

Ramsar Information Sheet

Published on 2 April 2015

NetherlandsDuinen Terschelling



Designation date 29 August 2000 Site number 2215 Coordinates 53°23'56"N 5°18'23"E

Area 4 040,30 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Terschelling (Dunes and Noordvaarder): This site comprises the dune area of the Waddensea barrier island Terschelling from an extensive sandflat in the west (Noordvaarder) up to and including the sand dunes north of the Boschplaat in the east. In the south it is bordered by villages, grassland polders and conifer plantations.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name Ms. A. Pel-Roest

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The Netherlands

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2.1.2 - Period of collection of data and information used to compile the RIS

To year 2013

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Duinen Terschelling

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Boundaries description (optional)

The Ramsar site 'Duinen Terschelling' was formerly an integral part of the Ramsarsite 'Waddeneilanden en Noordzeekustzone'. The Ramsar site 'Waddeneilanden en Noordzeekustzone' has also been designated as six separate European Natura 2000-sites, one named Noordzeekustzone and the others named after the respective islands 'Duinen en Lage land Texel', 'Duinen Vlieland', 'Duinen Terschelling', 'Duinen Ameland' and 'Duinen Schiermonnikoog'. A logical step as the ecosystems of the Noordzeekustzone and the islands are quite different, and all islands have their own nature management plan.

For this RIS-version, the new Ramsar site boundaries have therefore been adjusted to the Natura 2000- boundaries, while the respective names for the Natura 2000-sites have been adopted.

For the Ramsarsite 'Duinen Terschelling' this results in a size of 4040,3 ha.

2.2.2 - General location

a) In which large administrative region does
the site lie?

Province of Friesland

b) What is the nearest town or population centre? Nearest (biggest) village is West-Terschelling within the municipality of Terschelling (population 4795 per 1-1-2013; source: CBS, Netherlands Statistics)

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

idem No C

d) Transboundary Ramsar Site name: Wadden Sea

2.2.4 - Area of the Site

Official area, in hectares (ha): 4040.3

Area, in hectares (ha) as calculated from GIS boundaries

4096.87

2.2.5 - Biogeography

Biogeographic regions

| Regionalisation scheme(s) | Biogeographic region |
|-----------------------------------|----------------------|
| Other scheme (provide name below) | Atlantic |

Other biogeographic regionalisation scheme

The bio-geographic regions dataset used, contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other ecosystem services provided

The Dutch coastal dunes system stretching from the north-eastern border with Germany and the south-western border with Belgium is actually one big nature reserve. Within the Netherlands but also within the Atlantic biogeographic region it may be regarded as one of the most biodiverse ecosystems. The over 4000 ha of the Duinen Terschelling represent a vast and unique natural or near-natural dune-system containing a large variety of species and (priority) habitat types of European importance (see among others the habitat types listed under criterion 3).

- ☑ Criterion 2 : Rare species and threatened ecological communities
- ☑ Criterion 3 : Biological diversity

The Duinen Terschelling is designated as a Natura 2000 site (both SAC and SPA) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD) and SPA for a number of bird species that are not on Annex I of the BD.

Justification

Please refer to Section 3.4 > Ecological Communities for a list of Habitat types (according to the interpretation manual of EU-Habitat Directive) for which the site has been designated as a SAC.

3.2 - Plant species whose presence relates to the international importance of the site

RIS for Site no. 2215, Duinen Terschelling, Netherlands

| Scientific name | Common name | Criterion 2 | Criterion 3 | Criterion 4 | IUCN Red List | CITES Appendix I | Other status | Justification |
|------------------------------------|--------------------------|-------------|-------------|-------------|---------------------|------------------|--|---------------|
| Anacamptis morio | Green-winged Orchid | ✓ | | | | | National Red List - CR | |
| Arctostaphylos uva-ursi | Bearberry | ✓ | | | | | National Red List - EN | |
| Atriplex pedunculata | Pedunculate Sea-purslane | ✓ | | | | | National Red List - EN | |
| Botrychium Iunaria | Moonwort | ✓ | | | | | National Red List - VU | |
| Bryum warneum | Bryum moss | ✓ | | | | | National Red List - VU | |
| Dactylorhiza incamata | Early Marsh orchid | ✓ | | | | | National Red List - VU | |
| Dactylorhiza maculata | Heath Spotted Orchid | ✓ | | | | | National Red List - VU | |
| Epipactis palustris | Marsh Helleborine | ✓ | | | | | National Red List - VU | |
| Juncus pygmaeus | Pigmy Rush | ✓ | | | | | National Red List - CR | |
| Liparis loeselii | Fen Orchid | ✓ | | | | | National Red List - EN ; HD Annex II, IV | |
| Luronium natans | Floating Water-plantain | ✓ | | | LC Sign | | National Red List - VU ; HD Annex II, IV | |
| Moerckia hibernica | Irish Ruffwort | ✓ | | | | | National Red List - CR | |
| Parnassia palustris | Grass of parnassus | ✓ | | | LC Sign | | National Red List - VU | |
| Platanthera bifolia | Lesser Butterfly-orchid | ✓ | | | | | National Red List - EN | |
| Radiola linoides | Alseed | ✓ | | | | | National Red List - EN | |
| Scapania irrigua | Heath Earwort | 2 | | | | | National Red List - VU | |
| Schoenoplectus lacustris lacustris | Common Threesquare | Ø | | | | | National Red List - CR | |

| Criteria 2: |
|---|
| Mushroom species (in the Catalogue of Life but not in the IUCN Red List): Tricholoma equestre (Man on horseback): National Red List - EN |

3.3 - Animal species whose presence relates to the international importance of the site

| Phylum | Scientific name | Common name | Species qualifies under criterion | Species contributes under criterion | Pop. Size Period of pop. Est. occurrence | | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|----------------------------|-------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|--|----------------|------------------------|----------------------|-------------------------------------|---------------|
| | Acrocephalus schoenobaenus | Sedge Warbler | | | | LC ●数 ●翻 | | | National Red List - LC | Breeding bird |
| AVES | The second second | Short-eared Owl | | | | LC ●部 | | | National Red List - CR; BD Annex I | |
| ARTHROPODA / INSECTA | | Small Pearl- bordered Fritillary | | 10000 | | | | | National Red List - EN | |
| CHORDATA/ | Charadrius alexandrinus | Kentish Plover | 0000 | | | LC | | | National Red List - EN | Breeding bird |
| | Charadrius hiaticula | Common Ringed Plover | 0000 | | | LC Sign | | | National Red List - VU | Breeding bird |
| | Circus aeruginosus | Western Marsh Harrier | 8000 | 10000 | | LC Sign | | | National Red List - LC ; BD Annex I | |
| CHORDATA/ AVES | Circus cyaneus | Northern Harrier | | 10000 | | LC | | | National Red List - NT; BD Annex I | |
| CHORDATA/ | Oenanthe oenanthe | Northern Wheatear | | | | LC ●数 ●翻 | | | National Red List - EN | Breeding bird |
| CHORDATA/ AVES | Saxicola rubetra | Whinchat | | | | LC ©SF | | | National Red List - EN | Breeding bird |
| CHORDATA/ AVES | Sternula albifrons | Little Tern | | | | LC ©SF | | | National Red List - VU ; BD Annex I | |
| | Tachybaptus ruficollis | Little Grebe | 0000 | | | LC | | | National Red List - LC | Breeding bird |

| Criteria 2: | |
|--|--|
| onona 2. | |
| | |
| Butterflies (neither in the Catalogue of Life nor in the IUCN Red List): | |
| batterines (notified in the datalogue of the not in the look feed that). | |
| Argynnis niobe (Niobe Fritillary): National Red List - EN | |

3.4 - Ecological communities whose presence relates to the international importance of the site

RIS for Site no. 2215, Duinen Terschelling, Netherlands

| Name of ecological community | Community qualifies under Criterion 2? | Description | Justification |
|--|---|------------------------|---------------|
| Salicornia and other annuals colonizing mud and sand | | | |
| Embryonic shifting dunes | | | |
| Glauco-Puccinellietalia maritimae (Atlantic salt meadows) | | | |
| Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') | | | |
| Fixed coastal dunes with herbaceous vegetation ('grey dunes') | | Priority habitat types | |
| Decalcified fixed dunes with Empetrum nigrum | | Priority habitat types | |
| Calluno-Ulicetea (Atlantic decalcified fixed dunes) | | Priority habitat types | |
| Dunes with Hippophaë rhamnoides | | | |
| Dunes with Salixrepens ssp. Argentea (Salicion arenariae) | | | |
| Wooded dunes of the Atlantic region | | | |
| Humid dune slacks | | | |
| Species-rich Nardus grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) | | Priority habitat types | |

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Due to the harsh climatic circumstances natural woodland in the Wadden area is generally low and dominated by oak (Quercus robur); this type of woodland has only developed on the five largest dune islands, among which the Duinen Terschelling. In the 20th century many conifers have been planted to stabilise shifting sand dunes, partly as an employment project in the 1930's. The dunes encompass many habitat types of European importance.

Main ecosystem services of the site are:

- The chain of Wadden islands and dune systems creates shelter from the North Sea which protects and sustains the highly productive Wadden Sea (a.o. in terms of fisheries);
- The Wadden islands dunes protect the islands hinterland from the North Sea;
- The dunes are a catchment area for rainwater which provides high quality drinking (ground)water;
- The sunny climate and the scenic and natural beauty of the Wadden islands has turned the islands into one of the main tourism destinations in the Netherlands.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

| Training of occupied from and | | | | |
|-----------------------------------|------------|--|------------------------------|------------------------------|
| Wetland types (code and name) | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
| E: Sand, shingle or pebble shores | | 1 | 3636 | Unique |
| H: Intertidal marshes | | 2 | 404 | |

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

| Scientific name | Common name | Position in range / endemism / other |
|----------------------|-----------------------------|--------------------------------------|
| Carex hartmanii | Harman's Sedge | |
| Goodyera pubescens | Lesser Rattlesnake Plantain | |
| Haplomitrium hookeri | Hooker's Flapwort | |
| Neottia cordata | Lesser Twayblade | |

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

| Climatic region | Subregion |
|---|--|
| C: Moist Mid-Latitude climate with mild winters | Cfb: Marine west coast (Mld with no dry season, warm summer) |

4.4.2 - Geomorphic setting

| -> N & | |
|--|---|
| a) Minimum elevation above sea level (in metres) | 0 |
| metres) | U |
| , | |

| - \ N A 2 | 414,444,4 | 44.4.4 | | Lat. and 17.50 | | |
|--------------|-----------|--------|-----|----------------|----|--|
| a) iviaximum | elevation | above | sea | ievei (in | 24 | |
| a) Maximum | | | | on otroo) | 31 | |
| | | | | neiresi | | |

Coastal 🗵

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The Wadden island represents its own catchment area. The islands basically consist of dune sands and silt polders claimed from the sea. The land surface of the island ranges approx. 40 km².

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

Please provide further information on the soil (optional)

The landscape is characterised by a vast dune area and polders. The dunes have, together with the neighbouring island of Vlieland the lowest lime contents. The area is mainly characterised by dry grass- and heathland and contain special species of lichen, mosses and plants. The western part however is a young sandbank named Noordvaarder. This area is rich in lime and contains primary valleys with gradients of basic/acidic and fresh/salt water. Wet/dry gradients are especially found near a (fresh water) dune stream in the south of the Noordvaarder which again results in different vegetation communities.

4.4.4 - Water regime

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

See 4.4.3 Soil > Further information on the soil

The dune area forms the natural coastal defence of the island against the North Sea. Furthermore the dunes play an important role for fresh (drinking) water extraction.

4.4.5 - Sediment regime

<no data available>

4.4.6 - Water pH

<no data available>

4.4.7 - Water salinity

<no data available>

4.4.8 - Dissolved or suspended nutrients in water

<no data available>

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different o site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-------------------|--|--------------------------------|
| Fresh water | Drinking water for humans and/or livestock | High |

Regulating Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-------------------|------------------------------|--------------------------------|
| Hazard reduction | Flood control, flood storage | Medium |

Cultural Services

| Ecosystem service | Examples | Importance/Extent/Significance | |
|----------------------------|---|--------------------------------|--|
| Recreation and tourism | Nature observation and nature-based tourism | Medium | |
| Scientific and educational | Important knowledge systems, importance for research (scientific reference area or site) | High | |

Other ecosystem service(s) not included above:

- The dune area forms the natural coastal defence of the island against the North Sea.

- A primary indicator of the extent of tourism and recreation in the Wadden Sea region (here all five islands and mainland municipalities) is the number of overnight stays in commercial enterprises (nine beds or more). These are approx. 12 million overnight stays per year (data 1996).

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site?

4.5.2 - Social and cultural values

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Provide further information on the land tenure / ownership regime (optional):

a) within the Ramsar site:

Staatsbosbeheer

b) in the surrounding area:

The water (Wadden Sea and North Sea) is state owned, on land several private owners.

5.1.2 - Management authority

Main management authorities:

Please list the local office / offices of any agency or organization responsible for managing the site:

- Staatsbosbeheer, P.O. Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 (0)30-6926111.

- Rijkswaterstaat Noord-Nederland, Zuidersingel 3, 8911 AV Leeuwarden, P.O. Box 2301, 8901 JH, Leeuwarden, tel. +31 (0)58 234 43 44.

Postal address

See above.

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area |
|----------------------------------|---------------|------------------|-----------------|-------------------------|
| Tourism and recreation areas | Medium impact | | 2 | |

Water regulation

| Tator regulation | | | | | |
|------------------|----------------------------------|---------------|------------------|-----------------|-------------------------|
| | Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area |
| | Water abstraction | Medium impact | | ₹ | |

5.2.2 - Legal conservation status

Regional (international) legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|------------------|---------------------|------------------------|--------------------------|
| EU Natura 2000 | Duinen Terschelling | | whole |

5.2.3 - IUCN protected areas categories (2008)

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

5.2.4 - Key conservation measures

<no data available>

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes O No ●

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No oprocesses with another Contracting Party?

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

Rijkswaterstaat, Staatsbosbeheer, Oerol and the musea at Terschelling agreed in October 2012 to start a visitor centre for culture and nature at the harbour of the village of West-Terschelling.

Information on excursions can be obtained through the visitor centre and Tourist Offices (VVV's) of Terschelling.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura 2000-habitat types and species.

Numerous scientific research projects are ongoing in the Wadden Sea, North Sea Coastal area and the Wadden Islands.

Main responsible executors are:

- NIOZ: Royal Netherlands Institute for Sea Research;
- Wageningen IMARES: The Institute for Marine Resources and Ecosystem Studies (which joins same facilities with NIOZ);
- Wageningen Alterra: research institute for our green living environment (mainly terrestrial and fresh water research);
- University of Groningen (offering an MSc in Marine Biology);
- SOVON, the Dutch Bird Research Organisation, coordinates a continues national bird monitoring program in which it cooperates with 7000 volunteers, research institutes and organisations in the monitoring of birds throughout the Netherlands;
- TNO: Netherlands Organization for Applied Scientific Research (Den Helder);
- NIOO: Netherlands Institute of Ecology;
- RIKZ: The National Institute for Coastal and Marine Management.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

The number of scientific/technical references is too extended to list here. For a complete list please surf to the publication lists of the research institutes on the internet. For an arbitrary selection see below:

- BirdLife International, 2004. Birds in Europe, population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12).
- Hornman, M., Hustings, F., Koffijberg, K., Kleefstra, R., Klaassen, O., van Winden, E., SOVON Ganzen- en Zwanenwerkgroep & L. Soldaat, 2012. Watervogels in Nederland 2009/2010. SOVON-rapport 2012/02, Waterdienst-rapport 12.06. SOVON Vogelonderzoek Nederland, Nijmegen.
- Janssen, John, A.M. & Joop, H.J. Schaminée, 2009. Europese Natuur in Nederland. Zee en kust Natura 2000-gebieden. KNNV-Uitgeverij.
- Ministerie van LNV, 2008. Aanwijzingsbesluit Natura-2000 gebied Duinen Terschelling.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

<no data available>

6.1.4 - Designation letter and related data

Designation letter

<2 file(s) uploaded>

Transboundary Designation letter

<1 file(s) uploaded>

Date of Designation 2000-08-29