

IWC

Data availability
Ship strikes
Surveillance and tracking

IMO

Ban on spoiled cargo
dumping, neutrally buoyant
spills (HNS), ballast water

OSPAR

Historic dump sites
Scientific survey
Cables
Artificial reefs

NEAFC

Mapping fishing footprint

Benefits of closures and
match with MPAs

Likelihood of
intensification of deep-
sea pelagic fishing

Arrangement to:

- **Inform each other of any updated scientific information and environmental assessment and monitoring data;**
- **Notify and consult each other of existing or proposed new human use;**
- **Cooperate on EIAs, SEAs or equivalent instruments;**
- **Meet annually to review their respective objectives for the [selected] areas /status / appropriateness of management measures + proposals for improvement**
- **Cooperate to obtain a better knowledge of the areas concerned through, where appropriate, developing exchange of data, sharing of databases and collecting data in standardised formats**

Surveillance and enforcement

Approaches:

- Cooperative v non cooperative
- Classified v civilian
- Ground, sea, air or space-based
- Continuous v periodic
- Manned v unmanned

Options

- VMS, Electronic monitoring systems, AIS, LRIT, satellite-based surveillance, radar, manned aircraft, unmanned aerial vehicles, vessels (manned/unmanned), land / buoy-based platforms
- Collaborations with science / data fusion



Madeira II (Paris, January 2012)

Adapting OSPAR MPA Management Guidelines (2003-18):

- In accordance with UNCLOS and MoUs
- Draft proforma: co-ordination of management, outline/checklist, involvement of sector-based authorities
- Content: description, rationale, human uses and impacts, competent authorities, conservation objectives, management activities and regulations, administrative arrangements

Charlie-Gibbs South: test case

- Past, current and potential human uses
- Administration: coordination, review, reporting, communication, monitoring, evaluation, co-ordinating competent authority?
- Timeframe (5, 10, 20 years?)

Census of Marine Zooplankton



Most pressing future opportunities / concerns

Energy security, food security, maritime transport, seabed minerals

CoML – how much we don't know: est. currently identified 200,000 of 1.8m species

Biotechnology – food, health, drugs, cosmetics, biofuels, biopolymers, bioremediation

Access to deep water genetic resources – most interesting chemicals and enzymes

Conclusions and lessons learned

Need to identify and protect selected areas in ABNJ

advantageous to have agreed criteria and selection processes as well as establishing vulnerability

Accept that science can only deliver so much

balancing knowns and unknowns, prudent use of proxy evidence, ultra precautionary approach

Clarity of purpose essential

nomination proforma, vision, conservation objectives

Role for a 'champion'

organisations and individuals, much effort required / time consuming, building momentum, raising awareness within stakeholder communities

UNCLOS open to many interpretations

use of roadmaps to reach consensus, targets and deadlines, careful drafting, negotiations

Future potential in co-ordinated partnerships

need for reference areas in the deep sea pelagic realm; avoid micro-managing fisheries (e.g. closed areas better than mesh size controls); merits of inventory of existing measures and glossary of terms; need for best practice exchange

