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The Netherlands and the designation of marine protected areas in the North Sea
Implementing international and European law

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1. Introduction

In 2002 the states attending the World Summit on Sustainable Development (WSSD) in Johannesburg agreed to establish representative networks of marine protected areas (MPAs) by 2012.[1] The declaration adopted at the fifth North Sea Ministerial Conference that was convened in Bergen, Norway in 2002 set the even more ambitious target of 2010 for the creation of a network of MPAs within the North Sea.[2] This article addresses the contribution that is made by the Netherlands to the North Sea MPA network. It focuses on legal questions related to the designation of MPAs for nature conservation purposes in the territorial sea and the exclusive economic zone of the Netherlands. MPAs that are located in internal waters such as the Wadden Sea are only covered if they also extend to the North Sea. The article does not address legal questions related to the protection and management of designated MPAs, including the regulation of maritime activities such as fishing and shipping, which will be the subject of a follow-up article.

Section 2 of this article introduces the Netherlands part of the North Sea from a legal and environmental perspective, summarizing the maritime zones and specific areas that have been identified therein as being of ecological importance. Section 3 identifies the requirements for the Netherlands with regard to the designation of MPAs as contained in relevant treaties and EU law. Section 4 considers the implementation of these requirements by the Netherlands. Section 5 contains an appraisal. Section 6 contains some concluding remarks.

2. Maritime zones and ecologically important areas

2.1. Netherlands maritime zones

The North Sea is a shallow sea on the eastern fringes of the North Atlantic. It is a unity in a physical and ecological sense, but it is legally divided into jurisdictional or maritime zones. The claims of the eight coastal states (Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden and the United Kingdom) effectively cover the entire region. The Netherlands

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1 2002 Plan of Implementation of the World Summit on Sustainable Development (UN Doc. A/CONF.199/20/Rev.1), Para. 32(c).

2 2002 Bergen Declaration, Para. 7.

exercises jurisdiction in its respective part of the North Sea, which covers an area of about 57,000 square kilometres (see Figure 1). It has adopted legislation in relation to all maritime zones that it is entitled to establish as a coastal state under the United Nations Convention on the Law of the Sea (UNCLOS) to which it is a Contracting Party.[3] The maritime zones that are most relevant in the context of MPAs are the territorial sea and the exclusive economic zone (EEZ).[4]

The territorial sea of the Netherlands extends to 12 nautical miles measured from the baselines defined in the 1985 Act on the Limits of the Territorial Sea.[5] The waters located on the landward side of the baselines are internal waters, which include the larger part of the delta areas in the South and the Wadden Sea in the North.[6] The Netherlands has concluded a bilateral treaty with Belgium for the delimitation of the lateral boundary of the territorial sea in the South. The territorial boundary in the North in the Ems-Dollard estuary and the adjacent territorial sea has not yet been settled. Germany and the Netherlands have concluded treaties to facilitate cooperation, joint water management and nature conservation in this area.

The Netherlands established an EEZ in 2000.[7] It comprises the area outside and adjacent to the territorial sea of the Netherlands up to the maritime boundaries defined in the treaties concluded on earlier occasions with each of the neighbouring states (Belgium, Germany and the United Kingdom) for the delimitation of the continental shelf.[8] The Netherlands claims all of the rights that it is entitled to claim as a coastal state in the EEZ under Article 56(1) of the UNCLOS: (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from water, currents and winds; and (b) jurisdiction with regard to the establishment and use of artificial islands, installations and structures, marine scientific research, and the protection and preservation of the marine environment.[9] These rights are to be exercised in accordance with the restrictions existing under international law, which include respect for the rights of other states and more specifically the freedoms of navigation, overflight and the laying of cables and pipelines.[10]

The EEZ incorporates all rights exercised by the Netherlands since the 1960s related to the exploration and exploitation of mineral resources such as oil, gas, sand and gravel found on the continental shelf, as well as those related to fisheries in the (exclusive) fishery zone that was established by the Netherlands in 1977.[11] Reference to the continental shelf and the fishery zone remains relevant, because national legislation still refers to these zones. The fishery zone also differs spatially from the EEZ, because it comprises both the territorial sea and the EEZ.

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3 1982 United Nations Convention on the Law of the Sea (21 *ILM* (1982), p. 1261). General information regarding the maritime zones of the Netherlands, including maps, is available on the website of the Netherlands Hydrographic Service at: <http://www.hydro.nl/>. English translations of relevant national legislation and maritime boundary delimitation agreements are available on the website of the United Nations Division for Ocean Affairs and the Law of the Sea (DOALOS), section 'Maritime space: national legislation and treaties' at: <http://www.un.org/Depts/los/>.

4 The Netherlands has also established a contiguous zone extending beyond the territorial sea up to 24 nautical miles, but this zone has no direct relevance for marine protected areas and is therefore not discussed in this article. For more information see: H.M. Dotinga & A.G. Oude Elferink, 'The Netherlands: Establishment of a Contiguous Zone', 2007 *International Journal for Marine and Coastal Law* 22, pp. 317-330.

5 Netherlands Territorial Sea (Demarcation) Act of 9 January 1985 (*Wet grenzen Nederlandse territoriale zee, Staatsblad* 1985, 129), Arts. 1 and 2.

6 *Ibid*., Art. 2(2).

7 Kingdom Act of 27 May 1999 establishing an Exclusive Economic Zone (*Rijkswet instelling exclusieve economische zone, Staatsblad* 1999, 281), Art. 1(1). The Act entered into force on 28 April 2000, as established by the Decree of 13 March 2000 (*Besluit grenzen Nederlandse exclusieve economische zone, Staatsblad* 2000, 167).

8 Decree of 13 March 2000, *supra* note 7, Art. 1.

9 EEZ Act, Art. 3.

10 *Ibid*. See also Art. 56(2) and 58 of the UNCLOS.

11 Establishment of Fishing Zone Act of 8 June 1977 (*Machtigingswet instelling visserijzone, Staatsblad* 1977, 345).

From the point of view of MPAs, it is relevant to note that the EEZ was primarily established by the Netherlands to enhance the protection and preservation of the marine environment. Initially, this was only done to exercise jurisdiction in relation to vessel-source pollution and dumping in the EEZ for which national legislation was amended. More recently, the Dutch Government has recognized that it also offers opportunities to enhance the protection of species and habitats in the EEZ. In this respect, the establishment of MPAs is one of the principal measures currently pursued by the Netherlands. This process is largely driven by the legal requirements related to MPAs contained in the treaties and EU instruments discussed below.

2.2. Ecologically important areas

Notwithstanding the relatively uniform appearance of the North Sea to the casual observer, several areas stand out on account of a higher biodiversity or other special ecological features. In the Netherlands sector of the North Sea, which is located entirely in the sea's Southern half, ten such ecologically important areas have been identified. Pertinent scientific knowledge remains incomplete, however, and research is ongoing. The areas are briefly introduced here (see also Figure 2).[12] In order of appearance and with their Dutch names between brackets, they are:

1 Coastal Sea (*Kustzee*);
2. Dogger Bank (*Doggersbank*);
3. Cleaver Bank (*Klaverbank*);
4. Frisian Front (*Friese Front*);
5. Central Oyster Grounds (*Centrale Oestergronden*);
6. Borkumse Stones (*Borkumse Stenen*);
7. Zeeuwse Banks (*Zeeuwse Banken*);
8. Brown Bank (*Bruine Bank*);
9. Gas Seeps (*Gasfonteinen*);
10. Arctica Area (*Noordkrompgebied*).

Broadly speaking, scientific information regarding the first mentioned five areas is more comprehensive than for the latter five. The Coastal Sea, the Zeeuwse Banks and part of the Borkumse Stones are located within the territorial sea; the remainder of the ecologically important areas are located in the Netherlands EEZ.

The **Coastal Sea** stretches along the entire Dutch coastline, from the areas bordering on the large delta area in the South (*Vlakte van de Raan* and *Voordelta*) to the area bordering on the Wadden Sea in the North. The area is characterized by a high primary productivity and the presence of rich communities of bottom-dwelling organisms (zoobenthos), including important concentrations of shellfish, whereas the diversity of fish species is also comparatively high. The parts of the Coastal Sea situated off the delta and the Wadden Sea harbour significant numbers of common and grey seals, and harbour porpoises can be encountered throughout the entire area. Last but not least, the Coastal Sea is a key bird area. It is at the top of the list both in terms of absolute numbers of birds as well as the amount of bird species. These vary depending on the

12 This section is based predominantly on H. Lindeboom *et al.*, *Areas with Special Ecological Values on the Dutch Continental Shelf*, 2005. See also E. Hugenholtz, *The Dutch Case: a Network of Marine Protected Areas*, 2008; S. Christiansen & S. Lutter, *Towards Good Environmental Status. A Network of Marine Protected Areas for the North Sea*, 2009, pp. 41-45; and the documentation made available by the North Sea Foundation (*Stichting De Noordzee*) on <www.noordzee.nl>.

season and include various diver, seaduck, gull and tern species. Groups of over 100,000 common scoters and over 50,000 eider ducks have been sighted.

Furthest offshore is the **Dogger Bank**, a huge, permanently submerged sandbank on the divide between the Northern and Southern North Sea. The Bank features a remarkable zoobenthos diversity and many fish use the area as foraging and nursery grounds, including rare species such as the thornback ray. The plentiful (juvenile) fish, in turn, attract large numbers of seabirds and cetaceans. It should be noted that the Dogger Bank extends across the limits of the Netherlands sector of the North Sea into the waters of the United Kingdom, Germany and Denmark. The **Cleaver Bank**'s most distinctive feature is that its surface consists predominantly of gravel and boulders rather than sand, with a representative calcareous red algal cover. The Bank has the highest known zoobenthos biodiversity in the Netherlands part of the North Sea, including the soft corals known as dead man's fingers. Distinctive seabird and harbour porpoise concentrations have also been observed.

The nutrient-rich slope between the shallower and deeper parts of the Dutch North Sea known as the **Frisian Front** hosts a wealth of small fish like herring and sand eels. These provide a substantial food source for seabirds. After breeding in the UK, tens of thousands of guillemots migrate to this area to moult and keep their not yet fully-fledged chicks company – a rare phenomenon in the Southern part of the North Sea. In the autumn the area is also particularly important for great skuas. Finally, the Frisian Front is home to a substantial population of the ocean quahog (*Arctica islandica),* an increasingly rare species of shellfish which is famous for its longevity (one ocean quahog found near Iceland in 2006 was over 400 years of age). Ocean quahogs also occur on the clay-like seafloor of the **Central Oyster Grounds**. Although the extensive oyster banks of the past survive only in name, the area continues to harbour significant zoobenthos and seabird populations.

As mentioned before, data are as yet more deficient in respect of the remaining five areas. The **Borkumse Stones** border on the Coastal Sea near the island of Schiermonnikoog and straddle the maritime boundary with Germany. Besides featuring a special zoobenthos, it provides above-surface resting places (haulout sites) and prey for seals. Down the other end of the Coastal Sea lies another contiguous area of potential ecological interest, the **Zeeuwse Banks**, consisting mainly of submerged, continuously shifting sandbanks. In the **Brown Bank** area, elevated numbers of seabirds and harbour porpoises have been recorded. Nevertheless, more monitoring is needed to establish whether these observations are due to chance or actually represent a characteristic of the area. As its name indicates, the **Gas Seeps** area contains a high concentration of fountains or seeps where gas escapes from the sediment. It is not yet clear, however, whether the peculiar micro-flora and biogenic structures typically associated with such seeps are present. The Gas Seeps continue into the German EEZ. Only very recently, scientists discovered a relatively undisturbed tract of North Sea floor with a thriving and varied shellfish community. Since the latter included a healthy population of the aforementioned ocean quahog, the site was denominated the **Arctica Area**.

In terms of human activity, the North Sea is one of the world's busiest seas. A wide range of human activities potentially or actually affect the ecological values of the areas just discussed. These include fishing, shipping, oil and gas extraction, sand extraction and suppletion, gravel extraction, land reclamation, wind energy production, military operations and the laying of cables and pipelines. Apart from the direct impacts of these activities on the marine ecosystems and biodiversity in question, the effects of contamination – whether land-based, vessel-sourced or accidental, and whether chemical, acoustic or otherwise – and of climate change should be mentioned. The consequences of the human uses of the North Sea vary from area to area, habitat

to habitat, and species to species. The vulnerability to oil slicks of the relatively immobile juvenile guillemots frequenting the Frisian Front and the adverse impact of bottom trawl fisheries on the zoobenthos of many areas can serve by way of illustrations.

3. Designation requirements

3.1. Global and regional treaties

The Netherlands is a Contracting Party to a large number of global and regional treaties that deal directly or indirectly with MPAs. Relevant global treaties include, first of all, two global framework treaties: the UNCLOS and the Convention on Biological Diversity (CBD).[13] Other pertinent global treaties include the Ramsar Convention on Wetlands,[14] the World Heritage Convention,[15] and the Bonn Convention on Migratory Species (CMS).[16] Relevant regional treaties include the CMS Agreement on the Conservation of Seals in the Wadden Sea (WSSA),[17] the CMS Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS),[18] the CMS Agreement on the Conservation of African-Eurasian Waterbirds (AEWA),[19] the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention),[20] and the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).[21] The geographical scope of these treaties extends, with two exceptions,[22] to all maritime zones of the Contracting Parties, including therefore the Netherlands territorial sea *and* EEZ.[23] The treaties differ considerably from a substantive point of view and the content of the rules contained therein varies from being very general to very specific. Each treaty contains provisions related to or relevant for the designation of MPAs. The treaties are discussed below starting with the global treaties and then the regional treaties.[24]

The UNCLOS does not explicitly oblige coastal states to establish MPAs in areas that fall within their jurisdiction, but it does require them to protect and preserve the marine environment

13 1992 Convention on Biological Diversity (31 *ILM* (1992), p. 818).
14 1971 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (11 *ILM* (1972), p. 963).
15 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (11 *ILM* (1972), p. 1358).
16 1979 Convention on the Conservation of Migratory Species of Wild Animals (19 *ILM* (1980), p. 15).
17 1990 Agreement on the Conservation of Seals in the Wadden Sea, available at: <www.cms.int> and <www.waddensea-secretariat.org>.
18 1992 Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas, available at: <www.cms.int> and <www.ascobans.org>.
19 1995 Agreement on the Conservation of African-Eurasian Migratory Waterbirds, available at: <www.cms.int> and <http://www.unep-aewa.org>.
20 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (32 *ILM* (1993), p. 1072).
21 1979 Convention on the Conservation of European Wildlife and Natural Habitats (*European Treaty Series*, no. 104).
22 The exceptions are the Ramsar Convention that covers coastal wetlands that normally do not extend beyond the territorial sea and the WSSA that has a geographical scope that is limited to the Wadden Sea and the adjacent territorial sea of Denmark, Germany and the Netherlands up to three nautical miles of their baselines.
23 See CBD, Art. 4; CMS, Art. I(1)(h); AEWA, Art. I(1) and II(1); ASCOBANS, Art. 1(2) and 2(2); OSPAR Convention, Art. 1(a). The geographical scope of the World Heritage Convention is not specified and several substantive provisions only refer to the territory of the Contracting Parties, but there appears to be at least one world heritage site that extends beyond the internal waters and territorial sea of a Contracting Party (Australia's Great Barrier Reef). The Bern Convention also refers only to territory, but its objectives and substantive provisions seem broad enough to apply to all areas within the jurisdiction of the Contracting Parties.
24 Another relevant treaty that is not discussed here is the 1946 International Convention for the Regulation of Whaling (161 *UNTS* 72), which allows for the establishment of whaling sanctuaries under Art. V(1)(c). Also noteworthy but not discussed are the area-based measures in relation to shipping that are available under various instruments adopted within the framework of the International Maritime Organization. The North Sea has been designated as a Special Area under Annex I (oil) and V (garbage) and as a SOx Emissions Control Area under Annex VI (air pollution) of the 1973/1978 International Convention for the Prevention of Pollution from Ships (MARPOL) (12 *ILM* (1973), p. 1319; 17 *ILM* (1978), p. 546). The Wadden Sea and the adjacent North Sea areas up to three nautical miles from the baselines of Denmark, Germany and the Netherlands were designated as a Particularly Sensitive Sea Area (PSSA) in 2002 (see IMO Doc. MEPC 48/7/2, 28 June 2002). The Western European Waters that were designated in 2004 as a PSSA include parts of the North Sea, but this PSSA does not extend to the maritime zones of the Netherlands (see IMO Doc. MEPC 49/8/1, 11 April 2003).

in general and to adopt measures 'necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.'[25] The establishment of MPAs is clearly one of the measures that can contribute to this. The UNCLOS undoubtedly allows coastal states to adopt such measures in their territorial sea and EEZ, provided they do not affect the rights of other states. Consultation of other states and/or the involvement of the competent international organizations may be required to prohibit, restrict or regulate activities involving the rights of other states such as shipping in or outside these MPAs.

The CBD requires Contracting Parties to adopt a wide range of *in situ* conservation measures, which includes the establishment of protected areas. *In situ* conservation is defined as 'the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings'.[26] Contracting Parties are required 'as far as possible and as appropriate' to establish a 'system of protected areas or areas where special measures need to be taken to conserve biological diversity'.[27] The CBD leaves the Contracting Parties with considerable discretion as to how to meet these obligations, but it does assume that protected areas will be established if it is the most appropriate way to conserve biodiversity and the state involved has the capacity to do so. Relevant in this respect are the requirements for each Contracting Party to identify, monitor and assess important components of biodiversity in areas that fall within its jurisdiction.[28] The results of these inventories will play an important role in deciding if and where the establishment of protected areas can contribute to the conservation of biodiversity. The CBD does not have annexes or appendices with lists of species and/or areas that require special protection, but Annex I contains an indicative list of categories that parties may want to give priority to. There is no specific designation process or reporting requirements for the Contracting Parties, but the CBD Conference of the Parties (COP) has adopted several decisions in relation to marine and coastal protected areas. They include overall goals and targets, general scientific criteria for identifying ecologically or biologically significant marine areas in need of protection and technical guidance for selecting areas to establish a representative network of MPAs.[29] The ultimate goal is to establish a global network of MPAs by 2012.[30]

The Ramsar Convention deals exclusively with the conservation and wise use of wetlands, including marine and coastal wetlands.[31] Each Contracting Party is required to designate suitable wetlands within its territory for inclusion in the Ramsar List of Wetlands of International Importance.[32] Wetlands are to be selected for the List on the basis of their significance in terms of ecology, botany, zoology, limnology, or hydrology.[33] The Ramsar COP has developed more specific criteria that are organized in two groups: sites containing representative, rare or unique wetland types and sites of international importance for conserving biodiversity.[34] Contracting Parties are required to 'formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their

25 Arts. 192 and 194(5).
26 Art. 2.
27 Art. 8(a).
28 Art. 7.
29 CBD COP Decisions VII/5 (2004) and IX/20 (2008).
30 CBD COP Decision VII/5 (2004), Paras. 18-19 and Annex I, programme element 3 and CBD COP Decision VII/28 (2004), Para. 18.
31 Arts. 1(1) and 2(1). Generally, see M.J. Bowman, 'The Ramsar Convention on Wetlands: Has it Made a Difference?', 2002 *Yearbook on International Cooperation on Environment and Development* 10, pp. 61-68.
32 Art. 2(1).
33 Art. 2(2).
34 See Chapter 5 of the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance of the Convention on Wetlands (Ramsar, Iran, 1971), third edition, as adopted by Resolution VII.11 (COP7, 1999) and amended by Resolutions VII.13 (1999), VIII.11 and VIII.33 (COP8, 2002), IX.1 Annexes A and B (COP9, 2005), and X.20 (COP10, 2008).

territory' and to 'promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether they are included in the List or not, and provide adequately for their wardening.'[35]

The World Heritage Convention requires Contracting Parties to ensure to the utmost of their resources 'the identification, protection, conservation, presentation and transmission to future generations' of the natural heritage situated on their territory, which can include also marine areas.[36] Natural heritage is defined to comprise 'geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation' and 'natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.'[37] The identification and demarcation of such natural sites is entirely the responsibility of the Contracting Party involved.[38] Each Contracting Party is to submit an inventory of sites on its territory and can subsequently nominate individual sites for inclusion on the World Heritage List by the World Heritage Committee.[39] To be included on the List, sites must be of outstanding universal value and meet at least one of the strict selection criteria that are contained in the Operational Guidelines for the Implementation of the World Heritage Convention.[40] Two of these criteria are: sites that are 'outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals' and sites that contain 'the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation'.[41] Contracting Parties are expected to take effective and active conservation measures for all sites that have been identified as natural heritage, including sites that are *not* on the World Heritage List. This includes the adoption of 'appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage'.[42]

The CMS is aimed at the conservation of migratory species of wild animals, including a variety of marine species.[43] The treaty is primarily aimed at species protection, but it also pays attention to the conservation of their habitats. Habitats are defined to include 'any area in the range of a migratory species which contains suitable living conditions for that species'.[44] For endangered migratory species listed in Appendix I (that includes species such as the sperm whale, the humpback whale, the leatherback turtle, the basking shark and the Atlantic sturgeon) range states are obliged to endeavour:

> 'a. to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction;

35 Arts. 3(1) and 4(1).
36 Art. 4.
37 Art. 2.
38 Art. 3.
39 Art. 11.
40 Arts. 3 and 11.
41 Operational Guidelines for the Implementation of the World Heritage Convention (WHC 08/01, January 2008), Para. II.D, criteria ix and x.
42 Art. 5(d). See also Art. 6.
43 Generally, see R. Caddell, 'International Law and the Protection of Migratory Wildlife: An Appraisal of Twenty-Five Years of the Bonn Convention', 2005 *Colorado Journal of International Environmental Law and Policy* 16, pp. 113-156.
44 Art. I(1)(g).

> b. to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species; and
> c. to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species.'[45]

Agreements concluded by range states for species listed in Appendix II (that includes a variety of marine species such as the harbour porpoise, the white-beaked dolphin, the harbour seals of the Wadden Sea, the porbeagle shark and many seabirds) must provide for 'conservation and, where required and feasible, restoration of the habitats of importance in maintaining a favourable conservation status, and protection of such habitats from disturbances' and 'maintenance of a network of suitable habitats appropriately disposed in relation to the migration routes'.[46]

The three relevant CMS agreements (WSSA, ASCOBANS and AEWA) all contain requirements with regard to habitat conservation and management. WSSA applies to the harbour seal populations of the Wadden Sea and the adjacent North Sea areas up to three nautical miles from the baselines of Denmark, Germany and the Netherlands. Measures have also been adopted within the framework of this Agreement for the protection of the grey seal populations in this area.[47] WSSA requires Contracting Parties to 'take appropriate measures for the protection of habitats' and to 'pay due regard to the necessity of creating and maintaining a network of protected areas also in the migration areas of the seals in the Agreement Area and of ensuring the preservation of areas which are essential to the maintenance of the vital biological functions of seals.'[48] They are also required to 'preserve habitats and seals present from undue disturbances or changes resulting, directly or indirectly, from human activities', to protect habitats 'from adverse effects resulting from activities carried out outside the Agreement Area' and to 'explore the possibility of restoring degraded habitats and of creating new ones.'[49]

ASCOBANS, which covers all small cetaceans in the North Sea, also contains provisions aimed at habitat conservation and management. The Conservation and Management Plan that is in the Annex to ASCOBANS calls on the Contracting Parties to 'work towards (a) the prevention of the release of substances which are a potential threat to the health of the animals, (b) the development, in the light of available data indicating unacceptable interaction, of modifications of fishing gear and fishing practices in order to reduce by-catches and to prevent fishing gear from getting adrift or being discarded at sea, (c) the effective regulation, to reduce the impact on the animals, of activities which seriously affect their food resources, and (d) the prevention of other significant disturbance, especially of an acoustic nature.'[50] It also calls for research to locate areas of special importance to breeding and feeding of the species involved.[51]

AEWA, which covers many coastal and marine birds, requires Contracting Parties to 'take co-ordinated measures to maintain migratory waterbird species in a favourable conservation status or to restore them to such a status', taking into account a precautionary approach.[52] In

45 Art. III(4).
46 Art. V(5)(e) and (f).
47 See the Conservation and Management Plan for the Wadden Sea Seal Population 2002–2006, Para. 7.
48 WSSA, Art. VII(1).
49 *Ibid*., Art. VII(2-4).
50 ASCOBANS, Annex, Para. 1.
51 *Ibid*., Para. 2.
52 AEWA, Art. II. Generally, see B. Lenten, 'A Flying Start for the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)', 2001 *Journal of International Wildlife Law and Policy* 4, pp. 159-164; R. Adam, 'Waterbirds, the 2010 Biodiversity Target, and Beyond: AEWA's Contribution to Global Biodiversity Governance', 2008 *Environmental Law Review* 38, pp. 87-137.

relation to habitat conservation Contracting Parties are required to 'identify sites and habitats for migratory waterbirds occurring within their territory and encourage the protection, management, rehabilitation and restoration of these sites' and to 'coordinate their efforts to ensure that a network of suitable habitats is maintained or, where appropriate, re-established throughout the entire range of each migratory waterbird species concerned, in particular where wetlands extend over the area of more than one Party to this Agreement'.[53] These requirements are elaborated in a detailed action plan that calls on parties to (continue to) establish protected areas to conserve habitats of these species.[54]

The OSPAR Convention is one of the key instruments for the establishment of MPAs in the North Sea, that is region II of the OSPAR maritime area which covers the entire North East Atlantic. Annex V to the OSPAR Convention requires Contracting Parties to take the 'necessary measures' to protect and conserve the ecosystems and the biodiversity of the maritime area and to restore 'where practicable' marine areas which have been adversely affected. The establishment of MPAs is one of the measures that can serve to fulfil this obligation and this is acknowledged in the duties for the OSPAR Commission contained in Article 3 of Annex V. It calls on the OSPAR Commission to 'develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to *specific areas or sites* or related to particular species or habitats'.[55]

The OSPAR Commission has progressively taken action in respect of MPAs on the basis of the general directions contained in Annex V, the 2003 OSPAR Biodiversity Strategy[56] and the recommendations of the OSPAR Biodiversity Committee and its subsidiary Working Group on Marine Protected Areas, Species and Habitats (MASH). The relevant measures that have been adopted by the OSPAR Commission include Recommendation 2003/3 on a Network of Marine Protected Areas[57] and several agreements containing guidelines and guidance for the Contracting Parties. These measures are not legally binding, but they are relevant for the interpretation of the generally formulated obligations contained in Annex V that they intend to elaborate.

OSPAR Recommendation 2003/3 provides that the general aim is to establish by 2010 an ecologically coherent network of well-managed marine protected areas in the region, which will:

> 'a. protect, conserve and restore species, habitats and ecological processes which have been adversely affected by human activities;
> b. prevent degradation of, and damage to, species, habitats and ecological processes, following the precautionary principle;
> c. protect and conserve areas that best represent the range of species, habitats and ecological processes in the maritime area.'[58]

To achieve this, each Contracting Party that is a coastal state is required to identify areas within its jurisdiction that justify selection as MPAs on the basis of the criteria that are contained in the identification and selection guidelines.[59] The guidelines contain a set of ecological and practical criteria for the identification and selection of areas (see Table 1). The criteria are broadly

53 AEWA, Art. III(2)(c) and (d).
54 AEWA Action Plan 2009-2012, Para. 3.2.1.
55 Annex V, Art. 3(1)(b)(ii). Emphasis added.
56 Strategies of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic, Chapter I (OSPAR Agreement 2003-21).
57 OSPAR Recommendation 2003/3 on a Network of Marine Protected Areas.
58 OSPAR Recommendation 2003/3, Para. 2.1.
59 Guidelines for the Identification and Selection of Marine Protected Areas in the OSPAR Maritime Area (OSPAR Agreement 2003-17).

formulated and cover all possible sites that can, individually or collectively, contribute to the achievement of any or all of the above-mentioned objectives. The guidelines also contain guidance on the correlation between the criteria and each of the three objectives.[60] One of the ecological criteria that is linked to objective a. is whether the area is important for threatened or declining species and habitats. For this, the point of reference is the OSPAR List of Threatened and/or Declining Species and Habitats (see Table 2).[61] This list includes 3 species of invertebrates, 19 species of fish, the leatherback turtle, 3 species of birds, 3 species of cetaceans and 11 types of habitats that occur in the North Sea. Several of these species and habitats are also found in the Netherlands part of the North Sea. The fact that an area contains such species or habitats or meets any of the other ecological criteria does not automatically imply that it has to be selected. Coastal states are to prioritize identified sites and use the practical criteria to develop a prioritized list of sites. Relevant in this respect is also the OSPAR agreement containing guidance for the Contracting Parties with the selection of sites for the OSPAR Network of MPAs in order to ensure that the network as a whole is sufficiently 'ecologically coherent'.[62] According to the guidance document a network is 'characterized by a coherence in purpose and by the connections between its consistuent parts' and networks 'can also be designed to be resilient to changing conditions.'[63] Coastal states are expected to take the guidelines and guidance into account when identifying and selecting sites, but have the necessary freedom to decide which areas are ultimately selected for the OSPAR Network. Each Contracting Party is required to report selected areas to the OSPAR Commission.[64] Reported areas are automatically included in the OSPAR Network. Contracting Parties are expected to develop a management plan for each selected area, in accordance with the management guidelines,[65] and to determine what management measures are appropriate to achieve the aims for which the area has been selected.[66]

Finally, the pan-European Bern Convention also contains obligations for Contracting Parties in relation to area protection. The Bern Convention aims 'to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States', with particular emphasis given to endangered and vulnerable species.[67] A variety of marine species are listed in the Convention's Appendix II (strictly protected species) and in Appendix III (protected species) of which some occur in the North Sea. Of particular interest are species in the Appendices that are not on the applicable species lists contained in the EU instruments discussed below, which includes for instance the whitebeaked dolphin (Appendix II) that is a resident of the North Sea. Contracting Parties are required to 'take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species, especially those specified in [Appendix II], and the conservation of endangered natural habitats.'[68] They are required 'to give special attention

60 *Ibid*., Appendix 3.
61 OSPAR Agreement 2008-6 that replaced an earlier version of the list contained in OSPAR Agreement 2004-6 (see also the Summary Record of the 2008 meeting of the OSPAR Commission contained in OSPAR 08/24/1, Para. 7.12).
62 Guidance on Developing an Ecologically Coherent Network of OSPAR Marine Protected Areas (OSPAR Agreement 2006-3). See also Paras. 5 and 6 of the OSPAR MPA Identification and Selection Guidelines: 'The OSPAR network should take into account the linkages between marine ecosystems and the dependence of some species and habitats on processes that occur outside the MPA concerned. (...) The OSPAR network 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).'
63 OSPAR Agreement 2006-2, Para. 5. See on this issue J. Ardron, 'The Challenge of Assessing whether the OSPAR Network of Marine Protected Areas is Ecologically Coherent', 2008 *Hydrobiologia* 606, pp. 45-53.
64 OSPAR Recommendation 2003/3, Para. 3.1(b).
65 Guidelines for the Management of Marine Protected Areas in the OSPAR Maritime Area (OSPAR Agreement 2003-18).
66 OSPAR Recommendation 2003/3, Para. 3.1(b).
67 Art. 1.
68 Art. 4(1).

to the protection of areas that are of importance for the migratory species specified in Appendices II and III and which are appropriately situated in relation to migration routes, as wintering, staging, feeding, breeding or moulting areas.'[69] Protected areas established to implement these obligations and related provisions are to contribute to the development of a pan-European ecological network (the Emerald Network).

3.2. EU law

At the EU level, two instruments of primary importance for the present subject-matter are the Birds[70] and Habitats[71] Directives. The Directives are aimed at ensuring biodiversity conservation, including through the establishment of a network of protected areas known as Natura 2000. The Birds Directive obliges Member States to designate Special Protection Areas (SPA) for bird species listed in its Annex I and for (other) migratory species, insofar as these occur regularly in areas within their jurisdiction.[72] In particular, 'the most suitable territories in number and size' for all of these species are to be classified as SPAs.[73] Similar measures are to be taken under the Habitats Directive in respect of natural habitat types listed in Annex I and species listed in Annex II of the Directive, in order to achieve or maintain a favourable conservation status of these habitats and species.[74] After a multiple-stage procedure sites of importance for these habitats and species are to be designated as Special Areas of Conservation (SAC). The three basic stages in this procedure each carry their own acronym. In brief, they consist of:

a. the proposal by the Member States to the European Commission of national inventories of candidate sites, the so-called proposed Sites of Community Importance (pSCI);
b. the establishment by the Commission of a list of Sites of Community Importance (SCI) per biogeographical region; and
c. the final designation of sites as SAC by the Member States.[75]

Together, the SPAs and SACs are to form the aforementioned ecologically coherent European network of protected sites, Natura 2000.[76] For the selection and delimitation of sites under the Birds and Habitats Directives, Member States are to employ ecological criteria only.[77] For SACs, site selection is to be based on the criteria provided in Annex III of the Habitats Directive.[78] In light of the jurisprudence of the European Court of Justice (ECJ), it is beyond doubt that considerations of an economic nature or concerning expected future management difficulties – for instance relating to the regulation of fisheries – are to play no part.[79]

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69 Art. 4(3).
70 Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, *OJ* L 103, 25.4.1979, pp. 1-18.
71 Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, *OJ* L 206, 22.7.1992, pp. 7-50. Generally see, *e.g.*, C. Lasén Diaz, 'The EC Habitats Directive Approaches its Tenth Anniversary: An Overview', 2001 *Review of European Community and International Environmental Law* 10, pp. 287-295.
72 Art. 4(1)-(2).
73 *Ibid*.
74 Art. 4.
75 *Ibid*.
76 Habitats Directive, Art. 3.
77 See Art. 4 of each Directive.
78 Annex III sets out criteria such as the representativity of habitats, their degree of conservation, and the relative population density of species.
79 *E.g.*, Case C-355/90, 2 August 1993, Paras. 26-27; Case C-44/95, 11 July 1996, Para. 26; Case C-3/96, 19 May 1998; and Cases C-220/99, C-67/99 and C-71/99 of 11 September 2001. See also D. Gillies, 'How Far Should You Go? The Obligation to Classify Special Protection Areas (Case Note on Case C-3/96)', 1999 *Environmental Law Review* 1, pp. 125-132; S. Tromans, 'Challenging Enterprise? The Designation of European Habitats Sites and National Dilemmas (Case Note on Case C-371/98)', 2001 *Environmental Law Review* 3, pp. 61-65.

The ECJ has made clear that the Birds and Habitats Directives apply to all maritime zones under the jurisdiction of EU Member States, including the EEZ.[80] Furthermore, as the European Commission put it, under the two Directives there is 'no legal difference between marine and terrestrial environments as regards duties of Member States.'[81] This applies both at a general level – the 'final obligation of delivering a favourable conservation status for species and habitat types of Community Importance is the same in both environments'[82] – and on the level of the specific obligations concerning the designation (and protection) of sites.

A substantial number of marine birds, *i.e.* 30, are included in Annex I of the Birds Directive, and the obligation to designate SPAs also applies in respect of migratory marine birds not on the list, raising the total to 66. In contrast to this rather comprehensive coverage of species under the Birds Directive it is generally recognized, including by the European Commission, that the Habitats Directive leaves much to be desired with regard to marine habitats and species. To borrow the words of the Commission, the Annexes of the Habitats Directive have a 'limited focus on marine species and habitat types, especially those that occur in the offshore marine environment.'[83] Only a tiny fraction of the habitat types in Annex I is marine. Of the nine marine habitats in question, eight are relevant to the Atlantic region and are recorded in Table 3 of this article. It should be noted, in turn, that not all of these are relevant to the Netherlands part of the North Sea, where sea caves are not known to occur. As regards marine species, Annex II of the Habitats Directive cannot be deemed representative either. Although it lists some marine mammals, turtles and fish (see Table 3), numerous other vulnerable species are missing, including various marine fish and invertebrates. For the North Sea, the gaps in question become apparent when comparing Annex II of the Habitats Directive with the leading regional inventory, the OSPAR List discussed above.[84] Conspicuous examples include the thornback ray and the ocean quahog. The European Commission is contemplating the possibility of amending the Annexes of the Habitats Directive in order to fill their marine gaps.[85] Until that happens, less than two handfuls of Annex II species inform the obligation of the Netherlands to designate SACs in the North Sea.[86]

Besides, the identification and delimitation of SPAs and SACs can be more challenging for marine species and habitats than for terrestrial ones. Quite aside from impacts of climate change, which also affect terrestrial species and habitats, some issues complicating the designation process pertain specifically to the marine realm. Examples include the wide dispersal of some marine species; the changing locations of their concentrations, for instance at shifting oceanic fronts; and, last but not least, the general lack of information regarding the distribution and dynamics of marine species and habitats. For wide-ranging species like the harbour porpoise it can therefore be difficult to pinpoint those sites which 'present the physical or biological factors essential to their life and reproduction'[87] and must accordingly be proposed to the European Commission. Various additional guidelines to facilitate a correct selection of marine Natura 2000 sites have, however, already been developed by and under the auspices of the Commission and

80 Case C-6/04, 20 October 2005, Para. 117. For an interesting analysis preceding this judgment, see D. Owen, 'The Application of the Wild Birds Directive Beyond the Territorial Sea of European Community Member States', 2001 *Journal of Environmental Law* 13, pp. 39-78.
81 European Commission, *Guidelines for the Establishment of the Natura 2000 Network in the Marine Environment: Application of the Habitats and Birds Directives*, 2007, p. 21.
82 *Ibid*.
83 *Ibid.*, p. 14.
84 See Section 3.1 *supra*.
85 European Commission 2007, *supra* note 81, p. 14.
86 Of the species listed in Table 3, the following occur in the Netherlands part of the North Sea: bottlenose dolphin, harbour porpoise, grey seal, harbour seal, sea lamprey, river lamprey, allis shad, twaite shad and houting.
87 Habitats Directive, Art. 4(1).

some Member States.[88] Thus, with respect to the harbour porpoise the very general criteria stipulated in Annex III of the Habitats Directive have been supplemented with more detailed ones recommending the selection of sites with, for instance, a 'high ratio of young to adults during certain periods of the year' and where porpoises display a 'very developed social and sexual life.'[89] Research and monitoring are also being conducted in order to reduce the aforementioned data gaps on marine habitats and species.[90]

Aside from the Birds and Habitats Directives, the Marine Strategy Framework Directive (MSFD) that was adopted in June 2008 also has a bearing on the issue of MPAs.[91] The programmes of measures that are to be developed jointly by the coastal states as part of the marine strategies are to include 'spatial protection measures, contributing to coherent and representative networks of marine protected areas, adequately covering the diversity of the constituent ecosystems'.[92] This includes all SACs under the Habitats Directive, SPAs under the Birds Directive, as well as all MPAs established pursuant to the relevant global and regional treaties. These MPAs are to contribute to the achievement of the ultimate goal of the MSFD: a good environmental status of the marine environment by 2020 at the latest.[93]

Finally, the area-based measures adopted within the framework of the Common Fisheries Policy (CFP) should be mentioned. Several areas in the North Sea have already been partially and/or temporarily closed for certain types of fisheries through technical measures. This includes the Plaice Box, an area of 38,000 square kilometres located along the Dutch, German and Danish coast that has been partially closed to fishing since 1989 in order to reduce the discarding of undersized plaice and sole in the main nursery areas.[94] The Plaice Box was adopted for fisheries management, rather than for nature conservation purposes, and is therefore not further considered in this article.

4. Implementation in the Netherlands part of the North Sea

To move from these legal requirements to their actual implementation by the Netherlands, several areas in the Dutch sector of the North Sea have been designated as (candidate) protected areas. These are discussed first from the point of view of the international treaty obligations of the Netherlands and second from the perspective of EU law. All areas are or will be designated under the Dutch legislation dealing with area protection: the 1998 Nature Conservation Act.[95] This Act currently only applies to the territorial sea, but it is expected that the geographical scope will be extended to the EEZ in 2009.

88 See, in particular, European Commission 2007, *supra* note 81, pp. 33-75 and Annex 4.
89 *Ibid.*, p. 47.
90 Instances of projects combining the development of selection guidelines with the generation of species information are two Spanish and Portuguese research projects focused on the identification of candidate Natura 2000 offshore areas for seabirds, funded by the EU Financial Instrument for the Environment (LIFE): LIFE04NAT/ES/000049 and LIFE04NAT/P/000213. They resulted in a standard methodology for the identification of Important Bird Areas (IBAs) in the marine environment.
91 Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy, *OJ* L 164, 25.6.2008, pp. 19-40.
92 Art. 13(4).
93 Arts. 1(1) and 2(5)(a).
94 See Art. 29 of Council Regulation (EC) no. 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms, *OJ* L 125, 27.04.1998, pp. 1-36.
95 Nature Conservation Act of 25 May 1998 (*Natuurbeschermingswet*, *Staatsblad* 1998, 403).

4.1. Global and regional treaties

All of the MPAs that the Netherlands has designated or is planning to designate may be considered as implementation of the relevant basic obligations contained in the UNCLOS and the CBD. The *Voordelta* and the *Noordzeekustzone* (as part of the Ramsar site called *Waddeneilanden, Noordzeekustzone, Breebaart*) were included on the List of Wetlands of International Importance of the Ramsar Convention in 2000. No areas in the North Sea have been included on the World Heritage List, although it should be noted that the Netherlands and Germany have jointly nominated the Dutch-German Wadden Sea for inclusion on the list. The demarcation of the area does not extend beyond the internal waters of the two states. The World Heritage Committee is expected to decide on the inclusion of this site on the World Heritage List in June 2009.

In February 2009 the Netherlands submitted a document on the selection of the following five sites as components of the OSPAR MPA Network: the *Noordzeekustzone*, the *Voordelta* and the *Vlakte van de Raan* in the territorial sea and the Dogger Bank and the Cleaver Bank in the EEZ.[96] The document also announces that the Frisian front will be nominated as an OSPAR MPA in 2010.[97] The nomination defines the boundaries of the areas, but it does not mention the criteria on the basis of which they were selected. That information is to be submitted at a later stage. It is in fact an initial nomination that has been submitted under the restriction that 'changes in proposed protected species, habitats and/or boundaries may occur'.[98]

4.2. EU law

Two parts of the Coastal Sea have been designated by the Netherlands as SPAs under the Birds Directive for a suite of bird species, namely the *Voordelta* (in the South) in 2000 and the *Noordzeekustzone* (in the North) in 2005. The 30 species for which the SPA *Voordelta* has been established and the 20 species currently covered by the SPA *Noordzeekustzone* portray a significant, albeit not total overlap. Both SPAs have been designated for the red-throated diver, scaup, eider, common scoter, sanderling and little gull, whereas the sandwich tern is only on the *Voordelta* list and the little tern only on the *Noordzeekustzone* list. The Netherlands Government has announced the designation of two additional marine SPAs in the near future. The first concerns a relatively small addition to the *Noordzeekustzone*. The second, the Frisian Front area, will constitute the first SPA in the Netherlands EEZ. The Frisian Front qualifies as SPA for great skuas and guillemots.

The *Voordelta* and the *Noordzeekustzone* have been designated by the Netherlands Government as SACs under the Habitats Directive as well. Both were proposed to the European Commission in 2003 and were formally designated as SACs in 2008 and 2009, respectively. Each area was designated for two marine habitat types from Annex I besides four terrestrial ones, namely permanently submerged sandbanks (habitat type 1110) and intertidal mudflats (habitat type 1140). As regards species listed in Annex II, the *Voordelta* was designated for four fish species (allis shad, twaite shad, river lamprey and sea lamprey) and two seal species (harbour seal and grey seal). The species list in respect of the *Noordzeekustzone* is almost identical, but features the harbour porpoise instead of the allis shad.

Four additional Habitats Directive sites, including two in the EEZ, were proposed to the Commission in December 2008. The first of these 'pSCIs' is the SAC equivalent of the planned extension of the SPA *Noordzeekustzone* mentioned above. The second concerns the mouth of the

96 OSPAR Doc. BDC 09/5/Info.3 (2009).
97 *Ibid*., Annex, p. 3.
98 *Ibid*., Annex, p. 1.

Western Scheldt in the very South of the Coastal Sea, known as *Vlakte van de Raan*. Besides habitat type 1110, these two areas have been nominated for the same four fish and two seal species mentioned before, as well as the harbour porpoise. The two pSCIs in the EEZ are the Dogger Bank and the Cleaver Bank. Each is nominated for one habitat from Annex I: the Dogger Bank for the familiar habitat type 1110 and the Cleaver Bank for habitat type 1170, that is, reefs. As far as Annex II species are concerned, both sites have been proposed for the three aforementioned marine mammal species (harbour seal, grey seal and harbour porpoise).

The area of the Central Oyster Grounds has also been scrutinized, but was found not to meet the criteria for inclusion in Natura 2000.[99] The competent Minister has announced further research in order to verify whether any of the other ecologically important areas described before[100] qualify for designation under the Birds and/or Habitats Directives. This involves the Borkumse Stones, Zeeuwse Banks, Brown Bank, Gas Seeps and Arctica Area. Depending on the outcome, decisions regarding the nomination of any of these sites are expected in 2012 at the latest.

5. Appraisal

The foregoing sections clearly demonstrate that in recent years the Netherlands has taken significant steps to contribute to the establishment of an MPA network in the North Sea. Interestingly, all of the MPAs selected by the Netherlands have been or will be designated or nominated under more than one international or European regime. The *Noordzeekustzone*, for instance, is listed as a protected area under the Ramsar Convention, the OSPAR Convention, the Birds Directive and the Habitats Directive. Besides, its protected status serves the implementation of the UNCLOS, the CBD, the Bonn Convention, AEWA, ASCOBANS, the Wadden Sea Seals Agreement and the Berne Convention. How much of an actual difference this makes for the species and ecosystems within the *Noordzeekustzone* and the other Netherlands MPAs is a question outside the scope of this article, which is focused on the designation and not on the management and protection of MPAs.

Even so, the question remains whether the steps hitherto taken by the Netherlands are sufficient to meet the obligations relating to the designation of MPAs contained in the applicable treaties and EU law. A first thing to note is that the relevant treaty obligations are apparently not accorded the same weight by the Netherlands as EU requirements. The actions taken under the OSPAR Convention are illustrative in this respect. The criteria that have been developed under the OSPAR Convention are much broader than those of the Birds and Habitats Directives, covering a wider range of species and habitats. Nevertheless, the Netherlands has thus far only nominated areas for the OSPAR MPA Network that also qualify as Natura 2000 sites. It should be noted that the Netherlands is not an exception in this respect. Almost all EU Member States that are Contracting Parties to the OSPAR Convention have similarly reported solely Natura 2000 sites as components of the OSPAR Network.[101] Whichever way, now that gaps in the coverage of the Habitats Directive of marine species and habitats are generally recognized, one cannot easily assume that complying only with the minimum requirements of the Habitats Directive is sufficient to meet the obligations contained in the OSPAR Convention. The Central Oyster

99 See Lindeboom *et al.* 2005, *supra* note 12.

100 See Section 2.2 *supra*.

101 The 2008 Report on the Status of the OSPAR Network of Marine Protected Areas presented by Germany states that of the 114 sites submitted by EU Member States to the OSPAR Network of MPAs, 106 are also Natura 2000 sites. See OSPAR Doc. BDC 09/5/4 (2009), Para. 34.

Grounds are a case in point. The area meets the OSPAR criteria (it has a high diversity and biomass of macrobenthos, including elevated densities of the ocean quahog that is on the OSPAR List),[102] but does not qualify under the Habitats Directive because of the incomplete list of marine habitat types in Annex I and species in Annex II. Similarly, the Arctica Area appears to meet the OSPAR criteria but probably does not fall within the scope of the Habitats Directive. The same may apply to other areas that are subject to further research. Also noticeably ignored during the selection process are the various species of fish that are on the OSPAR List but not on Annex II of the Habitats Directive. This includes, for example, the rare thornback ray that is found on the Dogger Bank, as well as a commercially exploited species such as cod for which several nominated areas appear important. The OSPAR Convention leaves coastal states with considerable discretion in respect of site selection, and an unqualified legal duty to nominate *all* areas meeting the OSPAR criteria clearly does not exist, but nonetheless Contracting Parties are required to act in good faith when implementing the obligations involved. At least one of the Contracting Parties to the OSPAR Convention (Portugal) *has* designated sites as OSPAR MPAs that only meet the OSPAR criteria.[103]

Aside from the Ramsar Convention, the remaining treaties do not appear to have had a direct effect on the selection of areas, even though, as noted before, all selected areas are obviously relevant for the implementation of various other treaty obligations. Notable examples are the relevance of sites selected for the harbour porpoise for meeting the habitat conservation requirements under ASCOBANS and the similar significance of SPA/Ramsar sites in respect of bird species falling within the scope of AEWA, and of the SAC *Noordzeekustzone* in respect of the Wadden Sea Seals Agreement.

Importantly, without the inclusion of areas like the Central Oyster Grounds, a *representative* network of MPAs is evidently not achieved, meaning that the WSSD and CBD targets will not be met in the Netherlands part of the North Sea. A closely associated question is whether the Netherlands MPA network is ecologically *coherent*, which is supposed to be a defining characteristic of the OSPAR and Natura 2000 networks.[104] It may be wondered, for instance, how coherent the network is in respect of the Coastal Sea. Despite the unity of the Coastal Sea from an ecological perspective, four parts of the area have been separately nominated and/or designated by the Netherlands as MPAs. These (candidate) MPAs border on each other, with the notable exception of an extensive gap in the middle of the Coastal Sea between the *Voordelta* and the extended *Noordzeekustzone*. It is noteworthy in this connection that various appeals against the formal designation of the *Noordzeekustzone* as a Natura 2000 site under the Nature Conservation Act were still pending before the Council of State, the highest Dutch administrative court, at the time of writing. One of the issues on which the Council is expected to rule is the contention by NGOs that the omitted area in question should have been included in the Natura 2000 site, as it also qualifies under the Birds and Habitats Directives and has been excluded without a transparent ecological justification. Scientific information indicates that for some species, including the little gull and twaite shad (for which both the *Voordelta* and *Noordzeekustzone* have been

102 Lindeboom *et al.* 2005, *supra* note 12, pp. 9 and 59-60. See also Christiansen & Lutter 2009, *supra* note 12, p. 43.

103 Portugal has nominated several hydrothermal vent fields and seamounts in the vicinity of the Azores. France and Spain have also each nominated a site for the OSPAR network that has not (yet) been nominated as a Natura 2000 site. See OSPAR Doc. BDC 09/5/4 (2009), Para. 34.

104 The 2008 Report on the Status of the OSPAR Network of Marine Protected Areas presented by Germany concludes that the OSPAR MPA network as a whole is still not ecologically coherent. See OSPAR Doc. BDC 09/5/4 (2009), Paras. 39-52 and 56.

designated) and great crested grebe (for which the *Voordelta* has been designated), the gap in question is precisely the most important part of the Coastal Sea.[105]

By way of another instance, a curious difference exists between the SAC *Voordelta* in the Coastal Sea, on the one hand, and the other five marine SAC/pSICs, on the other, which revolves around the harbour porpoise. That is to say, all Natura 2000 sites in the Netherlands part of the North Sea have been selected for *inter alia* this species from Annex II of the Habitats Directive, except the *Voordelta*. When the omission of this species in respect of the *Voordelta* was challenged by an environmental NGO in court, the Netherlands Government substantiated its decision with reference to Article 4 of the Habitats Directive. As noted above, this provision states that for animal species ranging over wide areas sites ought to be selected which 'correspond to the places within the natural range of such species which present the physical or biological factors essential to their life and reproduction.'[106] While acknowledging that porpoises are regularly sighted in the *Voordelta*, the Government argued that selection would nonetheless be inappropriate because the site does not distinguish itself from other areas as far as the harbour porpoise is concerned. This reasoning was approved by the Council of State.[107] However, in light of subsequent practice the omission of the harbour porpoise in the *Voordelta* designation has become more difficult to uphold, given that the Government has apparently abandoned the above logic with respect to the other marine Natura 2000 sites. In particular, despite the fact that the number of porpoises in the Netherlands part of the North Sea is still only roughly known and impossible to estimate with any accuracy for individual areas, all sites but the *Voordelta* have been nominated or designated for the harbour porpoise on the ground that they are known to be frequented by the species.[108] The result is the ostensibly arbitrary situation in which an area like the *Vlakte van de Raan* has been selected for the harbour porpoise, whereas the *Voordelta* – which from the perspective of the porpoise is in all likelihood at least as significant – has not.

Finally, there appears to be a lack of coordination among the North Sea coastal states with regard to the designation of transboundary areas. The Netherlands and the other North Sea coastal states have thus far nominated and designated all (candidate) MPAs individually, although some consultations have taken place among the coastal states. There are notable differences in the selection of areas and the species and habitats for which they have been selected. The Dogger Bank straddles the maritime areas of Denmark, Germany, the Netherlands and the United Kingdom, but thus far only Germany and the Netherlands have proposed their part to the Commission under the Habitats Directive. The United Kingdom has not yet nominated its part of the Dogger Bank, although it is in the preparatory stages for nomination and has already been found to qualify under the Habitats Directive.[109] Denmark does not yet appear to have taken any action with regard to the nomination of its part of the Dogger Bank.[110] Germany has nominated the Dogger Bank for sandbanks (habitat type 1110), the harbour porpoise, the harbour seal and the allis shad, but not the grey seal mentioned in the Netherlands nomination. It is also noteworthy that Germany has nominated the *Borkum-Riffgrund* for sandbanks (habitat type 1110), reefs (habitat type 1170), grey and harbour seals, the harbour porpoise and the twaite shad. The Netherlands has not nominated the adjacent site Borkumse Stones, which is still subject to further

105 See H.J. Lindeboom *et al.*, *Ecologische Atlas Noordzee ten Behoeve van Gebiedsbescherming*, 2008, pp. 75, 103 and 104.
106 Art. 4(1).
107 ABRvS (Administrative Jurisdiction Division of the Council of State) 5 November 2008, Case 200802545/1, Par. 2.9-2.9.2.
108 O.G. Bos *et al.*, *Gegevens voor Aanmelding van Mariene Habitatrichtlijngebieden: Doggersbank, Klaverbank, Noordzeekustzone, Vlakte van de Raan*, Institute for Marine Resources and Ecosystem Studies (IMARES) Report C081/08, 2008, p. 24.
109 Christiansen & Lutter 2009, *supra* note 12, p. 46.
110 *Ibid*., pp. 34-36.

studies. The *Vlakte van de Raan* has been nominated by the Netherlands under the Habitats Directive, but the area extends to the Belgian part of the North Sea. Belgium nominated this site under the Habitats Directive in 2005, but the designation was annulled in 2008 by a decision of the Belgian Council of State on the basis of insufficient grounds.[111] The original designation was only for habitat type 1110, but not for the seven marine species mentioned in the Netherlands nomination of this area. This lack of coordination may be due to the fact that the Birds and Habitats Directives do not directly require states to cooperate for the nomination and designation of transboundary sites, although obviously they can do this voluntarily. It is noteworthy that the MSFD and some of the above-mentioned treaties do contain general and/or specific requirements for states to cooperate with regard to transboundary MPAs.[112] The joint nomination by Germany and the Netherlands of the Wadden Sea as a World Heritage site demonstrates that close coordination is possible, even without express provisions in the treaty requiring them to do so.[113]

6. Conclusion

The principal conclusion rendered by the above exercise is that significant steps have been taken towards a solid Netherlands contribution to the global and regional goals of representative MPA networks this article set out with. Yet, the same exercise also warrants the conclusion that the current network of MPAs in the Netherlands North Sea is subject to a number of shortcomings. To a large degree, these are the result of the policy of the Netherlands Government to go no further in the designation of MPAs than what is strictly required by the EU Birds and Habitats Directives. On account of the widely acknowledged 'marine deficiencies' of the Habitats Directive, this policy stands in the way of achieving the target of a *representative* MPA network. Moreover, it is rather doubtful whether the same minimalist approach is sufficient to meet the relevant obligations of the Netherlands under global and regional treaties. These and other shortcomings noted above can be remedied by the designation of additional MPAs and, in some cases, by extending the list of species and habitats for which current MPAs have been selected. In 1990 a study on the same topic as the current article concluded that the 'designation of marine protected areas as a tool for environmental protection in the North Sea has been given limited attention until now,' and noted that 'progress in this field appears to be slow.'[114] Current times are obviously more eventful.

111 Council of State of Belgium, Judgment 179.254 of 1 February 2008 in case A. 169.087/VII-35.198.

112 MSFD, Art. 5(2). See also CBD, Art. 5; Ramsar Convention, Art. 5; and Bern Convention, Art. 4(4).

113 Joint nomination of transboundary sites is promoted under the World Heritage Convention and there are specific guidelines for such joint nominations. See the Operational Guidelines for the Implementation of the World Heritage Convention (WHC 08/01, January 2008), Para. III.C.

114 G. Peet & S. Gubbay, 'Marine Protected Areas in the North Sea', 1990 *International Journal of Estuarine and Coastal Law* 5, pp. 241-251, at p. 251.

Figure 1: Maritime zones of the Netherlands

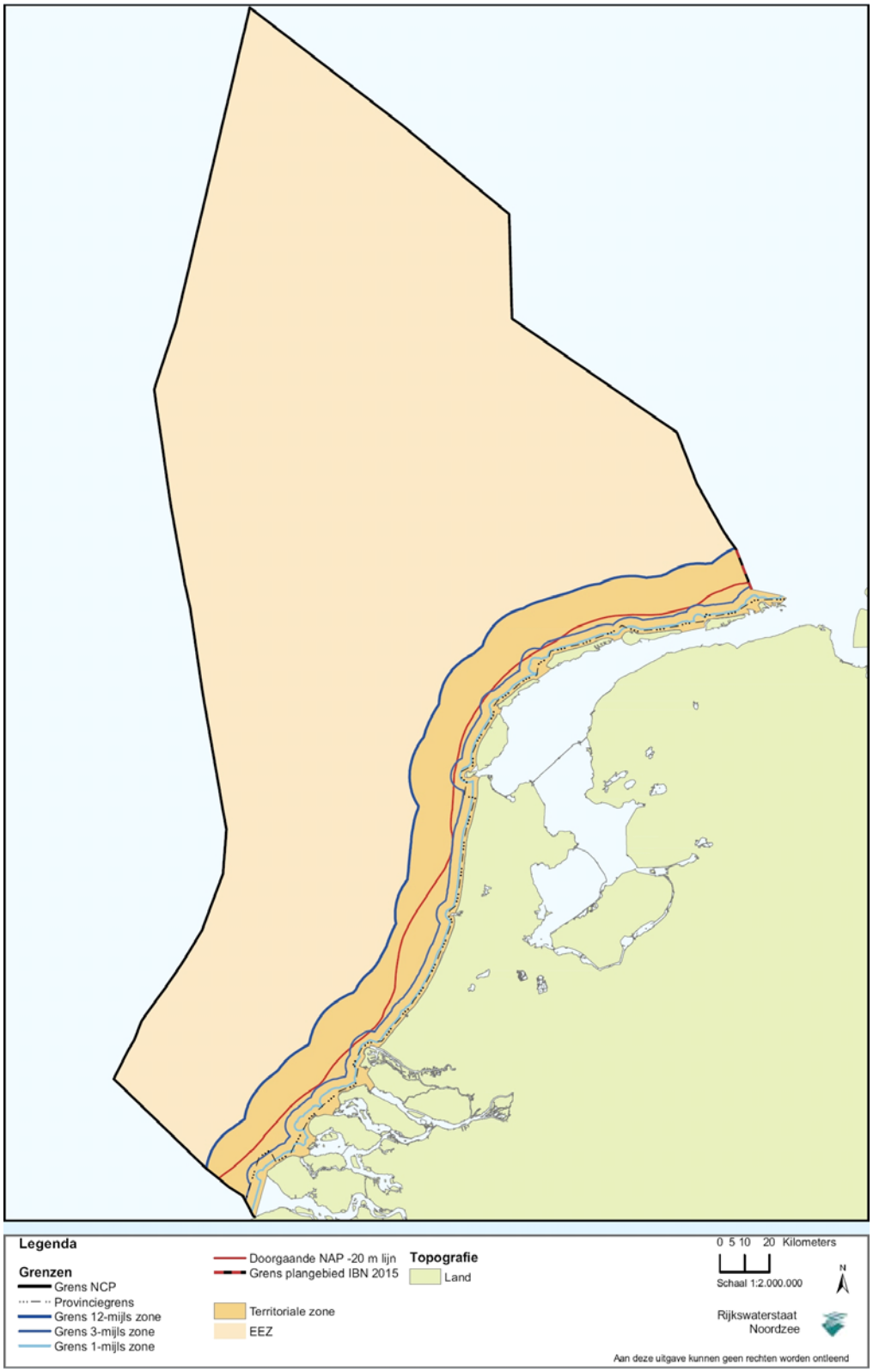
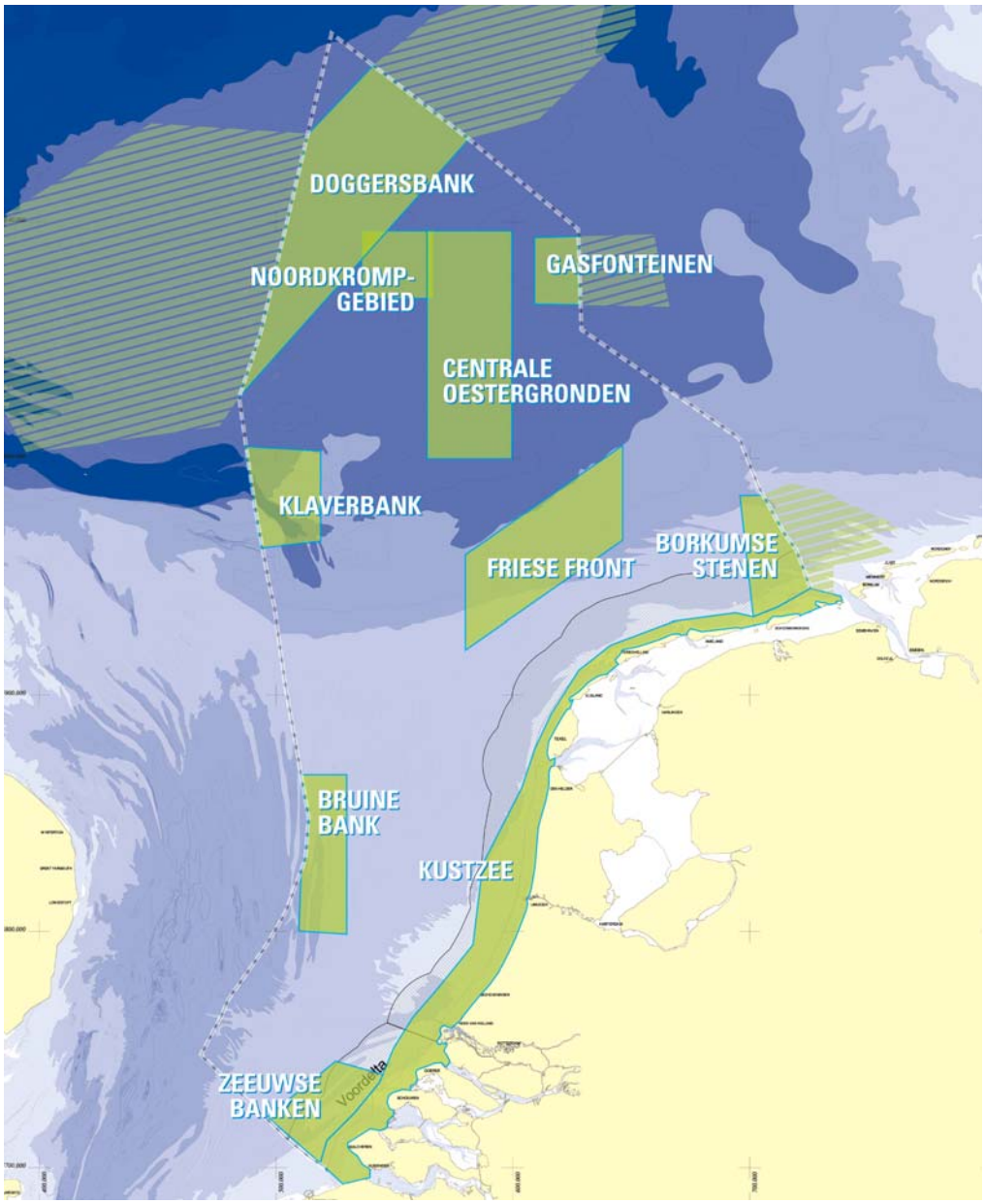


Figure 2: Ecologically important area in the Netherlands part of the North Sea



Source: Stichting de Noordzee (North Sea Foundation)

Table 1: OSPAR criteria for the identification and selection of MPAs

Ecological criteria:

1. *Threatened or declining species and habitats/biotopes*: the area is important for species, habitats/biotopes and ecological processes that appear to be under immediate threat or subject to rapid decline as identified by the ongoing OSPAR (Texel-Faial) selection process (reference point: OSPAR list of threatened and declining species and habitats);
2. *Important species and habitats/biotopes*: the area is important for other species and habitats/biotopes as identified by the ongoing OSPAR (Texel-Faial) selection process.
3. *Ecological significance*: the area has a high proportion of a habitat/biotope type or a biogeographic population of a species at any stage in its life cycle; important feeding, breeding, moulting, wintering or resting areas; important nursery, juvenile or spawning areas; or a high natural biological productivity of the species or features being represented.
4. *High natural biological diversity*: the area has a naturally high variety of species (in comparison to similar habitat/biotope features elsewhere) or includes a wide variety of habitats/biotopes (in comparison to similar habitat/biotope complexes elsewhere).
5. *Representativity*: the area contains a number of habitat/biotope types, habitat/biotope complexes, species, ecological processes or other natural characteristics that are representative for the OSPAR maritime area as a whole or for its different biogeographic regions and sub-regions.
6. *Sensitivity*: the area contains a high proportion of very sensitive or sensitive habitats/biotopes or species.
7. *Naturalness*: the area has a high degree of naturalness, with species and habitats/biotope types still in a very natural state as a result of the lack of human-induced disturbance or degradation.

Practical criteria

1. *Size*: the size of the area should be suitable for the particular aim of designating the area, including maintaining its integrity, and should enable the effective management of that area.
2. *Potential for restoration*: the area has a high potential to return to a more natural state under appropriate management.
3. *Degree of acceptance*: the establishment of the MPA has a comparatively high potential level of support from stakeholders and political acceptability.
4. *Potential for success of management measures*: there is a high probability that management measures and the ability to implement them (such as legislation, relevant authorities, funding, and scientific knowledge) will meet the aims for designation.
5. *Potential damage to the area by human activities*: it is an area where significant damage by human activity may happen in the short term.
6. *Scientific value*: the area has a high value for scientific research and monitoring.

Table 2: OSPAR List of Threatened and/or Declining Species and Habitats (North Sea)

Invertebrates	***Reptiles:***
Ocean quahog	Leatherback turtle
Dog whelk	
Flat oyster	***Mammals:***
	Blue whale
Birds:	Northern right whale
Balearic shearwater	Harbour porpoise
Black-legged kittiwake	
Roseate tern	***Habitats:***
	Coral gardens
Fish:	Intertidal mytilus edulis beds on mixed
Sturgeon*	and sandy sediments
Allis shad*	Intertidal mudflats
European eel*	Littoral chalk communities
Portuguese dogfish*	Lophelia pertusa reefs
Leafscale gulper shark*	Maerl beds
Basking shark*	Modiolus modiolus beds
Houting	Ostrea edulis beds
Common skate*	Sabellaria spinulosa reefs
Spotted ray*	Sea-pen and burrowing megafauna
Cod*	communities
Long-snouted seahorse	Zostera beds
Short-snouted seahorse	
Porbeagle shark*	
Sea lamprey	
Thornback skate/ray*	Fish species affected by fishing in this list
White skate*	are marked with an asterisk (*). These
Salmon*	species are subject to management by an
(Northeast Atlantic) spurdog*	international or national fisheries
Angel shark*	authority or body.

Table 3: Marine habitats and species in Annexes I and II of the Habitats Directive (Atlantic region)

Habitats (Annex I):

1110 Sandbanks which are slightly covered by sea water all the time
1130 Estuaries
1140 Mudflats and sandflats not covered by seawater at low tide
1150 Coastal lagoons
1160 Large shallow inlets and bays
1170 Reefs
1180 Submarine structures made by leaking gases
8330 Submerged or partially submerged sea caves

Species (Annex II):

Bottlenose dolphin
Harbour porpoise
Grey seal
Harbour/common seal
Mediterranean monk seal
Loggerhead sea turtle
Sea lamprey
River lamprey
Atlantic sturgeon
Allis shad
Twaite shad
Houting
Spanish toothcarp