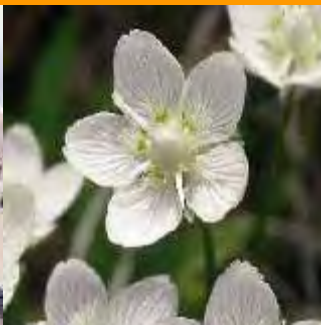


Conservation and Management of the Waddensea

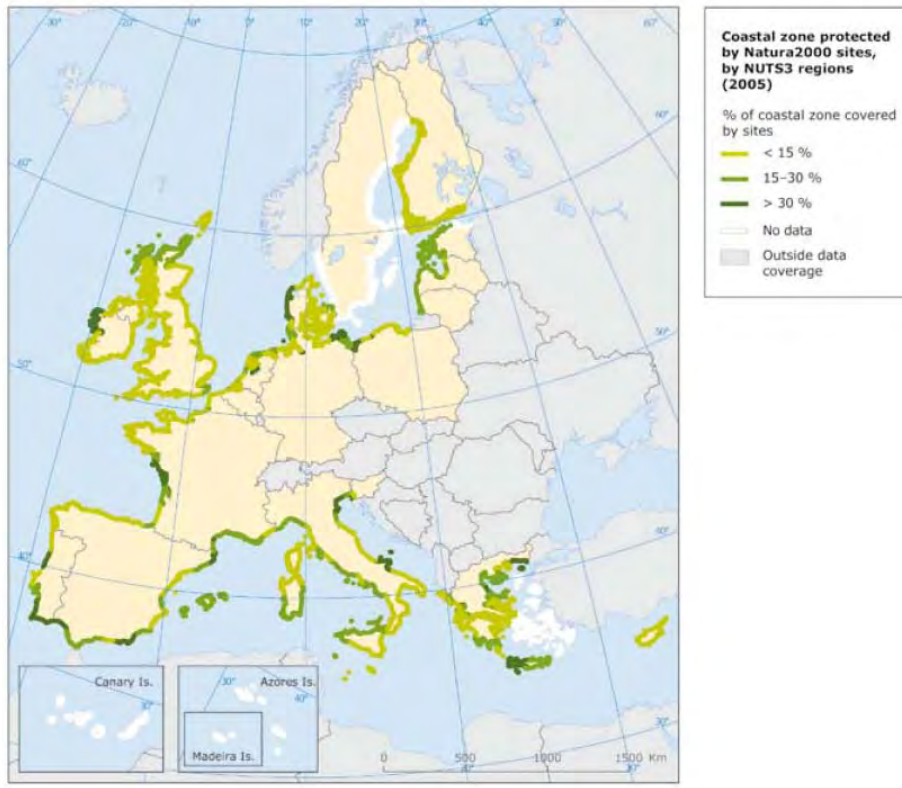
Fred van der Vegte

Europarc, Sept. 12, 2009

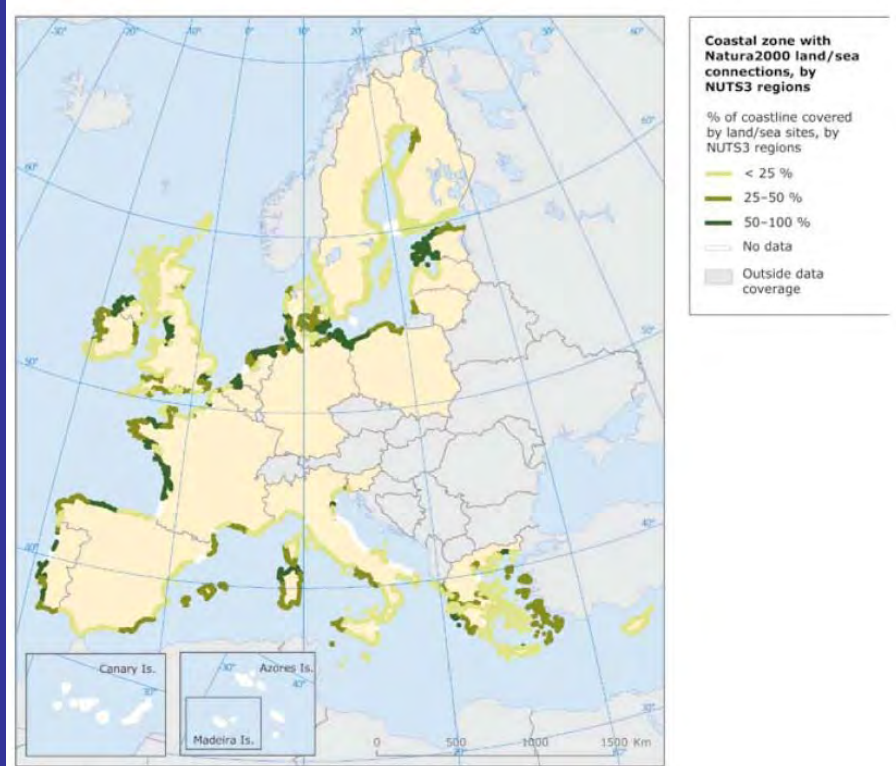


Kust - en Zeebescherming

Map 7 Coastal zone protected by Natura2000 sites (2005)



Map 8 Coastal zone with Natura2000 land/sea connections, by NUTS3 regions



Source: EEA, 2005, based on Natura2000.



THE WADDEN SEA

WORLD WIDE UNIQUE

With its interconnected complex of mud and sand flats, salt marshes, islands, dunes, saltwicks, gullies and open waters, the Wadden Sea is an area of special natural importance. It supports a huge abundance of various species of flora and fauna. Between 10 and 12 million birds visit the area during their migrations every year.

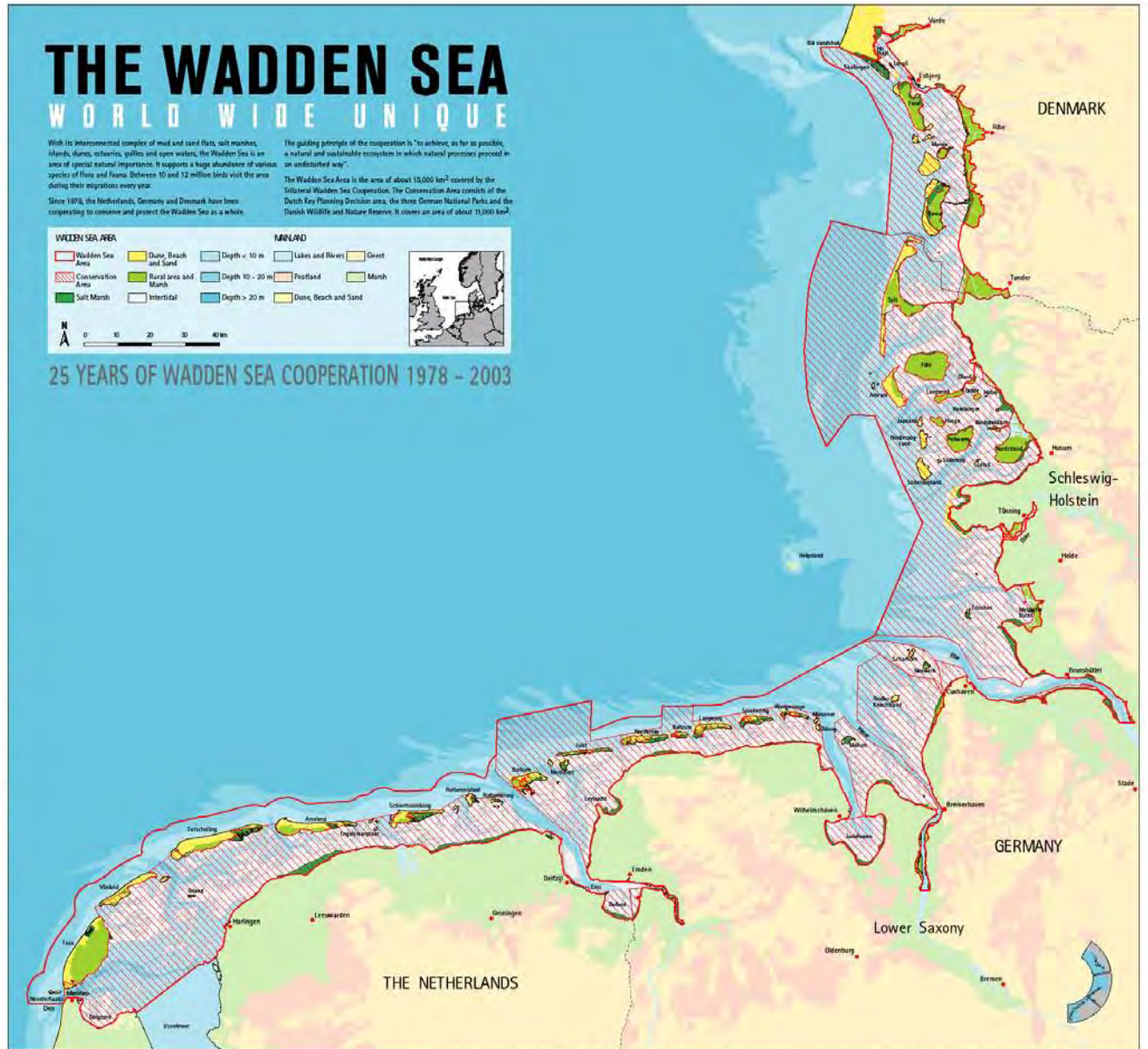
Since 1978, the Netherlands, Denmark and Germany have been cooperating to conserve and protect the Wadden Sea as a whole.

The guiding principle of the cooperation is "to achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way".

The Wadden Sea Area is the area of about 15,000 km² covered by the Trilateral Wadden Sea Cooperation. The Conservation Area consists of the Dutch Key Planning Decision area, the three German National Parks and the Danish Wildlife and Nature Reserve. It covers an area of about 15,000 km².



25 YEARS OF WADDEN SEA COOPERATION 1978 - 2003

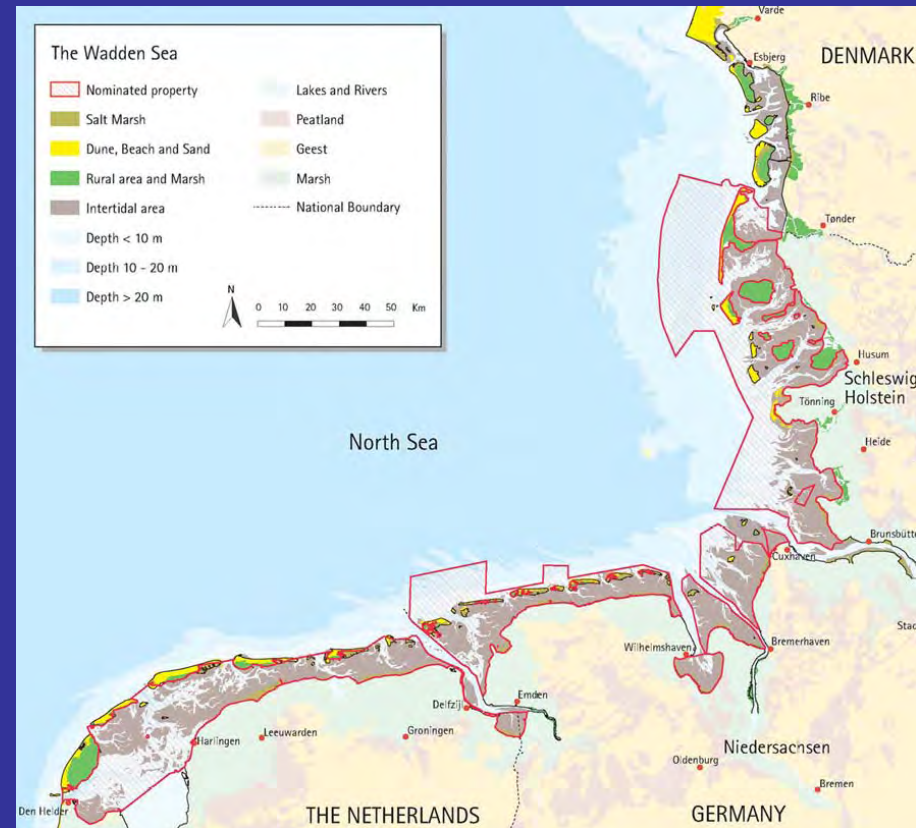


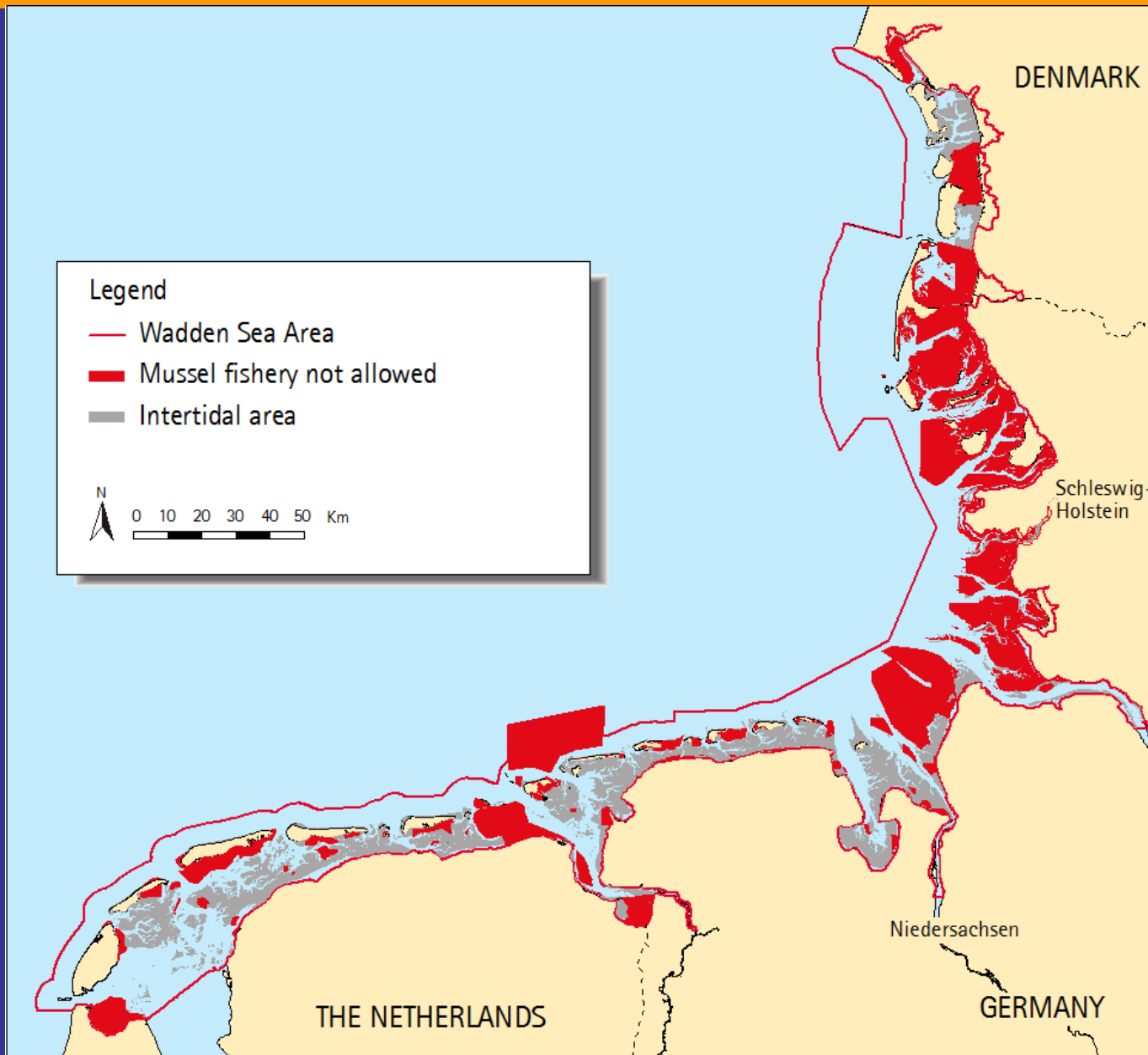
© 2003 by Wadden Sea - Center for Integrated Management. All rights reserved. Reproduction is permitted only for educational purposes. For more information, visit the website: www.waddensea-center.nl

IUCN WORLD HERITAGE NOMINATION – THE WADDEN SEA (GERMANY/THE NETHERLANDS)

Criterion (ix): Ecological processes


- The Wadden Sea is one of the last remaining natural large-scale intertidal ecosystems, where natural processes continue to function largely undisturbed.
- Its geological and geomorphologic features are closely entwined with biophysical processes and provide an invaluable record of the ongoing dynamic adaptation of coastal environments to global change.
- There is a multitude of transitional zones between land, sea and freshwater that are the basis for the species richness of the property.
- The productivity of biomass in the Wadden Sea is one of the highest in the world, most significantly demonstrated in the numbers of fish, shellfish and birds supported by the property.
- The property is a key site for migratory birds, and its ecosystems sustain wildlife populations well beyond its borders.
- *The Wadden Sea (Germany and The Netherlands) 968,393 ha*
- *900 species vascular plants;*
- *176 birds (over 6.1 Million migratory birds at the same time; 10-12M each year)*

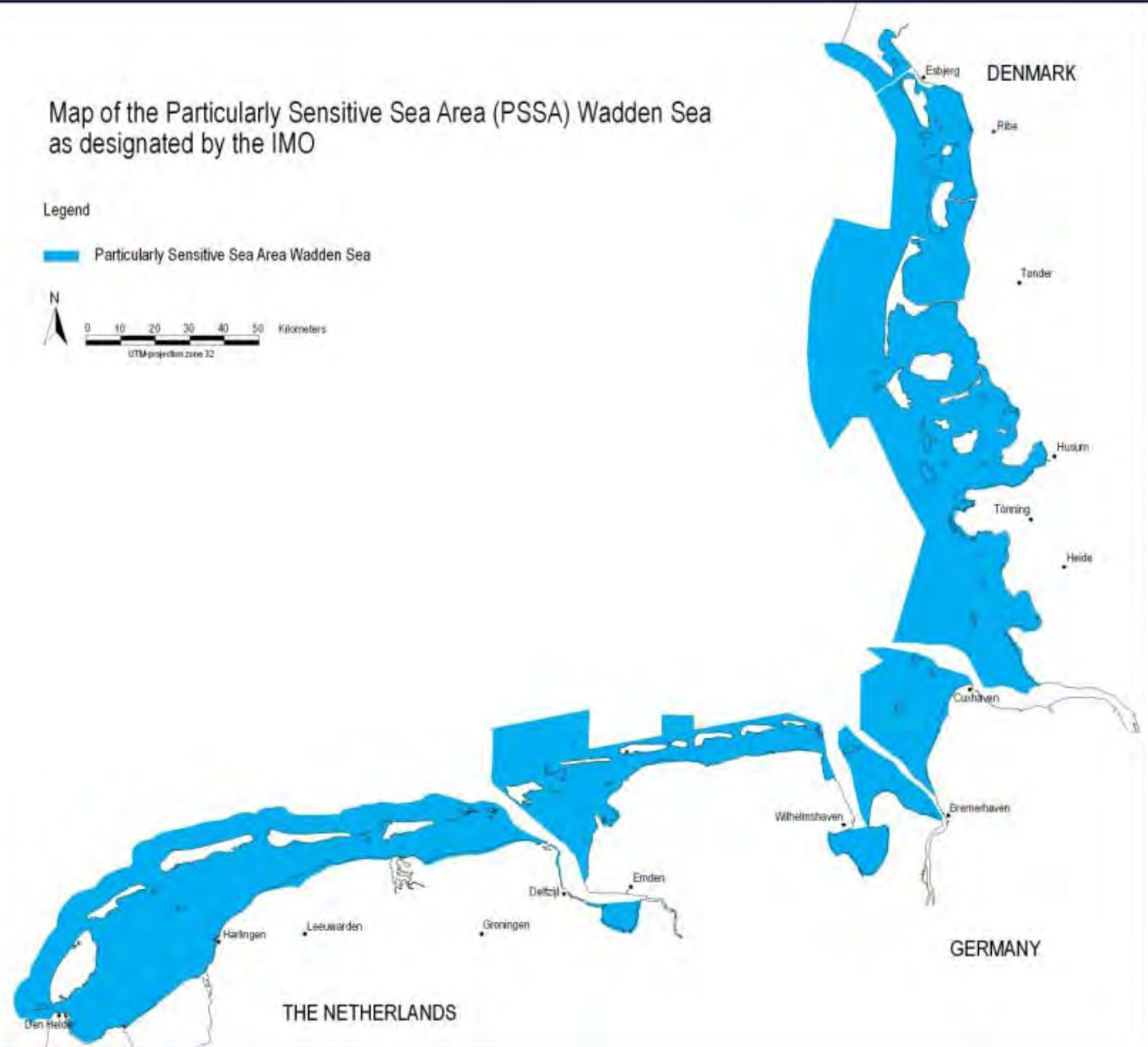
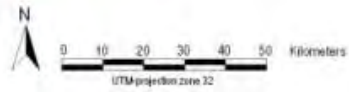




Map of the Particularly Sensitive Sea Area (PSSA) Wadden Sea as designated by the IMO

Legend

 Particularly Sensitive Sea Area Wadden Sea



Traffic regulations

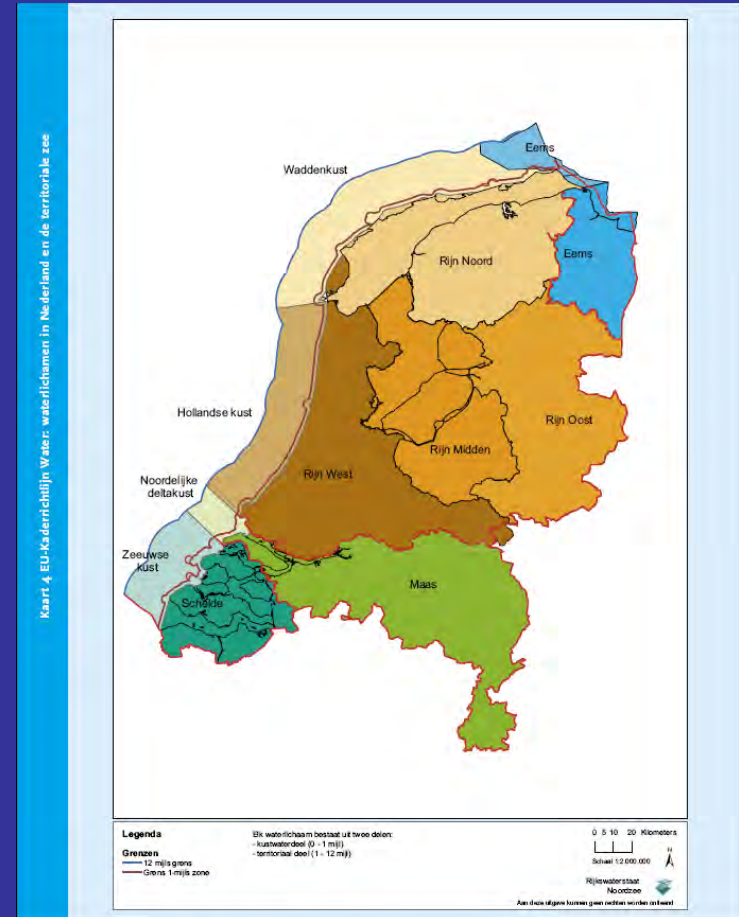


Kaart 5 Bestand gebruik: militaire gebieden, olie- en gaswinning en scheepvaartroutes












Coastal and Marine Conservation

WATER FRAMEWORK DIRECTIVE

- good ecological status - by 2015
- promote sustainable use of water
- reduce pollution of water
- lessen effects of floods and droughts
- management based on the concept of river basin planning



PKB –kaart 4: Water

- 
- Legend:**
-  kustfundament
 -  primaire waterkering
 -  winterbed grote rivieren
 -  ruimte voor de rivieren
 -  prioritaire zwakke schakels
 -  kustlocatie Zuid-Holland
 -  grote open wateren:
 - 1. Waddenzee
 - 2. IJsselmeergebied
 - 3. Zuidwestelijke Delta
 -  voorlopige voorkeursgebieden noodoverloop:
 - A. Rijnstrangen
 - B. Ooijpolder
 - C. oostelijk deel Beersche Overlaat
- ondergrond**
-  vereenvoudigde topografie (exclusief hoofdinfrastructuur)
 -  grens Exclusieve Economische Zone (EEZ) en 12-mijlszone

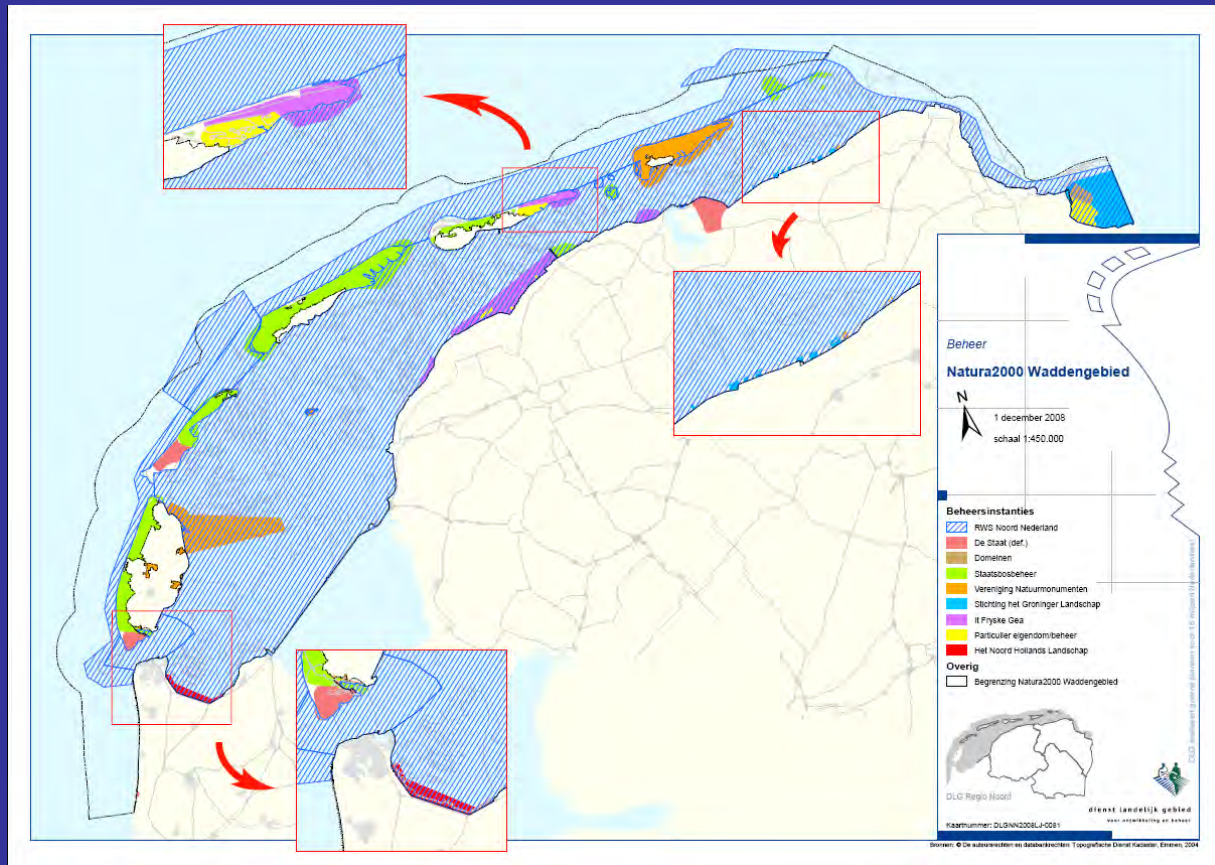
(1:1.500.000)

0 15 30 60 90 120 km

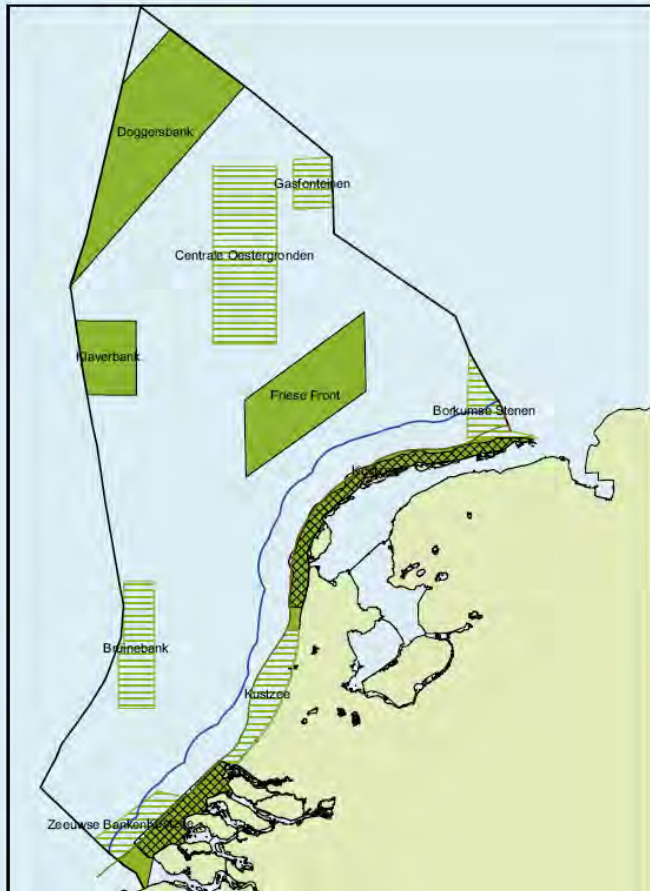


Het kaartbeeld betreft een indicatieve weergave van de in de legenda vermelde eenheden.

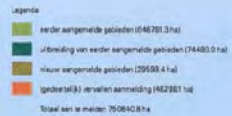
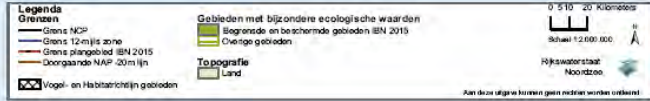
Dutch Waddensea Natura 2000 designations



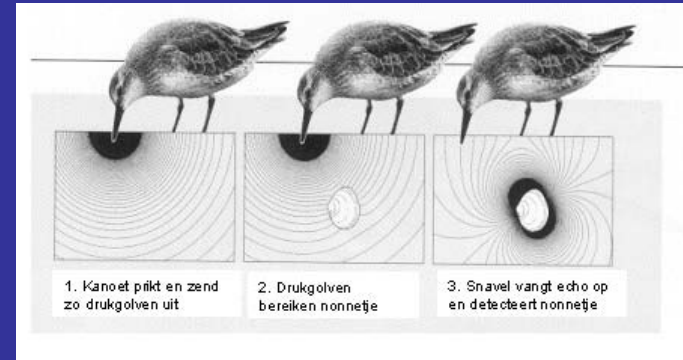
Natura 2000, Habitats and Birds Directives Areas



Kaart 1: Alle gebieden met bijzondere ecologische waarden

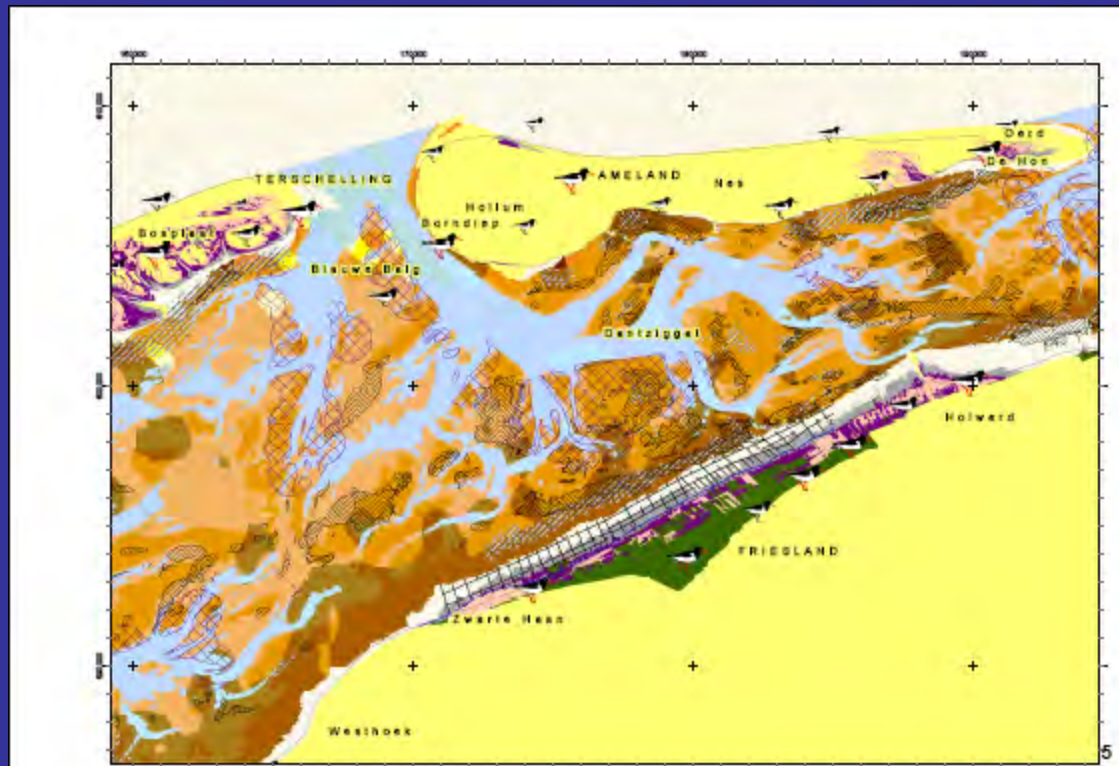
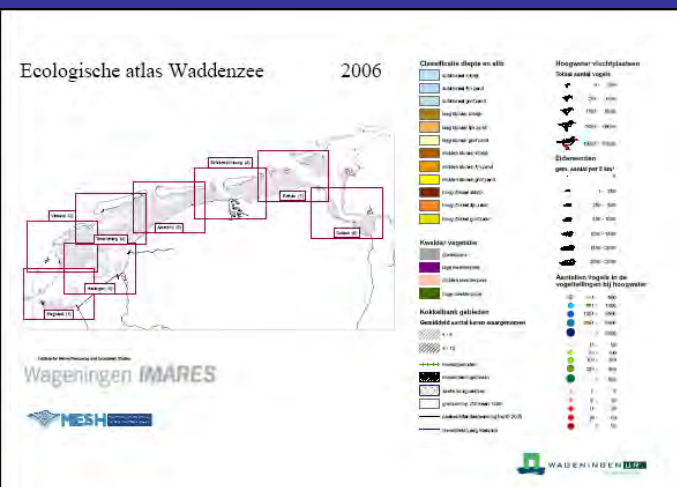


Ecological studies

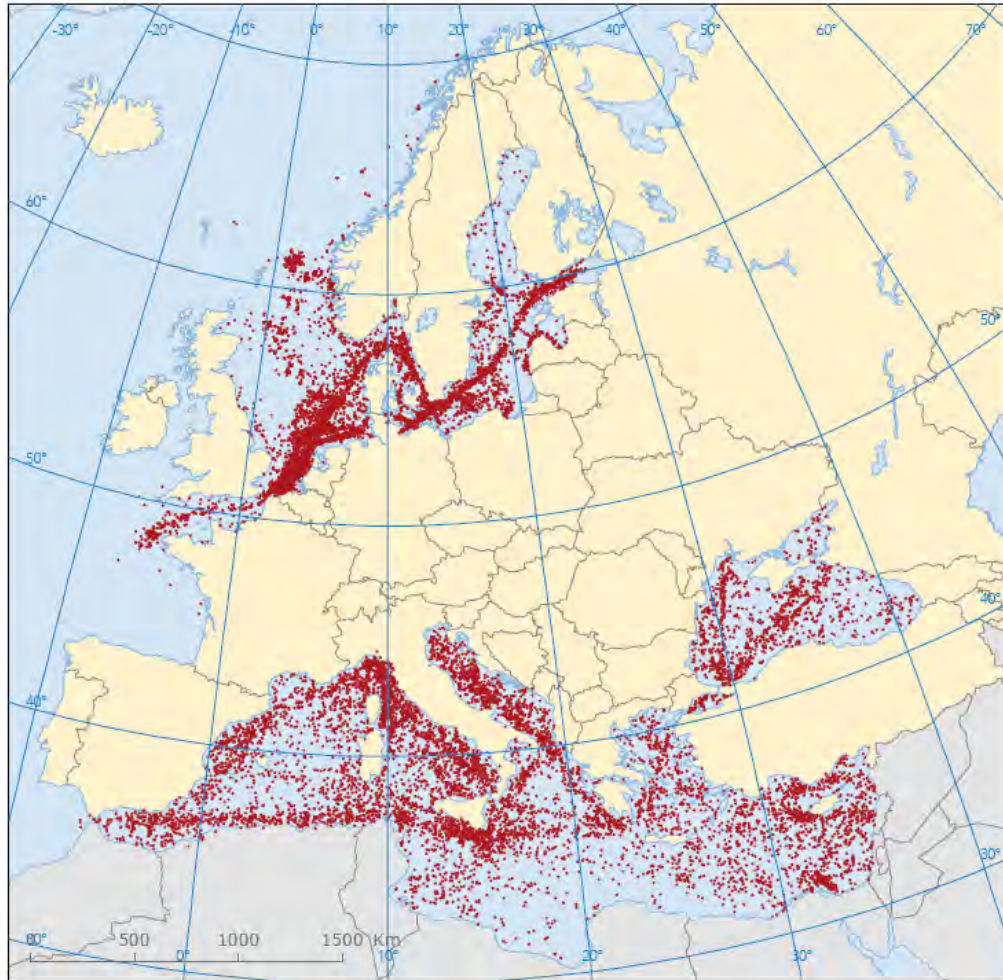


- **Overfishing: 42 % less Knots in 10 years' time**
- **Invading alien mussel species**
- **MOSELWAD: € six million for mussel bed recovery**
- The Coastal & Marine Union (EUCC) has been granted €6 million for the recovery of mussel beds in the Dutch Wadden Sea.
- Within the MOSELWAD project new experimental mussel beds will be constructed and the development of recovering mussel beds will be followed during a four year period.
- The project will look at stability, biodiversity, sediment transport and the importance of wading birds. In this framework, EUCC will actively seek co-operation with other projects and research activities in the Wadden Sea.

Ecological studies



Map 5.4 Illegal operational oil discharges in designated European MARPOL 73/78 special sea areas (2000–2004)



Operational oil discharges detected in European seas, 2000–2004

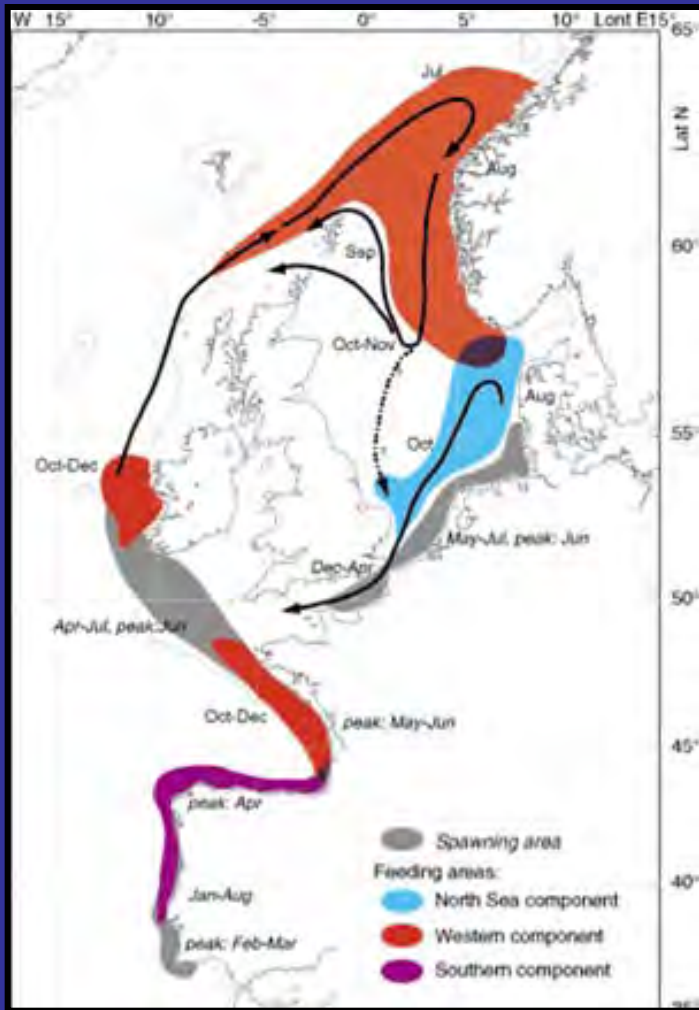
- Oil discharges



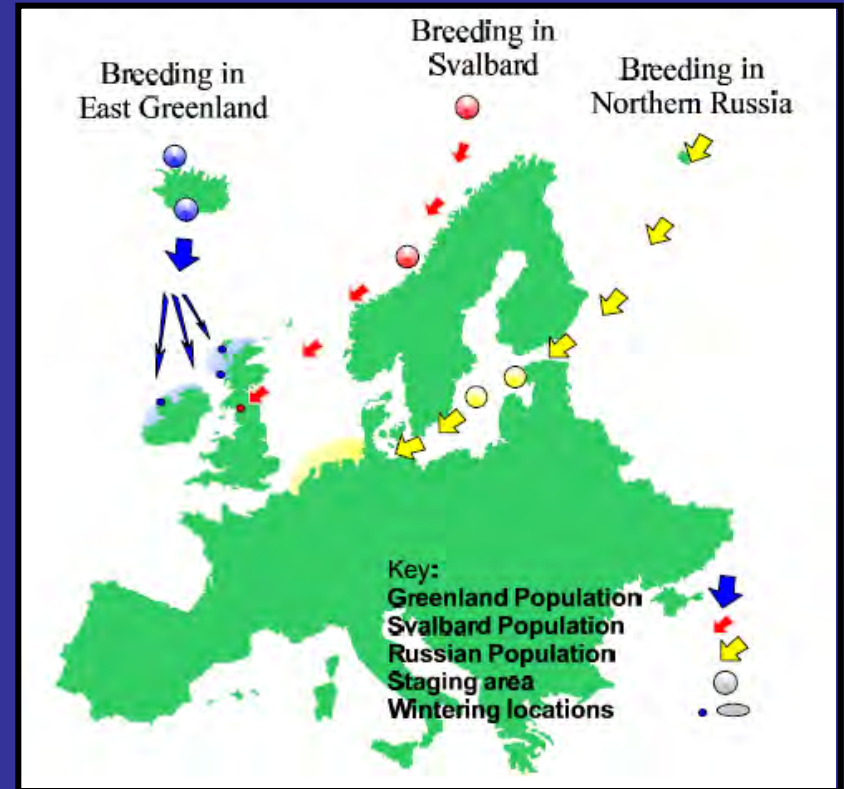
Note: This map covers the North, Baltic, Mediterranean and Black Seas only. In the North and Baltic Seas, illegal operational oil discharges were detected by aerial surveillance. In the Mediterranean and Black Seas, these have been detected by radar satellite images (i.e. 'probable' spills), but not been cross-validated by aerial surveillance. Further, the varying extent of surveillance in different seas may lead to over or under representing the degree of pollution.

Sources: European Commission, DG JRC, Institute for the Protection and Security of the Citizen (IPSC), 2005.

Ecologische verbindingen



Mackerel migration and spawning areas (ICES)



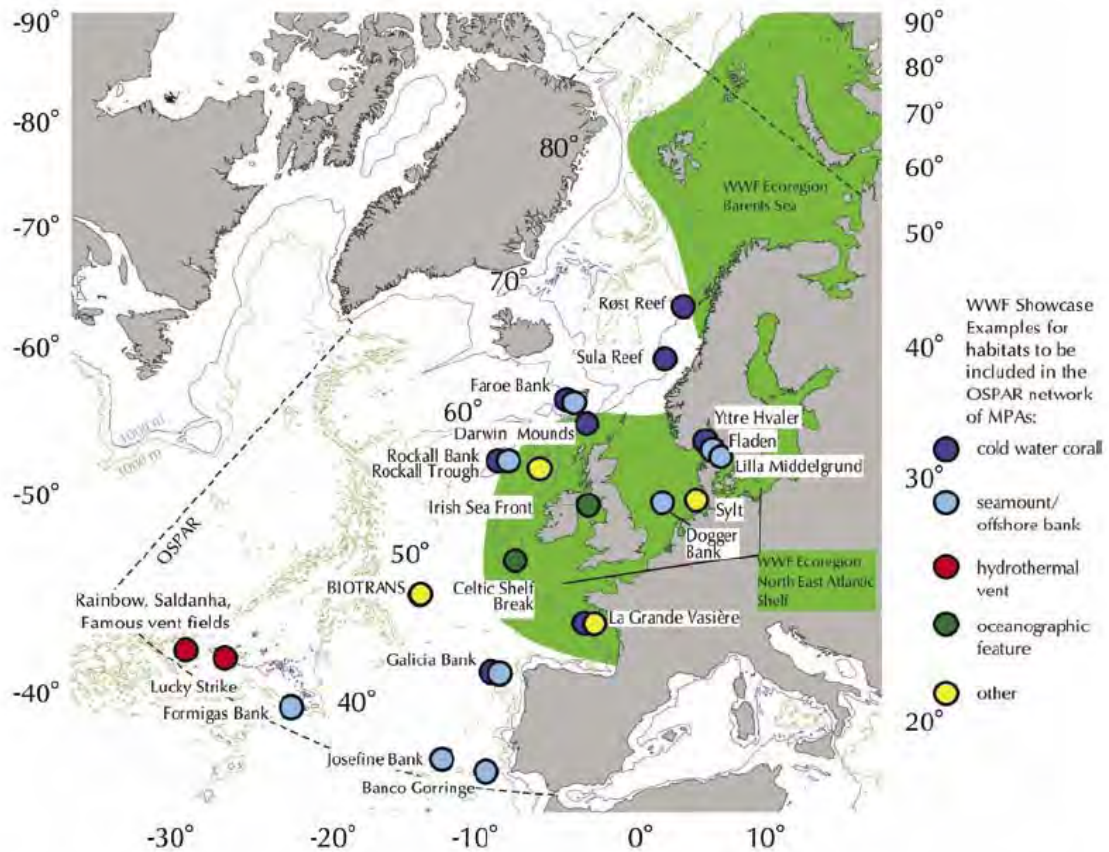
Brent Goose (Rotgans) migration routes in north west Europe (EUCC)

Coastal and Marine Conservation

- 1973 MARPOL Convention
- 1979 EU Birds Directive
- 1981 European Coastal Charter
- 1982 Joint Declaration on
Protection of the Waddensea
- 1988 North Sea Task Force
- 1992 OSPAR Convention
- 1992 EU Habitats Directive
- 2000 EU Water Framework Directive
- 2002 EC Recommendation 2002/413/EEC
(integrated coastal zone management)
- 2007 EU Marine Strategy



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WWF is promoting the set up of a network of MPAs in the Northeast Atlantic to safeguard all habitat types in the region, working with the OSPAR Convention (the instrument guiding international cooperation on the protection of the marine environment of the Northeast Atlantic.)

- Marine Landscapes
 - coastal (seabed + watercolumn)
 - seabed
 - water column of the open seas
- Criteria for national importance
 1. typicalness (habitats, processes)
 2. naturalness (near-natural state)
 3. size (greater extent, more integrity)
 4. biological diversity
 5. critical area critical part of life-cycle)
 6. area important for a nationally-important feature
- NEED FOR SPATIAL PLANNING ?

MARINE NATURE CONSERVATION
AND SUSTAINABLE DEVELOPMENT

The Irish Sea Pilot



REPORT TO DEFRA BY
THE JOINT NATURE
CONSERVATION COMMITTEE

JOINT
NATURE
CONSERVATION
COMMITTEE

defra
Department for Environment,
Food and Rural Affairs

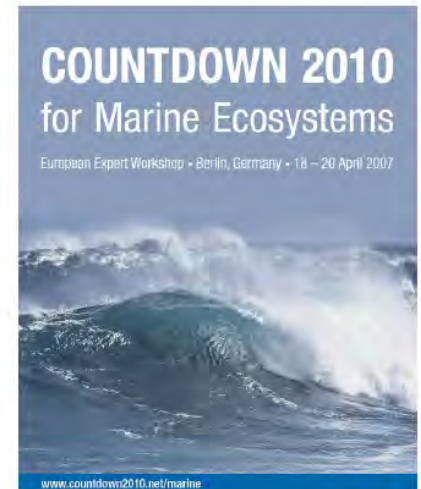
Isle of Man
Government
Kullagh - Kullagh - Kullagh

Germany

HABITAT MARE NATURA 2000

Research and Protection for the North Sea and the Baltic Sea

Henning von Nordheim and Carl Gustaf Lundin (Eds.)
Countdown 2010 for Marine Ecosystems



BfN - Skripten 218

2007



- good environmental status of the EU's marine waters by 2021
- to protect the resource base upon which marine-related economic and social activities depend
- to achieve the full economic potential of oceans and seas in harmony with the marine environment



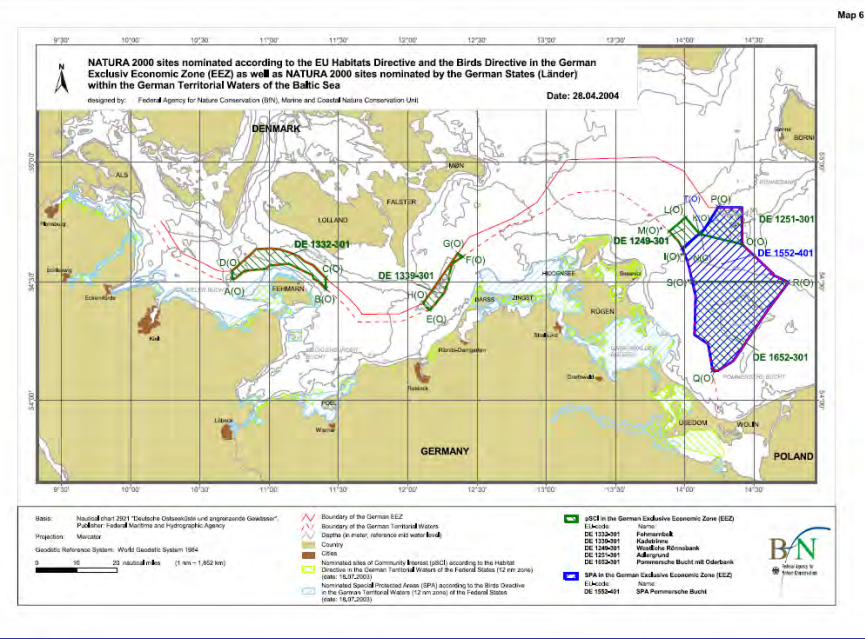
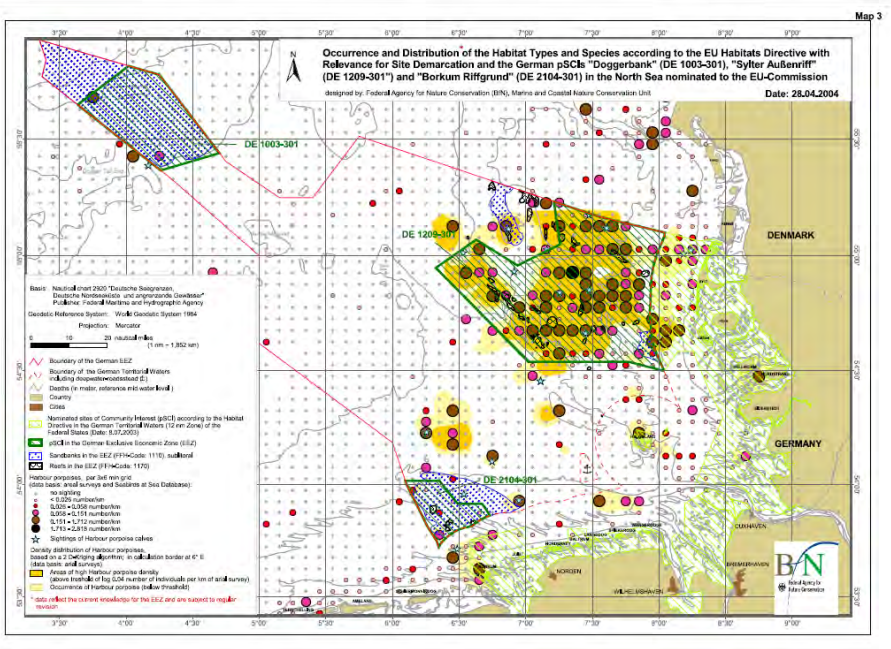
- ... pressures on natural marine resources and the demand for marine ecological services are often too high
- ...aimed at the conservation of the marine ecosystems, including protected areas
- Coastal waters, including their seabed and subsoil, are an integral part of the marine environment,
- Monitoring: It is crucial for spatial protection measures such as special areas of conservation, special protection areas or marine protected areas
- "Environmental status" means the overall state of the environment in marine waters, ... as well as physical, **acoustic** and chemical conditions

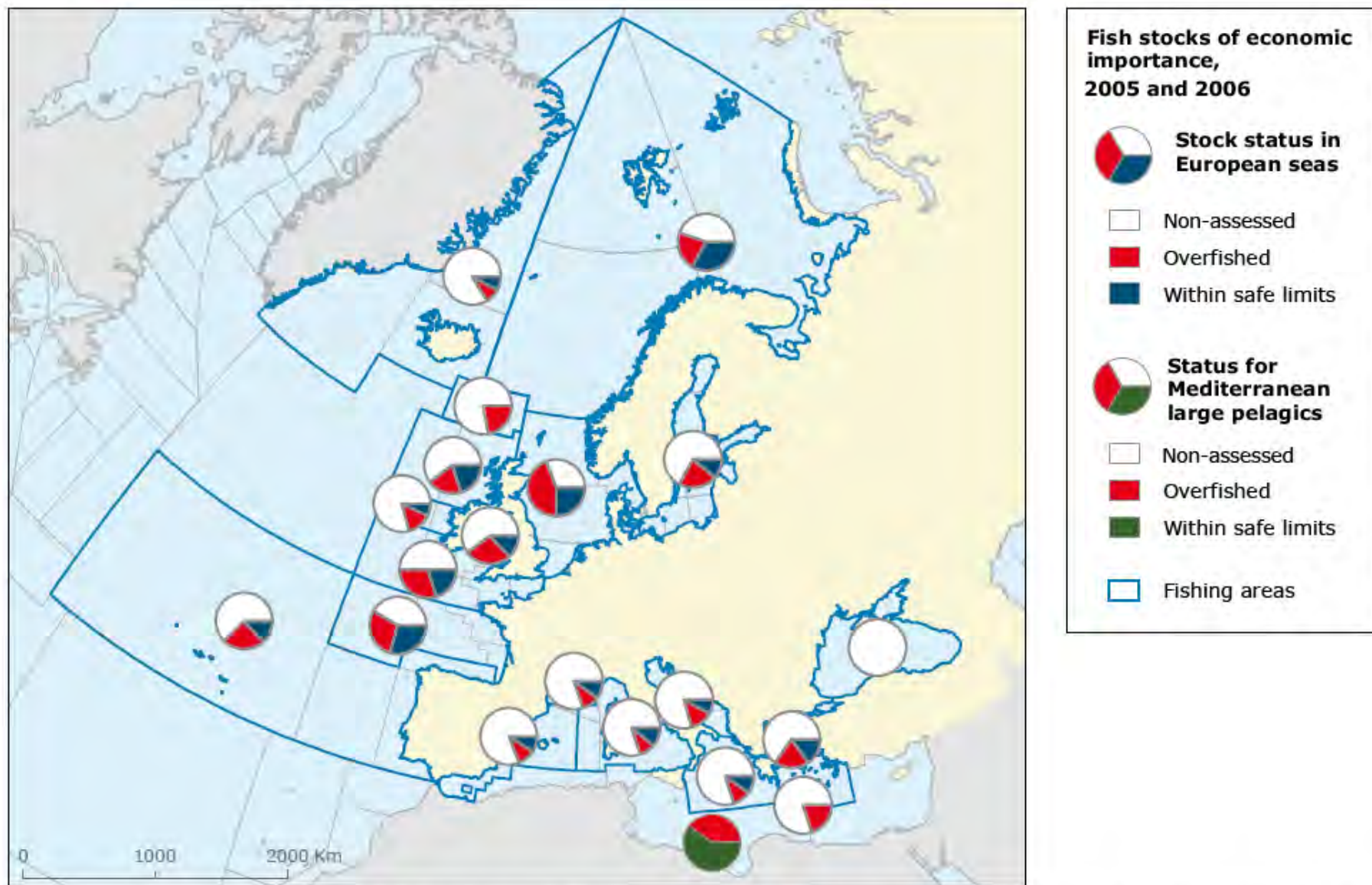


Germany

Harbour porpoise / bruinvis

Natura 200 sites





Note: Assessment based on the EEA CSI32, but with a different aggregation for Iceland, East Greenland and the Faroe Islands following the ICES fishing areas. Not all the seas assessed in this chapter are represented above. All data are from 2006 except for the Mediterranean Sea, which are from 2005 (GFCM, 2005; ICCAT, 2005a; 2005b).

Source: EEA CSI32.