

## Ramsar Information Sheet

Published on 2 April 2015

# Netherlands Duinen Vlieland



Designation date 29 August 2000
Site number 2216
Coordinates 53°17'19"N 5°2'20"E
Area 1 484,10 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

Vlieland is a Wadden Sea barrier island between Texel and Terschelling. The eastern part belongs to Ramsar site Duinen Vlieland and is an extensive area of sand dunes, forest plantations and some embanked brackish lagoons (Kroonpolders). The village and the main tourist facilities on the east side have been excluded. The width of the dune area varies from 300 to 1700 m.

#### 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

Institution/agency Ministry of Economic Affairs, Department of Nature and Biodiversity

Prins Clauslaan 8
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2500 EK The Hague, the Netherlands

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Phone +31 70 378 6868

#### 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 Vlieland

#### 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 Vlieland' 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 Vlieland' this results in a size of 1484,1 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? Oost-Vlieland (population 1114 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? Yes O No

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

idem No O

d) Transboundary Ramsar Site name: Wadden Sea

#### 2.2.4 - Area of the Site

Official area, in hectares (ha): 1484.1

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

1484.11

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 southwestern 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 almost 1500 ha of the Duinen Vlieland 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 Vlieland 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 Justification types (Annex I of HD) and SPA for a number of bird species that are not on Annex I of the BD.

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.

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ☑ Criterion 6 : >1% waterbird population

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

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Dactylorhiza incarnata	Early Marsh orchid	V					National Red List (VU)	
Epipactis palustris	Marsh Helleborine	V					National Red List (VU)	
Gymnadenia conopsea	Fragrant Orchid	V					National Red List (CR)	
Liparis loeselii	Fen Orchid	V					National Red List (EN); HD Annex II, IV	
Parnassia palustris	Grass of parnassus	✓			LC Sign		National Red List (VU)	
Tuberaria guttata	Spotted Rockrose	✓					National Red List (CR)	

Spe	cies listed under Criteria	2:
Mos	ses:	

- Bryoria fuscescens National Red List (CR); has not yet been assessed for the IUCN Red List, but is in the Catalogue of Life Cladina ciliata National Red List (EN); has not yet been assessed for the IUCN Red List, but is in the Catalogue of Life

#### Mushrooms:

- Phallus hadriani - National Red List (VU); has not yet been assessed for the IUCN Red List, but is in the Catalogue of Life

2.2 Animal analisa whose presence relates to the international importance of the site

3.3 - An	imal species	whose pre	_						inte	ernational in	nportanc	e of	the sit	е		
Phylum	Scientific name	Common name	0	Spec quali und crite	fies ler rion	conti ur crit	nder erion	s	Pop. Size	Period of pop. Es	t. occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Anas acuta	Northern Pintail				20						LC or				Criteria 3: Bird species (not on Annex I of the BD) for which the site has been designated as a SPA
CHORDATA / AVES	Anas clypeata	Northern Shoveler	r 🗆			2						LC ©SS ©SSS				Criteria 3: Bird species (not on AnnexI of the BD) for which the site has been designated as a SPA
AVES	aeruginosus	Western Marsh Harrier	<b>V</b>			םכ						LC ©#			National Red List - LC; BD Annex I	
CHORDATA / AVES	Circus cyaneus	Northern Harrier	V			םכ						LC © 53 © TSF			National Red List - NT; BD Annex I	
/	Larus fuscus graellsii	Lesser Black- backed Gull		V	<b></b> Ø	20		1:	2489	2006-2010	3.3				Breeding birds: National Red List - LC	Criteria 3: Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004). Criteria 4: Several species gather in relatively small areas like at high water refuge sites or in breeding colonies like for Eurasian Spoonbill Platalea leucorodia, Lesser Black-backed Gull Larus fuscus graelsii and Great Cormorant Phalacrocorax carbo. Criteria 6: Biogeographic population for breeding Lesser Black-Backed Gull: W.Europe.
	Oenanthe oenanthe	Northern Wheatear				20						LC Sign			Breeding birds: National Red List - EN	Criteria 3: Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004).
/	Phalacrocorax carbo	Great Cormorant		V		20						LC			Breeding birds: National Red List - LC	Criteria 3: Bird species (not on Annex I of the BD) for Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004) for both breeding and non-breeding birds. Criteria 4: Several species gather in relatively small areas like at high water refuge sites or in breeding colonies like for Eurasian Spoonbill Platalea leucorodia, Lesser Black-backed Gull Larus fuscus graelsii and Great Cormorant Phalacrocorax carbo.
CHORDATA / AVES	Platalea leucorodia	Eurasian Spoonbill	<b>V</b>	<b></b>	☑(	30			726	2006-2010	6.6	LC			BD Annex I; National Red List - LC for breeding birds.	Criteria 4: Several species gather in relatively small areas like at high water refuge sites or in breeding colonies like for Eurasian Spoonbill Platalea leucorodia, Lesser Black-backed Gull Larus fuscus graelsii and Great Cormorant Phalacrocorax carbo. Criteria 6: Biogeographic population for breeding Eurasian Spoonbill: Eastern Atlantic. Population 154 (2006-2010), 1.4% at site. Biogeographic population for non-breeding Eurasian Spoonbill: Eastern Atlantic. Population 726 (2006-2010), 6.6% at site.
CHORDATA / AVES	Porzana porzana	Spotted Crake	V			JC									National Red List - VU ; BD Annex I	

Phylum	Scientific name	Common name	Species qualifies under criterion	Species contributes under criterion	Pop. Size Period of pop. E	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
	Recurvirostra avosetta	Avocet	<b>2</b> 000	0000			LC ©\$3 ©TSF			BD Annex I	
CHORDATA / AVES	Somateria mollissima	Common Eider	0000	Ø000			LC ©SS ©TSF			Breeding birds: National Red List - LC	Criteria 3: Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004).
CHORDATA / AVES	Tringa totanus totanus	Common Redshank		Ø000	3019 2006-2010	1.1					Criteria 3: Bird species (not on Annex I of the BD) for which the site has been designated as a SPA Criteria 6: Biogeographic population for non-breeding Redshank: Eastern Atlantic (win). Population 2973 (2006-2010), 1.2% at site. Biogeographic population for non-breeding Redshank: lealand/ Faroes Islands (bre). Population 3019 (2006-2010), 1.1% at site.

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Salicornia and other annuals colonizing mud and sand			
Atlantic salt meadows (Glauco- Puccinellietalia maritimae)			
Shifting dunes along the shoreline with Ammophila arenaria ('white dunes')			
Atlantic decalcified fixed dunes (Calluno- Ulicetea)		Priority habitat type	
Decalcified fixed dunes with Empetrum nigrum		Priority habitat type	
Fixed coastal dunes with herbaceous vegetation ('grey dunes')		Priority habitat type	
Dunes with Hippophaë rhamnoides			
Dunes with Salix repens ssp. Argentea (Salicion arenariae)			
Wooded dunes of the Atlantic region			
Humid dune slacks			

#### 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 Vlieland. In the 20th century many conifers have been planted to stabilise shifting sand dunes, partly as an employment project in the 1930-ies. 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

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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	1336	Unique
H: Intertidal marshes		2	148	Unique

#### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

<no data available>

#### 4.4 - Physical components

#### 4.4.1 - Climate

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

#### 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)	
a) Maximum elevation above sea level (in	

metres) 40

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.

#### 4.4.3 - Soil

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)

Vlieland is one of the smaller Wadden Sea islands. The landscape is characterised by a vast dune area and polders (Kroon's Polders). The dry dunes are decalcified which results in diverse lichen 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.

The Duinen Vlieland encompass a wide variety of dune slacks which differ in infiltration and upwelling of fresh ground water. More centralised there are more decalcified environments in infiltration slacks. The Kroon's polders are artificial, once created to prevent the island from breaking in two pieces as well as to create meadows for farming. Three of the four polders are connected to the tidal system of the Wadden Sea.

Measures are taken in order to counteract water shortage due to low groundwater level.

#### 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:

Please describe other ways in which the surrounding area is different:

The Wadden Sea and the North Sea represent the immediate surroundings of the Wadden Island.

#### 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	Medium

#### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	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. Furthermore the dunes play an important role for fresh (drinking) water extraction.

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:

Please list the local office / offices of any - Staatsbosbeheer, P.O. Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 (0)30-6926111.

agency or organization responsible for - Ministry of Defence, P.O. Box 20701, 2500 ES, The Hague, +31 (0)70 318 81 88.

managing the site: - 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

#### Water regulation

vidici regulation	i regulation						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area			
Water abstraction	Medium impact		✓				

#### Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Medium impact		<b></b>	
(Para)military activities	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	Duienen Mieland		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 

processes 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:

A wide variety of hides, excursions, information booklets etc.

The area has one visitor centre in the village of Oost-Vlieland: "De Noordwester", Dorpsstraat 150, 8899 AN Vlieland, tel. 0562 451700. Information on excursions can be obtained through the visitor centres and Tourist Offices (VVV's) of Vlieland.

#### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

#### 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. 296p.
- Ministerie van LNV, 2008. Aanwijzingsbesluit Natura-2000 gebied Duinen Vlieland.

#### 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 availables

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