OSPAR COMMISSION

Protecting and conserving the North-East Atlantic and its resources

Towards "Good Environmental Status" of the North-East Atlantic

OSPAR has defined broad environmental goals which collectively aim at a clean, healthy, biologically diverse and productive sea. OSPAR supports work towards those goals through commonly agreed assessment and monitoring frameworks, building on a 35-year track record of evolving marine monitoring and assessment experience and long-standing co-operation with ICES. Through these frameworks a common science basis has been developed in OSPAR to support holistic and thematic evaluations of the quality status of the North-East Atlantic against defined targets and to move towards supporting an integrated ecosystem assessment. The next holistic Quality Status Report is currently being prepared for 2010.

OSPAR is the regional marine organisation working towards the protection of the marine environment of the North-East Atlantic and its Regions: Arctic Waters, the Greater North Sea including the English Channel, the Celtic Seas, the Bay of Biscay and Iberian Coast, and the Wider Atlantic including the waters surrounding the Azores. The Contracting Parties to the OSPAR Convention are Belgium, Denmark, European Community, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. OSPAR works under five thematic strategies to protect the marine environment addressing biodiversity and ecosystems, eutrophication, hazardous substances, radioactive substances and offshore oil and gas. These are supported by a sixth cross cutting strategy on monitoring and assessment of the status of the marine environment and the impacts of human activities.

In relation to the goals of the OSPAR thematic strategies, OSPAR has developed commonly agreed criteria, methodological standards and monitoring guidelines for evaluating marine environmental status. These tools apply coherently across the entire OSPAR maritime area, while taking into account environmental differences between OSPAR Regions and sub-regions, or even smaller areas within such sub-regions. The assessment criteria set in relation to the environmental goals of the OSPAR strategies function as targets and indicators to help indicating progress towards good quality status.

Implementation of an ecosystem-based approach to the management of human activities has been supported through the development, in collaboration with ICES, of a first set of Ecological Quality Objectives (EcoQOs) for the North Sea. The EcoQOs are developed to provide collectively the basis for holistic ecosystem assessments. The EcoQO approach is intended to support judgement of the overall impacts of human activities on biological diversity or marine species and habitats. The objectives so far developed or still under development cover different aspects of the ecosystem including plankton, benthic organisms, fish, sea birds, marine mammals and threatened and/or declining habitats and species. Guidance on the application of EcoQOs has been published in the EcoQO Handbook.

The work under the OSPAR Convention provides examples of objectives and tools that can be used to define, and indicate progress towards, "Good Environmental Status" in the North East Atlantic. OSPAR's expertise and experience in developing and applying these is a good starting point for the development of criteria and methodologies to determine "Good Environmental Status" under the Marine Strategy Framework Directive.

Towards a clean sea

GES descriptor: Concentrations of contaminants are at levels not giving rise to pollution effects.

The commitments to prevent and eliminate pollution of the North-East Atlantic are:

OSPAR strategic objectives on hazardous substances

Move towards the cessation of discharges, emissions and losses of hazardous substances by 2020.

Concentrations of hazardous substances in the marine environment are near background values for naturally occurring substances and close to zero for man-made synthetic substances.

OSPAR is committed to evaluate quality status in relation to the strategic objectives on hazardous substances taking into account both concentrations and effects of hazardous substances in the marine environment. Assessment criteria have been developed to provide quantified targets to judge whether concentrations in the marine environment are at or approaching background values or zero, and whether they give rise to concern of effects on marine species at the population or community level.

Chemicals status

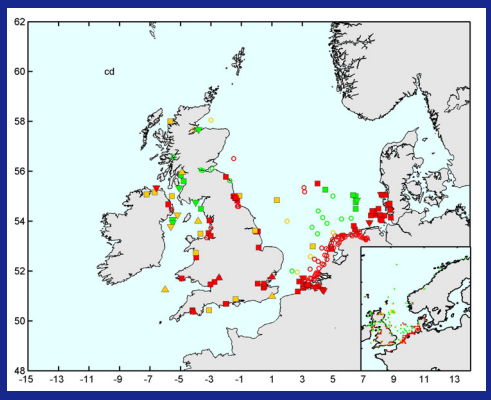
OSPAR's assessment work focuses on 26 chemicals which have been prioritised for action due to their intrinsic properties and risk to the marine environment. 16 of those chemicals overlap with priority (hazardous) substances listed under the Water Framework Directive. For each chemical, a monitoring strategy sets out the means for regular data and information collection on the most relevant indicators to judge progress towards OSPAR's objectives for the substance concerned. These include indicators relating to risk (production, sales and releases), pathways and environmental quality.

Annual chemical monitoring of heavy metals, PAHs, PCBs and PBDEs in sediments and biota is well established under OSPAR's Co-ordinated Environmental Monitoring Programme (CEMP). Monitoring is co-ordinated across the OSPAR area through agreed methodological standards covering all steps from sampling and analysis to data reporting and quality assurance. ICES acts as OSPAR's data centre for the CEMP. Since 2005, annual assessments of CEMP data have indicated the evolution of temporal trends of hazardous substances and provided updated information on status.

OSPAR assessment target for hazardous substances 1:

Are concentrations in the marine environment at, or approaching, background levels for naturally occurring substances and close to zero for man made substances?

Background concentrations for contaminants in seawater, biota and sediment (agreement 2005-3, under review)



Cadmium
(Greater North Sea and Celtic Seas)

OSPAR assessment target for hazardous substances 2:

Are any unacceptable biological responses, or unacceptable levels of such responses, being caused by exposure to hazardous substances?

- *Environmental assessment criteria for trace metals, PCBs, PAHs, TBT and some organochlorine pesticides (agreement 1997-15, under review)*
- *Provisional assessment criteria for TBT-specific biological effects (agreement 2004-15)*
- *Suite of biological effects techniques and assessment criteria (publication 333/2007)*

Turbot with viral haemorrhagic septicaemia

Biological effects of hazardous substances

OSPAR has also carried out considerable development work to include information on the biological effects of hazardous substances in environmental status assessments.

For the North Sea, an EcoQO for TBT-specific biological effects in dogwhelks and other gastropods applies, assessing the effect on environmental status of the ban on use of tributyltin under the IMO Antifouling Systems Convention and accompanying EC legislation. This EcoQO is supported by co-ordinated monitoring under the CEMP, common monitoring guidance and assessment tools.

Common monitoring guidelines and assessment criteria have also been agreed for PAH and metal specific biological effects (*e.g.* EROD, ALA-D, vitellogenin production) as well as for a set of generalised responses in marine organisms to contaminants (*e.g.* fish diseases, sediment bioasssays). Work on assessment criteria for biological effects measurements has been started in collaboration with ICES. Two of these biological effects techniques are currently being tested in assessments for the Quality Status Report 2010.

Annual monitoring and periodic regional assessments of data collected under the Comprehensive Study on Riverine Inputs and Direct Discharges (RID) and the Comprehensive Atmospheric Monitoring Programme (CAMP) provide additional means of judging progress towards improved quality status in relation to hazardous substances.

OSPAR strategic objective for offshore oil and gas

To prevent and eliminate pollution and take the necessary measures to protect the maritime area against the adverse effects of offshore activities, so as to safeguard human heath and to conserve marine ecosystems and, when practicable, re-store marine areas which have been adversely affected.

The main environmental target standards set relate to discharges of oil from produced water and from disposal of cuttings and oil-based drilling muds. Annual reporting and periodic assessments act as indicators for changes in oil pollution over time. This is complemented by periodic monitoring and assessment of concentrations of oil in sediments and their impacts on biota, focused on areas influenced by offshore installations. For OSPAR priority chemicals, the objectives of the Hazardous Substances Strategy apply. To move towards the objectives, Contracting Parties aim to phase out the discharges of OSPAR priority chemicals from offshore activities by 2010.

EcoQO TBT-specific effects:

The average level of imposex in a sample of not less than 10 female dog whelks should be consistent with exposure to TBT concentrations below the environmental assessment criterion (EAC) for TBT – that is, < 2.0, as measured by the Vas Deferens Sequence Index. Where the dog whelk does not occur naturally, or where it has become extinct, the red whelk, the whelk or the netted dog whelk should be used.

Dogwhelks
© Jakob Strand

Tools for targets and indicators:

OSPAR List of Chemicals for Priority Action (agreement 2004-12)

Monitoring strategies for OSPAR priority chemicals (agreement 2004-14)

Co-ordinated Environmental Monitoring Programme (CEMP) (agreement 2008-8)

CEMP Monitoring Manual: http://www.ospar.org

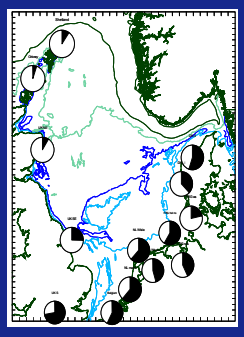
CEMP Assessment Manual (publication 379/2008)

Comprehensive Study of Riverine Inputs and Direct Discharges (agreement 1998-5)

Comprehensive Atmospheric Monitoring Programme (agreement 2001-7)

EcoQO oiled guillemots:

The average proportion of oiled common guillemots in all winter months (November to April) should be 20% or less by 2020 and 10% or less by 2030 of the total found dead or dying in each of 15 areas of the North Sea over a period of at least 5 years.



© Kees Camphuysen

Anthropogenic sources for oil pollution of the sea include shipping, land based sources and offshore oil activities.

Oiled beach birds provide a useful indicator for area specific levels of oil pollution at sea. OSPAR has developed standard methodologies for this indicator and quality objectives for oiled guillemots, a common and widespread species sensitive to oil pollution. This indicator links also to objectives of the Bonn Agreement and MARPOL and other IMO instruments aiming at reducing oil pollution.

Tools for targets and indicators:

OSPAR Guidelines for monitoring environmental impacts of offshore oil and gas activities (agreement 2004-11, and agreement 2006-7)

JAMP Guidelines on standard methodology for the use of oiled beach birds as indicators of marine oil pollution (agreement 1995-6)

OSPAR strategic objective on radioactive substances

Concentrations of radioactive substances in the environment are near background values for naturally occurring radioactive substances and close to zero for artificial radioactive substances.

Tools for targets and indicators:

Monitoring programme for concentrations of radioactive substances in the marine environment (agreement 2005-8)

Monitoring of concentrations of radioactive substances in seawater and biota is complemented by periodic assessments of data for marker radionuclides and their impacts on man and marine biota. OSPAR has developed 'baselines' for concentrations in the environment and for discharges of radioactive substances to the marine environment, against which progress towards the OSPAR strategic objective can be evaluated. Impacts on marine biota are being assessed against methodologies and criteria developed in the European project ERICA. Annual monitoring of discharges to sea as well as emissions to air of radioactive substances indicates trends in releases of radioactive substances to the marine environment. Progress towards the OSPAR strategic objectives on radioactive substances is currently under re-evaluation.

GES descriptor: Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.

OSPAR does not specifically measure, collect data on, and assess contaminants in produce from the sea for purposes of human consumption. Only the assessment framework for radioactive substances includes exposure of humans to contaminated seafood and provides baselines which have been derived using methodologies developed in the European project MARINA II.

GES descriptor: Properties and quantities of marine litter do not cause harm to the coastal and marine environment.

Management of marine litter in OSPAR takes place under the objective of the Biodiversity and Ecosystems Strategy.

The 2000 – 2006 OSPAR pilot project on marine beach litter monitoring was the first region-wide attempt in Europe to develop a standardised method for monitoring and assessing marine litter on beaches. The OSPAR marine beach litter monitoring programme has continued to apply this common standardised methodology to collect information on the type and quantities of marine litter collected from beaches. An EcoQO on marine litter based upon a new index is under development.

Fulmar

© John Dunn, FRS Marine Laboratory

For the North Sea, an EcoQO for plastic particles in the stomach of fulmars has been established. Unlike other seabirds, fulmars do not regurgitate plastic particles but accumulate them. The content of plastic particles in fulmar stomachs can therefore be used as an indicator for the abundance of litter encountered at sea.

"Fishing for Litter" activities to clean up our sea provide additional information on the type and abundance of litter found floating in the sea. This activity and marine beach litter monitoring depend on voluntary commitment by the public.

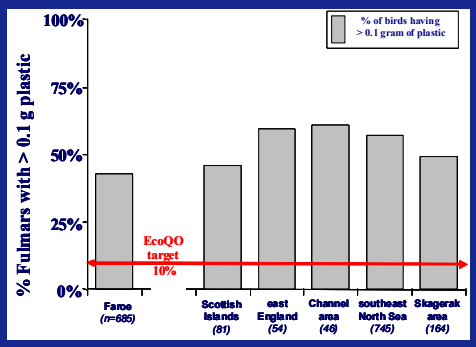
Tools for targets and indicators:

OSPAR Pilot Project on Marine Beach Litter Monitoring (publication 2007/306)

Marine Beach Litter Monitoring Programme (agreement 2007-7)

Proposed EcoQO plastic particles in seabird stomachs:

There should be less than 10% of northern fulmars (Fulmarus glacialis) having more than 0.1 g plastic particles in the stomach in samples of 50 to 100 beach-washed fulmars found from each of 4 to 5 areas of the North Sea over a period of at least five years.



Towards a healthy sea

GES descriptor: Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.

OSPAR strategic objective on biodiversity and ecosystems

To protect and conserve the ecosystems and the biological diversity of the maritime area which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas adversely affected.

OSPAR has established a list of threatened and/or declining species and habitats in the North-East Atlantic and its sub-regions. The inclusion of features on the list is justified by evaluation against a set of commonly agreed criteria (the Texel-Faial criteria).

Work has begun to develop the optimum basis for monitoring future trends in the abundance, extent and condition of these features. North Sea EcoQOs for selected ecosystem elements, including seals and seabirds (under development) act as indicators for biodiversity, including the status of marine food webs (see page 9).

Tools for targets and indicators:

OSPAR List of threatened and/or declining species and habitats (agreement 2008-6)

Criteria for the identification of species and habitats in need of protection and their method of application (Texel-Faial criteria) (agreement 2003-13)

Descriptions of habitats on the OSPAR List of Threatened and/or Declining Species and Habitats (agreement 2004-7)

Tools for Marine Protected Areas (MPAs):

Guidance on developing an ecologically coherent network of Marine Protected Areas (agreement 2006-3)

Guidance to assess management effectiveness of OSPAR MPAs: a self-assessment scorecard (agreement 2007-5)

Guidance for the design of the OSPAR Network of MPAs: a self-assessment checklist (agreement 2007-6)

Work on a broader monitoring and assessment framework for biodiversity which follows an ecosystem approach is currently under development and will provide a basis for biodiversity targets and indicators. OSPAR has also established methodologies for developing an ecologically coherent network of marine protected areas to maintain or restore biodiversity. Individual biodiversity targets are set in the management plans for each protected area and OSPAR tools are available for assessing the effectiveness of the areas' management.

EcoQO harbour porpoises by-catch:

Annual by-catch levels should be reduced to levels below 1.7% of the best population estimate.

Harbour porpoise
© I Birks/Sea Watch Foundation

EcoQOs under development:

Threatened and/or declining species

Threatened and/or declining habitats

Trends in seabird populations

Puffins
© Peter Heslenfeld

EcoQOs seal populations:

Harbour seals:

Taking into account natural population dynamics and trends, there should be no decline in harbour seal population size (as measured by numbers hauled out) of ≥10% as represented in a five-year running mean or point estimates (separated by up to five years) within any of eleven sub-units of the North Sea.

Grey seals
© Gail Johnson - Fotolia.com

Grey seals:

Taking into account natural population dynamics and trends, there should be no decline in pup production of grey seals of ≥10% as represented in a five-year running mean or point estimates (separated by up to five years) within any of nine sub-units of the North Sea.

GES descriptor: Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.

OSPAR strategic objective on eutrophication

Combat eutrophication in order to achieve and maintain a healthy marine environment where eutrophication does not occur.

The OSPAR Common Procedure provides an assessment framework for evaluating and classifying the quality status of the maritime area in relation to eutrophication. It links, in an integrated cause-effect relation scheme, indicators on nutrient enrichment with indicators for direct and indirect eutrophication effects. Ten indicators have been selected for harmonised application relating for example to excessive and harmful algae blooms, loss and shifts in biodiversity (macrophytes, zoobenthos and fish) and oxygen deficiency. For each indicator, generic assessment levels have been set which are refined for area-specific application, based on agreed methodologies , taking into account natural variability and environmental factors in the area concerned. Five of those indicators have been selected to support the overall EcoQO for eutrophication for the North Sea as an integrated set.

Integrated set of EcoQOs eutrophication:

All parts of the North Sea should have the status of non-problem areas with regard to eutrophication by 2010, as assessed under the OSPAR Common Procedure for the Identification of the Eutrophication Status of the OSPAR Maritime Area:

- *Winter concentrations of dissolved inorganic nitrogen and phosphate should remain below a justified salinity-related and/or area-specific % deviation from background not exceeding 50%.*
- *Maximum and mean phytoplankton chlorophyll a concentrations during the growing season should remain below a justified area-specific % deviation from background not exceeding 50%.*
- *Area-specific phytoplankton species that are indicators of eutrophication should remain below respective nuisance and/or toxic elevated levels (and there should be no increase in the average duration of blooms).*
- *Oxygen concentration, decreased as an indirect effect of nutrient enrichment, should remain above area-specific oxygen assessment levels, ranging from 4 – 6 mg oxygen per liter.*
- *There should be no kills in benthic animal species as a result of oxygen deficiency and/or toxic phytoplankton species.*

The assessment framework and EcoQOs are supported by monitoring under the Eutrophication Monitoring Programme, as part of the OSPAR CEMP, co-ordinated through monitoring guidelines specify methodologies and standards for the whole chain of activities from sampling to data reporting. ICES acts as OSPAR's centre for nutrients and eutrophication monitoring under the CEMP. A suite of guidelines for harmonised quantification and reporting procedures for nutrients is supporting regular monitoring of nutrient discharges, emissions and losses. Annual monitoring and periodic regional assessments of nutrients data collected under the Comprehensive Study on Riverine Inputs and Direct Discharges (RID) and the Comprehensive Atmospheric Monitoring Programme (CAMP) provide indication of trends in pressures from nutrient inputs.

Tools for targets and indicators:

Common Procedure for the assessment of the eutrophication status of the OSPAR maritime area (agreement 2005-3)

Eutrophication Monitoring Programme as part of the CEMP (agreement 2005-4)

CEMP Monitoring Manual: http://www.ospar.org

GES descriptor: Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.

The management of the introduction of non-indigenous species by human activities takes place under the objectives of the Biodiversity and Ecosystems Strategy. Work is in hand to prepare an inventory of alien species. This will provide a first step towards developing tools indicating ecosystem health in relation to such species but so far no specific objectives or targets have been set.

Towards protecting habitats

GES descriptor: Sea floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.

OSPAR strategic objective on biodiversity and ecosystems

Protect and conserve the ecosystems and the biological diversity of the maritime area which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas adversely affected.

The integrity of sea-floor and benthic ecosystems is addressed under the objectives of the Biodiversity and Ecosystems Strategy. Using the Texel-Faial criteria, OSPAR has identified a series of seabed habitats and associated communities which are threatened and/or declining. A set of habitat descriptions is available which ties in with the EUNIS classification. The OSPAR habitat mapping programme has collated data on the distribution of these habitats throughout the OSPAR area. Marine Protected Areas (MPAs) have been selected as part of the OSPAR network of MPAs to protect sea-floor ecosystems such as seamounts, cold water coral reefs or seagrass meadows. An EcoQO for threatened and/or declining habitats is still under development.

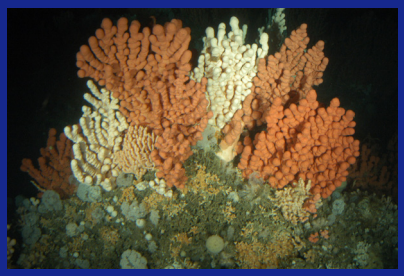
EcoQO threatened and/or declining habitats:

Under development

Tools for targets and indicators:

Criteria for the identification of species and habitats in need of protection and their method of application (Texel-Faial criteria) (agreement 2003-13).

Descriptions of habitats on the Initial OSPAR List of Threatened and/or Declining Species and Habitats (agreement 2004-7).



Coral gardens

© JAGO Team / IFM-Geomar

While impacts of human activities on the marine environment, including sea-floor and benthic ecosystems, are being assessed by OSPAR, so far no specific targets have been set. For some activities, regular data collection and assessments provide an indication of trends in pressures and impacts on sea-floor integrity. These include for example annual data collection on dredged material dumped at sea, sand and gravel extraction and offshore installations like windfarms and oil and gas platforms.

GES descriptor: Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.

Introduction of energy and underwater noise is addressed under the objective of the Biodiversity and Ecosystems Strategy. The impacts of underwater noise on the marine environment form part of OSPAR's assessment work. No specific tools relevant for developing targets and indicators have been established so far to assess their impacts and effects on the marine environment and related quality status.

GES descriptor: Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.

OSPAR recognises the need to take into account the effect of variability in oceanographic and hydrographic conditions in assessing environmental quality and especially the importance of considering the permanence and extent of changes to the marine environment and its ecosystems resulting from climate change. The QSR 2010 will include an assessment of climate change impacts in the OSPAR maritime area. To support this ICES have prepared an assessment for OSPAR of the effect of hydrographical changes on distribution and abundance of marine species. OSPAR recognises the importance of collecting oceanographic and hydrographic information to support key OSPAR environmental monitoring data and is looking forward to improving its existing monitoring and assessment frameworks through co-operation with such platforms as GMES.

OSPAR environmental assessment work takes into account hydrographical conditions through use of information produced by other organisations, such as ICES. For example parameters such as salinity and temperature are taken into account in setting criteria for assessing eutrophication. So far no specific tool has been developed by OSPAR to evaluate effects of changes in hydrographical conditions on the marine environment.

Towards productive seas

GES descriptor: Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.

OSPAR's work on the quality status of the marine environment involves assessing the impacts of all human activities on the marine environment including fishing. OSPAR's mandate is to refer questions relating to the management of fisheries to the appropriate authorities or bodies. Work on EcoQOs as tools to support an ecosystem approach has included the development of EcoQOs related to fisheries.

The EcoQO on spawning stock biomass of commercial fish stocks has been based upon the precautionary reference limits used by fisheries managers for spawning stock biomass and fishing mortality.

Several commercial fish species have major roles in the structuring and functioning of marine ecosystems. North Sea fisheries have a major impact on the North Sea ecosystem, directly on the targeted fish stocks and indirectly through trophic (*e.g.* predator-prey) interactions. The evaluation of the EcoQO is based upon the ICES advisory system for fishery management.

EcoQO spawning stock biomass of commercial fish species:

Spawning stock biomass of commercial fish species should be above precautionary reference points for commercial fish species where those have been agreed by the competent authority for fisheries management.

Herring (Clupea harengus)

GES descriptor: All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.

OSPAR work on biodiversity is relevant to the consideration of the status of marine food webs. Aspects of the abundance of elements of the food web have been addressed in the development of the Texel Faial criteria although work to develop normative levels of either abundance or diversity is at a much earlier stage.

EcoQOs concerning seal and seabird populations are measures of the abundance of elements of marine food webs (see page 6). Two further OSPAR EcoQOs for the North Sea are relevant to the status of the marine food web:

The EcoQO for fish communities has been developed in collaboration with ICES. A number of indicators for health of marine communities (including indicators of size structural, species composition, trophic structure and total biomass) have been reviewed. Several of the aspects of the fish community can be traced to fishery-induced size-specific mortality. The change in proportion of large fish has been chosen as the most sensitive indicator to fisheries managements and the appropriate metric for fish community structure.

The EcoQO on local sand eel availability to black-legged kittiwakes has been developed as an indicator for the community of predator species that depends on sand eels as an important food resource. It is based on the assumption that if black legged kittiwakes are unable to breed successfully for several years in succession, then it is likely that sand eel abundance is low, representing a serious risk of adverse effects on many animal species. The EcoQO was considered a useful basis for protecting seabirds in part of the North Sea coastal area from consistent local depletion of sand eels by industrial fishing and from competition with fisheries in times when food supply is low for three consecutive years or longer. However, the importance of understanding the role of environmental variation is important in using this type of indicator. The EcoQO has not so far been extended to other parts of the North Sea.

EcoQO proportion of large fish

Over 30% of fish (by weight) should be greater than 40 cm in length.

Cod

© John Dunn, FRS Marine Laboratory

EcoQO local sand eel availability to black-legged kittiwakes:

Breeding success of the black-legged kittiwake (Rissa tridactyla) should exceed (as a three-year running mean) 0.6 chicks per nest per year in each of the following coastal segments: Shetland, north Scotland, east Scotland, and east England.

Kittiwakes

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OSPAR's experience with existing tools

OSPAR has applied its tools in numerous assessments and continuously refined them as a result of lessons learnt in application. The current set of EcoQOs has been tested in 2005 and again in 2007/2008, providing valuable experience for taking their development forward. The results of OSPAR's work will be summarised in the Quality Status Report 2010 to provide a holistic assessment of the quality status of the North-East Atlantic and progress made towards the OSPAR Strategies' objectives. The QSR 2010 will provide an important element of Contracting Parties' initial assessment under the Marine Strategy Framework Directive.

OSPAR's continued work on defining and assessing environmental quality status provides a sound basis for development of descriptors of Good Environmental Status and should be used to inform the development of criteria and methodologies and associated monitoring requirements under the Marine Strategy Framework Directive.

Work in hand in OSPAR to support this process and to lead up to the 2010 OSPAR Ministerial Meeting includes the development of:

- development of the next phase of OSPAR's Joint Assessment and Monitoring Programme for the period beyond 2010 which will take into account monitoring and assessment requirements under the Marine Strategy Framework Directive and in relation to Good Environmental Status;
- development of OSPAR biodiversity assessment and monitoring framework, taking into account the needs of the Marine Strategy Framework Directive and the extension of the EcoQO type approaches to the OSPAR maritime area beyond the North Sea,
- a road map on regional co-operation for the establishment and implementation of the Marine Strategy Framework Directive in the period up to 2020 which envisages collaboration and support of the development of criteria and methodologies in relation to Good Environmental Status.

OSPAR's role in defining Good Environmental Status

Since 2004, OSPAR has actively supported the EMMA process in stock-taking and comparison of monitoring and assessment frameworks across European seas and in developing pan-European indicators for the marine environment.

OSPAR is ready to contribute its work and associated expertise to the development of criteria and methodological standards for defining Good Environmental Status through the relevant processes to be set up by the European Community. OSPAR is prepared to play a significant role in addressing the regional requirements of the Marine Strategy Framework Directive.

OSPAR information and publications

OSPAR website: http://www.ospar.org
OSPAR contact: secretariat@ospar.org

Agreements referred to in this document can be accessed under 'Programmes and Measures' on the OSPAR website using the reference number.

OSPAR publications:

EcoQO Handbook, 2007, no. 307
North Sea Pilot Project on EcoQOs, 2005, no. 252
EcoQO website :
http://www.noordzeeloket.nl/ecoqos/en/

Notes

1. The OSPAR Commission was set up by the 1992 OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic, which unified and up-dated the 1972 Oslo and 1974 Paris Conventions. It brings together the governments of Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, together with the European Community.
2. The OSPAR Commission would like to thank the organisations and individuals who have kindly given permission for their photographic material to be used for the document. These photos are not downloadable and under no circumstances should they be reproduced. Anyone wishing to use any image should contact the author directly.