



# Information Sheet on Ramsar Wetlands

As approved by Rec.C.4.7 of the Conference of the Contracting Parties, Montreux, Switzerland - July 1990

NOTE: Please read the accompanying guidelines before attempting to complete this form. An example of a completed data sheet is also included.

Completed sheets should be returned to: T.A. Jones, Ramsar Database, IWRB, Slimbridge, Gloucester GL2 7BX, England

NL007

1. Country: The Netherlands 2. Date: 1-2-93 3. Ref: office use only

4. Name and address of compiler:  
Ministry of Agriculture, Nature management and Fisheries  
P.O. Box 20401  
2500 EK The Hague / The Netherlands

COORD. 53° 14' N  
= 5° 14' E  
=

5. Name of wetland: Waddenzee (Wadden Sea)

6. Date of Ramsar designation: 2 May 1984

7. Geographical coordinates: 53° 15' N 5° 15' E ←

8. General location: (e.g. administrative region and nearest large town) near the cities of Den Helder, Leeuwarden and Groningen  
In the provinces of Noord-Holland, Friesland and Groningen

9. Area: (in hectares) 250,000

10. Wetland type: (see attached classification, also approved by Montreux Rec.C.4.7)  
A, E, G, H, F (Ems-Dollard estuary)

11. Altitude: (average and/or maximum & minimum) dune hills  
-30m. (deep gullies) to +15.0 (salt marshes)

12. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)  
Together with the Danish and German sections, the Wadden Sea is the largest intertidal mud flat area in Europe. The site includes some sedlands on the mainland and on the barrier islands.

13. Physical features: (e.g. geology; geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth; water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)  
The Wadden Sea is a shallow sea connected with the North Sea. The Dutch section is bounded by the mainland and by barrier islands, the so-called Waddeneilanden. The Ems-Dollard estuary is included in the Ramsar site. This estuary is the only one still connected with the sea. The Zuiderzee (now IJsselmeer) and the Lauwersmeer have been closed off.  
The Wadden Sea holds a large amount of intertidal flats. From the islands towards the mainland the character of these flats changes from sandy to muddy, due to differences in stream speed. Flats behind the islands may have a high of 0 to 0.6 m + NAP. Towards the mainland they become even higher and pass into salt marshes. In the Dutch section of the Wadden Sea most of the salt marshes are located in the eastern part. \*

14. Ecological features: (main habitats and vegetation types)  
Beaches, sand dunes, higher and lower salt marshes, wet meadows, marshes shallow sea dunes and intertidal sand and mud flats

\* The Ems-Dollard estuary differs geomorphologically and hydrologically from the Wadden Sea. This area is one of the last large-scaled brackish tidal areas in Europe.

\* The wadden island of Schiermonnikoog has the official status of National Park

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### 15. Land tenure / ownership of:

(a) site Most of the area is owned by the State. Only some <sup>relatively</sup> small land parts are in private hands, or are owned by private nature conservation organisations

(b) surrounding area

not relevant for such a large area as the Wadden Sea

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### 16. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made; management practices; whether an officially approved management plan exists and whether it has been implemented)

The Wadden Sea is designated as Ramsar site (2-5-1984) and as Special Protection Area under the EC Wild Bird Directive (and 12-1991). Large parts (150,000 ha) has been designated under the Nature Conservation Act. Thus receive full legal protection. Small <sup>land</sup> parts are strict nature reserves. Parts of the Wadden Sea under the Nature Conservation Act (high tide rooks and resting places for seals) are closed for visitors in the vulnerable periods. The Dollard has also been brought under the Nature Conservation Act.\*

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### 17. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

Another 30% of the Dutch section of the Wadden Sea will be designated under the Nature Conservation Act in the near future. <sup>in reaction</sup> to overexploitation of the mussel and cockel stock special areas will be designated in which fishery will be prohibited.

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### 18. Current land use: principal human activities in:

(a) site Fishing <sup>including mussel cultures,</sup> and water-sports are the main human activities, beside pastoral agriculture, military activities (amphibian and air force) and gas exploration

(b) surroundings/catchment

see 15 b)

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### 19. Disturbances/threats, including changes in land use and major development projects:

(factors which may have a negative impact on the ecological character of the wetland)

(a) at the site Military activities (esp. air force), Overexploitation of the mussel and cockel stocks, gas exploration, development of Emden Harbour (FRG) and water-pollution (especially from the Rhine)

(b) in the surroundings/catchment

see 15 b)

## 20. Hydrological and physical values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc.)

see 13

## 21. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

~~note~~ The Wadden Sea is very important for fisheries production (shrimps, fish, mussels and cockles) and recreation (see 26). The area is also important for its archaeological sites (ship wrecks, and drowned historical and prehistoric villages).

### *Platichthys flesus*.

The Wadden Sea is the only location in the Netherlands which holds large numbers of the Harbour Seal (*Phoca vitulina*). (In 1992 ca. 500 individuals were counted).

## 22. Noteworthy fauna: (e.g. unique, rare, endangered, abundant or biogeographically important species; include count data etc.)

~~important breeding sites for~~ The Wadden Sea is of international importance as staging, wintering, moulting and foraging area for waders and waterfowl (esp. geese). The table included lists for which species the 1% criterion is exceeded. The Ems-Dollard estuary with relatively high number of *Recurvirostra avocetta* (25,000) and *Tringa erythropus* (2,000) takes a somewhat different position. The Wadden Sea holds international important breeding colonies of *Sterna sandvicensis*, *S. hirundo* and *S. albifrons*. Furthermore, large numbers of *A. recurvirostra*, *Helimotopus ostralegus*, *Tringa totanus*, *Larus argentatus* and *L. ridibundus* breed on salt marshes and wet meadows.

The Wadden Sea is also of vital importance for the reproduction and life cycle of several fish species like *Clupea harengus*, *Pleuronectus platessa*, *Solea solea* and

## 23. Noteworthy flora: (e.g. unique, rare, endangered, or biogeographically important species/communities etc.)

Especially the Wadden islands are of high botanical interest due to the many abiotic gradients (wet-dry, salt-sweet, sand-clay, sun and wind exposition etc.) and the relatively undisturbed status (Extensive land-use). The vegetation of the sand-dunes differs from other parts in the Netherlands and is therefore considered to belong to a separate district. It holds many rare species and some unique communities.

For further information (also for wildlife) one is referred to Grimmett and Jones (sites 1, 4, 7, 9, 11, 12, 13 and 14 as well as the forelands of sites 2, 3, 5, 6 and 8), to the explanatory notes and to the sheet of the "Boschplaat".

**24. Current scientific research and facilities:** (e.g. details of current projects; existence of field station etc.)

On the islands of Texel the Dutch Institute for Sea Research has its residence. Also the State Institute for Nature Management Research has some facilities here. On other islands small field stations of the State Forestry Service are located. The island of Schiermonnikoog holds two ~~large~~ well accommodated field stations: one of the State University of Groningen and one of the "Free" University of Amsterdam. Current projects are <sup>too</sup> numerous to be listed here.

**25. Current conservation education:** (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)

On most of the Wadden islands there are visitors centres, offering all levels of information booklets and facilities for school visits. The one on the island of Texel, "Ecomare", is the largest of them all. Besides a visitor centre it contains also a "health" centre for seals and sea birds. Another seal centre (specialised in left youngsters) is located on the Frisian coast.

**26. Current recreation and tourism:** (state if wetland used for recreation/tourism; indicate type & frequency/intensity)

The Wadden Sea is used for several levels of water-sports, mainly boating and sailing. The islands are quite popular for holidays and have all levels of tourist accommodation (hostels, camping-areas etc.).

As far as the Ramsar site is concerned, nature reserves are only partly and periodically open for public. Even the Wadden Sea itself has its restrictions see 16.

**27. Management authority:** (name and address of body responsible for managing the wetland)

Sea: Ministries of Agriculture, Nature Management and Fisheries (and ~~of~~ Traffic and Public Affairs).

Land: State Forestry Service, Society for the Preservation of Natural Monuments in the Netherlands and two "landscapes" (Fryske Gea and Groninger Landschap)

**28. Jurisdiction:** (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept of Environment etc.)

Functional: Ministries of Agriculture, Nature Management and Fisheries ~~and~~ (and Traffic and Public Affairs)

Territorial: the provinces of North-Holland, Friesland and Groningen  
several municipalities

**29. Bibliographical references:** (scientific/technical only)

- Smit, C.J. & W.J. Wolff (eds.), 1988. Birds of the Wadden Sea. ~~Steekling Veth tot steekling Veth tot~~ ~~steekling Veth tot~~ ~~steekling Veth tot~~. Balhema, Rotterdam

- Ebbinge et al., 1982. The importance of spring staging areas for arctic breeding geese, wintering in Western Europe. *Aquila* 17: 249-258

- Wolff, W.J., 1979. Flora and vegetation of the Wadden Sea. Balhema, Rotterdam

- Wolff, W.J. (ed.), 1983. The ecology of the Wadden Sea. Balhema, Rotterdam

**30. Reasons for inclusion:** (state which Ramsar criteria - as adopted by Rec.C.4.15 of the Montreux Conference - are applicable)

- 1 (a)
- 2 (a) (b) (c)
- 3 (a) (b) (c)

**31. Map of site** (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)

already in your possession

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