# Application of NATURA 2000 in the Marine Environment

Workshop at the International Academy for Nature Conservation (INA) on the Isle of Vilm (Germany) from 27 June to 1 July 2001

conducted by:

*German Federal Agency for Nature Conservation* (BfN)

On suggestion and in cooperation with:

*Nature & Biodiversity Unit, DG ENVIRONMENT, European Commission*

BUNDESAMT FÜR NATURSCHUTZ

**Photo on Cover Sheet:** “Steingrund” close to Helgoland, German North Sea. © Peter Hübner & Jochen Christian Krause, German Federal Agency for Nature Conservation

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# PREFACE

On suggestion of the European Commission (Nature & Biodiversity Unit, DG ENVIRONMENT) and in close cooperation with them, the German Federal Agency for Nature Conservation (BfN) conducted a workshop on the "Application of NATURA 2000 in the Marine Environment" from 27 June to 1 July 2001 at the International Academy for Nature Conservation (INA) on the Isle of Vilm (Germany).

By sharing experience and expertise this workshop aimed at helping the implementation of the EU Habitats and Birds Directives in the marine environment. Further objectives were to develop some guidance on the most pressing management issues of NATURA 2000 sites and to clarify some legal issues arising when applying the Habitats and Birds Directives in the marine environment.

Since the workshop took place shortly before the biogeographical seminars for the Atlantic and Continental Regions its geographical scope focused mainly on the Baltic Sea, the North Sea and the North East Atlantic.

The workshop was attended by experts from Belgium, Estonia, Finland, France, Germany, Greece, Ireland, Lithuania, the Netherlands, Poland, Portugal, Spain, Sweden, the United Kingdom and the European Commission. The participants (Annex 1) were invited as experts on marine NATURA 2000 issues either as representatives from different governmental institutions or as invited speakers from scientific institutions or NGOs. The agenda for the workshop is attached as Annex 2 to this Summary Record. Mr. Ralf Grunewald, Germany, acted as rapporteur of the workshop. Annex 3 contains some useful web-addresses.

Due to the fact that some speakers did not provide the meeting with written abstracts, but meanwhile have done so, this Summary Record contains abstracts of all presentations as Annexes 4 – 20.

Henning von Nordheim
Dieter Boedeker

# 1. EXECUTIVE SUMMARY

*Dieter Boedeker & Ralf Grunewald*

Short contributions from the participants illustrated that Member States have made very different progress in the identification and selection process of marine sites for NATURA 2000. The meeting had to recognise that overall the implementation is making very slow progress. On one hand only very few pure marine sites have been selected so far, many of which are quite small and also mostly connected to the coast. On the other hand site selection as well as managing and monitoring issues should have already been dealt with years ago by Member States.

The Commission has clearly pointed out that the Birds and Habitats Directives should also be applied to the 200 nautical mile zone of Member States, if a country has either designated an EEZ or is exercising its sovereignty in the 200 nautical mile zone, but so far only Portugal and Denmark have designated SPAs or SACs outside their territorial waters.

BirdLife International presented its work on the selection of Important Bird Areas (IBAs) in the marine environment, and WWF an Inventory of Sandbanks and Reefs. The participants considered the work presented by the NGOs as being very useful for the further selection of SPAs and SACs in the marine area. Even though there is some lack of data, e.g. on marine mammals and anadromous fish species, it was the overall view that sufficient data for the identification and selection of sites is available in many other cases, e.g. for seabirds or reefs.

Measures like a strict fisheries management for the protection of deep and cold water coral reefs are urgently needed. The Meeting was convinced that cold water corals need to be protected immediately and that it might be too late to wait until having NATURA 2000 implemented. In this connection one should not forget other initiatives such as the OSPAR programme on establishing a system of MPAs in its Convention area of the Northeast Atlantic. A deep water coral reef proposed as MPA could therefore also be included into the OSPAR MPA system.

Some fishing practices were generally seen as the major threat to the marine environment, not just to corals. The interaction between the Commission, the Common Fisheries Policy and the 6. Biodiversity Action Programme of the EU were discussed under the aspect of how to make the Common Fisheries Policy compatible with the Habitats Directive. For NATURA 2000 the Birds and Habitats Directives provide the legal basis for setting up marine protected areas (MPAs). According to the Habitats Directive, management of these areas should aim at assuring that activities taking place inside these areas do not lead to unacceptable levels of disturbance or deterioration of the ecological features. Since fishing activities can have a major impact on the marine ecosystem, they must be regulated, but not necessarily completely forbidden within a MPA. These measures must be adopted within the Common Fisheries Policy, if they should be enforced against any fishing vessel or fisherman operating in MPAs.

The Biodiversity Action Plan on Fisheries on which the Commission has been working in order to enhance the integration of environmental concerns into the Common Fisheries Policy was outlined and the ecosystem approach and the precautionary principle were described as the rationale of any new management considerations. The Green Book on Fisheries and the Communication on Environmental Integration into the CFP were also mentioned as two new strategy documents by the Commission.

The meeting discussed the high importance of using renewable energy resources; however participants raised their concern about the rapidly increasing amount of applications for the installation of offshore windparks in their countries in spite of the lack of sufficient knowledge about its possible or actual impacts on marine nature. Most of them concentrate on shallow offshore areas, like sandbanks and reefs which are in many cases also Important Bird Areas and of course listed in Annex II Habitats Directive. It was stressed that in such cases the likelihood of significant effects must be evaluated and cumulative effects have to be considered.

The question about the legal status of an IBA was discussed and, regarding recent ECJ judgements in connection with plans and projects in the terrestrial environment, whether marine IBAs can be considered as generally “non touchable areas”. The Commission made clear that there is no doubt that the IBA inventories of BirdLife International are useful scientific documents for the selection of SPAs. If a member state was charged for not implementing the Birds Directive, the ECJ would very likely use IBA inventories as valid reference in the case of absence of other scientific material. Furthermore, the Court had concluded that a strict protection regime should apply to areas which should be classified as SPAs but which had not yet received this designation.

The need for a common standard for monitoring data was highlighted in order to make data on the success or failure of the site management comparable. The experts expressed concern on how monitoring results from each member state will be validated and compared between countries to ensure a consistent standard. The problem of possible distortion of competition between Member States was stressed together with the objective of the Commission to ensure a common approach by all Member States. The meeting felt that no Member State should have economical benefits from not fully implementing the Birds and Habitats Directives.

The meeting recognised the need for further joint meetings of the Commission with Member States and NGOs for information exchange and better cooperation. The upcoming NATURA 2000 Workshop on Management and Monitoring sites, scheduled for next early spring in the UK, was considered to be the ideal next forum for that.

# 2. OPENING OF THE WORKSHOP, WELCOMING ADDRESSES

Mr Henning von Nordheim, Germany (BfN, INA Isle of Vilm), and Mr Micheal O'Briain, EC DG Environment, welcomed the participants to the joint workshop of DG Environment and the Federal Agency for Nature Conservation Germany, and gave a short overview of the objectives of the workshop. It was stressed that the meeting should be regarded as an informal exchange of views, experiences and expectations concerning the EU Birds & Habitats Directives within the NATURA 2000 Network. The need to have a look at some practical examples of management and monitoring sites was pointed out and the participation of experts from the accession countries was welcomed as being very important.

On the other hand it was made clear by Micheal O'Briain that site selection as well as managing and monitoring issues should have been dealt with years ago by Member States and that the implementation of the NATURA 2000 network is making slow progress in the marine environment.

# 3. THE STATE OF IMPLEMENTATION OF THE HABITATS AND BIRDS DIRECTIVES IN THE MARINE ENVIRONMENT (PART 1)

*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

## 3.1 Introduction and overview of the situation

*Micheal O'Briain & José Rizo-Martin, EC DG Environment*

Mr Michael O'Briain presented a short overview on the Council Directive 79/409/EEC (Birds Directive) and the Council Directive 92/43/EEC (Habitats Directive). Both were described as the main legal instruments for the protection of nature and biodiversity within the EU.

The Birds Directive provides common basis to ensure:

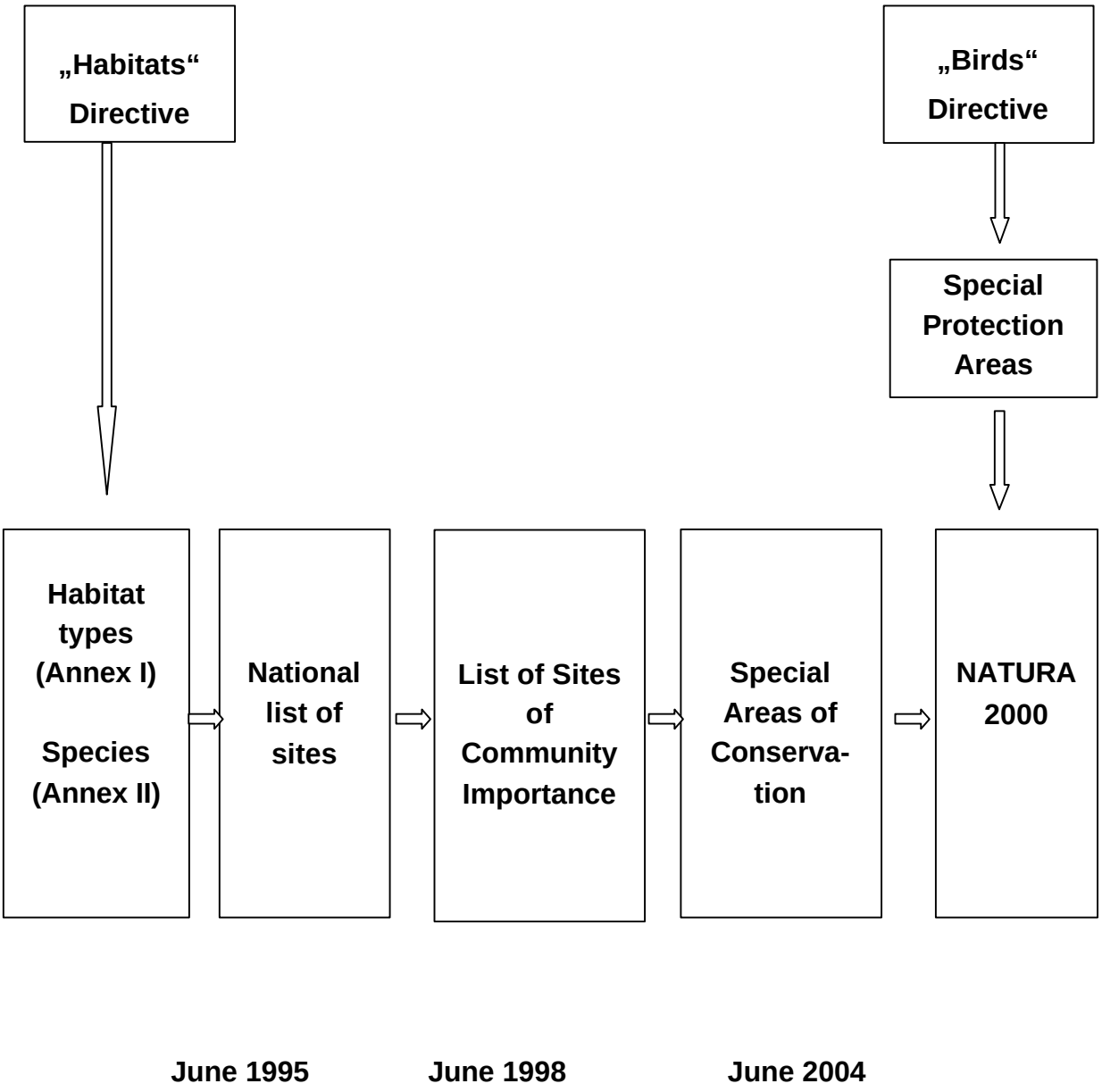
- Protection of all wild bird species in the European territory of the Community
- Sufficient habitat conservation especially for endangered as well as migratory species
- Avoidance of pollution and deterioration of habitats or any disturbance of birds in protected areas
- Outlawing of all means of large scale or non-selective killing of birds
- Hunting is controlled.

The principle aims of the Habitats Directive are:

- to promote the preservation of biodiversity
- to establish a common framework for the conservation of animals and plants and natural habitats of Community interest

- to “maintain or restore at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest”
- to errate an ecological network called “NATURA 2000”.

Close cooperation and co-responsibility between Member States and the Commission is needed in order to fulfil these obligations. In this context, the necessity of distributing information through supporting documentation was mentioned (a list of useful websites is attached to this report as Annex 3). Potential distortion of competition between Member States is a problem, and therefore the objective of the Commission is, to ensure a common approach and full implementation of obligations by all Member States. No Member State should have economic advantages from not fully implementing the Birds and Habitats Directives. The main decision making fora in relation with the application of NATURA 2000 are the Habitats and Ornis Committees with assistance from respective Scientific Working Groups.



It is recognised that there are some difficulties particular to establishing NATURA 2000 in the marine environment, especially for wide ranging species. There were also issues of delimitation of sites. The Annexes of the directive are also much less complete for marine species and habitat types than for the terrestrial environment.

Generally only very few marine sites (not coastal) have been selected so far, many of which are quite small (see Annex 4). Mr. O'Briain underlined this in showing an overview of the conclusions arising from the 1999 Atlantic Seminar for the marine habitat types[1]:

| **Habitat Type** | **Selected, but insufficiently** |
|---|---|
| | |
| Sandbanks which are slightly covered by sea water all the time | BE, IE, PT, UK |
| Estuaries | ES, FR, IE, NL, UK |
| Mudflats and sandflats not covered by sea water at low tide | IE, PT, UK |
| Coastal lagoons | DK+, IE |
| Large shallow inlets and bays | ES, FR+,IE, PT |
| Reefs | ES, FR+, IE, PT |

\+ correct/improve ecological information

The Commission clearly pointed out its view that the Birds and Habitats Directives also apply to the EEZ of Member States, if the Member State is exercising its sovereignty (e.g., gas and oil exploration) in this area. However, in the last resort it rests with the EU Court of Justice to interpret the provisions of the Directives.

The Commission highlighted also the need to put in place appropriate monitoring and management measures.

***Discussion:***

Although it was recognised that there was limited coverage of marine biotopes in Annex I of the Habitats Directive, Mr Micheal O'Briain made it clear that current knowledge allows work to continue and a lot of progress can be made with the Annex as it stands right now. Trying to change or amend it would only slow the implementation process even further at this stage.

[1] Germany was not present at the 1999 Atlantic Seminar and has not announced any site so far.

## 3.2 The role of NATURA 2000 for the protection of marine biodiversity: current status and further prospects

*Johann Thissen, BirdLife International, The Netherlands*[2]

Mr Johann Thissen shared the view of the Commission that the Habitats and Birds Directives do apply throughout the EEZ. In this connection he raised different questions that might need further discussion and gave the answers from his point of view:

- *Can Member States designate SPAs and SACs outside territorial waters?* Yes they can, there are at least no obstacles within the international legal framework preventing a country from designating sites for protection.
- *Are Member States obliged to do this?* Yes they are, for example, the UK High Court has said so.
- *Do the Member States have enough information and knowledge?* Yes as far as birds are concerned. The identification of SPAs should be possible with the existing data and it is recommended to designate further SPAs out to 200 nm. No, as far as other species are concerned. Despite the lack of knowledge in some cases, the request by the Member States for having more and more information was also seen as a problem delaying the selection process.
- *Are the right species and habitats on the Annexes?* Some threatened fish species are for example not listed in Annex II (e.g. the common skate - a ray). Overall there is the need for revision of the Annexes I and II of the Habitats Directive, but it is not an urgent matter to be solved.

Fishing was pointed out as one of the major threats to the marine environment and the examples of the common tern and some ray species directly or indirectly affected by fishing were given.

Mr Thissen recommended finally that it could be a solution to recognise the sea as a separate biogeographical region. Perhaps there should be extra biogeographic meetings especially for marine sites. For the upcoming biogeographical seminars the European Commission should only approve terrestrial SCIs and make a general reservation for marine sites. In due course Annex I and II would have to be amended. However, all of this should not be an excuse for Member States to stop looking for marine SCIs.

### *Discussion:*

The meeting discussed the different opinions concerning the applicability of NATURA 2000 to the EEZ.

[2] see also abstract attached as Annex 5 to the Summary Record

The Commission emphasized again its view: A country that has either designated an EEZ or is exercising its sovereignty within the 200 nautical mile zone is also responsible for the protection of its biodiversity. This implies the need to select and identify suitable sites for the NATURA 2000 network (SPAs as well as SACs). The line of reasoning is also of application to the European Environmental Impact Assessment Directive, which also needs to be applied if an EEZ is declared.

The Commission stated further that Member States should not only look at the offshore area, but should start looking back at the territorial waters, e.g. at waters adjacent to breeding colonies of sea birds.

The legal framework provided for by the Convention on Biodiversity (CBD) and United Nations Convention on the Law of the Sea (UNCLOS) was mentioned and their global approach highlighted.

### 3.3 Round Table: Short contributions from Member States, accession candidate countries, and NGOs on progress, experiences and difficulties.

The participants gave short overviews on the state of NATURA 2000 in the marine environment of their countries. The overviews did not represent any official national opinion since the participants were in most cases not official delegates from their countries and some represented national or international NGOs.

The following points were regarded by many participants as being very important:

(1) Lack of data on the marine environment can be seen as one of the major problems regarding the implementation of NATURA 2000 in the marine area. The insufficient knowledge increases further when offshore and/or deep water areas are being looked at.

(2) Lack of data may also have led to the present Annexes and/or manuals to the Directives which are insufficient, incomplete or unclear in some cases. The point was made that some important or threatened habitat types of conservation concern are not listed or the current definitions are unclear which has led to problems identifying and selecting the sites. Marine habitats as well as species, especially invertebrates, are not sufficiently represented in the Annexes I and II of the Habitats Directive.

(3) It appears that only Portugal and Denmark (latter not present at the meeting) have so far designated either SPAs or SACs outside territorial waters.

(4) The knowledge on some species and habitats was seen as being sufficient enough to select some sites. This is particularly the case for the selection of SPAs.

(5) The delimitation of sites designated for the protection of marine mammals and other highly mobile species such as the harbour porpoise or the bottlenose dolphin was regarded as very difficult.

(6) It appears that so far there have not been any marine or at least estuarine NATURA 2000 sites proposed for anadromous fish species.
(7) Functional elements of marine ecosystems such as fronts (e.g. Frisian Front), upwellings, eddies are so far not covered under the Directives.
(8) The problem of multi competence within the national administrations was highlighted.
(9) In some Member States there is still no legislation establishing a legal framework within the EEZ or for the continental shelf, respectively.
(10) The local consultation and participation with local communities and stakeholders was regarded as being highly valuable for the implementation process but also very difficult. Little interest and the lack of knowledge on the aims and objectives of the NATURA 2000 network was seen as the major problem.
(11) Local fisheries and in some cases private land (sea) ownership were seen sometimes as major problems to deal with.
(12) Work on monitoring and management plans and measures has mostly only started now.
(13) The importance of making data about the selected sites and the selection process available was highlighted and the world wide web was seen as very beneficial and useful for this matter. The NATURA 2000 Newsletter should also be distributed and being made available to all local communities and stakeholders.

With the contributions it became obvious that Member States have made very different progress in the identification and selection process of marine sites for the NATURA 2000 network. The following tabular overview shows which activities Member States have already taken in order to realise NATURA 2000 in their EEZ or 200 nm zone (Finland has not proclaimed an EEZ until now, but is preparing a respective national initiative, the UK has not proclaimed an EEZ).

| | Belgium | Denmark | Germany | Greece | Spain | France | Ireland | Italy | Netherlands | Portugal | Finland | Sweden | United Kingdom |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| First legal steps for the realization of NATURA 2000 inside EEZ or 200 nm zone | yes | yes | yes | ? | ? | no | ? | ? | yes | yes | no | yes | yes |
| First scientific steps for the identification of NATURA 2000 sites inside EEZ or 200 nm zone | ? | yes | yes | ? | ? | yes | yes | ? | yes | yes | yes | yes | yes |
| First announcements of NATURA 2000 sites inside EEZ or 200 nm zone | no | yes | no | no | ? | no | no | ? | no | yes | no | no | no |

In the discussion the meeting decided to continue with the workshop under the assumption that the Community Law applies for the EEZ.

# 4. THE STATE OF IMPLEMENTATION OF THE NATURE DIRECTIVES IN THE MARINE ENVIRONMENT (PART II)

*Chaired by Micheal O'Briain, EC DG Environment*

## 4.1 Proposals for amendments to the Annexes of the Habitats Directive from a marine conservation science perspective, with special reference to the North-sea and Baltic Sea

*Eike Rachor, Alfred Wegener Institute for Polar and Marine Research, Germany*[3]

Mr Eike Rachor highlighted that there exists only poor professional knowledge about the off-shore area. But not only this fact complicates a profound site selection for NATURA 2000. He underlined that there are in some cases unclear or insufficient definitions such as for sandbanks (depth) and seagrass habitats (only Posidonia Beds, Code 1120 is listed in Annex I of the Habitats Directive), but also, e.g. stony grounds, coarse sand, muddy habitats, channels, depressions were pointed out as being insufficiently covered under Annex I. There is a definite need for a revision of the Annexes. Using the example "Helgoland" with its mosaic of ten different habitat types, Mr. Rachor proposed the need for such a habitat complex as amendment for Annex I. Furthermore functional aspects such as refuge areas, nursery sites, feeding sites, areas for regeneration, re-immigration, biogeographical outposts, stepping stones, connecting features oceanographic features (like upwellings, eddies, fronts) must be considered for the selection process.

Mr Rachor made clear that it is not the time to press upon any changes or amendments to the Annexes of the Habitats Directive, since this would only give an excuse to Member States to further not implement the Directives.

Finally he presented a map showing his proposal for a system of large MPAs within the German North Sea which should reflect his above explanations and the "openness" of marine habitats[4].

***Discussion:***

The definition of sandbanks in the EU Interpretation Manual for the Habitats Directive was discussed. Several participants raised that there is no scientific reason to restrict the definition of sandbanks to those within a certain depth (20m), as they have been defined in the Interpretation Manual. A common proposal was to link the definition to the presence of primary production.

The question of designating a site on the basis of functional aspects according to Art. 10 of the Habitats Directive was raised. The members of the EU Commission made it clear that there would be no legal basis for designating any sites under this Article, because Article 10 obliges

[3] see also abstract attached as Annex 6 to the Summary Record

[4] download maps (German BfN Website): *http://www.bfn.de/09/090501.htm*

Member States to take measures to ensure the coherence of the NATURA 2000-System as a whole.

Micheal O'Briain stated that Member States should be aware of the different initiatives that are going on at the moment, including the elaboration of comprehensive marine habitat classification systems (e.g. under EUNIS[5]), and he underlined that there exists already enough information for the selection of marine NATURA 2000-Sites. The meeting agreed on the necessity for a special marine biotope classification for the future improvement of Annex I Habitats Directive.

## 4.2 Identification and demarcation of marine IBAs and their relationship to the Birds Directive

*Duncan Huggett, BirdLife International, UK*[6]

Mr Huggett introduced the system of Important Bird Areas (IBA) to the meeting and explained the "Marine Classification Criterion" which is one methodology for identifying potential IBA sites which requires a lot of data and focus on resting and migrating birds. The criterion is mainly based on the so called 1 % criterion closely related to the Ramsar Convention. Other selection criteria related to breeding colonies of seabirds such as foraging range, feeding areas, diet and surface activity are less data intensive and have led to the "Generic radii approach".

The point was stressed that the list of IBAs presented should be seen as the absolute minimum of sites needed to effectively protect the respective species and that in most cases sufficient knowledge on marine birds is available, and that there is consequently no reason for not selecting and designating SPAs under the NATURA 2000 Network.

### *Discussion:*

The work done by BirdLife International was regarded as very important and it was highly welcomed by the participants.

The question of the legal status of an IBA was discussed. It was argued that even though the EU Court of Justice rulings have recognised the importance of IBA data, it is still not a legally binding list of sites. However, in the absence of similar scientifically established national reviews the Commission uses this reference in order to assess progress by Member States in designating SPAs.

[5] *http://mrw.wallonie.be/dgrne/sibw/EUNIS/home.html*

[6] see also abstract attached as Annex 7 to the Summary Record

## 4.3 Identification and demarcation of marine habitat types in Germany

*Dieter Boedeker, German Federal Agency for Nature Conservation*[7]

Mr Dieter Boedeker introduced the workshop to the HELCOM process of establishing a set of Baltic Sea Protected Areas (BSPA). The NATURA 2000 work in Germany is partly based on experiences made in this process, especially in the habitat classification and site selection process. BfN used the results of a commissioned study on potential new purely marine BSPAs for the identification of Annex I habitats in the Baltic Sea. Additionally existing geological data was used for the identification process, particularly for reefs and sandbanks. Experts located large shallow inlets and bays, lagoons, estuaries and mud flats. One specific problem concerning the "Bodden" in the Baltic Sea was addressed, since different experts consulted could not immediately give a clear explanation if Bodden qualify as large shallow inlets and bays, lagoons or estuaries. Even though the Interpretation Manual is not very clear on this special "German" problem, the scientific discussion resulted for BfN in classifying Bodden as follows:

- a Bodden is classified as an estuary, if a distinct through-flow of riverine water can be observed;
- a Bodden is classified as a lagoon, if a distinct own water body exists and if there is only a minor water exchange rate with the Baltic Sea;
- a Bodden is classified as a large shallow inlet and bay, if seagrass meadows are present and a distinct water exchange rate with the Baltic Sea exists.

Less data was available for the German EEZ of the North Sea, where ongoing work is commissioned to the Alfred Wegener Institute on Polar and Marine Research. But other than in the Baltic Sea, where very little knowledge about harbour porpoises exist, Germany could already design in 1999 a marine sanctuary for this cetacean off the island Sylt that is proposed to be included into NATURA 2000.

The question on how to deal with anadromous fish species was again raised in the discussion, but this is one problem where scientific data is still missing and so far no solution could be given.

## 4.4 Marine Sites under the Habitats Directive: The UK experiences

*Charlotte Johnston, JNCC, UK*[8]

Mrs Charlotte Johnston pointed out the fact that a UK High Court ruling (Greenpeace II) clearly stated the applicability of NATURA 2000 beyond the territorial waters up to the 200 mile limit.

[7] see also abstract attached as Annex 8 to the Summary Record
[8] see also abstract attached as Annex 9 to the Summary Record

The UK has implemented the Habitats Directive inshore (currently no SPA extends beyond the low water mark), and is modifying its list since Kilkee & Paris meetings in 1999.

A JNCC "Offshore NATURA 2000 Project" was established to advise the UK Government within the NATURA 2000 process in the marine and offshore area (*http://www.jncc.gov.uk/*).

The huge UK offshore area was pointed out and the ongoing strategic approach by UK towards the selection and identification process was explained:

- Identify and agree relevant habitats and species in the 12-200 nm marine zone;
- consider habitat definitions;
- consider site selection criteria for habitats (reefs, sandbanks and possibly structures made by leaking gases) and species (including birds);
- collate existing data on relevant habitats and species;
- provide advice to UK Government on potential sites for selection as part of the NATURA 2000 network.

One of the problems mentioned was the fact that the geological classification of gravel is not coherent with the Directives' definitions, which makes the use of some existing geological information difficult.

Sandbanks identified so far in UK offshore waters follow the EU Interpretation Manual definition, and are therefore restricted to those in less than 20m water depth.

Current information indicates that UK is unlikely to have any habitats which fit the definition of 'structures made by leaking gas' – with one possible exception in the North Sea.

Another problem was identified in having only little knowledge on marine mammals (grey and common seals, harbour porpoise and bottlenose dolphin) in offshore waters.

Work on identifying possible NATURA 2000 sites for birds and mammals is not as far advanced as that for marine habitats.

UK will be further seeking views of scientists from Member States on implementation of the Habitats Directive in the offshore environment, and hope to organise a workshop on implementation of the Habitats and Birds Directives in UK offshore waters next spring (2002).

It was pointed out that the British and German professional approaches are in many aspects closely related.

***Discussion:***

The need for a marine habitat classification system was mentioned again. In this context existing geological maps for habitat classification and mapping were seen as an important tool. It is

necessary to raise awareness concerning the different scientific data and research work that is available. The point was made that it is important to use as a first step the available knowledge as best as possible and build a selection strategy upon existing data.

## 5. ESTABLISHING MARINE PROTECTED AREAS

*Chaired by José Rizo-Martin, EC DG Environment*

### 5.1 Submerged sand banks and reefs inventory

*Sarah Jones, UK, WWF European Policy Office*[9]

Mrs Sarah Jones presented work by WWF on sandbanks and reefs, which will be published shortly. It is an inventory on sandbanks and reefs (Baltic Sea is not covered so far) and was based on best available knowledge (free download of inventory soon from: *http://www.panda.org/resources/programmes/epo/about_epo/epo_mission.cfm*)[10].

The inventory should not be seen as a WWF proposal for NATURA 2000. It was meant to be an attempt to identify the Annex I habitats, but one should not forget links to other initiatives such as the OSPAR process on establishing a habitat classification system and a set of MPAs in the OSPAR maritime area. Other important initiatives mentioned were, HELCOM, BARCOM and different national initiatives.

The inventory on reefs consists on information on cold water coral reefs, sea mounts and other raised rocky platforms.

The lack of knowledge in some cases does not mean one cannot do anything in the selection and identification process, since there is sufficient data available for some habitat types as well as for some species.

In respect to fisheries being one of the major threats to the marine environment the vertical seamount management in Tasmania/Australia was presented.

***Discussion:***

The meeting appreciated very much the work done by WWF. Member States were encouraged to review and assess the inventory and to comment to WWF respectively.

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[9] see also abstract attached as Annex 10 to the Summary Record

[10] see also: *http://www.ngo.grida.no/wwfneap/Projects/reflink.htm#reefsbanks;*
*http://www.ngo.grida.no/wwfneap/Publication/briefings/briefing.htm*
*http://www.ngo.grida.no/wwfneap/whatsnew.htm*

WWF was asked how many of the sites listed in the reefs and sandbanks inventory should be designated as SPAs or SACs? The '20-60% rule' was seen as a reasonable approach, but there are other measures besides a site based approach necessary. This is especially important for all cold water coral sites. Here fisheries must be managed separately.

## 5.2 Legal aspects of marine NATURA 2000 sites including the application of Article 6 of the Habitats Directive to the marine environment

*Micheal O'Briain, EC DG Environment* [11]

Mr Micheal O'Briain introduced the participants to different legal aspects of the NATURA 2000 network.

Within the EU environmental issues are being dealt with mainly through Directives which need to be transposed into national law of each Member State. As custodian of the Treaty the Commission aims to ensure fair play and equal implementation.

Articles 226 (former 169) and 227 (former 170) of the Treaty were explained and different procedures in the Commission – Member State relationship as well as between individual Member States outlined. The way the Commission deals with complaints was outlined. As regards protection of NATURA 2000 sites Member States need to ensure an adequate legal protection regime. (free download of guidelines for "Managing NATURA 2000 sites" from Commission's Website: *http://www.europa.eu.int/comm/environment/pubs_en.htm*

The role of the EU Court of Justice was described using several different court cases and rulings. The cases made clear how the Member States must comply with the Directives and how the different Articles were interpreted by the court.

Examples:

- 'Basses Corbières' (Case C-374/98), Commission v France: The protection regime under the first sentence of Article 4 (4) of Bird Directive applies to qualifying sites not classified as SPAs (not allowing flexibility of Article 6 (2), (3) & (4) of Habitats Directive.
- 'First Corporate Shipping' (Case C-371/98): Member States may not take account of economic, social and cultural requirements or regional & local characteristics when selecting and defining the boundaries of the sites to be proposed under Habitats Directive.
- 'Lappel Bank' (Case C-44/95): Member State is not entiteled to take into account economic requirements when classifying SPAs or in determining the boundaries of such SPAs.

[11] see also abstract attached as Annex 11 to the Summary Record

- 'Insufficient SPA classification' (Case C-3/96), Commission v Netherlands: Member States must classify as SPAs all the most suitable territories that have been identified using ornithological criteria, a duty that cannot be substituted by other measures.
- 'Santoòa marshes' (Case C-355/90), Commission v Spain:
    - Designation of SPAs responds to certain ornithological criteria determined by the Directive.
    - Protection regime not only applied to to classified SPAs but also to sites that should have been classified as SPAs.

Several "myths", like the wrong assumption that once a site is designated as a NATURA 2000 area, all activities are banned or forbidden that still exists among local communities, local stakeholders and some politicians were clarified.

***Discussion:***

On request of some participants, Mr O'Briain informed that Member States are responsible for the costs of implementing NATURA 2000. However, Article 8 of the Habitats Directive does legally foresee Community co-financing for sites hosting priority species and habitat types. The Commission had encouraged Member States to make use of Community Structural funds to support the positive management of NATURA 2000 sites.

It was discussed how the commission considers environmental complaints (which e.g. can be sent in by a NGO). Mr O'Briain explained that the Commission is obliged to recognise a complaint. It will address the blamed Member State and ask for its position on the matter within the framework of a formal process. If there is an issue of non-compliance which is not resolved this may lead to the case being taken to the EU Court of Justice.

Mr O'Briain answered to the question if fisheries policy may be overruled by the Habitats Directive: According to him, fisheries policy cannot be used to justify infringements or lacks of fulfilment of environmental duties as established by the Habitats Directive.

On respective questions Mr O'Briain stated that it is not the responsibility of the Commission to start selection activities itself or to spread information between the Member States, but Community funds, especially LIFE Nature, have been used to help selection, managing and monitoring of NATURA 2000. Article 8 of the Direcive foresees Community support for sites hosting priority habitats and species under the Directive, but Member States are required to indicate the costs of their measures. However, this has not yet happened. The Commission has encouraged Member States to make use of Community funds for positive measures in NATURA 2000 sites. The Commission has also tried to ensure that Community funds are not used to support developments which are damaging to NATURA 2000 sites or areas to be protected in NATURA 2000. It has also threatened to block the granting of Structural funds in cases in which some Member States did not properly fulfil their duties with respect to the Habitats Directive.

## 5.3 Other international legislation in support of implementing NATURA 2000 in the marine environment

*Kristina Gjerde (Consultant), Poland* [12]

Ms Kristina Gjerde gave an overview on different international legislation in support of implementing NATURA 2000 in the marine environment.

She pointed out that the United Nations Convention on the Law of the Sea UNCLOS imposes obligations on all nations to protect and preserve the marine environment (including rare and fragile ecosystems and the habitats of vulnerable species) throughout the oceans, including the 200-mile exclusive economic zone (EEZ) and the seabed of the outer continental shelf (as defined in UNCLOS). Although UNCLOS limits a coastal nation's ability to regulate foreign navigation in its EEZ, shipping issues can still be addressed at the global or regional level (e.g. through the International Maritime Organization).

The Convention on Biological Diversity (CBD) calls for parties to conserve and sustainably use biological diversity out to the limits of their EEZ, and to cooperate in the conservation of marine biological diversity on the high seas. The NATURA 2000 network can be seen as one of the actions taken so far in the EU to implement the CBD. Thus the network should clearly include areas in the EEZ.

An illustration on the different legal zones in the marine area under UNCLOS was shown:

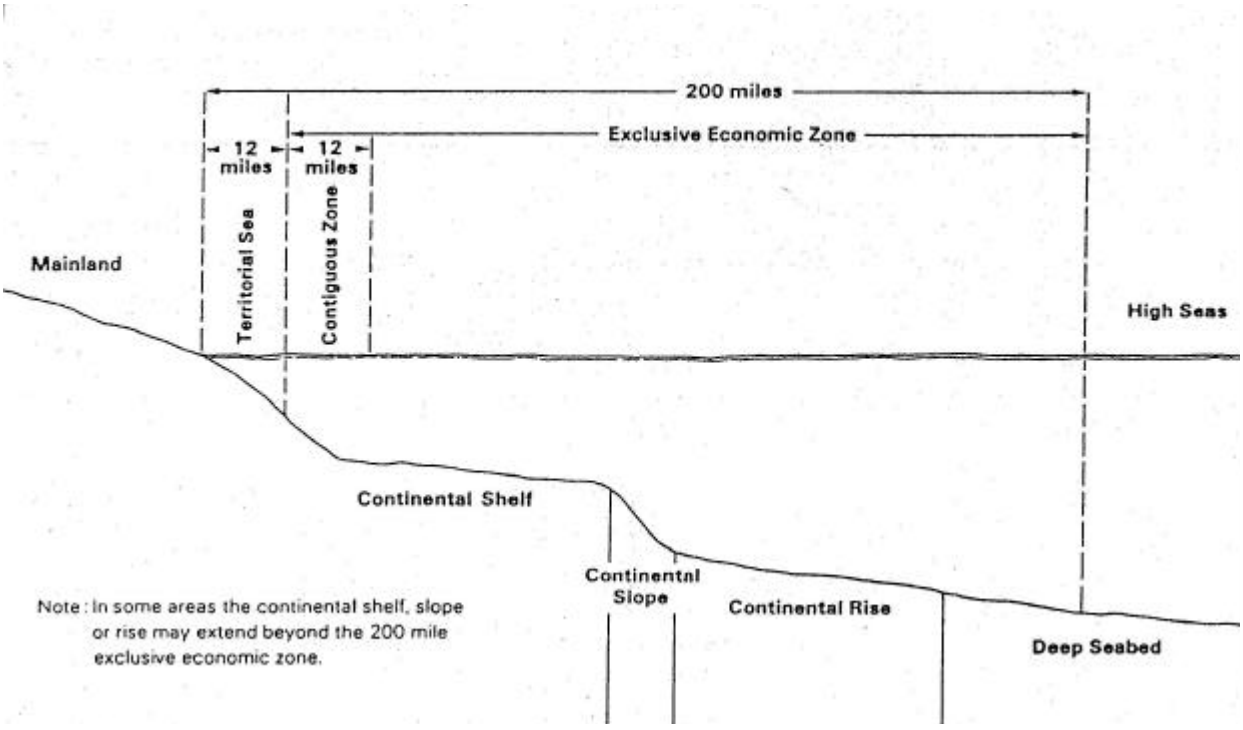


Fig. 1: Ocean Zones *(from: Churchill & Lowe 1983: The Law of the Sea. Manchester University Press.)*

[12] see also abstract attached as Annex 12 to the Summary Record, which also includes a list of international legal tools to regulate shipping in environmentally sensitive areas

Nevertheless, the Jakarta Mandate, adopted by parties to the CBD in 1995, calls for a more comprehensive approach to the conservation of marine biodiversity. This includes the establishment of a representative system of marine protected areas, integrated marine and coastal management, sustainable use of marine resources, environmentally sustainable mariculture and control of alien species. As emphasized by the Jakarta Mandate, marine protected areas should be incorporated into a wider policy of integrated marine and coastal area management, with conservation and sustainable use objectives adopted by all sectors of government and industry.

Other Conventions such as the Migratory Species Convention ('Bonn Convention'), the World Heritage Convention, the Wetlands Convention ('Ramsar Convention') and different regional conventions (OSPAR, Helsinki Convention, Barcelona Convention, Bern Convention) can address some of the longer-term or more distant threats to NATURA 2000 sites, such as pollution and habitat degradation. They also provide essential arenas for cooperation among non-EU members that share common seas, watersheds, resources or migratory species. Together with UNCLOS and CBD, these agreements provide a comprehensive legal basis for action, which the parties should implement through national legislation and management policies in order to provide long-term protection to the NATURA 2000 sites.

The need for extensive cooperation and coordination between and among the various agreements, within the EU, and inside national governments, as well as broad-based public participation and consultation, was highlighted.

***Discussion:***

The question of what role the UN Tribunal for the Law of the Sea will develop towards Member States that are not safeguarding biodiversity was discussed and within this context the importance of the International Court of Justice highlighted.

The problem of how to deal with sound pollution was raised, and it was made clear that sound as a form of energy is also treated as "pollution" that should be regulated under UNCLOS.

## 5.4 Conserving deep-water corals within offshore areas under Irish Jurisdiction

*Anthony Grehan & Ronan Long (National University of Ireland)*[13]

Mr Anthony Grehan & Mr Ronan Long (National University of Ireland) explained the Irish legal situation in the conservation of deep-water corals within offshore areas.

[13] see also abstract attached as Annex 13 to the Summary Record

The first consultative process with principal stakeholders within the ACES project, the Irish Coral Task Force was described. The responsibility for Ireland to act was seen, since 62 % of the Deep Water Coral Reefs (known) are within the different legal zones of Ireland.

The Process started out in identifying the different coral sites known so far and an evaluation of the actual or potential threats to them. The risks identified were firstly fishing and secondly hydrocarbon exploration and exploitation and it was made clear that these risks are increasing.

The different legal legislation that may be important was described including soft law such as the FAO Code of Conduct for Responsible Fisheries.

It was argued that the Habitats Directive does apply beyond the 12 nm zone by looking at the term and different interpretations of "territory" within international and European Law. The Directive is also the right tool to regulate activities within the sovereign rights of a member sate. But fishing regulations must come from the European Common Fisheries Policy, even beyond the 200 nm zone.

Besides site protection also different already existing technical measures are necessary for site management.

***Discussion:***

Fisheries technical measures were highlighted in the context of deep water coral conservation. They are not only complementary to a site based approach, but necessary for the protection of deep water coral.

Oil rigs must also be seen as a major threat for cold water coral reefs.

The discussion on the implementation of the Habitats Directive within the EEZ revealed that it could also be applied throughout the continental shelf.

## 5.5 Other international initiatives in the management of marine protected areas (OSPAR and HELCOM)

*Henning von Nordheim, German Federal Agency for Nature Conservation*[14]

Mr Henning von Nordheim (BfN) gave an introduction to the HELCOM and OSPAR initiatives on selecting and managing marine protected areas.

The Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea was signed in 1974. Focussing only on environmental issues at the time, a major revision process,

[14] see also abstract attached as Annex 14 to the Summary Record

which introduced nature conservation issues to the convention as well, led to the adoption of the new Helsinki Convention in 1992. For the purpose of integrating nature conservation issues into the HELCOM policy a new working group was established in the same year under the Environment Committee (EC-Nature).

One first result of the work of EC-Nature was HELCOM Recommendation 15/5 (1994) which calls upon the Contracting Parties to gradually develop a system of so called coastal and marine Baltic Sea Protected Areas (BSPAs). With this a first list of 62 mostly coastal BSPAs was attached to the Rec. 15/5 and presented to HELCOM. An additional proposal of 24 mostly pure marine sites was forwarded to HELCOM in 1998. The implementation process is still going on.

Several areas are also partially or totally proposed for NATURA 2000.

Further two guidelines one for the selection and one for the management of BSPAs were presented and distributed to the participants.

In 1998 the first Red List of coastal and marine Biotopes and Biotope Complexes of the Baltic Sea, Belt Sea and the Kattegat was published, providing for the first time a comprehensive classification for all coastal and marine habitats, their current status of threat in each country as well as for the coastal and marine area of the Baltic Sea area and indications of actual and potential threats from human activities (free download: *http://www.helcom.fi/*).

The OSPAR Convention on the Protection of the environment of the Northeast Atlantic was described.

In 1998 a new Annex V was adopted which introduced nature conservation issues to the convention. In a parallel ministerial declaration all environment ministers expressed their wish to establish marine protected areas (MPAs) within the OSPAR framework.

A working group on developing guidelines on the selection, monitoring and management of MPAs was established. The important work of several NGOs within the group was stressed.

The selection process can be described as a two step approach, with the selection of sites using ecological criteria and then prioritising among these sites using practical considerations (draft selection criteria and management guidelines (see Annex 14) exist and were distributed to the participants).

A system of biogeographic subdivisions was developed by Germany and agreed upon by OSPAR and will be shortly be published: DINTER, W.P. (2001): Biogeography of the OSPAR Maritime Area. A Synopsis and Synthesis of Biogeographical Distribution Patterns described for the North-East Atlantic. German Federal Agency for Nature Conservation.

For the first tranche of MPAs that can be expected next year Contracting Parties should concentrate on the 12 to 200 nm zone (EEZ).

### *Discussion*

The question, whether the OSPAR selection criteria for MPAs were compatible with the NATURA 2000 selection criteria was raised. It was obvious that although the OSPAR criteria are much wider than the NATURA 2000 criteria, a proposed marine NATURA 2000 site could easily be included into the OSPAR MPA system. The NATURA 2000 network is still in most cases the only legally binding instrument for Member States.

The fact that Norway has already protected the Sula Reef in its EEZ nationally through the Norwegian EEZ Act in combination with the Salt Water Fisheries Act was mentioned.

The need to work in parallel on the OSPAR process of establishing MPAs and the NATURA 2000 network was stressed, even though there is no sufficient habitat classification system for the marine environment in the Habitats Directive. One should however work with the system as it is and should not try to amend or change it right now.

## 6. OVERALL DISCUSSION

*Chaired by Micheal O'Briain, EC DG Environment and Henning von Nordheim, German Federal Agency for Nature Conservation*

The meeting agreed to concentrate on three main issues during the discussion:

1. **Legal Questions concerning the NATURA 2000 network**
2. **Questions concerning the identification and selection of sites**
3. **Questions concerning management and monitoring of NATURA 2000 sites.** (This topic was postponed to the final discussion)

### 1 Legal Questions concerning the NATURA 2000 network

It was discussed whether marine IBAs can be treated the same way as special protection areas, particularly in light of recent ECJ judgements in connection with plans and projects in the terrestrial environment. The general feeling of the meeting was that Member States who did not fully implement the Birds Directive should not be rewarded for failing to meet this objective. As such the IBA list provides a valuable scientific reference, among others, in assessing whether a site should be protected under the Birds Directive. In fact the ECJ, while making clear that it was not a legal list, had recognised the great importance of this inventory. Furthermore, the Court had concluded that a strict protection regime should apply to areas which should be classified as SPAs but which had not yet received this designation.

In this connection several participants raised their concern about the rapidly increasing amount of applications for the installation of offshore windparks in their countries because most of them concentrate on shallow offshore areas, like sandbanks and reefs which are in many cases also Important Bird Areas. It was stressed that in such cases the likelihood of significant effects must be evaluated and cumulative effects have to be considered. Nevertheless, if the Member State has not implemented the Birds Directive, plans and projects have to be assessed according to Art. 4 of the Birds Directive, where, in the case of a significant impact of the development, it would only be allowed to proceed under exceptional circumstances (when threats to human health and safety are concerned).

## 2 Questions concerning the identification and selection of sites

Different ways of funding of site selection and management of Annex II species were discussed. Among them were the EC Life Nature Fund, EC Structural Fund, DG Research and Interreg (*http://www.inforegio.cec.eu.int/wbdoc/docoffic/official/interreg3/index_en.htm*).

Are biogeographical subdivisions in the marine environment needed for the selection process? The respective subdivisions made by OSPAR (see above) were put forward, but no final 'decision' was made. It was recognised that criteria for selecting NATURA 2000 sites at biogeographic level allow for the taking into consideration of such variation over biogeographic areas.

BirdLife stated the slow process of selecting and reporting sites even though enough information is available in many cases (e.g. WWF information on sandbanks and reefs, BirdLife information on IBA sites).

The publication by ASCOBANS (*http://www.ascobans.org/*) on the distribution of Cetaceans in the near future was mentioned (without data on the Mediterranean and the Baltic Sea)

The Lack of knowledge concerning anadromous fish species in the marine environment and harbour porpoise in the Baltic Sea was stressed.

BirdLife was encouraged to further develop their work on the different ways of demarcation of possible MPAs for birds and to consult the relevant national authorities.

# 7. USES, IMPACT ASSESSMENT AND MONITORING IN MARINE NATURA 2000 SITES (PART I)

*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

## 7.1 Consideration of NATURA 2000 sites in the EU Common Fisheries Policy (CFP): The EC Biodiversity Action Plan on Fisheries and the EC's Communication on Environmental Integration into the CFP

*José Rizo-Martin, EC DG Environment*[15]

Mr. José Rizo-Martin explained the impacts that fisheries can have on environmental and conservation issues and gave an introduction on the role played by the Commission in the management of the Common Fisheries Policy and the Biodiversity Action Programme of the EU.

The question of how to regulate and manage fishing activities inside a MPA is one of the important issues for the Commission since a first list for NATURA 2000, covering the Macaronesian Region, is envisaged by the Commission.

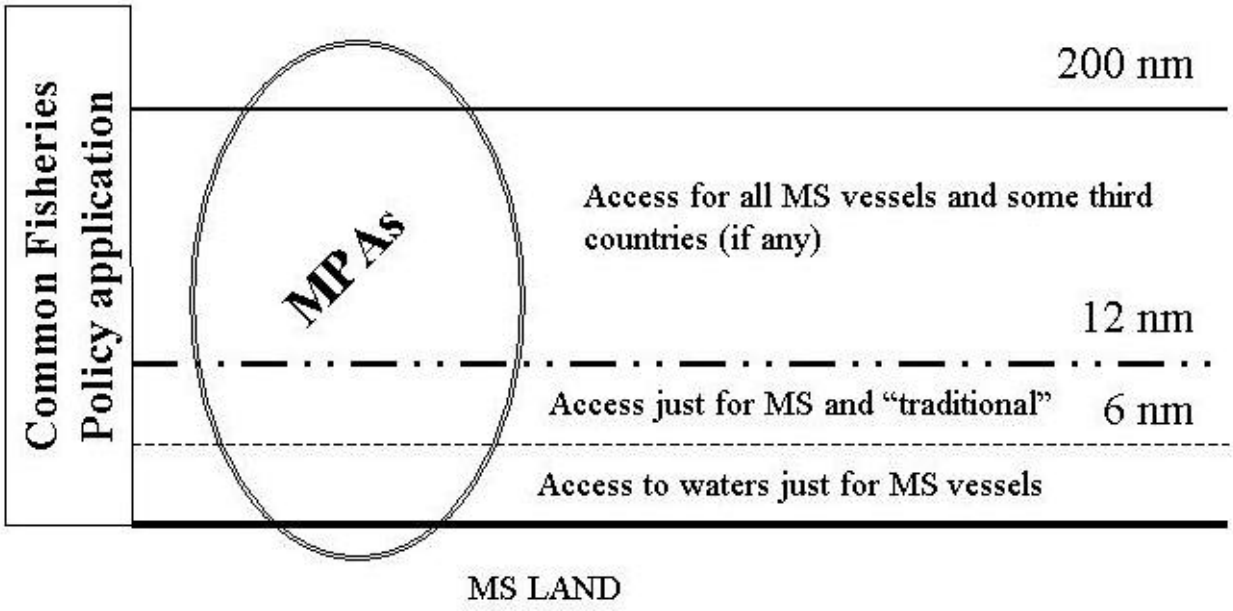


*Fig. 1: Zones for the Common Fisheries Management*

For NATURA 2000 the Birds and Habitats Directives provide the legal basis for setting up marine protected areas (MPAs). According to the Habitats Directive, management of these areas should aim at assuring that activities taking place inside these areas do not lead to unacceptable levels of disturbance or deterioration of the ecological features. Since fishing activities can have a major impact on the marine ecosystem, they must be regulated (not necessarily forbidden) within a MPA. These measures must be adopted within the Common Fisheries Policy, if

[15] see also abstract attached as Annex 15 to the Summary Record

they have to be enforceable against any fishing vessel or fisherman operating in MPAs. In this connection Mr Rizo-Martin showed the marine areas where the CFP applies (Annex 15).

At the Cardiff Summit (1998) the Council discussed how to integrate environmental issues into the Common Fisheries Policy. The European Council invited some sectoral Councils (like Fishery) to start their own environmental strategies taking into account the Art 6 of the European Community Treaty. A Communication proposing some strategic consideration to achieve the integration of environmental concerns into the Common Fisheries Policy was adopted by the Commission. The ecosystem approach and the precautionary principle were described as the rationale of new management considerations.

In the Reaction from the Council of Ministers, Member States are encouraged to implement the Birds and Habitats directives in their respective EEZs. The acceptance of the precautionary principal particularly concerning species of Annex II of the Habitats Directive was highlighted.

The value of improving technical measures (including the protection of marine areas) was also highlighted.

The Commission worked on the Biodiversity Action Plan on Fisheries in order to enhance the integration of environmental concerns into the Common Fisheries Policy. The Greenbook on Fisheries was also mentioned (download: *http://europa.eu.int/comm/fisheries/greenpaper/green1_en.htm*).

The establishment of MPAs was explained as very useful, however, a MPA is seen as a technical measure not only to protect target species, but also non target species.

In that respect the Council reacted in stressing the need for addressing biodiversity in the forthcoming review of the CFP according to this Biodiversity Action Plan for Fisheries. The Council also underlined that in order to efficiently promote biodiversity, the Community should study the possibilities of enlarging the set of available management tools as real-time area closures or marine protected areas as well as measures to protect, restore or improve habitats for specific species.

***Discussion:***

The discussion of problems concerning fisheries in respect to managing marine NATURA 2000 sites was seen as very important, so that an extended discussion followed the presentation by Mr Rizo-Martin (DG Environment).

The Commission explained that the legal status of the Communication on integration as well as the Biodiversity Action Plan of the Commission represent only the political will of the Commission. Both documents are not Community documents.

The Commission clarified that the establishment of MPAs can be seen as a type of technical measure within the framework of the Common Fisheries Policy.

Management measures taken in a MPA should be scientifically justified, otherwise such a measure might be not easily accepted.

Asked if agreements within the OSPAR framework are more important than secondary Community Law, Mr Rizo-Martin stated that European Commission is engaged in assuring that EU Directives are fully implemented and this is the priority.

The question was raised, if a country could set up a MPA within its EEZ but outside the NATURA 2000 network. It was argued that fishing regulations that could be binding for all Member states cannot be set up in the EEZ on national level of a single Member state, so that management would be very restricted. But whether in such a case Community regulations on fishery can be undertaken on request or not is a question to be answered on a case by case basis. In this connection the Meeting was convinced that deep water corals (e.g., Lophelia reefs) need to be protected immediately against adverse fishing practises and that it might be too late to wait until having NATURA 2000 implemented.

The problem of having two policy fields and two legislations (the Habitats and Birds Directives and the Common Fisheries Policy/CFP) for fisheries and conservation was raised. There is the need to coordinate their application.

The 0 to 6 mile zone of the territorial waters should not be neglected when looking for possible MPA sites. National power is quite strong in this zone, with mostly only national fishing activities going on.

The possibilities for having new regional approaches within the New CFP, as proposed by the Green Paper on the Common Fisheries Policy was pointed out.

Mr. Henning von Nordheim (Germany) informed for HELCOM about an upcoming joint seminar in early 2002 between the Baltic Sea Fisheries Commission and HELCOM to discuss further actions to preserve marine biodiversity including fish stocks in the Baltic Sea area (within the Baltic Agenda 21 scheme). The HELCOM working group for Nature Conservation and Coastal Zone Management (HELCOM Habitat, former EC NATURE) will look at incorporating conservation measures into fisheries policy.

The management of marine mammals is not an aim of the Common Fisheries Policy. However, it should take into account the whole set of living marine resources, e.g. implementing measures aimed at reducing by-catch.

# 8. USES, IMPACT AND MONITORING IN MARINE NATURA 2000 SITES (PART II)

*Chaired by Dieter Boedeker, German Federal Agency for Nature Conservation*

## 8.1 Possible impacts of offshore windfarms on NATURA 2000 sites

*Henning von Nordheim, German Federal Agency for Nature Conservation*[16]

Mr Henning von Nordheim gave a presentation on the large amounts and dimensions of applications for offshore windfarms in Germany.
He mentioned the high importance for the German environmental policy of using renewable energy resources, but he also pointed out that there is only very little knowledge available on the real effects that such offshore windmills might have on the marine environment. He presented an overview of the potential threats including the heavy impact windmills have on the landscape.

So far there are only few sites in Denmark and Sweden where windmills have been built in the marine near-shore environment, but nothing has been constructed in a truly offshore site. Currently there exist about 30 applications in Germany for windfarm complexes of up to 450 windmills of the 2 to 5 megawatt class, each, which so far have not been constructed anywhere in the world.

Until today no permission has been granted, but the applications are under evaluation by the respective authorities.

Over 1.700 single turbines are planned within the German EEZ of the North Sea and more than 600 are being planned in the German EEZ of the Baltic Sea. Many sites are within IBAs and in several occur habitats and species according to Annexes I and Annex II of the Habitats Directive.

### *Discussion:*

The need for information on noise or emitted frequencies in order to predict any impacts that windmills have on the marine environment was pointed out.

The analysis of data from a study on a marine windturbine-park in Denmark was questioned. It was argued that the conclusions drawn from the Danish study might not be transferable to other sites.

Accumulative effects have not being looked at so far, since no large windpark has been constructed until now. Time is too short for a thorough pilot case study before countries plan to build first large offshore windturbine complexes and obviously the precautionary approach is not sufficiently applied.

[16] see also abstract attached as Annex 16 to the Summary Record

The benefits of using renewable energy was highlighted, but it should not lead to an increase of uncompensationable destruction of marine nature.

The questions were raised: How can the significance of an impact be proven, if there are no experiences with the technology so far? How can we deal with the lack of knowledge and economical and political pressure? Mr. von Nordheim recalled in this connection the precautionary principle that was in his view not taken seriously enough as an important guidance, although it is a component of both, the OSPAR and the Helsinki-Conventions and therefore binding for their contracting parties.

## 8.2 Introduction to the monitoring of marine SACs

*Jon Davis (JNCC), UK*[17]

Mr Jon Davis gave an introduction to the monitoring of marine SACs under a UK perspective.

The reasons for monitoring were pointed out and the different legal requirements within the NATURA 2000 network were described.

The common standard for monitoring was highlighted in order to make data on the success or failure of the management comparable.

Therefore, conservation objectives (definition of “favourable condition”) for each site must be specified, target must be set.

The need for continued research (surveillance) was expressed as well as the need for an effective monitoring (checking the sites ecological status, improving, declining).

The continued research should focus on a key set of different attributes; however, he pointed out that the monitoring should not only be effective, but also efficient. It is therefore very important to have good indicators for a good ecological condition of a site, and a monitoring strategy is needed.

The need for a close collaboration among the Member States was stressed.
Monitoring guidelines for the UK will be available via download from the JNCC Website (*http://www.jncc.gov.uk/* ).

[17] see also abstract attached as Annex 17 to the Summary Record

# 9. MANAGEMENT OF MARINE SACS/SPAS

*Chaired by Charlotte Johnston (JNCC), UK*

## 9.1 Management schemes on selected UK marine SACs (LIFE project)

*Maggie Hill (Countryside Council for Wales), UK*[18]

Mrs Maggie Hill presented a project funded by the Life Nature Fund and the statutory nature conservation bodies in the UK on management schemes on marine SACs in the UK.

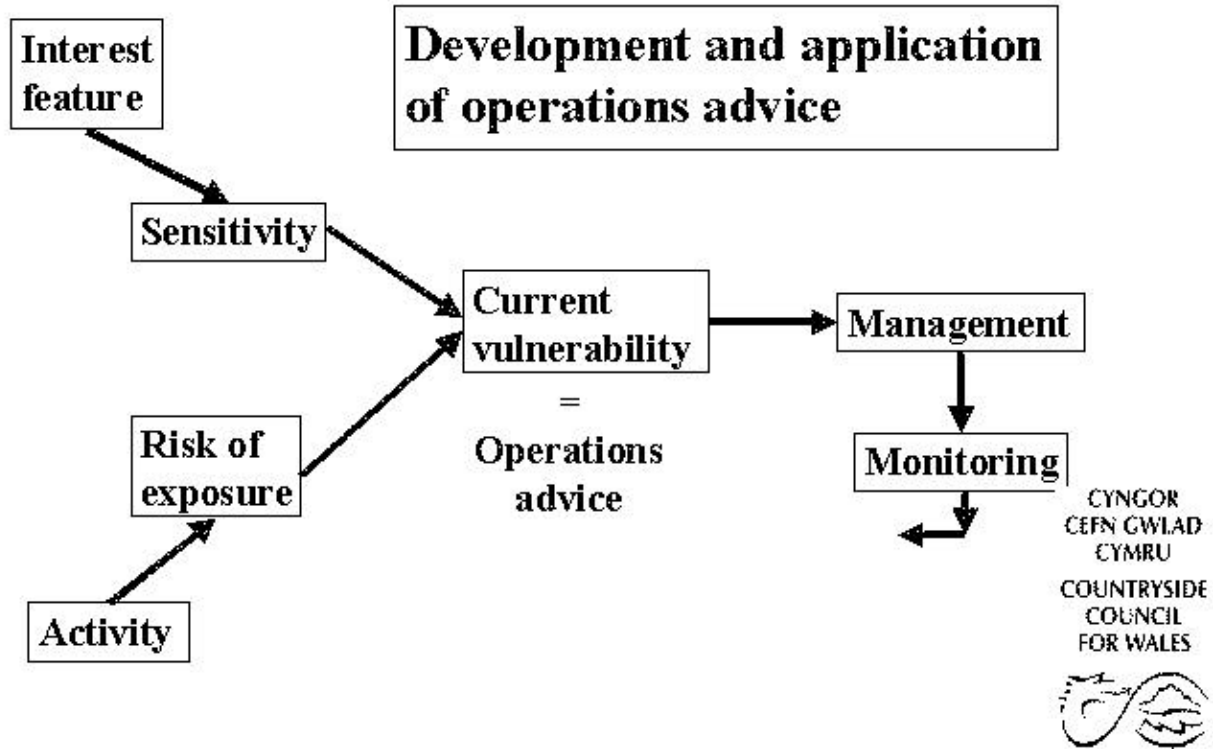


*Fig. 1: Route map to management scheme*

A management scheme is:

- Consultation structure
- Set of rules
- Register of actions – assigned to organisations
- Way of reviewing actions taken (or not)
- Monitoring programme
- Means of reporting
- It looks like whatever works
  - a living scheme

In general management schemes aim:

- To implement marine SACs and SPAs
- To establish conservation measures

[18] see also abstract attached as Annex 18 to the Summary Record

- To prevent deterioration and disturbance
- To help authorities meet their obligations
- Collective responsibility?
- Individually responsible for own sections
- Voluntary partnership – statutory duty

What are management schemes NOT for?

- Dealing with plans and projects (Article 6.3) but important links to this
- Measure outside SACs and SPAs; remote impacts
- All decision making affecting SACs and SPAs.

The point was stressed that a successful management heavily depends on building up partnerships between local communities, politicians and stakeholders. People working on the management schemes become important experts on the region they are working in and may provide important information on possible effects that new plans and projects might have on the environment (including accumulative effects).

Different examples of sites with management schemes were given.

The internet site *www.ukmarinesac.org.uk* was mentioned, with more information on management schemes as well as a guide shortly to be published via the internet.

## 9.2 Integrated management of coastal and marine areas in the Azores

*Maria José Pitta Groz, Portugal (Governo Regional dos Azores)*[19]

Mrs Maria José Pitta Groz presented an overview on the situation of marine SACs (so far no SPAs have been selected for the marine environment) in the Azores and outlined the work within the “Mare” Life project.

Main objectives:

- Integrated management plans for 5 SAC and 7 SPA
- Management measures for whale-watching and fishing activities that have impact in cetaceans and marine turtles
- Education strategy that integrates a general and specific approach for local population and sea users.

Today there are 17 MPAs around the Azores with 4 sites being completely marine and one completely in the EEZ.

[19] see also abstract attached as Annex 19 to the Summary Record

There is still a lack of data on most of the sites and the Life project focuses on getting a good overview over the natural resources as well as the social and economic values within the reserves. A parallel process of raising public awareness and building up co-operation among local communities, politicians and stakeholders has already been established. The importance to educate people and raise public awareness on marine conservation issues was highlighted.

The working structure consists of a co-ordination group, an operational group, several different theme groups (marine habitats, seabirds, cetaceans, marine turtles and environmental awareness) and different consultants.
It was made clear that there are very different levels of human impacts within the different reserves, since some are located near towns and cities whereas others are more remote and less accessible.

Short overviews to the different sites were given. The example of the site Corvo Island was given, where a close cooperation between scientists, conservationists, fishermen and tourist tour-operators has been established during the Life project.

Different initiatives and measures concerning habitat management and restoration for seabirds were presented. The measures included among others restoration projects for native vegetation, artificial nests, population monitoring as well as genetic taxon studies.

The conservation aims concerning cetaceans were:

- Managment of tourism activities in order to reduce impacts to coastal and marine ecosystems;reduction of other human impact in marine SACs; development of a sustainable whale watching activity; and to define new protection sites for *Tursiops truncatus.*

Problems still however exist and so far no site based approach towards marine turtles and mammals has been established.

## 9.3 Ilots de Bretagne (LIFE project)

*Arnaud Le Nevé, France (Bretagne vivante – SEPNB)*[20]

Mr Arnaud Le Nevé gave an overview on the situation on a Life Project in Brittany (France). The lack of knowledge on the marine environment was pointed out e.g. with no red data book existing for marine species.

The importance of the region Brittany with roughly one third of the countries' total coastline for coastal and marine conservation was highlighted.

Possible threats to the marine environment in Brittany:

- Increasing of urbanisation pressure

[20] see also abstract attached as Annex 20 to the Summary Record

- Increasing of self fishing, dredging, demersal fishing
- Development of intensive aquaculture in estuaries (fish farming, oyster farming…)
- Intensive extraction on non-fish living resources (algae, maërl)
- Invasive species
- Increasing of marine pollution (nitrates incoming from intensive pig farming, pesticides, heavy metal, anti-fooling and other chemicals from ship activities…)
- Development of aquatic sports and spare time activities

The need for a first habitat and species identification and prioritisation process was explained. Which are the species and habitats under most pressure from human activities? How can human activities be controlled and managed?

What are priorities for conservation?

1. Species:
- Aim: identification of endangered species
- Tool: red lists
- Problem: lack in the knowledge of the conservation status of species and their communities

2. Habitats and communitie:
- Aim: rapid identification of habitats or communities and their state of conservation
- Tool: keystone species, structuring species, flagship species, red lists of habitats
- Problem: lack of unanimous indices at a national or European scale, lack to define state of conservation.

The Life project 'Archipelago and islands of Brittany' focuses on building awareness among local communities, stakeholders and politicians as well as selecting possible NATURA 2000 sites in a consultative process.

## 10. FINAL DISCUSSION

*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

During the final discussion those questions and statements were put forward and discussed which were not discussed directly or fully after the respective presentations. The following contributions are structured thematically.

### Habitats Directive Annex I, Marine Habitats

Mr Duncan Hugget (BirdLife International) recalled the Habitats Directive and pointed out that Annex I marine habitats such as estuaries, shallow inlets and bays are single ecological units characterised by their structure and function of the habitat. Because the Marine NATURA 2000 network is both a comprehensive and consistent network and in accordance with the principals of the site selection criteria at Annex III, there is no scientific basis on which to exclude navigation channels from a NATURA 2000 site.

The general feeling among the participants was that since no scientific reason exists the Birds and Habitats Directives do not provide any legal basis for excluding shipping channels in the first phase of selecting and identifying areas. In a later stage, once the list of SACs and SPAs is completed there is a clear mechanism under Article 6 of the Habitats Directive to deal with socio-economic considerations, including those relating to shipping activities.

### Monitoring/validation

The group expressed concern on how the monitoring results from each member state will be validated and compared between the countries to ensure that a consistent standard is attained in the reporting of sites by the Member States.

One option would be the establishment of an inter-calibration working group of the Habitats Committee. There are provisions for such exercises under the Water Framework Directive. The Group suggested to adopt these provisions into the Habitats Directive to achieve a close alignment between the two Directives.

### Implementation of the Birds Directive

Birdlife International noted that after 22 years of implementing the Birds Directive, there is still no coherent network of SPAs in the marine environment. BirdLife called on Member States present, without further delay to:

- Extend existing marine SPAs as appropriate throughout territorial waters; and
- to dentify and where appropriate classify marine SPAs throughout the EEZs (or 200 nm zone); and
- to develop and implement marine SPA management which have clear objectives and actions to ensure the protection of marine SPAs.

### Transboundary issues

The meeting recognised in the case of transboundary sites the need for an extensive exchange on site information and progress in the site selection process (e.g. for the Dogger Bank).

### Compensation under Art. 6, Habitats Directive

The question remained open, which compensation measures can be applied when a NATURA 2000 site is affected by newly planned human impacts (e.g. construction, exploitation of natural resources, etc.).

France is currently working on guidelines on how to use Art. 6. This could include the demarcation of a site being affected. However different opinions were raised as well.
The Commission has prepared interpretative guidelines on the provisions of Article 6 of the Habitats Directive and, based on work undertaken for it by Oxford Brookes University, will shortly publish a non-mandatory guide on how to carry out assessments in accordance with the requirements of Article 6.

### Definitions of habitats and gaps in Annex I habitats:

The meeting recalled that the habitats of Annex I are incomplete or their definitions in the Interpretation Manual are not precise enough to protect marine biodiversity. It was for example argued that the restriction in the definition for sandbanks to a depth of 20 m is not appropriate in the offshore environment; however the wording in the Interpretation Manual "seldom deeper than 20 m" does not exclude selecting SACs for sandbanks below 20 m.

### System of Marine Protected Areas (MPA)

In connection with implementation of the Habitats Directive the important role of the upcoming OSPAR MPA system was raised, because:

(1) OSPAR lists on species and habitats in need of protection probably could help to filling in the gaps in Annex I, but also in Annex II Habitats Directive at some latter stage.

(2) Sites could be designated as MPAs under OSPAR, where there are habitats and species for which MPAs should be designated, but they are not on the Annexes of the Directive.

### Immediate need for action

The Expert Working Group recognises that cold water coral *Lophelia pertusa* reefs are under immediate threat in the maritime areas under the jurisdiction and sovereignty of the Member States. Urgent action is required at both Community and Member State level. Conservation measures should be immediately pursued through the medium of the Habitats Directive and the Common Fisheries Policy. It is the recommendation of the meeting that technical conservation measures be adopted by the Community to protect and preserve *Lophelia pertusa*. Furthermore, there is a pressing requirement to integrate environmental objectives into the Common Fisheries Policy on the basis of the Precautionary Principle.

### How to make the Common Fisheries Policy compatible with the Habitats Directive?

WWF proposed that the post 2002 Common Fisheries Policy (CFP) should take up appropriate wording in the Habitats and Birds Directives recognising that the phrasing would have to be appropriate for policy rather than for a Directive. The wording would describe when management action is taken with respect to fisheries according to the definitions in the Directives and/or definitions for which the Commission has published guidance such as to "maintain or restore to favourable conservation status" and to "avoid.." "deterioration..." and "disturbance..." .

### Final Agreements

The meeting recognised the need for further joint meetings of the Commission with Member States and NGOs for information exchange and better cooperation.

The upcoming NATURA 2000 Workshop on Management and Monitoring sites, planned for early spring 2002 in the UK, was agreed to be the best forum to reconviene. UK will invite all participants of the Vilm workshop to the upcoming one.

Annex 1

## List of participants

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Annex 2

**Workshop programme**

**OPENING OF THE WORKSHOP, WELCOMING ADDRESSES**
*Henning von Nordheim, German Federal Agency for Nature Conservation,*
*Micheal O'Briain, EC DG Environment*

**THE STATE OF IMPLEMENTATION OF THE HABITATS AND BIRDS DIRECTIVES IN THE MARINE ENVIRONMENT – PART I**
*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

- **Introduction and overview of the situation**
- *Micheal O'Briain & José Rizo-Martin, EC DG Environment*

- **The role of NATURA 2000 for the protection of marine biodiversity: current status and further prospects**
- *Johann Thissen, BirdLife International, The Netherlands*

- **Round table: Short contributions from Member States, accession candidate countries, and NGOs on progress, experiences and difficulties**

**THE STATE OF IMPLEMENTATION OF THE HABITATS AND BIRDS DIRECTIVES IN THE MARINE ENVIRONMENT – PART II**
*Chaired by Micheal O'Briain, EC DG Environment*

- **Proposals for amendments to the Annexes of the Habitats Directive from a marine conservation science perspective, with special reference to the North Sea and Baltic Sea**
- *Eike Rachor, Alfred Wegener Institute for Polar and Marine Research, Germany*

- **Identification and demarcation of marine IBAs and their relationship to the Birds Directive**
- *Duncan Huggett, BirdLife International, UK*

- **Identification and demarcation of marine habitat types in Germany**
- *Dieter Boedeker, German Federal Agency for Nature Conservation*

- **Marine Sites under the Habitats Directive: The UK experiences**
- *Charlotte Johnston, JNCC, UK*

**ESTABLISHING MARINE PROTECTED AREAS**

*Chaired by José Rizo-Martin, EC DG Environment*

- **Submerged sand banks and reefs inventory**
- *Sarah Jones, UK, WWF European Policy Offic*

- **Legal aspects of marine NATURA 2000 sites including the application of Article 6 of the Habitats Directive to the marine environment**
- *Micheal O'Briain, EC DG Environment*

- **Other international legislation in support of implementing NATURA 2000 in the marine environment**
- *Kristina Gjerde (Consultant), Poland*

- **Conserving deep-water corals within offshore areas under Irish Jurisdiction**
- *Anthony Grehan & Mr Ronan Long (National University of Ireland)*

- **Other international initiatives in the management of marine protected areas (OSPAR and HELCOM)**
- *Henning von Nordheim, German Federal Agency for Nature Conservation*

- **Round Table Discussion**
- *Chaired by Micheal O'Briain, EC DG Environment and Henning von Nordheim, German Federal Agency for Nature Conservation*

**USES, IMPACT ASSESSMENT AND MONITORING IN MARINE NATURA 2000 SITES (PART I)**

*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

- **Consideration of NATURA 2000 sites in the EU Common Fisheries Policy (CFP): The EC Biodiversity Action Plan on Fisheries and the EC's Communication on Environmental Integration into the CFP**
- *José Rizo-Martin, EC DG Environment*

**USES, IMPACT AND MONITORING IN MARINE NATURA 2000 SITES (PART II)**

*Chaired by Dieter Boedeker, German Federal Agency for Nature Conservation*

- **Possible impacts of offshore windfarms on NATURA 2000**
- *Henning von Nordheim, German Federal Agency for Nature Conservation*

- **Introduction to the monitoring of marine SACs**
- *Jon Davis (JNCC), UK*
-

**MANAGEMENT OF MARINE SACs/SPAs**

*Chaired by Charlotte Johnston (JNCC), UK*

- **Management schemes on selected UK marine SACs (LIFE project)**
- *Maggie Hill (Countryside Council for Wales), UK*

- **Integrated management of coastal and marine areas in the Azores**
- *Maria José Pitta Groz, Portugal (Governo Regional dos Azores)*

- **Ilots de Bretagne (LIFE project)**
- *Arnaud Le Nevé, France (Bretagne vivante – SEPNB)*

**ROUND TABLE AND FINAL DISCUSSION**

*Chaired by Henning von Nordheim, German Federal Agency for Nature Conservation*

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Annex 3

## Important or useful websites for more information on NATURA 2000 and different initiatives by Member States, the commission, scientific institutions or NGOs

1. **Official Irish website for NATURA 2000 and othe conservation information:**
   *www.ealga.ie*

2. **Official website of the Federal German Agency for Nature Conservation (including links to federal state websites:**
   *www.bfn.de*

3. **Email Bretagne Vivante (SEPNB)**
   *www.conservation@bretagne-vivante.asso.fr* and
   *www.reserve-naturelle-sene@bretagne-vivante.asso.fr*

4. **WWF EPO (European Policy Office)**
   *http://www.panda.org/resources/programmes/epo/about_epo/epo_mission.cfm*

5. **The offical website of the Management schemes on selected UK marine SACs (LIFE project):**
   *www.ukmarinesac.org.uk*

6. **Helsinki Commission**
   *www.helcom.fi*

7. **OSPAR Commission**
   *http://www.ospar.org/*

8. **Download of the Greenbook on Fisheries:**
   *http://www.europa.eu.int/comm/fisheries/greenpaper/green1_en.htm*

9. **Homepage BirdLife International**
   *http://www.ao.com.br/birdlife.htm*

10. **Homepage Convention on Biodiversity**
    ***http://www.biodiv.org/***

Annex 4

# THE STATE OF IMPLEMENTATION OF NATURE DIRECTIVES WITH PARTICULAR REFERENCE TO THE MARINE ENVIRONMENT – INTRODUCTION AND OVERVIEW OF THE SITUATION

*Abstract: Micheal O'Briain & José Rizo-Martin, Nature & Biodiversity Unit, DG ENVIRONMENT, European Commission*

Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) are the main EU legal instruments aimed at safeguarding biodiversity in the European Union. The Birds Directive creates a comprehensive scheme of protection for all wild bird species naturally occurring in the Union. The Habitats Directive establishes a common framework for the conservation of animal and plant species as well as natural and semi-natural habitats that have been identified as being of Community interest. Both directives place particular emphasis on addressing the threats posed by habitat loss and degradation to biodiversity, especially through site protection.

The EU nature directives offer considerable opportunities and challenges for nature conservation in marine and coastal areas, especially through the establishment of the NATURA 2000 ecological network, despite the fact that marine habitats and species are not as well represented in the Annexes of the Habitats Directive as are those of a terrestrial nature.

The approach to selecting sites under the Birds and Habitats Directives are somewhat different but both are based on the application of scientific criteria. Under the Birds Directive Member States select and classify the most suitable territories as Special Protection Areas (SPAs). Whereas precise ornithological criteria are not specified different criteria have been elaborated and scientific reference lists of important bird areas, including for marine sites have been prepared to assist the selection process. Under the Habitats Directive the establishment of Special Areas of Conservation (SACs), based on the criteria in Annex III, involves three stages and is carried out within the framework of different Biogeographic Regions.

Establishment of the Natura 2000 network involves close co-operation and co-responsibility between the Commission and the Member States. The main fora for exchange are the Habitats and Ornis Committees, comprised of officials from the competent national nature authorities and chaired by the Commission. These Committees are assisted by Scientific Working Group, which advises on technical issues. The overall aim is to ensure a common approach, especially as regards scientific and legal interpretative issues.

A total of 2776 sites have now been designated as SPAs, covering an area of 219,852 km² (equivalent to 7 % of the territory of the EU). Member States proposals under the Habitats Di-

rective total 13,862 sites and cover more than 426,145 km² (equivalent to 13% of EU territory). There has been significant progress in the last few years aided by better scientific data on species and sites combined with the use of legal actions by the Commission as well its increasing requirement that areas subject to Community funds should also be given the necessary protection under EU nature laws. However, there are significant differences between Member States in the extent to which they have met their obligations under the two directives. The failure of Member States in proposing complete lists of sites for protection under the Habitats Directive together with the relevant data have resulted in serious delays in establishment of a List of Sites of Community interest, which is a prerequisite to the designation of SACs.

It is recognised that the selection of sites in the marine environment poses particular difficulties, especially for wide-ranging species such as the Harbour Porpoise *Phocoena phocoena*. There are also ongoing debates on the delimitation of sites (e.g. inclusion of navigation channels in estuarine NATURA 2000 sites)

As regards progress with marine NATURA 2000 sites the Commission has been constrained in its analysis by the incompleteness of the data provided by the Member States. As regards SPAs it would appear that the emphasis has been on protecting important coastal waterfowl sites and breeding seabird colonies. Offshore feeding areas for these groups appear to be less well represented.

For the purpose of evaluating progress in proposed marine SACs evaluation a marine site is any area that includes some surface covered by category 11 'Open sea and tidal areas' of Annex I of the directive is considered to be a marine sites. More than 1000 sites with some marine component have already been proposed for protection under the Habitats Directive. The total marine area of these sites is greater than 24,000 km² , representing 6 % of the total proposed area. Therefore, despite the limited number of marine habitat types and species covered by the Habitats Directive there is already a substantial area of Europe's marine and coastal waters proposed for inclusion in NATURA 2000.

The marine component of the proposed sites varies considerably with half the sites having only a minor marine component. This is not surprising as most sites are coastal with both land and marine components. Likewise, the marine area of individual sites varies considerably with the vast majority of sites covering less than 5000 ha. There also appears to be significant differences between Member States in the average size of their proposed marine SACs. Countries like Denmark, the Netherlands and the United Kingdom have tended to propose larger sites while countries like Italy, which has proposed the greatest number of marine SACs, have tended to propose small sites.

The Commission is of the view that the Birds and Habitats Directive apply to the exclusive economic zone (EEZ) of Member States in so far as Member States have competence. Information on habitats and species in the offshore environment is less complete and the establishment of

NATURA 2000 there is less advanced although discussions on this subject are ongoing with the Member States.

The present priority is on finalising the establishment of the NATURA 2000 network and putting in place appropriate management and monitoring mechanisms to ensure its effective functioning. The 6th Environment Action Programme proposed by the Commission recognises the need to extend the application of NATURA 2000 to the marine environment.

Annex 5

# NATURA 2000 AND THE PROTECTION OF MARINE BIODIVERSITY: CURRENT STATUS AND FURTHER PROSPECTS

*Abstract: Johan Thissen BirdLife / Vogelbescherming Netherlands*

There is evidence that Natura 2000 (Birds and Habitats Directive sites) at first was not meant to apply outside territorial waters. One of the indications is the skipping of the phrase "*including maritime areas under the sovereignty or jurisdiction of the Member State*" from the draft text of the Habitats Directive as it has been published in 1988.

However in the course of the nineties the views and positions have changed. In an official communication on fisheries management and nature conservation in 1999 the European Commission has stated clearly that the Habitats Directive does apply throughout the Exclusive Economic Zones of the Member States. Later that year a British judge at the Royal Courts in London has ruled that the Directive does apply within the UK 200 miles zone, even in the absence of a formal EEZ.

Accordingly Member States are obliged to designate Special Protection Areas (Bird Directive) and Special Areas of Conservation (Habitats Directive) in their EEZs, if there are areas which meet the criteria for identification for such sites. For the birds there is at least regionally enough information to identify properly Natura 2000 sites. This is demonstrated by the Important Bird Area reports for the North and Baltic Seas. However for the Habitats Directive the information on some relevant habitats and species is scanty.

The Natura 2000 species of the Bird Directive (Annex I and migratory birds) cover bird nature values on open sea well, but for the Habitats Directive (Annexes I and II) this seems to be not the case. Amendment of the marine habitats and species on the Annexes of the Habitats Directive should be considered in due course. For this amendment the ongoing work of the Working Group Habitats and Species under the OSPAR Biodiversity Committee can be useful.
Member States should continue to designate SPAs (Bird Directive), also in their marine 200 miles zone. For the Habitats Directive identification of sites may be more difficult, but nevertheless progress can be made using the Annexes as they stand right now.

The Directives are subordinate to public international law, especially the UN Convention on the Law of the Sea, ratified by all Member States, except Denmark, and formally confirmed by the European Commission. UNCLOS does give coastal states jurisdiction with regard to the protection and preservation of the marine enviroment, but protected areas with restrictions on the freedom of navigation of foreign-flagged ships have to be approved by IMO.

Natura 2000 can not counteract all important threats to marine nature values. Several threats have to be dealt with by wider environment policy, e.g. pollution and oil spills. On the contrary, fisheries are a very major activity that can be regulated by management plans for Natura 2000 sites.

Annex 6

# PROPOSALS FOR AMENDMENTS TO THE ANNEXES OF THE HABITATS DIRECTIVE FROM A MARINE CONSERVATION SCIENCE PERSPECTIVE, WITH SPECIAL REFERENCE TO THE NORTH- AND BALTIC SEAS

*Abstract: Eike Rachor, Alfred-Wegener-Institue for Polar and Marine Research*

In the open, offshore marine environment additional criteria and measures are to be considered, if spatial protection of marine habitats and species in marine protected areas (MPAs) is intended. The main intention of the European Habitats Directive is the conservation (maintenance and restauration) of natural habitats and wild plant and animal species and the creation of a coherent European ecological network of special areas of conservation („Natura 2000 network"). While terrestrial, limnic and inshore habitats and species are relatively well considered and represented in the annexes of the Directive, offshore items seem insufficiently covered, which is explained by the specific marine environmental conditions, by insufficient knowledge and experience in the open sea and also by legal uncertainties, which somehow have impeded nature conservation administration to work in these areas.

The author takes for granted that the Habitats Directive is valid for the whole Exclusive Economic Zones of European Union waters, which means that the open North and Baltic Seas are to be included into the „Natura 2000 network". His proposals and discussions will be focussed mainly to these waters.

Concepts for offshore MPAs have to consider the ‚openness' (continuity and natural coherence) in the sea, especially in the North Sea, which is characterized by tidal, wind and density driven and residual currents which allow large scale transportation of buoyent organisms. Thus, coherence is a general feature of open marine ecosystems; it is additionally guaranteed by active dispersal of many organisms, by which complete isolation of populations is exceptional. On the other hand, this ‚openness' may endanger local populations, habitats and sanctuaries by advection of pollutants, eutrophicants and other noxious agents. Accordingly, any concepts of spatial protection (within ‚closed' areas) in the marine environment have to be supported by measures against pollution, undesired eutrophication and any other large-scale (regional) transportable disturbing agent.

Having this in mind, MPAs should be viewed more under functional aspects than focussing to few selected species or habitat types defined by their bottom (morphological and sedimentological) features.

Among the coastal (and halophytic) habitat types given in the Annex I of the Directive, only *sandbanks*, *reef*s and *submarine structures made by leaking gases* may be applied to the open North and Baltic Seas. Comments and proposals are made regarding the interpretation of these habitats (as given in the „Interpretation manual of European Habitats“), e.g. to define sublittoral sandbanks by their light regime (allowing some near-bottom primary production) or reefs notwithstanding whether algal communities are found there. Somehow reef-like features, not arising very much from the sea floor (like stony fields) should be included into the reef definition. It is not at all seen by the author, why only sandbanks and reefs were regarded important for protection according to annex I, while such sedimentary habitats like sublittoral mud areas or such of high sedimentary (and community) complexity were not considered. Unnecessary ‚obstacles' for the selection of specific habitats, like the German interpretation of the Baltic ‚Boddengewässer' as not belonging to ‚coastal lagoons', should be avoided. The animal and plant species list of Annex II seems totally insufficient for marine protection measures, especially with regard to invertebrate animals. It is proposed to work out regional European Red Lists of endangered marine species, based on national lists and expert knowledge, as they exist already for the Wadden Sea area in the North Sea. Annex II of the Directive should be amended according to such lists.

If functional aspects would be regarded of greater importance for nature protection in the sea, such functions/features of specific areas as ‚refuges', ‚feeding and propagation', ‚stepping stones', ‚water exchange channels', and even specific oceanographic features like eddies, upwelling areas and fronts should be considered for future amendments of European Directives. Part of these deficiencies may be avoided, if the article 10 of the Habitats Directive, stressing the importance of features essential for the migration, dispersal and genetic exchange of wild species, would be amended at least for the marine environment to make the protection of such features more obligatory.

Annex 7

# IDENTIFICATION AND DEMARCATION OF MARINE IBAS AND THEIR RELATIONSHIP TO THE BIRDS DIRECTIVE

*Abstract: Duncan Huggett, UK, BirdLife International*

## 1. BirdLife's Important Bird Areas Programme

1. The aim of the Important Bird Areas (IBAs) programme is to identify and protect a network of sites at a biogeographic scale, critical for the long-term viability of naturally occurring bird populations, across the range of those bird species for which a site-based approach is appropriate. The network is considered the minimum essential to ensure the survival of these species. To summarise, IBAs:

   - are places of international significance for the conservation of birds at the global, regional or sub-regional levels;
   - are practical tools for conservation;
   - are chosen using standardised, agreed criteria applied with common sense;
   - must, wherever possible, be large enough to support self-sustaining populations of those species for which they are important;
   - must be amenable to conservation and, as far as possible be delimitable from surrounding areas;
   - will preferentially include where appropriate, existing Protected Area Networks;
   - are **not** appropriate for all bird species, and for some are only so in parts of their ranges; and
   - should form part of a wider, integrated approach to conservation that embraces sites, species and habitat protection.
   -

## 2. IBAs and the marine environment

2. Many Member States have international, if not globally important concentrations of breeding seabirds (e.g. gannets *Sula bassana*) and these sites have been identified as IBAs by BirdLife. However, these breeding colonies are only viable if the nesting birds have an adequate and accessible food supply. For many species, feeding areas are some considerable distance offshore. In addition, whilst waterfowl (e.g. common scoter *Melanitta nigra*) display wide distribution ranges in offshore habitats, most species congregate at certain times in certain areas. Both seabird and waterfowl use of offshore areas is associated with discrete topographic and hydrographic features. This potentially allows for the identification and delineation of IBAs throughout European marine areas.

3. The European IBA programme is the longest running of a number of regional IBA programmes. The results of the programme were recently published (see Heath & Evans 2000). The IBA selection criteria have only been rigorously applied throughout Europe on land and in coastal areas. Of the European IBAs identified, 13% include marine habitats (4% with more than 50% marine habitat). However, less than 1% are wholly marine. A key problem is uncertainty about how and where site boundaries should be drawn. There are two key reasons for this:

   a. The level of quantitative data on bird numbers and distribution rapidly declines with distance offshore; and

   b. Hydrological and physiographic features along which to draw boundaries are less obvious in the marine environment.

**4.** However, knowledge and understanding of how seabirds use the sea has improved considerably in the last few decades. Studies on diet, foraging range and behaviour, predator/prey interactions and the identification of important feeding and roosting areas should now allow the development of marine IBA selection criteria and the delineation of marine IBAs. BirdLife has developed and trialed two different approaches. The first approach uses detailed bird distribution survey work to establish regularly used areas of high bird concentrations and may be particularly suited to the identification of important wintering areas. A second, method has also been developed specifically for the extension of breeding seabird IBAs offshore.

**3. The identification of IBAs in the North Sea and the Baltic**

5. A Marine Classification Criterion (MCC) was developed that measures offshore bird concentrations and their international significance. The methodology is dependent on having sufficiently large amounts of quantitative data available on bird distribution in offshore areas. It enables the use of the '1%' criterion common to the Ramsar Convention and BirdLife's IBA inventory whilst ensuring areas identified were of a comparable size to existing IBAs and SPAs. However, the use of a '20,000 waterbird' criterion may not be as appropriate for the selection marine IBAs because the continuous nature of bird distribution in the marine environment would mean very large areas of the sea would be selected.

6. The MCC requires the quantification of three parameters:

   i. The size of the area based on the borders of a high-density aggregation of a waterbird or seabird species;

   ii. The proportion of the total biogeographic or flyway population estimated to occur within the borders of the aggregation; and

   iii. The degree of concentration displayed by the aggregation.

7. The application of the MCC requires the precise delineation of the borders of species aggregations by the use of standard GIS routines. Full details of the methodology can be

found in, Skov *et al.* (1995) and Skov *et al*. (2000). The marine IBAs identified using the method are shown for the North Sea in figure 1 and for the Baltic in figure 2.

**4. The extension of breeding seabird IBAs offshore**

8. A different approach has been developed specifically for extending breeding seabird IBAs out to sea in order to cover their feeding areas in particular. The radius-based approach has the advantage of simplicity and generality. Ideally, site-specific radii should be estimated for each seabird species for which a site is designated at each of their colony IBAs, and the radius that encloses a certain proportion of the species' marine distribution selected as the outer boundary. The proportion of the colony population included within a given radius will vary between species. However, reliable foraging radii are only available from a small number of colony IBAs in the UK and so site-specific criteria that encompass a given proportion of foraging trips for a species for which a site is designated, around each of it's colony IBAs, cannot be implemented. Obtaining this data would require considerable time and expenditure of limited conservation resources.

9. An alternative approach to defining site-specific radii is to define generic, precautionary radii for each species based on their known foraging ranges and then apply these to each of their colony IBAs. The advantage of this approach is that it does not require a detailed assessment of sea use or colony-specific foraging ranges. It will be relatively robust to variations in marine distribution among colonies and across years. However, the drawback of the radius-based approach is that it will often incorporate sea areas that seabirds seldom use. The application of this method to breeding seabird IBAs in the UK is shown in figure 3 and further details can be found in RSPB (2000).

10. For 'dispersed' species such as Gannets and petrels, other approaches to their protection need to be developed and implemented. These should include the designation of discrete aggregations as offshore IBAs (possibly using the MCC) where specific areas can be defined as being important for seabird use. In addition, wider marine policy would be more appropriate as conservation measures for these species.

**5. The relationship between IBAs and SPAs**

11. Article 4 of the Birds Directive states that "Member States shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these species, taking into account their protection requirements in the geographical sea and land area where this Directive applies". This raises two very important points. First, having regard to protection requirements means protecting not just breeding areas, but also wintering, feeding and roosting areas. Second, such measures must be taken in the marine environment.

12. Both SPAs and IBAs embody the concept of a 'coherent network' of sites at an international level. Whilst many Member States have not published SPA selection criteria, selection principles have appeared in a number of places including the work of the Commission and judgements of the European Court of Justice. In 1996, the EC took legal proceedings against the Netherlands because it failed to designate sufficient number of SPAs. An in-

dependent inventory of sites that qualified as SPAs (The 1989 BirdLife International IBA inventory (Grimmett & Jones 1989)) highlighted the shortfall. Whilst the Netherlands had identified a number of candidate SPAs it did not consider there was a specific obligation to designate all of these.

13. The Court disagreed with the Netherlands approach. It found:

    a) Member States are obliged to classify as SPAs all sites which (applying ornithological criteria) appear to be the 'most suitable' for the conservation of the species in question;

    b) in the absence of an official scientific inventory of candidate sites in the Netherlands, the BirdLife International IBA inventory could be used to assess whether or not sufficient SPAs had been designated.

14. BirdLife believes that uncertainties about the 'official' approach to SPA selection should be removed by the Commission endorsing BirdLife's IBA criteria as an appropriate basis for selecting SPAs in the EU. The IBA selection criteria are fully compatible with the rationale under the Wild Birds Directive for selecting the most suitable areas for classification as Special Protection Areas.

15. Article 1.1 of the Birds Directive states that it relates to the conservation of all birds in the wild state in the European territory of the Member States to which the treaty applies. The European Commission have clarified that this means that as far as Member States have competence, the Habitats Directive (and therefore the Birds Directive since both SACs and SPAs make up the Natura 2000 network) applies to the exclusive economic zone[21,22]. A recent High Court case in the UK supported the Commission's view, declaring that the Habitats Directive applies to the UK Continental Shelf and superjacent waters up to a limit of 200 nautical miles from the baseline from which the territorial sea is measured[23]. Therefore, there is a clear legal imperative that SPAs are identified and classified throughout the marine areas of all Member States.

16. At the same time, this ruling raises important issues of institutional competence, given for example that the EC has exclusive competence for the management of fisheries in Community waters outside 12 nautical miles, whereas other human activities in the marine environment are a matter of mixed competence between the Commission, Member States, and other bodies.

**6. Conclusions**

17. The establishment of the Natura 2000 network is proceeding. However, the identification and classification of marine SPAs is only making what can be best described as very slow progress. There are a number of reasons for this including:

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21 Mrs Bjerregaard, Offcial Journal of the European Communities No C 138/75

22 Communication from the Commission to the Council and the European Parliament. *Fisheries Management and Nature Conservation in the Marine Environment*. COM(1999)363 final

23 Case No: CO/1336/1999, The Hon. Mr Justice Maurice Kay

- less quantitative data is available for identifying the importance of areas;
- uncertainty as to how to establish site boundaries in the marine environment;
- a lack of clarity concerning the legal requirements of the Birds Directive; and
- difficulties in establishing a protected areas network where multiple jurisdictions exist.

18. However, the level of knowledge and data on the numbers and distribution of seabirds and waterfowl in the marine environment is now such that methodologies for the identification and delineation of sites can be developed and trialed. Furthermore, the legal responsibilities of Member States in relation to implementing the Birds Directive both within and beyond territorial waters are becoming clearer.

19. BirdLife believes that there are no insurmountable impediments to extending the Natura 2000 network out to sea. Work undertaken by BirdLife clearly shows that criteria can be developed which successfully identifies important areas for seabirds in the North Sea and the Baltic and these can be credibly delineated. Whilst the IBAs identified using the MCC cover large areas (30% of the North Sea and 34% of the Baltic), 90% of the birds wintering in the Baltic are found within the top ten selected IBAs that cover less than 5% of the sea surface of the Baltic. In the North Sea, the top six marine IBAs account for 80% of the seabird interest. Furthermore, generic models for extending breeding seabird IBAs suggest that a significant proportion internationally important seabird populations can be included in protected areas which cover only a small fraction of the marine area of Europe.

20. BirdLife will continue to develop the methodologies and will develop a common approach to the identification of marine IBAs. However, in order to make progress, the methodologies developed need more rigorous testing elsewhere in Europe, especially in the Mediterranean. In addition, there is a need to develop management frameworks that will work across administrative and country jurisdictional boundaries. To contribute to this, clarity is needed on how the marine areas of SPAs will fit into a system of management that supports seabird conservation.

## 7. Further reading

Geary S & Lock L (2001) *Winter nearshore seabird survey of South Cornwall Coast Important Bird Area (1999/2000).* RSPB, Sandy, May 2001

Grimmett RFA & Jones TA (1989) *Important Bird Areas in Europe*. ICBP/IWRB Technical Publication No. 9

Heath MF & Evans MI (eds.) (2000) *Important Bird Areas in Europe: Priority sites for conservation. 2 vols*. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 8)

RSPB (2000) *The development of boundary selection criteria for the extension of breeding seabird Special Protection Areas into the marine environment*. RSPB, Sandy, October 2000

Skov H, Durinck J, Leopold MF & Tasker ML (1995) *Important Bird Areas for seabirds in the North Sea*. BirdLife International, Cambridge, UK

Skov H, Vaitkus G, Flensted KN, Grishanov G, Kalamees A, Kondratyev A, Leivo M, Luigujõe L, Mayr C, Rasmussen JF, Raudonikis L, Scheller W, Sidlo PO, Stipniece A, Struwe-Juhl B & Welander B (2000) *Inventory of coastal and marine Important Bird Areas in the Baltic Sea.* BirdLife International, Cambridge, UK.

Skov H, Durinck J, Leopold MF & Tasker ML (In prep.) *A quatitative method for evaluating the importance of marine areas for conservation of birds*.

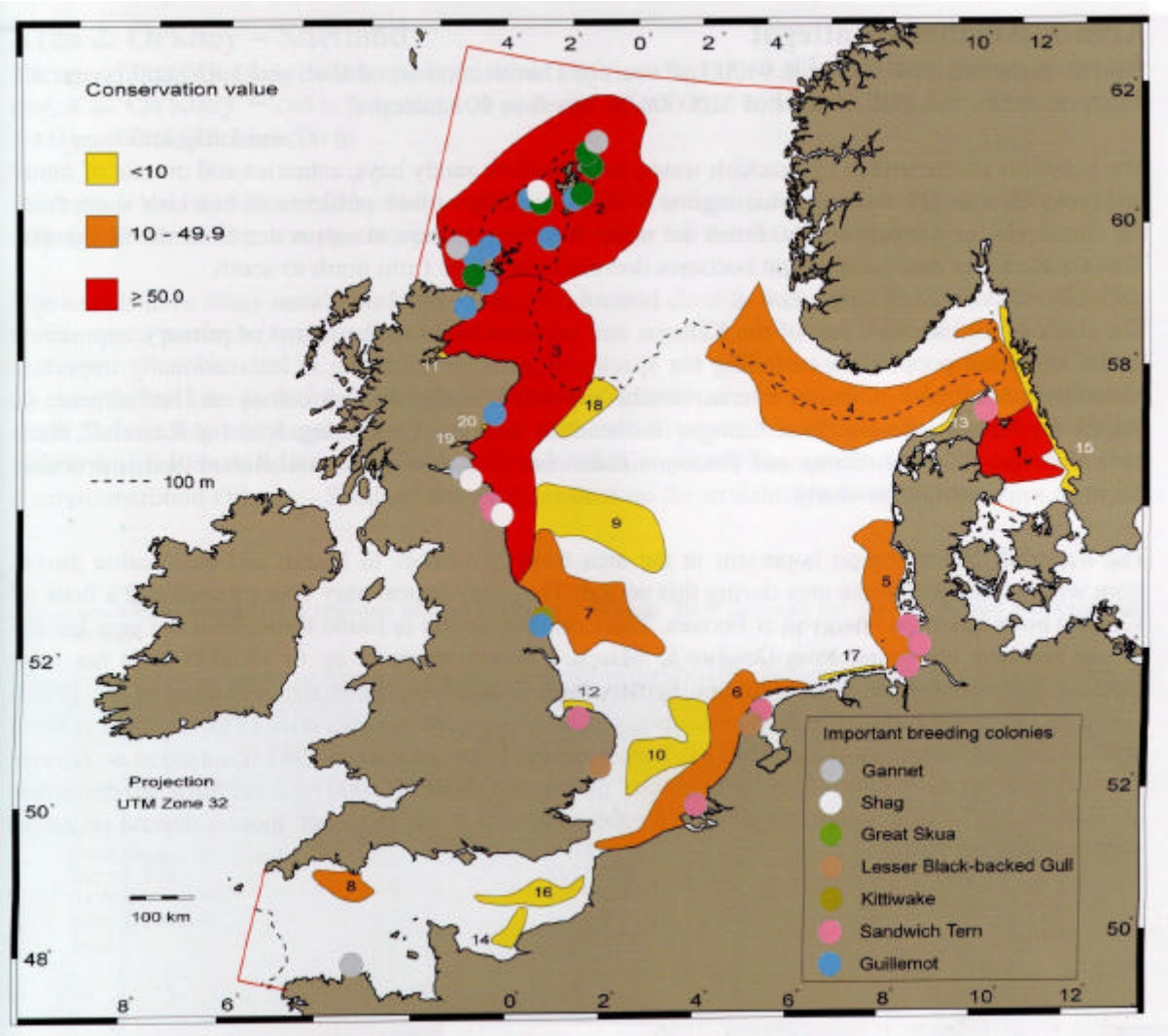


Figure 1: Areas of international importance for seabirds in the North Sea, the Channel and the Kattegat. Conservation value is the sum of proportions for each area calculated as the cumulative percentage of each species occurring within the area of international important concentrations compared to the total biogeographic population (from Skov *et al*. 1995).

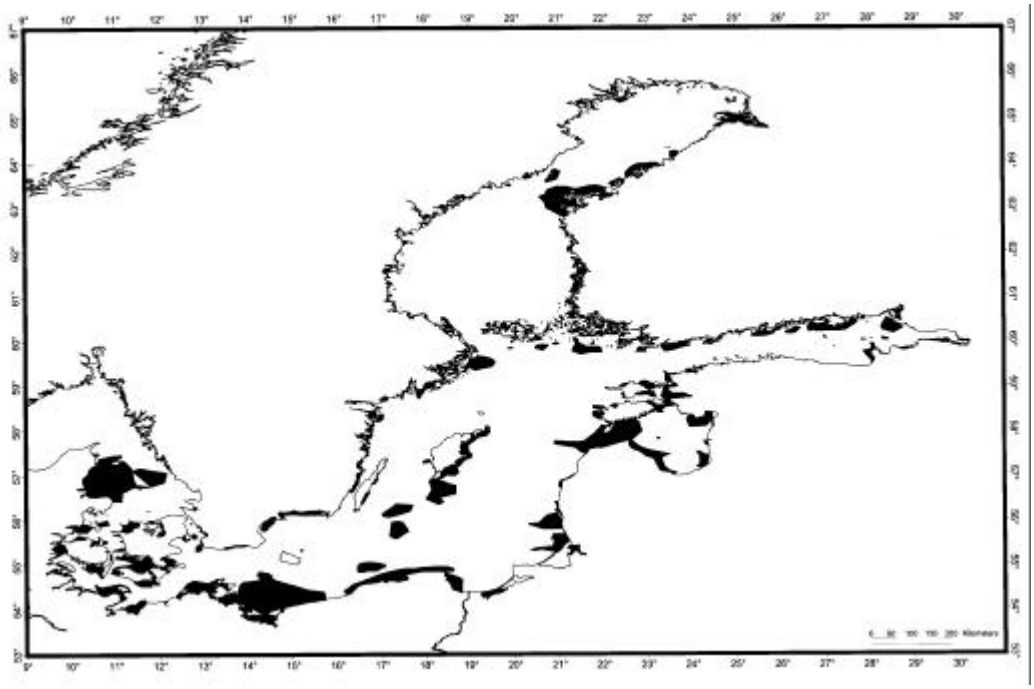

Figure 2: Location and extent of all IBAs identified in coastal and marine areas of the Baltic (from Skov *et al*. 2000)

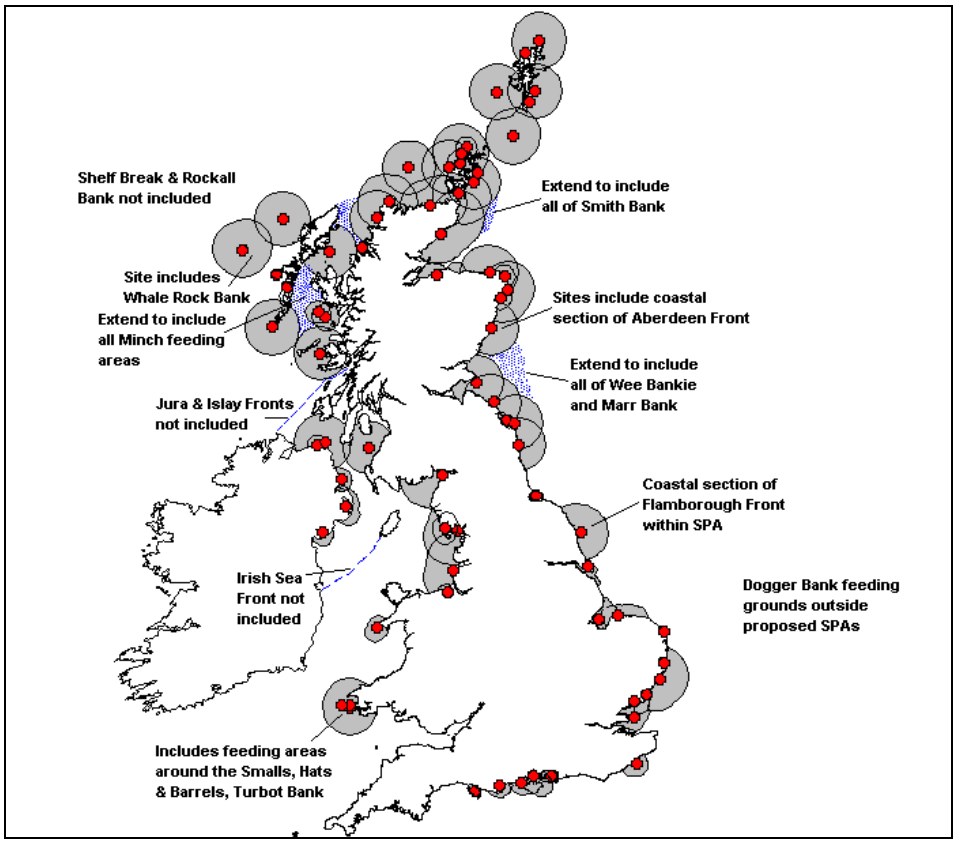


Figure 3: Suggested marine extensions to breeding seabird IBAs in the UK including proposed modifications to take account of known additional feeding areas (from RSPB 2000).

Annex 8

# GERMAN BIOTOPE MAPPING IN THE BALTIC SEA ACCORDING TO ANNEX I HABITATS DIRECTIVE

*Abstract: Dieter Boedeker, German Federal Agency for Nature Conservation*

A first draft of a biotope mapping based on Annex I Habitats Directive for the German territorial waters and the German Exclusive Economic Zone will be presented during the meeting. The respective six marine habitat complexes which occur in the German North- and Baltic Sea marine areas are described below. For the identification and selection of the NATURA 2000 habitat complexes we used primarily existing information from maps and literature, but for the marine environment spatial information is scare, and in most cases not extensive. Therefore BfN has commissioned two comprehensive expert opinions to help identifying ecological important marine areas in the North- and Baltic Sea. The reports of these studies were of great help for the NATURA 2000 job in the marine environment, although the study on the North Sea is still running. Generally, until today there exists more, but still not enough information on the Baltic Sea than for the North Sea, therefore the presentation will focus mainly on the Baltic Sea.

**Sandbanks which are slightly covered by seawater all the time (NATURA 2000 code 1110)**
Sublittoral sandbanks are permanently submerged, and their water depth is seldom more than 20 m below Chart Datum. They are mostly non vegetated. Because of their richness in makrozoobenthos they are important feeding grounds for many bird species and nursery grounds for many fish species.

An identification can be made by overlay from different maps or GIS information layers. The most important information comes from depth contours and sediment distribution. Sandbanks can have different shapes and can be of different size and are characterized by sands of more or less medium grain sizes. They are very often associated with level sandy bottoms, but also with reefs. In some cases they are flooded periglacial dunes, but most often they are formed by sand layers on banks of residual sediments. To distinguish sand banks from reefs some more information on the geology is needed. The massive size of the sandlayer should be at least 40 cm to allow a typical sand bottom fauna to settle there. Field work with investigation of the benthos sustains the theoretical identification. Two typical examples for sandbanks in the German offshore area are the “Oderbank” in the Baltic Sea and the “Doggerbank” in the North sea. Because the Oderbank is surrounded by very shallow level sandy bottoms with a depth of 15-20 meters, the delimitation of this sandbank can be drawn with the 15 meter depth contour, the shallowest area is about eight meters deep. The Doggerbank is a large elevation reaching from UK waters with its tailend into German- and Danish waters. The delimitation of this sandbank can be drawn with the 40 meter depth contour, where it levels off. The shallowest area in German waters is about 30 meters below chart datum. Scientific diving investigations showed that

the whole area belongs to the photic zone. This fact gave reason to identify it as sandbank according to the NATURA 2000 Interpretation Manual although being deeper than 20 meters.

**Estuaries (NATURA 2000 code 1130)**

Generally estuaries are the downstream part of a river valley, subject to the tide and extending from the limit of brackish waters. Baltic river mouths, are however considered as an estuary subtype, having brackish water and no regular tide, but backwater effects reaching far upstream. Most often freshwater species are common in Baltic estuaries, but also some saltwater and very view brackish water species can be found and large wetland vegetation characterizes the river banks. Estuaries are coastal inlets where, unlike 'large shallow inlets and bays' there is generally a substantial freshwater influence. The mixing of freshwater and sea water and the reduced current flows in the shelter of the estuary lead to deposition of fine sediments, often forming extensive intertidal sand and mud flats. Where the tidal currents are faster than flood tides, most sediments deposit to form a delta at the mouth of the estuary.

German estuaries are the big river mouth areas, e.g. from Elbe and Oder, but in the Baltic Sea also some bodden with distinct fresh water through-flow must be seen as estuaries.

**Mudflats and sandflats not covered by seawater at low tide (NATURA 2000 code 1140)**

Sand and mud flats of the coasts fall periodically dry. With their high benthic diversity abundance of benthic species and communities they are of outstanding ecological importance.

Whereas the whole eulittoral of the German Wadden Sea is characterized by such tide induced regularly dry falling sand- and mudflats, such habitats are much more rare in the German Baltic Sea area. The so called wind induced mud- and sandflats are episodically dryfalling level bottoms with or without makrophyte vegetation. They are located at the hydrolittoral (below the mean water line), within a very narrow strip along the coasts.

The identification and delimitation can be made using existing hydrological maps at different scales.

**Lagoons (NATURA 2000 code 1150)**

Lagoons are expanses of shallow coastal salt water, of varying salinity and water volume, wholly or partially separated from the sea by sand banks or shingle, or, less frequently, by rocks. Salinity may vary from brackish water to hypersalinity depending on rainfall, evaporation and through the addition of fresh seawater from storms, temporary flooding of the sea in winter or tidal exchange (with or without vegetation).

In Germany lagoons occur mainly along the Baltic Sea coast. The size range is undefined but large coastal lagoons may have a surface area ofup to some hundret $km^2$ and small lagoons a surface area of only a few hectares. Coastal lakes which qualify for this habitat complex are

separated from the Sea by beach ridges and are only occasionally flooded during strong storms. Special types of bodden also qualify as lagoons

For the identification and mapping of lagoons topographical maps at different scales qualify for a first step of selection, but for a second step detailed knowledge of the ecology, e.g., salinity distribution and differentiation as well as inventories of theaquatic fauna and flora is needed.

**Large shallow inlets and bays (NATURA 2000 code 1160)**
Large indentations of the coast where, in contrast to estuaries, the influence of freshwater is generally limited. These shallow indentations are generally sheltered from wave action and contain a great diversity of sediments and substrates with a well developed zonation of benthic communities. These communities have generally a high biodiversity. Several physiographic types may be included under this category providing the water is shallow over a major part of the area: embayments, fjards, rias and voes.

For the identification and mapping of large shallow inlets and bays satellite images and nautical maps qualify for a first step of selection and delimitation. BfN selected only those bays, where seagras meadows occur. The occurrence of *Zostera* spec. was also used to distinguish between the different types of bodden (s.a.) in the Baltic Sea. Due to this, the Greifswald Lagoon was selected as “large shallow bay” The Flensburg Fjord was selected as “large shallow inlet”, although it has a channel that is deeper than 20 meters, but it has the character of a fjard with large shallow parts, where seagrass-meadows occur. The seaward delimitation for this marine habitat complex is usually between 10 and 20 meters depth.

**Reefs (NATURA 2000 code 1170)**
Submarine, or exposed at low tide, rocky substrates and biogenic concretions, which arise from the sea floor in the sublittoral zone but may extend into the littoral zone where there is an uninterrupted zonation of plant and animal communities. These reefs generally support a zonation of benthic communities of algae and animals species including concretions, encrustations and corallogenic concretions.

In the North Sea reefs can be biogenic concretions like “*Sabellaria*-reefs”. oyster- or blue- and horse mussel banks, but also some stony and rocky grounds, e.g., around Heligoland. In the Baltic Sea banks and sills of residual sediments with its hard substrata have generally the character of a reef. In all cases detailed knowledge about geology and biology of the sea bottom is needed to identify and select this habitat complex.

Annex 9

# MARINE SITES UNDER THE HABITATS DIRECTIVE: THE UK EXPERIENCE

*Abstract: Charlotte Johnston, Joint Nature Conservation Committee, UK*

The Habitats Directive is implemented in the UK (England, Scotland, Wales and Northern Ireland) by Regulations, which include the mechanisms for selecting Special Areas for Conservation (SACs) for marine habitats and species and Special Protection Areas (SPAs) for birds. These Regulations until recently only applied within UK territorial waters (out to 12nm from low water).

UK has currently submitted 53 marine sites as candidate SACs to the EC, representing a range of marine Annex I and II habitats and species:

| Annex I habitats | Annex II species |
|---|---|
| Coastal lagoons | Grey seal |
| Estuaries | Common seal |
| Large shallow inlets and bays | Bottlenose dolphin |
| Mudflats and sandflats not covered by seawater at low tide | Harbour porpoise |
| Reefs | |
| Sandbanks which are slightly covered by seawater all the time | |
| Sea caves | |

Further sites will also be submitted to the EC as a result of the Atlantic Biogeographical Region 'moderation' meetings in Kilkee (Ireland) and Paris in 1999.

Following a UK court case in December 1999 in relation to implementation of the Habitats Directive and licensing of oil and gas activities, the UK Government has changed its policy in relation to implementation of the Habitats Directive. The government are now revising their Regulations to implement the Habitats and Birds Directives in UK offshore waters (12-200 nm from the coast) as well as inshore waters. The UK Joint Nature Conservation Committee (JNCC) is working on a project for UK Government towards selecting SAC and SPA sites, ultimately for submission to the EC, for the protection of habitats and species under these Directives in the 12-200 nm offshore area.

The JNCC 'Offshore Natura 2000' project started in 2000, and is working to identify Habitats Directive Annex I habitats and Annex II and Birds Directive species which occur in UK offshore waters. The project involves the following steps:

1. identify and agree relevant habitats and species in the 12-200 nm marine zone;
2. consider habitat definitions;
3. consider site selection criteria for habitats and species (including birds);

4. collate existing data on relevant habitats and species;
5. provide advice to UK Government on potential sites for selection as part of the Natura 2000 network.

This work is in progress. Steps 1 to 4 have been partly completed, and we now wish to consult with other European scientists on our interpretations of relevant habitats and species, and on criteria for selection of sites for Annex I habitats (draft consultation paper on these to be available at the Workshop). Later on this year we hope to consult also on criteria for selection of sites for Annex II species and birds under the Birds Directive

Under Step 1 above, the following habitats have been identified as occurring in UK offshore waters:

- Reefs;
- Sandbanks which are slightly covered by sea water all the time; and possibly
- Submarine structures made by leaking gases.

Working definitions of these habitats (based on the Directive 97/62/EC amending Annex I to the Habitats Directive, and on the EU Interpretation Manual of Oct 1999 v.15/2) are included below:

**Reefs**

- Bedrock
- Boulder and cobble ('stony') reefs of predominant particle size greater than 64 mm, including 'iceberg ploughmarks'
- Biogenic reefs (cold water coral *Lophelia pertusa*, or tube building worms *Sabellaria spinulosa,* and possibly others such as *Modiolus modiolus* and *Serpula vermicularis*).

**Sandbanks**

- Banks of sand at less than 20 m depth (bcd). Sediments which are predominantly of sand, using modified Folk classification used by British Geological Survey.

**Submarine structures made by leaking gases**

- Spectacular complex structures, consisting of rocks, pavements and pillars up to 4m high, formed due to aggregation of sandstone by carbonate cement resulting from microbial oxidation of gas emissions, mainly methane. The methane most likely originated from the microbial decomposition of fossil plant materials. The formations are interspersed with gas vents that intermittently release gas. At present it is unclear whether any of the 'pockmarks' found in the UK sector of the North Sea will fit within this habitat definition – survey work carried out this summer may help to clarify this.

We are commissioning habitat mapping work using existing geological seabed data for most of the UK offshore area, to identify and map all areas which may fit these habitat definitions. This will be used to help refine the area of search for biological information on the above habitats, and to aid in the SAC site selection process.

Annex 10

# SUBMERGED SAND BANKS AND REEFS INVENTORY

*Abstract: Sarah Jones, UK, WWF European Policy Office*

The European Union's Habitats Directive, in conjunction with the Birds Directive is the main legal tool of the European Union for nature conservation. The Habitats Directive's fundamental purpose is to establish a network of protected sites through Community territory, the Natura 2000 network. The Habitats Directive also recognises that migratory species cannot be protected by the NATURA 2000 network alone and may require non-site based, general management of human activities for their protection. The Natura 2000 network is designed to maintain or help maintain both the distribution and abundance of threatened or potentially threatened species and habitats, both terrestrial and marine.

The NATURA 2000 site selection process is a shared responsibility between EU Member - States and the European Commission. Member States propose sites to protect habitats and species listed in the Habitats Directive. The lists are subject to a process of assessment and negotiation between the Commission and the Member States through a series of seminars. The "20%-60% rule" has acted as a guideline at the seminars to assess the sufficiency of habitat representation for inclusion in the NATURA 2000 network. All habitats that were covered to an extent higher than 60 % of the total national area of the habitat were considered in principle as sufficiently represented; those below a coverage of 20 % were considered, in principle, insufficiently represented. Representation of habitats between 20 % and 60 % are discussed during the seminars and an agreement reached as to their evaluation.

There has been a lack of clarification for many years as to whether or not the Habitats Directive applies in the marine environment offshore (out to the Exclusive Economic Zone (EEZ) or other national fishing/continental shelf limits). On 5$^{th}$ November 1999, a UK High Court decision (following legal action by Greenpeace) ruled that the Habitats Directive "applies to the UK Continental Shelf and to the superjacent waters up to a limit of 200 nautical miles from the baseline from which the territorial sea is measured". As the European Union and/or EU Member States have competence over human activities on the seabed and superjacent waters out to the limit of the European EEZ (or other national fishing limits/continental shelf limits), WWF supports the application of the Habitats Directive (and Birds Directive) out to the EEZ (or other national fishing limits/continental shelf limit).

As a contribution to the implementation of the Habitats Directive offshore WWF has commissioned, scientific experts from Southampton Oceanographic Centre (UK) to:
Give their opinion of the scientific definitions of "reefs" and "sandbanks" as defined by the Interpretation Manual of European Union Habitats

From this opinion, (and within the constraints of time and data availability) identify sandbanks and reefs throughout European Union and adjacent waters (i.e. ignore legal boundaries) and gaps, in information.

The definition of "reefs" is broad. It includes both geophysical and biological information and can be applied to a variety of reef structures. These include coral reefs (such as reefs of the cold-water coral *Lophelia pertusa),* seamounts and raised rocky platforms.

The European Submerged Sandbanks Database (ESSB) was developed to provide theinventory of submerged sandbanks for this project. The work led WWF to conclude that the "seldom more than 20m" definition of submerged sandbanks detailed in the Interpretation Manual of European Union Habitats (EUR 1512) should not be strictly applied if the ecological requirements of the Natura 2000 network are to bee met for sandbanks. For example, the submerged sandbanks classification used in the ESSB, classifies several different types of bank found on the continental shelf, none of which have a 20m depth limitation as part of their classification. A pragmatic approach would include all submerged sandbanks on the continental shelf and within EU waters if they are of the same classified type as banks that are found at 20m depth or under. lt is important to note that the morphology of submerged, sandbanks rather than grain size profile are emphasised in determining whether a submerged sandbank qualifies for the ESSB.

The overall inventory of sandbanks and reefs are illustrated as:

1. An inventory and maps that are a direct representation of the work by SOC scientists and not constraint by legal boundaries. This work currently covers the North East Atlantic, North Sea and Mediterranean Sea. Capacity constraints have meant that inventories for the Baltic Sea have not been undertaken.
2. National inventories of reefs and submerged sandbank sites with respect to 200nm offshore limits. (not necessarily national competence over human activities). Several EU Member States have not legally declared a 200nm Exclusive Economic Zone under the United Nations Law of the Sea. National claims over the seabed of the continental shelf and fishing limits in superjacent waters vary considerably between Member States. The national inventories therefore require the input of further legal information with respect to boundaries and competence over activities such as fishing, mineral exploitation and aggregate extraction.

The "reef" and "submerged sandbank" sites identified in this inventory are not WWF proposals for the Natura 2000 network. This ecological study identifies those sites that are described by the definition of "reefs" (Natura 2000 Code 1170) and “submerged sandbanks" (Natura 2000 Code 1110) in accordance with the Interpretation Manual of European Union Habitats Directive, and/or require further information on their habitat characteristics.

In the Northeast Atlantic, most of the 90 "reef" sites within the 200nm limit of EU Member States are found in Ireland (62 %) and Portugal/the Azores (18 %), while 58 % of the 361 "submerged sandbanks" are concentrated around UK.

In the Mediterranean the majority of the 51 "reefs" in the reefs inventory are located in the Tyrhennian Sea and the Strait of Sicily (Italy). Most are seamounts, some with hydrothermal activity. Sandbanks are described for all the shelf areas of the Mediterranean. It is important to note that there are currently only four EU Member States out of twenty-one countries bordering the Mediterranean Sea. Moreover, it is the 12nm offshore boundary rather than the 200nm offshore boundary that is significant in denoting the national/EU competence over human activities. Implementing EU Legislation in Mediterranean waters that are heavily exploited by non-EU countries is often extremely difficult.

WWF are currently compiling "The Offshore Directory" that gives further information on offshore features. Some of the marine features detailed in The Directory are covered by habitats and species listed in the Habitats Directive and Birds Directive for site designation, many are not. It is quite clear that there needs to be a review of the lists of marine habitats and species to achieve a representative network of NATURA 2000 sites offshore.

Annex 11

# MANAGEMENT ISSUES IN THE MARINE ENVIRONMENT

## Legal aspects of marine NATURA 2000 sites including the application of Article 6 of the Habitats Directive to the marine environment

*Abstract: Micheal O'BRIAIN, Nature & Biodiversity Unit, DG ENVIRONMENT, European Commission*

As with other Community Environmental Directives the Birds and Habitats Directives have a strong legal enforcement basis. Member States must fully transpose the directives into their legislation and implement the relevant provisions. As custodian of the Treaties the Commission has a role in overseeing the implementation of this legislation. This includes taking legal action where it considers that a Member State has failed in fulfilling its requirements under the directives. Ultimately, it is the Court of Justice that interprets Community environmental legislation and decides if there is an infraction of Community law.

There have been a series of judgements of the Court relevant to NATURA 2000, especially concerning interpretation of Article 4 of the Birds Directive. However, whereas several of these relate to coastal wetlands (eg Leybucht dykes, Santona Marshes, Estuaire de la Seine) they do not focus in particular on implementation of NATURA 2000 in the marine environment.

As regards the management and protection of NATURA 2000 sites it has been necessary to dispel a number of myths that have emerged concerning the implications on the rights of users and owners. The philosophy is not about creating a network of strict nature reserves where human activities are to be excluded. The emphasis is on ensuring that human activities are sustainable and not damaging to the conservation objectives for which the sites have been designated.

The legal mechanisms for the management and protection of NATURA 2000 sites are given in Article 6 of the Habitats Directive and Article 4 of the Birds Directive.

Article 6(1) of the Habitats Directive provides for proactive measures. It emphasises the need to establish appropriate measures for the positive management of Special Areas of Conservation (SACs) so that they achieve their conservation objectives. There are analogous provisions for Special Protection Areas (SPAs) in Article 4(1), (2) of the Birds Directive as confirmed by Case Law (eg Santoña Marshes, Marais de Poitevin). The development of management plans is to be encouraged, particularly where there are complex and potentially conflicting patterns of use affecting the sites. This is especially relevant to the marine environment given the lack of clear ownership in many cases as well as the complexities of resource uses and activities such as fisheries (including aquaculture), shipping and port operations, tourism and recreation. Monitor-

ing provides a valuable feedback loop to determine the effectiveness of site protection and management measures. The Community is supporting projects for positive conservation actions in marine sites under LIFE Nature.

The provisions of Article 6(2), (3) and (4) of the Habitats Directive deal with site safeguard. These are equally relevant to activities both within and outside a site once they may affect its integrity.

Article 6(2) requires the avoidance of significant disturbance or habitat deterioration of conservation features of Community interest. However, any restrictions needed to be addressed on a case by case basis. Application of this provision in the marine environment can be particularly challenging given the nature of marine sites, which makes them particularly vulnerable to outside influences such as pollution and activities such as fisheries, and tourism.

New activities or developments can go ahead if they are not harmful to the site. If they are likely to cause damage they can only proceed having respected the procedural safeguards given in Article 6 (3) and (4) of the Habitats Directive.

Since 1994 all classified SPAs are subject to the protection regime defined in Article 6 (2), (3) and (4) of the Habitats Directive. This clearly reflects an ambition to embrace the site safeguard provisions for NATURA 2000 under one common regime. However, the Court (Basse Corbière Judgement) has concluded that unclassified SPAs, which should be given such status, are subject to a stricter protection regime defined in the first sentence of Article 4 (4) of the Birds Directive, pending their formal classification.

There is still not a lot of experience of applying these provisions of the Habitats Directive in the marine environment to new activities such as oil and mineral exploration, fisheries and aquaculture developments, port developments, wind farm installations, that may affect significantly affect habitats and species of Community interest.

The Commission Services have developed interpretative guidance to assist the implementation of the provisions of Article 6 by highlighting key legal considerations. As a follow up it is also supporting the preparation of a non-mandatory methodological guide aimed at providing more practical assistance for the assessment of plans and projects that may significantly affect NATURA 2000 sites.

Annex 12

# INTERNATIONAL LEGISLATION IN SUPPORT OF IMPLEMENTING NATURA 2000 IN THE MARINE ENVIRONMENT

*Abstract: Kristina M. Gjerde, J.D.*

The European Union has developed a sophisticated mechanism to protect biological diversity through the establishment of a network of sites known as Natura 2000. The Habitats Directive obliges Member States to designate and establish Special Areas of Conservation (SACs) to protect the habitats and species of common interest listed in Annexes to the Directive. It further requires member states to develop laws and other measures to protect the ecological needs of SACs (and Special Protection Areas under the Birds Directive), to prevent their deterioration or degradation, and to perform environmental impact assessments of plans or projects likely to have a significant effect.

However, the Habitats Directive was clearly drafted from a terrestrial perspective. Due to the fluid and dynamic nature of the marine environment, management of marine protected areas is far more complicated than management of terrestrial areas. Activities that occur far away from a protected area such as fishing or shipping may degrade protected habitats or disturb protected species. Far distant activities on land such as agriculture, forestry and coastal development can degrade water quality and impact ecosystem health. Marine ecosystems and pollution do not respect political boundaries, and thus regional and international cooperation is often necessary to address the full range of impacts. Those responsible for managing Natura 2000 sites will therefor need to rationalize and coordinate all the relevant national, regional, European Community and international laws in order to create a coherent, integrated strategy that can fulfill the conservation requirements of the Habitats Directive.

My presentation focuses on selected international and regional agreements (but not EU Directives) that may be used to support and enhance protection of Natura 2000 sites. Because of the critical importance of the United Nations Convention on the Law of the Sea, the presentation first describes its jurisdictional framework, and then proceeds to discuss species and habitat related agreements, followed by pollution- related agreements. The presentation concludes with a description of laws and instruments developed through the International Maritime Organization that can be used to protect Natura 2000 sites from the negative impacts of shipping.

## I. INTERNATIONAL LEGISLATION CONCERNING PROTECTION OF MARINE HABITATS AND ECOSYSTEMS

The United Nations Convention on the Law of the Sea, 1982 (UNCLOS) governs all aspects of ocean use, such as navigation, environmental protection, marine scientific research, eco-

nomic and commercial activities, transfer of technology and settlement of disputes. It is a framework agreement that sets forth the fundamental rights and duties of states. UNCLOS imposes a duty on all states to protect and preserve the marine environment, prevent transboundary pollution, and to protect rare and fragile ecosystems and the habitats of vulnerable species. It further calls on all states to conserve and manage living marine resources, and for all states to cooperate both globally and regionally to develop additional rules to protect the marine environment. These duties apply universally, throughout the oceans. However, a state's rights to impose and enforce environmental regulations are linked to the jurisdictional zones recognized in UNCLOS. These include:

- *Internal waters* (bays, estuaries, ports): coastal states enjoy full sovereignty.
- *Territorial sea* (out to twelve miles from the baseline/low tide mark): coastal states exercise full sovereignty subject to the right of other states to innocent passage for their vessels.
- *Exclusive Economic Zone* (EEZ) (out to two-hundred nautical miles from the baseline) coastal states have sovereign rights over natural resources and certain economic activities, and jurisdiction over environmental protection, subject to the rights of other states to freedom of navigation, overflight, laying of submarine cables and pipelines.
- *Continental shelf* (can extend out to 350 nautical miles from shore) coastal states have sovereign rights for exploring or exploitation of natural resources.
- *High seas* (areas beyond national jurisdiction) all states enjoy traditional high seas freedoms, subject to other international agreements and duties to protect marine environment and conserve living marine resources.

Convention on Biological Diversity (Rio, 1992) (CBD) calls for Parties to establish national conservation strategies and manage a system of protected areas or areas where special measures need to be taken to conserve biological diversity. Parties are expected to regulate activities under their jurisdiction or control that may have a significant adverse effect on biodiversity regardless of where the activity or its effects occur.

In recognition of the special conservation requirements of the marine environment, in 1995 the second Conference of Parties to the CBD adopted the Jakarta Mandate. The Jakarta Mandate lays out a strategy for protection of coastal and marine biological diversity, including the establishment (or consolidating) of representative systems of marine and coastal protected areas, within the context of national programs for integrated coastal area management. Other highlighted requirements include sustainable use of coastal and living marine resources, environmentally sustainable mariculture practices and the management and control of alien species.

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention, 1979) obliges Parties to conserve and restore important habitats, remove obstacles to migration, control or eliminate alien species, and prevent or control harmful activities for endangered species listed in Appendix I. For species with unfavorable conservation status listed in Appendix II, Range States are to create binding agreements that address the full range of threats to migratory species.

Agreements under the Bonn Convention for European coastal and marine species are:

- Agreement on the Conservation of Seals in the Wadden Sea (1990)
- Agreement on the Conservation of Small Cetaceans on the Baltic and North Seas (1991)
- Agreement on the Conservation of Cetaceans of the Mediterranean and Black Seas (1996).

Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, 1972) obliges Parties to identify, nominate and protect natural properties of outstanding universal value, including those that contain the most important and significant natural habitats for in-situ conservation of biological diversity. It applies to all land and marine areas out to the limits of the territorial sea, but does not apply to the waters of the Exclusive Economic Zone.

Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention, 1971) obliges Parties to designate and protect wetlands of international importance, and promote wise use of wetlands. It includes all freshwater, brackish and coastal wetlands, and marine waters out to six meters deep.

Relevant Regional Conventions:

- Convention on the Conservation of European Wildlife and Natural Habitats, Berne, 1979
- Convention on the Protection of the Marine Environment of the North East Atlantic, Paris, 1992, (OSPAR Convention): Annex V “On the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area”, adopted 1998
- Convention on the Protection of the Marine Environment of the Baltic Sea Areas, Helsinki, 1992 (Helsinki Convention), Recommendation 15/5 adopted 1994
- Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, Barcelona, 1995, to the Convention for the Protection of the Mediterranean Sea against Pollution, Barcelona, 1976 (Barcelona Convention)

## **II.** INTERNATIONAL AND REGIONAL AGREEMENTS CONCERNING POLLUTION OF THE MARINE ENVIRONMENT

UNCLOS requires states to take the necessary measures to minimize to the fullest possible extent pollution from all sources, including from land, sea and air, and to ensure that activities under their jurisdiction or control do not cause damage to the environment of other states. Regional agreements are generally called for to supplement the general obligations under UNCLOS.

Dumping—UNCLOS: national laws to be no less effective than rules adopted at global level, no dumping may occur without coastal state’s consent. Relevant agreements: Convention on the Prevention of Pollution by Dumping of Wastes and Other Matter, 1972 and its Protocol of 1996; OSPAR, Helsinki, and Barcelona Conventions.

Pollution from land-based sources—UNCLOS: States to adopt laws to prevent and control land based pollution, and harmonize laws at appropriate regional level. Relevant agreements: Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, Washington DC, 1995; OSPAR, Helsinki and Barcelona Conventions.

Air pollution—UNCLOS: States to adopt laws to prevent and control pollution from or through the atmosphere taking into account international rules. Relevant agreements: Convention on Long-Range Transboundary Air Pollution, Geneva, 1979, and related protocols; OSPAR, Helsinki and Barcelona Conventions.

Pollution from seabed activities and offshore installations—UNCLOS: States to adopt laws to prevent or control pollution, national laws to be no less effective that rules adopted at global level. Relevant agreements: OSPAR, Helsinki, and Barcelona Conventions.

Pollution from vessels—UNCLOS: Flag states to adopt and enforce national and international standards; international standards are to be established by states acting through the International Maritime Organization (IMO). Port states may establish requirements for entry of foreign ships into their ports, and prosecute violations. In the territorial sea, coastal states may adopt national laws stricter than international standards, provided they do not hamper innocent passage of passing vessels. In the EEZ, coastal states may apply only "generally accepted international rules and standards" to passing vessels. Relevant agreements: International Convention for the Safety of Life at Sea, 1974 (SOLAS); International Convention for the Prevention of Pollution from Ships, 74/78 (MARPOL); Memorandum of Understanding on Port State Control (Europe), Paris, 1982; Memorandum of Understanding on Port State Control in the Mediterranean Region, 1997; Helsinki Convention.

## III. INTERNATIONAL TOOLS TO REGULATE SHIPPING

The International Maritime Organization has developed many measures that can enhance the protection of Natura 2000 sites in the marine environment. The measures described below may generally be introduced by a coastal state in its territorial sea without IMO approval, though states are requested to take IMO guidelines into account. IMO approval is required before a coastal state may adopt any of the following measures in its exclusive economic zone or adjacent high seas areas.

Special routeing measures such as traffic separation schemes, recommended routes or tracks or deep water routes can be introduced to reduce the risk of collisions or groundings, or to keep vessels a certain distance away from ecologically important areas (SOLAS, General Provisions on Ships Routeing Res. A.572(14)).

Areas to be Avoided (ATBAs) can be used to keep ships or certain classes of ships or cargoes out of specified and closely defined sea areas. ATBAs are generally recommendatory, but in

some cases can also be made mandatory (SOLAS, General Provisions on Ships Routeing, Res. A. 572(14)).

No anchoring areas can be introduced in a defined area where anchoring is hazardous or could result in unacceptable damage to the marine environment. Such a measure could be used to protect critical habitats and other sensitive benthic communities (SOLAS, General Provisions on Ships Routeing, Res. A. 572(14)).

Vessel Traffic Service Systems (VTS Systems) provide information to ships on local traffic and on
problems related to navigation and the environment, and monitor ship movements. These are especially useful, in conjunction with ship reporting systems, to identify ships carrying hazardous cargoes and to control their safe passage through environmentally sensitive areas (SOLAS, Guidelines for Vessel Traffic Services, Res.A, 857(20)).

Mandatory Reporting Systems enable the shorebased authority to communicate with a ship to learn its cargo, destination, and condition (SOLAS, Guidelines and Criteria for Ship Reporting Systems (Res. MSC.43(64)).

Compulsory Pilotage. In sensitive areas where the intended route is navigationally intricate and potentially hazardous, the ecological and economic cost of a shipping mishap would be devastating, and there is no other feasible route, the required use of locally experienced pilots on board ships can reduce the risk of accidents.

MARPOL Special Areas for oil (Annex I), noxious liquid substances (Annex II) and garbage (Annex V). A state or groups of states can petition the IMO for the imposition of more stringent discharge requirements than are generally applicable on the open sea. (Guidelines for the Designation of Special Areas under MARPOL 73/78, recent revisions approved by MEPC 46 in April 2001, still to be adopted by IMO Assembly).

SOx Emission Control Areas pursuant to Annex VI of MARPOL (not yet in force).

Particularly Sensitive Sea Areas (PSSAs). A PSSA is "an area that needs special protection through action by IMO because of its significance for recognized ecological, socio-economic or scientific reasons and which may be vulnerable to damage by international shipping activities." Associated protective measures can include existing IMO measures, but most importantly, new measures can be proposed for IMO approval based on special characteristics and needs of the area. These include the special mandatory measures available pursuant to UNCLOS article 211.6 for "special areas" in the EEZ (Guidelines for Identification and Designation of Particularly Sensitive Sea Areas, recent revisions approved by MEPC 46, still to be adopted by IMO Assembly).

Annex 13

# 'CONSERVING DEEP-WATER CORALS WITHIN OFFSHORE AREAS UNDER IRISH JURISDICTION'

*Abstract*: *Ronan J. Long[1] and Anthony J. Grehan[2], [1] Law Department, National University of Ireland, Galway, [2]Martin Ryan Institute, National University of Ireland, Galway*

Deep-water corals such as *Lophelia pertusa* and *Madrepora oculata* have been known to occur along the European margin since the last century. It is however only recently that their extent and potential importance as a key structural element in the European deep-water biotope has become apparent. Advances in multi-beam and side-scan mapping technology combined with improved *in situ* exploration capabilities (principally ROV's and other imaging platforms) have revealed a hitherto unexpected realm of coral colonies, reefs and giant bioherms.

Deep-water corals are commonly found in Irish off-shore waters associated with enigmatic underwater hills called carbonate mounds. The mounds which can rise between 100 to 300m above the seafloor are themselves bioherms composed largely of buried coral skeletons. Living corals are found on or near the summits of many of these hills where current flow is greatest and support a rich and diverse associated fauna. Concerns over potential damage to the corals resulting from increased economic activity at these depths by the oil and gas industry and deep-water fisheries prompted a consortium of European marine scientists to undertake a detailed study of the corals along the Atlantic Margin. The three year Atlantic Coral Ecosystem Study (ACES) which is funded by the EU Fifth Framework Project began in April 2000 and will greatly improve the scientific basis for the implementation of conservation measures pertaining to cold water corals.

A potential threat to Irish corals from trawling was identified during an ACES organised consultative meeting with principal stakeholders. To date, evidence of destructive fishing techniques damaging reefs off Ireland is purely anecdotal although recent video and photography of Irish corals shows several instances of lost fishing gear. A review of records contained in the Irish Naval Service Vessel Monitoring GIS reveals intense fishing activity in mound areas. Of immediate concern is that discussions at the ACES Consultative Workshop highlighted the potential difficulties of implementing swift conservation measures in support of the Precautionary Principal particularly in terms of appropriate legal instruments and competence in the Irish offshore.

*Lophelia pertusa*, occurs outside of the Irish twelve-mile Territorial Sea, but is located within the Irish Exclusive Fishery Zone. This is significant in that it requires several important issues pertaining to the scope of application of international law, European law, and domestic law to be kept in context when discussing any potential measures pertaining to the protection of deep water coral.

This paper will review, *inter alia*: the relevant provisions of the United Nations Convention on the Law of the Sea (UNCLOS); the potential extension of the application of the Habitats Directive to sea areas beyond the territorial sea over which Ireland exercises sovereign rights; and outlines some of the tensions which may exist between European Community fishery law and the adoption of potential measures to conserve deep water coral in sea areas which are within Irish jurisdiction.

Annex 14

# OTHER INTERNATIONAL INITIATIVES IN THE MANAGEMENT OF MARINE PROTECTED AREAS (OSPAR AND HELCOM)

*Abstract: Henning von Nordheim & Dieter Boedeker, German Federal Agency for Nature Conservation*

## 1. OSPAR's Marine Protected Areas Programme

### 1.1 Introduction

At Sintra, Portugal in 1998, the Ministerial Meeting of the OSPAR Commission adopted the new Annex V on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area and the respective OSPAR Strategy. Contracting Parties now shall take necessary measures to protect and conserve the ecosystems and the biological diversity of the maritime area, and to restore, where practicable, marine areas which have been adversely affected.

It shall, *inter alia*, be the duty of the Commission to develop means for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats. Furthermore, according to the Sintra Ministerial Statement the Commission can, *inter alia*, draw up programmes and measures for the selection and the establishment of a network of Marine Protected Areas.

To concentrate the efforts and facilitate successful results OSPAR decided to set up a programme "Designation and Establishment of a System of Marine Protected Areas in the OSPAR-Maritime Area". Germany is lead country for the programme and the respective project group. The initial phase of the programme should be completed within 2 to 3 years starting at the beginning of 2000 and ending in winter 2002/2003.

The selection and establishment of MPAs should be carried out in connection with and for the mutual benefits of the works related to the assessment of species and habitats in need of protection, to the habitat classification and the biogeographic regions, and to the ecosystem approach including the development of Ecological Quality objectives (EcoQOs), and it will include the involvement of stakeholders.

Information already available indicates that in the OSPAR maritime area there seems to be a reasonable coverage of the (near) coastal zone with MPAs in most Contracting Parties. For this reason, the considerations on identification and establishment of OSPAR MPAs will place particular emphasis on the EEZs of Contracting Parties and on the international waters of the high seas. The process of identifying and selecting MPAs then may be characterised as an ongoing process, starting with a first tranche of sites with the understanding that this selection may be expanded as soon as additional proposals or knowledge are available.

The third workshop on Marine Protected Areas in the OSPAR area took place in Fiskebäckskil (Sweden) from 11 - 14 June 2000. The meeting invited the Biodiversity Committee (BDC) of OSPAR to ask Contracting Parties and Observers to prepare an "Experts List" of potential MPAs according to the OSPAR selection criteria that would also assist the conservation of these habitats and species. This list should be made available for discussion at the next meeting of the MPA group (June/July 2002). This meeting will also discuss the implementation processes and identify relevant authorities. Further the workshop invited BDC to adopt "Draft Guidelines for the Identification and Selection of Marine Protected Areas in the OSPAR Maritime Area and the following management guidelines.

## 1.2 Original text of "Draft Guidelines for the Management of Marine Protected Areas in the OSPAR Maritime Area"

MPA 01/3/1

OSPAR CONVENTION ON THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTHEAST ATLANTIC

3rd WORKSHOP ON MARINE PROTECTED AREAS IN THE OSPAR AREA

Kristineberg, 10 - 14 June 2001

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**Draft Guidelines for the Management of Marine Protected Areas**

**in the OSPAR Maritime Area**

### Introduction

At Sintra, Portugal, in 1998 the Ministerial Meeting of the OSPAR Commission adopted the new Annex V 'On the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area' and the respective OSPAR Strategy. The objective of the Commission is to take the necessary measures 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 which have been adversely affected.

The Commission will, *inter alia*, promote the establishment of a network of marine protected areas (MPAs) to ensure the sustainable use, protection, and conservation of marine biological diversity and ecosystems.

The establishment of OSPAR MPAs will also contribute to and take account of contracting partie´s obligations under other international Conventions and Directives, including EC Directives (and in particular the Council Directive 92/43/EEC on the conservation of natural habitats and wild flora and fauna and the Council Directive 79/409/EEC on the conservation of birds), and measures taken under the Bern, Bonn (including its regional agreements) and Ramsar Conventions, the Convention on Biological Diversity, the Helsinki Convention, the Barcelona Convention, the Trilateral Wadden Sea Co-operation and the North Sea Conferences.

### *The Aim of OSPAR MPAs*

OSPAR MPAs will individually and collectively aim to:

- protect, conserve and restore species, habitats and ecological processes which are adversely affected as result of human activities;

- prevent degradation of and damage to species, habitats and ecological processes following the precautionary approach;
- protect and conserve areas which best represent the range of species, habitats and ecological processes in the OSPAR area.

A system of OSPAR MPAs should take into account the linkages between marine ecosystems and the dependence of some species and habitats on processes that occur outside the MPA. These relationships are often more complex and occur on a larger scale than those of terrestrial ecosystems.

OSPAR MPAs should form an ecologically coherent network of well-managed MPAs. This is particularly important for highly mobile species, such as certain birds, mammals and fish, to safeguard the critical stages and areas of their life cycle (such as breeding, nursery and feeding areas).

*Management of OSPAR MPAs*

Management Plans will be valuable tools to help achieve the objectives of OSPAR MPAs. These plans can be developed using the guidance in Section (1) and with reference to the human activities and possible impacts listed in Section (2) Table 1+2. International and European Community legislation that may assist with the implementation of management measures are listed in the legal study (document xxx). National legislation will be required to support management of OSPAR MPAs within EEZs. The effectiveness of the management measures will need to be evaluated and the management plan will need to be adapted as necessary and appropriate on a regular basis. The management plan should be developed with the active involvement of relevant stakeholders from the earliest stages.

### *(1) Guidance for an Outline for MPA Site Management Plan, modified from the IUCN-Model*

(for details see IUCN Marine and Coastal Protected Areas by R. Salm and J. Clark, 2000)

**Executive Summary**

**Introduction**

A. Purpose and scope of plan
B. Legislative authority for the plan (national and international)

**Description of the site and its features**

A. Regional setting: location and access
B. Resources (facts pertinent to management; other data in an appendix or separate document)
    1. Physical: e.g., marine landscape features, currents, bathymetry, hydrology
    2. Biological: ecosystems (e.g., cold water coral reefs, seagrass beds); critical habitats (e.g., feeding, spawning); species (e.g., endangered, commercial, charismatic)
    3. Cultural: archaeological, historical, religious.
C. Existing uses (description, facilities, etc.)
    4. Recreational
    5. Commercial
    6. Research and education
    7. Traditional uses rights, and management practices

D. Existing legal and managemant framework
E. Existing and potential threats and implications for management (i.e. analysis of compatible or incompatible uses, solutions
F. Existing gaps of knowledge

**The Plan**

8. Goals and objectives (general and specific)
9. Management tactics
    a. Advisory committees
    b. Interagency agreements (or arrangements with private organizations, institutions or individuals)
    c. Boundaries
    d. Zoning plan
    e. Regulations
    f. Social, cultural, and resource studies plan
    g. Resource management plan
    h. Education and public awareness
10. Administration
    a. Staffing
    b. Training
    c. Facilities and equipment
    d. Budget and buisness plan, finance sources
11. Surveillance and enforcement
12. Monitoring and evaluation of plan effectiveness
13. Time table for implemention

**Appendices** (PRO-FORMA for the OSPAR MPA, etc.)
**References**

### *(2) Examples of human activities and impacts that may need to be regulated in each MPA to achieve the objective of protection*

The tables below provide lists of human activities in the marine environment and some of the main effects that these activities might have on marine habitats and species. The tables are intended as guidance only and should not be considered comprehensive. Both tables may also be combined in a matrix of activities against effects in order to indicate what might be causing the threat or decline of the habitat or species.

Activities may be regulated within the area of jurisdiction of parties or beyond it, as appropriate.

| **Table 1:Examples of human activities** |
|---|
| Extraction of sand, stone and gravel |
| Oil and gas exploration and exploitation and of other mineral resources |
| Dumping of solid waste and dredged spoils |
| Constructions (e.g. artificial islands, artificial reefs, offshore wind-farms) |
| Coastal defense measures |

| **Table 1:Examples of human activities** |
|---|
| Traffic infrastructure (e.g. dredging of navigational purposes) |
| Landbased activities (emissions and inputs from e.g., agriculture, forestry, industry, urban waste water) |
| Aquaculture/mariculture |
| Shipping and navigation |
| Military activities |
| Placement and operation of submarine cables (including the use of the water body as a conductor for electricity) |
| Placement and operation of pipelines |
| Fishing, hunting, harvesting |
| Tourism and recreational activities |
| Research |
| Bio-prospecting |

| **Table 2. Examples of effects of human activities** |
|---|
| **a. physical** |
| Substratum removal |
| Substratum change (inc. smothering) |
| Increased siltation (deposited sediment) |
| Turbidity changes (suspended sediment) |
| Emergence regime changes (inc. desiccation) |
| Water flow rate changes |
| Temperature changes |
| Wave exposure changes |
| Noise disturbance |
| Visual disturbance |
| Changes in electromagnetic fields |
| Litter |
| **b. chemical** |
| Synthetic compound contamination |
| Heavy metal contamination |
| Hydrocarbon contamination |
| Radionuclide contamination |
| Nutrient changes (eutrophication) |

| **Table 2. Examples of effects of human activities** |
|---|
| Salinity changes |
| De-oxygenation |
| **c. biological** |
| Physical damage to species (inc. abrasion) |
| Displacement (moving) of species |
| Removal of target species |
| Removal of non-target species |
| Changes in population or cummunity structure or dynamics |
| Introduction of microbial pathogens or parasites |
| Introduction of non-indigenous species & GMOs |

***(3) The following options exist individually or in any combination to manage the above mentioned human activities and their possible effects:***

A. Maintenance of existing levels of activities

B. Regulation of intensity of activities

C. Regulation of activities in space (including zoning)

D. Regulation of activities in time (ban of certain activities for a specific period, e.g., during breeding seasons or spawning periods)

E. Introduction of less harmful practices (e.g., change in fishing gear, less noisy engines)

F. Substitution of materials or substances (e.g., to avoid contamination)

G. Total ban of activities

H. Restoration

***(4) International and European Community legal regulations and legal instruments to achieve the management objectives of OSPAR MPAs***

International and European Community legal regulations and instruments to achieve the management objectives can be taken from the "*International and European Community legal regulations and legal instruments to achieve the management objectives", 2000*.

# 2 HELCOM's System of Marine and Coastal Baltic Sea Protected Areas (BSPA)

## 2.1 Introduction

With the Baltic Sea Declaration (paragraph 14) given in Ronneby 1990 the Heads of Governments and High Political Representatives of the Baltic Sea States declared their firm determina-

tion to develop a comprehensive programme in nature conservation, inter alia, through the establishment of protected areas representing the various Baltic ecosystems and their flora and fauna. After the Ronneby Summit followed an intensive discussion period between the Baltic Sea States and one result was that in 1992, the Helsinki-"Convention on the Protection of the Marine Environment of the Baltic Sea" from 1974 was revised. The "new" Convention now covers in the new Article 15 nature conservation and biodiversity protection and the sustainable use of resources in both, coastal and marine areas of the Baltic Sea area.

With the objective to facilitate the implementation of the provisions of that article HELCOM in 1993 established the working group EC-NATURE with Germany as lead country. Since then the working group has elaborated several HELCOM recommendations, guidelines, appendices and project group programmes.

As one result of the work of EC-NATURE in 1994 the Helsinki Commission agreed upon HELCOM Recommendation 15/5 on the establishment of a system of marine and coastal Baltic Sea Protected Areas. In a "first round" 62 areas were nominated by the countries covering an area of together over 2,8 million hectares, both terrestrial and marine, but in most cases very close to the coast. Common guidelines including criteria for the selection of such areas were agreed as well as guidelines for the establishment of management plans and for monitoring of these areas. The definite borderlines of the areas should be defined by the countries concerned as soon as possible. Further, this system of BSPAs should be gradually developed as new knowledge and information becomes available. Special attention should be paid to including additional coastal terrestrial areas and to including marine areas outside the territorial waters. Consequently EC-NATURE initiated an HELCOM project on the identification of "New offshore Baltic Sea Protected Areas." The consultants in charge submitted the final report in September 1998 to the Contact Persons of EC-NATURE and the responsible HELCOM bodies.

Overall the implementation of Recommendation 15/5 is very slow, but meanwhile nine BSPAs out of the first 62 have also been established nationally as protected areas. According to the Recommendation management plans shall be established for each BSPA. EC-NATURE elaborated respective guidelines in 1995 and updated them already under its new working group name “HELCOM HABITAT” in the year 2000.

## 2.2 Original text of HELCOM Guidelines for Designating Marine and Coastal Baltic Sea Protected Areas (BSPA) and Proposed Protection Categories

HELSINKI COMMISSION - BALTIC MARINE ENVIRONMENT PROTECTION COMMISSION

Nature Conservation and Coastal Zone HELCOM HABITAT 1/2000

Management Group 13/2
First Meeting

22-26 May 2000

Tisvildeleje, Denmark Annex 6

***1. General remarks concerning Protection Categories for BSPAs***

***1.1 Coastal and nearshore areas within territorial waters:***

At present only national legal protection will ensure the conservation of designated BSPAs. For Sweden, Finland, Denmark and Germany the EU-Habitats Directive and the EU Bird Directive can also fullfill the necessary protection requirements.

For BSPAs the following IUCN-Categories that strongly focus on ecological criteria are recommended for the national implementation:

**I** Strict Nature Reserve, Wilderness Area
**II** National Park
**IV** Habitat and Species Management Area
**V** Protected Landscape and Seascape

Furthermore application of the following international protection categories can be considered in a similar way as a national implementation for the protection of a BSPA:

- Biosphere Reserve
- SCI/SAC (EU-Habitats Directive)
- SPA (EU-Birds Directive).

Buffer zones of an appropriate width are recommended for all BSPAs.

***1.2 Exclusive Economic Zone (EEZ):***

The whole water body of the Baltic Sea consists either of the territorial waters or of the Exclusive Economic Zones of the riparian states. With the reservation of a final legal clarification of the applicability of the EU Habitats and Bird Directives within the EEZ, memberstates of the EU can design their offshore BSPAs as **SPAs** or **SCIs/SACs** instead of a national implementation.

The Baltic Sea is a **Special Area** identified by the International Maritime Organisation (IMO), where the adoption of special mandatory methods for the prevention of sea pollution by oil, noxious liquid substances, or garbage, as applicable, is required ("MARPOL 73/78 in annexes I, II and V").

An area which needs special protection and which is vulnerable to environmental damage by maritime activities can be identified as **Particularly Sensitive Sea Area (PSSA)** by the International Maritime Organisation (IMO). Under certain circumstances a PSSA may include a buffer zone.

To achieve international recognition for a designed PSSA a coastal state has to submit a proposal to IMO's "Maritime Safety Committee". A recognized area can be protected in three ways:

1. special routeing measures
2. as an area to be avoided
3. other navigational duties such as piloting

***2. Guidelines for designating BSPAs***

A coastal or marine area of the Baltic Sea Region can be designated as a BSPA if it meets the following criteria and if its proposed protection status corresponds with the afore mentioned protection categories:

*1. Aim of protection*

In a BSPA particular protection shall be given to the species and natural habitats and nature types of the marine and coastal ecosystems of the Baltic Sea Area to conserve biological and genetic diversity and to protect ecological processes.

*2. Objects of protection:*

- Areas with high biodiversity,
- habitats of endemic, rare or threatened species and communities of fauna and flora,
- habitats of migratory species,
- nursery and spawning areas,
- rare or unique or representative geological or geomorphological structures or processes.

*3. Size:*

The minimum size of a BSPA should be preferably 1000 ha for terrestrial parts and/or 3000 ha for marine/lagoon parts.

*4. Naturalness:*

The landscape/seascape of a BSPA should be not - or only little - disturbed by man. Ongoing economic activities must follow the principles of sustainable use. An appropriate protection status should be chosen according to the afore mentioned protection categories.

*5. Pollution:*

The environment of a BSPA should be to a large extend free of pollution. If polluted, activities must be started as soon as possible to distinctly improve the environmental situation through, e.g., technical measures, such as sewage treatment plants etc. Integrated Coastal Management Plans may help to meet these requirements.

*6. Representativeness:*

A BSPA should be a representative ecological functional entity for a Baltic Sea Region or Sub-Region or for a Baltic Sea State.

*7. Application*

An application for approval of a new BSPA can be sent at any time to the HELCOM secretariat.

A proposal for a new BSPA should include:

- a completed pro-forma (see example in attachment 1)
- a map with the same precision and quality as maps officially published, preferably at a scale of 1:20.000 to 1:100.000, should include at least:
- 4 marked geographical coordinates (lat./long.),
- major roads and settlements (coastal area),
- the coastline (coastal areas) and isobaths,
- borderline of proposed BSPA (see attachment 2).

These guidelines are oriented on ecological criteria of several international conservation acts. Socio-economic and cultural criteria are not considered, because a BSPA should primarily reflect the natural environment of the Baltic Sea Area.

***Note: BSPAs already proposed to HELCOM***

Not all BSPAs that were proposed to and adopted by HELCOM 15 (Rec. 15/5) fulfill these guidelines for the designation of new BSPAs. For these areas all possible IUCN-Categories should be considered for national implementation. But in any case, if feasible, it should be aimed at a protection status and management following the afore mentioned protection categories.

# 3 Conclusion

These mentioned activities on MPAs of both, OSPARCOM and HELCOM, will undoubtedly contribute to the implementation also of the Birds and Habitats Directives of the EU in the territorial and EEZ-waters of the Member States.

Annex 15

# THE COMMUNICATION FROM THE EUROPEAN COMMISSION ON THE INTEGRATION OF ENVIRONMENTAL CONCERNS INTO THE COMMON FISHERIES POLICY AND THE BIODIVERSITY ACTION PLAN FOR FISHERIES AND MARINE PROTECTED AREAS.

*Abstract: José Rizo-Martin, (EC DG Environment)*

Under Article 6 of the EU Habitats directive, Member States shall establish the necessary conservation measures involving appropriate management plans and institutional measures aimed at guarantying the fulfilment of the ecological requirements of the Natura 2000 ecological network sites.

Regarding marine sites, there is no doubt about the impact that fishing activities can have on them (e.g. removing targets and non targets species, disrupting the energy flow through the food web and modifying the physical environment). To assure that these activities do not imply unacceptable levels of disturbance or deterioration of the ecological features present at the sites, local fishing activities ought to be regulated to a greater or lesser extent.

Two Commission papers have recently dealt with the broader issue of the relations between environmental protection and fisheries[24]. These documents seek for ways of collaboration between both these relevant policies, while taking into account the different Community provisions upon which they are based. By releasing these papers, the European Commission engages itself in fostering the consideration of environmental concerns when implementing the current Common Fisheries Policy or proposing the new one.

Some particular group of issues will be proposed for discussion at the meeting:

- The Communication on integration: the Cardiff process, objectives and measures regarding MAPs.
- The Biodiversity Action Plan on fisheries: origin, objectives, and the role of MPAs.
- The future: managing fishing activities within MPAs, with particular attention towards N2K SACs.

[24] Communication from the Commission to the Council and the European Parliament "Elements of a Strategy for the Integration of Environmental Protection Requirements into the Common Fisheries Policy", COM(2001)143; Communication from the Commission to the Council and the European Parliament "Biodiversity Action Plan for Fisheries", COM(2001)162

Annex 16

# POSSIBLE IMPACTS OF OFFSHORE WINDFARMS ON NATURA 2000[25]

*Abstract:* *Henning von Nordheim, German Federal Agency for Nature Conservation*

## Introduction

Beginning with the 1970ies, in Germany the production of electricity by using wind energy was considered to be an environment friendly way of producing so-called “alternative energy”. Particularly financial supporting programmes from federal and regional governments led to a real boom in the construction of wind energy "farms" since 1991.

Nevertheless, at the same time with the increasing numbers of wind turbines all along the German North Sea coast also the conflicts and resistance in the local coastal population increased because of obvious impacts on the surroundings of settlements, the clear disturbance of the natural sight of the marine landscape (“seascape”) and because of the negative impacts on the living environment, particularly on birds. Nowadays the steady technical improvements towards larger and more powerful generators make it more and more attractive in economical terms to look for new areas for wind turbine installations even far offshore in the sea. This is by many people including several politicians presumed to be an area with a low potential for possible public conflicts. In Germany there exists a national strategy to distinctly increase the percentage of environmentally friendly generated electric power which includes particularly also the development of the use of offshore wind energy. This development is substantially supported by financial instruments since spring 2000.

In 1998 the German Federal Agency for Nature Conservation was for the first time officially concerned with offshore wind farms. In that specific case it was a project comprising 600 single turbines at costs of approx. 6 Billion ECU covering an area of 100 $km^2$ in the German section of the Pommeranian Bight in the Baltic Sea close to Poland, which than was rejected by the German authorities for a number of reasons. Such projects and applications in offshore areas that belong to the exclusive economical zone of Germany are administrated with a special German law forming a part of the national implementation of the obligations to coastal states deriving from the United Nations Convention of the Law of the Sea (UNCLOS). UNCLOS in different articles or sections addresses questions and regulations of different human activities from which negative impacts such as a damage of living resources or of the marine Fauna and Flora do or may do arise.

[25] Manuscript of a presentation at Centre NATUROPA, Segovia, Spain, June 2000 “Wind turbines in offshore areas - a new technique and its possible impacts on environment, nature and landscapes” In press in: Environmental Encounters - NO. 52 - 2001 (Centre Naturopa)

At the moment in Germany, there exist several provisional inquiries and about 30 applications for offshore-wind parks (20 to 450 single installations each) of together more than 4000 wind turbines of the 2 to 5 megawatt classes, regarding the German Exclusive Economical Zone (EEZ) as well as the German territorial seas of the North Sea and the Baltic Sea. Following national regulations for offshore installations, permission shall not be given if flora and fauna and the marine environment will be substantially affected by the installation. This goes partly back to the German Federal Nature Conservation Law, to UNCLOS and to the European Community directives on environmental impact assessments (EIA), the birds directive and the fauna-flora-habitat directive.

What are or what could be the impacts of offshore wind turbines on the environment, nature and landscape?

As wind turbines in offshore areas represent a new technique a thorough and comprehensive assessment of their possible or actual effects on nature is still impossible for the moment. Nevertheless, both, actual and possible effects can be deduced from experiences with wind turbines on land. Thus it has to be expected and taken from experience with a few offshore wind turbines in Denmark that the impacts of turbines are connected during construction and operation to impacts from the rotors, the towers, the foundations, the electric links, the construction activities etc. The severeness of these different impact complexes on and the relevance for the individual elements of the ecosystem has to be evaluated to reach at an overall assessment of the offshore wind turbine technique.

Currently, in Europe there are only few, close-to-shore wind farms in Denmark comprising only a couple of single turbines each. But there exists an ambitious programme in Denmark for a massive build up of the offshore wind energy production; additional plans and activities are known from e.g., United Kingdom, the Netherlands and Sweden. Wind farms of several hundred to 450 wind turbines, as planned by some German companies, so far do not exist anywhere in the world; accordingly adequate investigations on their possible impacts are not available, yet.

Following the “precautionary approach” as laid down in the Oslo-Paris-Convention and the Helsinki-Convention for the protection of the marine environment of the North-East-Atlantic and the Baltic Sea respectively, all Contracting Parties are obliged at this stage to screen and to assess the scenario of possible impacts and their effects of offshore wind turbines on marine nature and landscape.

A review of available knowledge on international and national level shows, that there is a wide range of possible impacts associated with this new technology (Tab. 1). It has to be expected that roosting, feeding or migrating of sea birds will be affected by wind turbines due to disturbance and collisions. At least on a local scale the foundations will destroy the benthos but also influence the hydrology and sedimentation patterns and so may change the composition of benthic communities on a larger scale as well.

**Table 1: Presumable and possible impacts of offshore-wind energy turbines on the marine nature, environment and landscape**

| | cause | effect |
|---|---|---|
| birds | S turbines/rotors<br>S shipping activities<br>$ for maintanance<br>$ during construction | S disturbance that leads to<br>$ loss of feeding and resting grounds<br>$ alteration of migration routes |
| | S collisions | S direct losses of birds |
| marine mammals | S shadows of moving rotors<br>S emissions of noise and vibrations into marine waters<br>$ during construction<br>$ during operation | S reduction of habitat size through disturbance<br>S impact on behaviour<br>S stress |
| | electric cables (see below) | (see below) |
| fish | S electric cables linking the marine turbines and the coast<br>$ artificial magnetic field<br>$ artificial electric field | S disturbance and interference with near- and long-range orientation (particulary in long distance migrating animals)<br>S interference with feeding mechanisms (e.g. sharks) |
| | S emission of noise and vibrations into the marine water column<br>$ during construction<br>$ during operation | S reduction of habitat size through disturbance<br>S impact on behaviour<br>S stress |
| | during the construction phase<br>$ turbidity plumes<br>$ sedimentation | S interference with feeding activities and mechanisms<br>S destruction of fish spawn and fry |
| benthic communities | S local destruction during construction of foundations of turbines<br>S turbidity and sediment plumes during construction phase | S loss of habitat size<br>S direct losses throught burying with sediment during construction |
| | S alteration of sediment and current conditions<br>S placing of artificial hard substrate (even in areas where such substrate is naturally absent) | S alteration of the benthic communities |
| landscape (seascape) | S technical ± vertical constructions that can be seen and perceived from long distance against the horizont in a naturally structureless “seascape” | S heavy impact on the natural sight of the seascape |
| other causes | increased risk for ship collisions (e.g. sea-damaged ships, ship with technical defects) | pollution by e.g. oil spills, chemical spills (even of areas far away from the turbines location) |
| | cumulative effects of groups of turbines on currents and sediment transport | large scale effects on hydrodynamics and morphodynamics |

Furthermore the foundations form artificial hard substrates that serve as habitat for epibenthic flora and fauna not typically found in great parts of the German section of the Baltic and North Sea and by that way change the natural species communities. It must be supposed that artificial magnetic and electric fields generated by the cable links could affect small and large scale orientation of fishes and marine mammals. Additional disturbances could arise from noise and vibrations released into the water column through the turbine tower as well as from the shadows or flashes generated by e.g. reflections of the turning rotors. The wind turbines as vertical structures with heights up to 95 m and moving rotors of 110 m in diameter will have a very heavy impact on the natural view of the seascape with its predominant horizontal structure (Fig. 1). In addition offshore wind "parks" will increase the collision risk for ships and possible accidents with hazardous cargo vessels (e.g. oil tankers) will affect areas even far away from the wind turbines, e.g. by oil spills. It should be mentioned that several of the actual or potential impacts can be minimized or even avoided by proper construction of the single turbine and/or the wind parks.

## Consequences

In conclusion it has to be stated, that energy production by offshore wind turbines intended to be established in large scale in marine areas is a new technical development on the base of very little and by far not sufficient scientific data and knowledge about possible negative impacts on the marine environment, nature and landscape. For that reasons, solid and conclusive statements about their impacts particularly on the living marine environment and nature from the nature conservation point of view are not possible yet. On the other hand, some of the effects such as the clear and heavy impacts of such turbines on the marine landscape can be sufficiently visualised by computer animation (Fig. 1). In addition experience from terrestrial areas ("onshore") and the knowledge about the effects of other human impacts on marine ecosystems, as well as the knowledge about biology and ecology of many marine organisms give us strong hints and clear reason for concern and to presume a serious risk potential associated with offshore wind turbines apart from its undoubted beneficial aspect in terms of "clean energy production". Consequently because, as was pointed out, exact and detailed studies and knowledge in the marine areas are still missing and because many marine organisms are exposed to constantly increasing pressures and threats, it is proposed to stringently follow the precautionary approach as mentioned for the OSPAR- and Helsinki Convention areas and in problematic cases rather be very reluctant to issue a construction permit when coming to final administrative decisions. The precautionary approach was laid down as a basic strategy for an effective protection of the marine environment in such cases when the effects of a certain human impact are not known or fully understood in detail. This also means, that for the moment offshore wind turbine complexes with 100 or more single turbines should not be permitted. If a permit should be granted to establish a smaller wind farm consisting for example of about 10-15 turbines, this must be taken for a test case and be used as a study object. In the course of comprehensive environmental impact assessments (EIA) prior to the establishment according to the Directive and in a continuous study during the operation of such offshore wind turbines experiences have to be gained and the possible impacts have to be assessed internationally. These studies shall comprise e.g. orni-

thological aspects, the impacts on hydrology, sedimentology, the effects of the electric and magnetic fields, the hydroaccustics, its impacts on benthos, fish and marine mammals, the impacts on the landscape and collision risks. Only if such data are available a final judgement about the offshore wind farm technology from the nature conservation point of view can be given. The results of such studies should be communicated among those countries that are developing offshore windenergy production.

As for Germany, originally all plans for wind farm projects were located close to shore or in shallow offshore areas with outstanding ecological value. Due to rising opposition against such locations from local communities for reasons of the immense visual impact on the landscape or because of conflicting interests of nature conservation, at least some plans for projects, and maybe in the negotiation process all, will be moved further offshore, up to areas with water depth of 30 and more meters or will be withdrawn from areas with high conservation interest, which than might also reduce some of the mentioned nature conservation and environmental problems.

Currently, still a large number of sites of wind farm applications in the German EEZ or territorial waters are competing with nature conservation interests, since they are located in areas that qualify for protected areas according to the Birds or Habitats Directives of the EU (SPA and SAC).

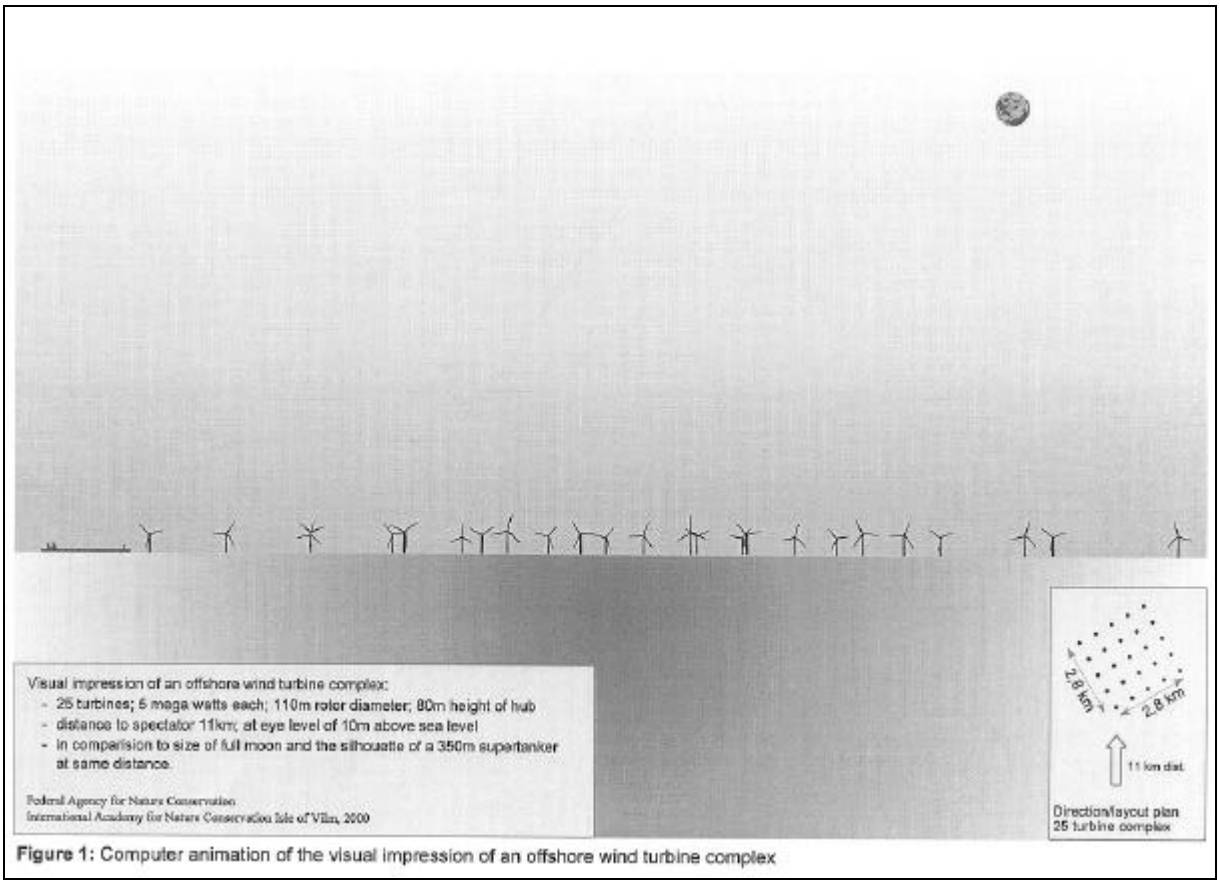



**Figure 1:** Computer animation of the visual impression of an offshore wind turbine complex

Annex 17

# INTRODUCTION TO THE MONITORING OF MARINE SACS – A UK PERSPECTIVE

*Abstract: Jon Davies, Joint Nature Conservation Committee, UK*

This presentation has two objectives:

i. To explain the UK's interpretation of the monitoring requirements for marine SACs; and
ii. Present an overview of the research and policy development undertaken in the UK to fulfil these perceived requirements.

It should be noted that this paper is only a *contribution* to the debate on marine SAC monitoring at the European level – it is not proposing a solution to be adopted by all.
During the 1990's marine biodiversity conservation was identified as a strategic goal for sustainable development where marine protected areas have a key role in sustaining marine biodiversity. The Habitats Directive[26] makes provision for marine habitat and species protection through the designation of Special Areas of Conservation (SACs). Furthermore, the habitats and species for which these SACs are designated must be maintained at, or restored to *Favourable Conservation Status.* The habitats and species for which SACs are designated are collectively known in the UK as the *interest features* of the sites.

The term favourable conservation status (FCS) relates to the individual habitats and species over their natural range within the European Union. However, because the selection of the European Network of SACs is seen as fundamental to achieving FCS, the European Commission considers that the concept should also be applied at the site level[27]. A key purpose of SAC monitoring, therefore, will be to determine whether the interest features of the individual SACs are making their intended contribution to FCS. The UK conservation agencies use the term *favourable condition* to represent the concept of FCS for the interest features of an individual SAC. The Habitats Directive itself makes a number of specific provisions in Articles 6, 11 & 17 that the UK has interpreted as a requirement to monitor within each SAC.

The UK government's statutory conservation agencies have developed an approach to the monitoring of wildlife sites that are designated under national and international legislation, which it is expected to meet the requirements for SAC monitoring. In this approach, a distinction is made between *surveillance* and *monitoring.*

- *Surveillance* is a continued programme of biological surveys systematically undertaken to provide a series of observations in time.

[26] Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.
[27] European Commission (2000) Managing Natura 2000 sites – the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission, Brussels.

- *Monitoring* is surveillance undertaken to ensure that formulated standards are being maintained.

All work undertaken to assess whether the condition of habitats and species within SACs is making a contribution to their favourable conservation status falls into the category of *monitoring.* The 'formulated standard' referred to in the above definition is *favourable condition* and has to be defined for each interest feature on each SAC. The UK has formulated standards based on the *conservation objective* that states the nature conservation aspirations for each interest feature expressed in terms of broad targets that define its desired condition.

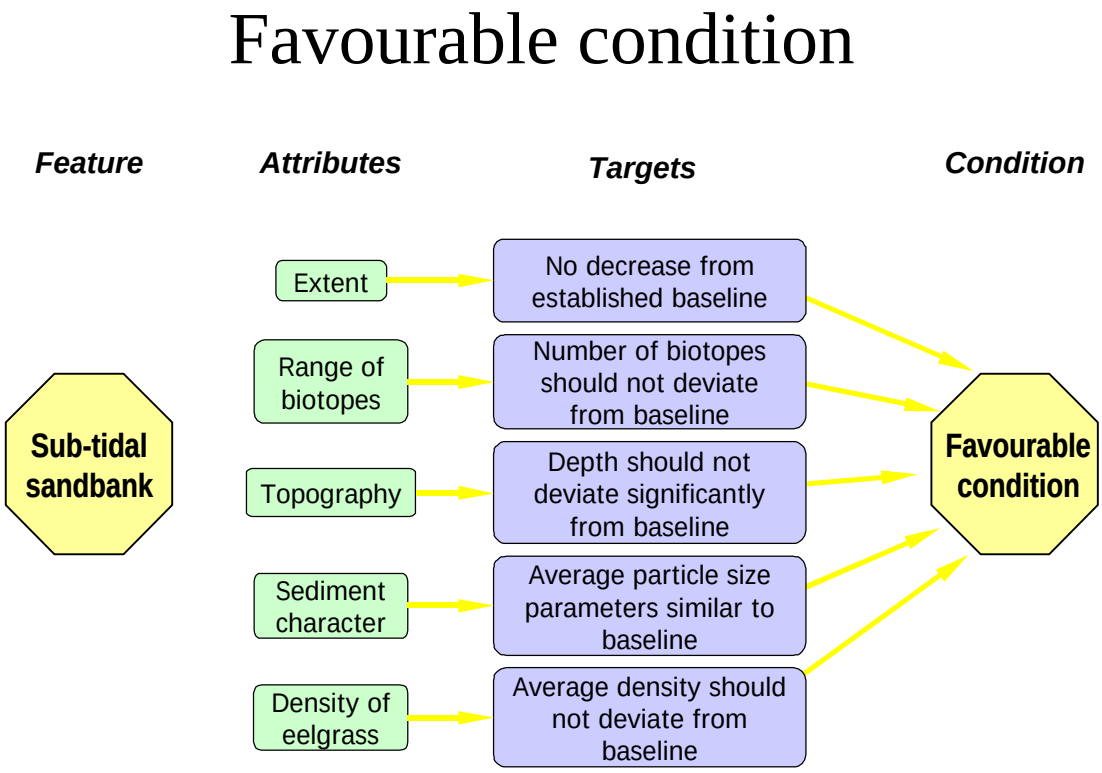
Defining this desired condition has two elements

i. Identifying the most important characteristics of the feature that will clearly define its condition: generally some combination of the quantity, the quality and the supporting physical processes; and
ii. Identifying the state or a threshold value of these characteristics that the feature must achieve for it to be considered in favourable condition.

The UK refers to these characteristics as *attributes* and the desired state or value as the *target*. Marine habitats in Annex I of the Directive are very broadly defined and have resulted in many large and complex SACs. To effectively describe and monitor these complex features, it has been necessary to sub-divide some of them into smaller units called *sub-features*. Sub-features are distinctive biological communities (e.g. eelgrass beds, horse-mussel reefs), or particular structural or geographical elements of the feature (e.g. upper estuarine subtidal mud communities). Attributes and targets are defined for each sub-feature. It is however, impractical to set conservation objectives for every conceivable attribute for a feature, as the cost of the resulting monitoring programme would be prohibitive. Thus only those attributes considered to be essential to the definition of favourable condition are included in the feature's conservation objective. These attributes should be linked to the definition of favourable conservation status (FCS) in Article 1 of the Directive since an interest feature on a SAC must contribute to the achievement of FCS. Accepting this argument has the benefit of establishing a consistent approach to setting conservation objectives between SACs, and setting a minimum monitoring requirement for an interest feature. Nevertheless, it is recognised that individual site conditions will vary and undoubtedly will require some additional site-specific attributes to support site management objectives.

To summarise, a monitoring programme to evaluate the condition of an interest feature will measure each attribute and compare its current value with the target (formulated standard) defined in the conservation objective. Where the interest feature fails to meet the required standard it is deemed in *unfavourable condition*. This judgement will trigger appropriate management actions, which can include further investigation to identify the cause of the deterioration, to restore the feature to the desired condition. Each feature will be monitored at least once every six years in line with the reporting requirements in Article 17 of the Habitats Directive.

An example of a conservation objective for an interest feature:




A potential criticism of this UK approach is that it is overly complex and thus expensive, and may not be suitable for many other EU Member States. To address this, it is important to note that:

- Not all attributes will necessarily require field sampling;
- A single technique/deployment can record data for multiple attributes – for example remote video sampling can record the biotope present and the structure of seabed, plus estimate the density of typical species.
- The intensity of monitoring may be linked to the level of known anthropogenic activity at a site based on the assumption that such activity is the most likely threat to the status of an interest feature.

Furthermore, the UK conservation agencies are developing rapid assessment techniques to evaluate the condition of interest features. Such rapid assessments will be validated at a series of sites where detailed recording would take place. To help address the financial resourcing issue, the UK Marine SACs project (co-funded by the EC Life-Nature fund) evaluated the cost-effectiveness of many survey techniques and their method of deployment. At present, the UK conservation agencies are formulating monitoring strategies that are simple, affordable and yet will hopefully evaluate the condition of the interest features on marine SACs in a consistent and robust manner.

Responsibility for marine SAC monitoring is devolved to an agency in each of the four countries (England, Northern Ireland, Scotland and Wales) that constitute the UK. Aggregating the results of this monitoring programme to make a meaningful judgement of FCS over the site series as a whole in UK will only be possible if the individual site results for each interest feature are consistent within and then between each country. To provide a high standard of quality assurance and quality control (QA/QC), the Joint Nature Conservation Committee has published a *Marine Monitoring Handbook*; is co-ordinating the production of UK guidance on setting conservation objectives for each interest feature; and will be establishing a series of inter-calibration exercises. The European Commission will be aggregating the results from all the Member States to evaluate FCS throughout the EU and thus there is a clear need for an EU-wide debate on QA/QC elements of marine SAC monitoring.

Annex 18

# MANAGEMENT SCHEMES ON UK MARINE SACS

*Abstract: Maggie Hill (Countryside Council for Wales), UK*

This presentation describes our work in the UK to establish management schemes on European Marine Sites. The presentation is on behalf of the UK Marine SACs Project. The project was funded by the EC-LIFE Nature Fund and the statutory nature conservation bodies in the UK. The overall aim of the project was to establish management schemes on 12 pilot sites. 11 schemes are now in place and one will be established later this year.

Although the management scheme is the endpoint we have gone through many stages to achieve this. One strand has been collecting information on biological features/processes and studies of the sensitivity of habitats and species. A second strand has been collecting information on the activities taking place on sites and studies of the impacts of these activities. By putting these together we have been able to prepare conservation objectives, advice to users, and eventually, the management schemes. Much work has been at a site level but generic studies have also been done on sensitivity of habitats and impacts of activities.

Sensitivity studies cover the distribution, dynamics and recovery potential of habitats and biotopes from both soft and rocky shores. Examples are given.

Impact studies focus on activities widespread in European Marine Sites and to which the features are known to be sensitive. Studies include port and harbour operations, recreation, fishing, aggregate extraction, bait digging and collecting other shoreline animals. Studies look at the impacts, management options and best practice. Examples are given.

Management schemes are one of the main ways in the UK of reaching the goals of the Natura 2000 network for marine sites. For terrestrial sites we have UK legislation which allows us to manage SACs and SPAs, but this does not cover subtidal areas. Therefore management schemes may be needed on marine sites. They are aimed at specifying proactive, positive, conservation measures as well as preventing damage or disturbance. The relevant authorities – with a specified role in the management of the site – have a collective responsibility to put together a management scheme. As there is no change in the statutory powers of these organizations this means in practice that they are individually responsible for their part of the management scheme. It should be remembered that management schemes do not deal with the consenting of plans and projects (Article 6(3)), although there are important links to be made with this process; nor can they deal with remote, offsite impacts.

The content of a management scheme is briefly described. The most important element is an action plan which is regularly reviewed. We need to see management schemes not as documents, but as an evolving process, a living scheme.

The second half of the presentation focuses on examples of actions from the management schemes on some pilot sites. The sites described are Pen Llyn a'r Sarnau; Plymouth Sound and Estuaries; Morecambe Bay and Cardigan Bay European Marine Sites. These examples show the diverse range of actions which have been agreed. Some focus on interpretation and education, others on controlling activities causing damage and disturbance; all identify further investigations and surveys needed. A difficult issue on many sites has been the need for proof of significant adverse impact before action is required. A solution to this is may be to define the extent or scale of activities which would trigger some action.

The presentation aims to give a flavour of the UK Marine SACs Project and the management schemes it has established. We have come a long way in agreeing so many actions. How successful we have been will be shown by monitoring.

Further information and copies of reports can be obtained from the project website: *www.english-nature.org.uk/uk-marine/*. Some sites also have their own websites. Our experience in setting up management schemes is captured in the guide "Indications of good practice for establishing management schemes on European Marine Sites. Learning from the UK Marine SACs Project 1996-2001." This is due to be published in July 2001.

Annex 19

# INTEGRATED MANAGEMENT OF COASTAL AND MARINE AREAS IN THE AZORES

*Abstract: Pitta Groz, M., F. Tempera , R. Silva, C. Gomes & R. Santos*

The Azores archipelago consists of nine islands and 20 islets located on the Mid-Atlantic-Ridge. Despite this geographical isolation, the marine environment has been affected by increasing human activity. As a consequence of the ecological deterioration during the last two decades, various isolated legislative measures have been taken for the conservation of marine species and habitats. However, they generally resulted in absence of management of the activities that take place in the protected arias and/or deficient enforcement of the Legislation. Following the recent application of the EC "Birds" and "Habitats" Directives in the Archipelago, conservation benefited from a new strategic perspective by the designation of 17 Special Areas of Conservation (SAC) and 15 Special Protection Areas (SPA) on coastal and marine habitats. With a view to prevent what has happened with previous scattered measures, it is becoming urgent to implement an integrated program of management planning and an enforcement of the measures taken. The success of these strategies will depend on the integration in terms of ecology and management of the different components of the littoral environment.

Instead of advancing with isolated actions of a group or a particular species, the present project proposes to elaborate and implement management plans for a complex of areas and species that are already favoured by decrees of unconnected protection. Three different levels of approach will be integrated: littoral habitats, marine bird populations and populations of cetaceans and marine turtles.

This project will follow a course of action that includes scientific inventory, elaboration of regulation plans, public inquiry, preparation of management plans and finally the implementation of specific management measures. In the course of these actions one will establish an earnest program of environmental education with the perspective of alerting the different sectors of society and their active involvement in management measures. Only through this strategy will it be possible to create favourable conditions to implement successfully the network NATURA 2000 in the Azores with an impact beyond the project.

Concerning coastal (both, littoral and sublittoral) habitats, five SAC were chosen, inserted in different ecological and socio-economical contexts. The island of Corvo, especially, should represent an illustrative example for the development of the general objectives of the project. Being the smallest island of the archipelago, Corvo exhibits a well- preserved coastal environment and contains a small population, receptive to proposals on environmental conservation. Therefore, it seems to unite all conditions for a sustainable management plan. On the

other hand, SAC located on the channel between Faial and Pico islands are subject to strong pressure from tourism, fishing and urban activities. Consequently, the management needed has to be of a different type, involving a greater variety of socio-economic sectors. Finally, the islets of Formigas and the Dollabarat reef represent the setting for a third management model. At present they are subject to growing human disturbance, like demersal fishery and spearfishing, but the area has the potential to be made into an authentic oceanic sanctuary.

Another goal of this project is the elaboration of management plans for the new SPA which will be designated during a review process underway, along with enhancement of conservation action in seven existing SPA towards the recovery of population levels of *Sterna dougallii.* Besides, genetic studies are being undertaken to confirm reproductive isolation between two sympatric and temporally segregated populations of *Oceanodroma castro* occurring in the Azores. The results of this study will convey a revision of the taxonomic status of this species listed in Annex 1 of the EC Birds Directive, which is expected to result in the recognition of two distinct species with an increased vulnerable status, requiring immediate conservation measures.

Regarding cetaceans, a database of the present populations of the different species is being compiled and the consequence of the increasing tourism pressure due to whale watching for the populations are being monitored. This is a recent activity in the Azores, but a large expansion is expected since this is the region in the North Atlantic with the highest diversity of cetaceans. A special importance is given to resident groups of *Tursiops truncatus* (species included in Annex II of the EC Habitats Directive). The data collected has been used in calculating the capacity load for the whale watching and in elaborating and implementing a complex of management measures, which can lead to the proposal of new protection areas.

Concerning marine turtles, the present project is supervising tagging, access the impacts of accidental capture of turtles by the fishing fleet and studying the distribution of the populations. The results of these studies will help in adopting practical measures for protecting the different species of turtles, especially the loggerhead *(Caretta caretta),* a priority species of the "Habitats" Directive, which has its nursery ground around the Azores on its migratory route into the North Atlantic.

Presently the project is finishing his third year of execution. Following the completion of the scientific and sociological assessment, the technical management plans for the SAC are being finalised and the public hearing phase will commence soon. During this last phase of the project training and environmental awareness activities are emphasised. A strategy of environmental education aimed at the marine environment is being implemented aimed both at target groups and local population. The evaluation of the educational products as well as the use of case-studies will allow the definition of better approaches to educational programmes concerning the marine environment.

Annex 20

# CONSERVATION OF THE MARINE BIODIVERSITY IN BRITTANY (FRANCE): CURRENT STATE AND NEEDS FOR KNOWLEDGES AND CONSERVATION TOOLS

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THE FRENCH CONTEXT

- a desert for marine protected areas
- a desert that is not a French speciality : 2% of articles published in conservation biology and biological conservation in 2000 are relative to intertidal habitats.

THE CONSERVATION OF MARINE BIODIVERSITY IN BRITTANY

Introduction the Brittany region:

- Marine protected areas in Brittany: a situation similar to the national context.
- What are the conservation issues on marine environment in Brittany?
    - Increasing of urbanisation pressure
    - Increasing of self fishing, dredging, demersal fishing
    - Development of intensive aquaculture in estuary (fish farming, oyster farming…)
    - Intensive extraction on non-fish living resources (algae, maërl)
    - Invasive species (Crepidula)
    - Increasing of marine pollution (nitrates incoming from intensive pigs farming, pesticides, heavy metal, anti-fooling and other chemicals from ships activities…)
    - Development of aquatic sports and spare time activities

What are the priority of conservation?

Species entry:

- Aim: identification of endangered species
- Tool: red lists
- Problem: lack in the knowledge of the conservation status of species and their communities

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Habitats and communities entry:

- Aim: rapid identification of habitats or communities and their state of conservation
- Tool: keystone species, structuring species, flagship species, conservation status for habitats
- Problem: lack of unanimous indices at a national or European scale, lack to define state of conservation

Current direction of work:

1. The Life programme “archipelago and islands of Brittany”: interest for marine environment?
2. Identification and demarcation of marine habitats and species through remote sensing: a tool to describe marine habitats and to survey and monitor the evolution of communities.

NEXT STEPS AND NEEDS FOR CONSERVATION OF MARINE ENVIRONMENT IN BRITTANY

- identification of important areas for conservation
- control of human activities.

It means to know:

- how to define conservation status of marine species?
- how to elaborate locals or nationals lists?
- what kind of state of conservation for habitats is acceptable?
- what kind of level of human activities is sustainable for the habitats?
- how to protect habitat: management and gardening or control?
- a management guide for intertidal areas: a good idea?