

# De Boschplaat Terschelling NL

ANNUAL REPORT FOR THE PERIOD 1 OCTOBER 2012 - 30 SEPTEMBER 2013

Terschelling  
November 2013

Text: Freek Zwart

National Forest Service  
Postbus 333  
NL-9700 AH Groningen  
Tel. : + 31 (0)50 707 4444  
Fax : + 31 (0)50 707 4400  
E-mail: [h.brink@staatsbosbeheer.nl](mailto:h.brink@staatsbosbeheer.nl)

National Forest Service, Terschelling  
Longway 28  
NL-8881 CM Terschelling West  
Tel. : + 31 (0)562 442116  
Fax : + 31 (0)562 442208  
E-mail: [f.zwart@staatsbosbeheer.nl](mailto:f.zwart@staatsbosbeheer.nl)

<b>CONTENTS</b>		Page
<b>I</b>	<b><u>GENERAL INFORMATION</u></b>	
1	Natural heritage – state of conservation	1
1.1	Abiotic changes	
1.2	Flora and vegetation	
1.3	Fauna	
1.3.1	Mammals	
1.3.2	Breeding birds	
1.3.3	Non-breeding birds	
1.3.4	Other species	
<b>2</b>	<b>CULTURAL HERITAGE AND SOCIO-ECONOMIC ASPECTS</b>	
2.1	Cultural heritage	3
2.2	Socio-economic aspects	
<b>3</b>	<b>EDUCATION AND SCIENTIFIC INTEREST</b>	
3.1	Education and information policy	3
3.1.1	Arrangements for receiving and informing the public	
3.1.2	Frequentation by visitors	
3.1.3	Special visits	
3.2	Scientific research	
3.2.1	Current or completed research	
3.2.2	Publications	
<b>4</b>	<b>SITE DESCRIPTION</b>	
4.1	Changes in legislation or regulations	4
4.2	Changes in ownership title	
4.3	Extension or transfer, new uses	
<b>5</b>	<b>SITE MANAGEMENT</b>	
5.1	Improvements made	4
5.1.1	Ecological action	
5.1.1.1	Flora	
5.1.1.2	Fauna	
5.1.2	Protection against the elements	
5.1.3	Approaches and thoroughfares	
5.1.4	Field equipment	
5.1.5	Other activities	
5.2	Management	
5.2.1	Administration department	
5.2.2	Wardens' department	
5.2.3	Internal policing measures	
5.2.4	Infringement of regulations	
<b>II</b>	<b>INFLUENCE OF THE AWARD OF THE EUROPEAN DIPLOMA OF PROTECTED AREAS</b>	5
<b>III</b>	<b>CONDITIONS AND/OR RECOMMENDATIONS FOR THE AWARD OR RENEWAL</b>	5
 <b>ANNEXES</b>		
1.	Breeding birds in the Boschplaat monitoring area from 2009 – 2013	
2.	Special species, raptors and colony nesters from 2009 – 2013	
3.	Counts of shore birds at the Boschplaat in the review period 2012-2013	

## I GENERAL INFORMATION

1 Natural heritage – state of conservation

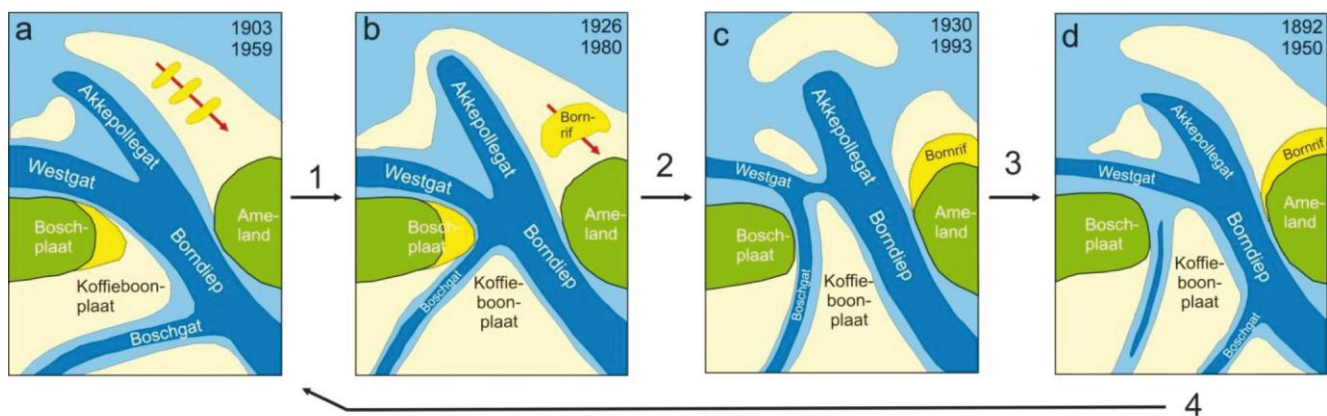
1.1 Abiotic changes

### Changes in the coastline

Two related developments are occurring with regard to the coastline. The coastal profiles on the northwest side between Poles 22 and 26 have been shifting seaward, but considerable erosion is still taking place at the far east side where around 5-10 ha of beach and dunes have disappeared into the sea.

The Koffieboonplaat has become substantially shorter and narrower; at the same time this sandbank is levelling off. Some of the sand is migrating toward the Fifth Channel. The far end of the channel is increasingly silting up. In the past, water could flow into it during a normal high tide and then flow out of it during a low tide. This is not always the case anymore. It appears that the Koffieboonplaat is becoming less and less suitable for breeding birds because it is becoming inundated by a tide that is just a little higher than normal.

## Relationship between the Boschplaat and large-scaled development



**Much sand deposition**

**Little sand deposition**

Large-scaled development described by Israel and Dunsbergen (1999)

A geomorphological analysis conducted by Deltares confirmed the cyclic model described in 1999. According to this model, the estuary mouth shifts from being a 2-channel system to a 1-channel system as based on a 50 – 60-year cycle. During its development into a 1-channel system, the Boschgat silts up and the northern part of the Koffieboonplaat merges with the Boschplaat. When this occurs, the Boschplaat makes substantial progress (situation a). Based on the 50 – 60-year cycle, erosion on the east side will continue for almost another 10 years. Another possibility, however, is that instead of its former cycle, the Boschgat will not silt up and will remain in its current position. A possible cause for this development would be the changes in the tide storage area in which a significant change occurs in the wan tide behind Terschelling.

1.2 Flora and vegetation

### Basic vegetation mapping

This year, the report on the basic vegetation mapping which is conducted every 10 years was completed. This repeated study makes it possible to follow the developments in the vegetation and involves only the part of Terschelling impacted by fresh water. Around 500 ha of this area being mapped is found within the boundaries of the European nature reserve (the area known as the Vaste Duinen). Approximately 80 ha consist of 'open sand' and 20 ha of outer-dune vegetation which makes it representative of the high degree of dynamism in the north side of this area.

Occurring in this area are many (47) species on the Red Lists of Biotopes, Flora and Fauna of the Trilateral Wadden Sea Area, 17 of which have increased in number over the last 10 years and 4 of which have diminished in number. The species of most special interest are the Green-winged Orchid (*Orchis morio*), the Fragrant Orchid (*Gymnadenia conopsea*) and the Hartman's Sedge (*Carex hartmanii*). Within the areas of enclosed dune grassland vegetation, the percentage covered in Heath Star-moss (*Campylopus introflexus*) is relatively high. This indicates the impact of atmospheric deposition and the absence of grazing. The part impacted by salt water was mapped during the summer of 2013 but this report is not yet available.

### Special species

The large population of the Fen Orchid (*Liparis loeslii*) near the little house built for stranded sailors appears to be fairly unchanged. The small population (3 specimens counted last year) level with Pole 20 was not found this year.

On the Stuifdijk, level with Pole 22, a population of 7 flowering specimens of the Bee Orchid (*Ophrys apifera*) was discovered. This is a species new to Terschelling and the Boschplaat.

## 1.3 Fauna

### 1.3.1 Mammals

#### Sperm Whale (*Physeter macrocephalus*)

On 29 July, a beached sperm whale, still alive and approximately 15 metres long, was found level with Pole 26 on the Boschplaat. Rescue attempts, in which the recently established protocol issued by the Ministry of Economic Affairs regarding the beaching of live cetaceans was followed as closely as possible, failed to save the whale. A tugboat hauled the carcass away for further research. This event quickly attracted hundreds of tourists and islanders.

### 1.3.2 Breeding birds

#### Monitoring

Last year, within the framework of international monitoring of the Wadden Sea, the entire Boschplaat was the subject of an inventory of all relevant breeding birds. Its findings exhibit too many gaps of information and uncertainties to form a somewhat reliable picture of developments. This also applies to the information about the special species and colony nesters on the Boschplaat in 2013.

Annex 1 provides the results for the monitoring area at the Derde Duintjes.

#### Common Eider *Somateria mollissima*

A special count was conducted to provide a good estimate of the breeding population of the Common Eider. The total number of breeding pairs was estimated to be around 2100. This is a substantial percentage of the Dutch population.

### 1.3.3 Non-breeding birds

As part of international shorebird research, 5 integrated counts were conducted during the last reporting period. Numbers counted for the 22 species commonly found and characteristic of the Boschplaat are given in Annex 3. This table also provides the most recent 1% norm (Ramsar criteria).

Seasonal peaks were counted for four species: during the late summer, 537 specimens of the Common Spoonbill (*Platalea leucorodia*) and 8320 specimens of the Common Eider (*Somateria mollissima*) were counted. The number of Sanderling (*Calidris alba*) counted during the spring migration was 1824. The number of Greylag Goose (*Anser anser*) counted reached a new record: 2507 specimens.

#### Common Eider *Somateria mollissima*

During the mid-winter 2013 count, it was found that the population spending the winter in the Wadden Sea region has returned to the level before the major relapse that reached a low point of 55,500 specimens in 2009. This year, almost 100,000 birds were counted: an increase of around 42%. This means that the target for increasing the population in the Wadden Sea area has been reached. The area south of the Boschplaat is a major area of concentration for the Common Eider. The recovery of the Cockle and Mussel banks and the invasion of the American Jackknife Clam (*Ensis americanus*) play an important role in this recovery since they are major sources of food.

### 1.3.4 Other species

#### Cockle (*Cerastoderma edule*) and Mussel (*Mytilus edulis*)

The biomass (level measured during the spring of 2013) of the cockle population in the Wadden Sea has

increased. The main reason for this is the increase in the number of two-year-old cockles that make up around 80% of the population. About 10% of the population consists of one-year-old mussels indicative of the fairly small spat setting in 2012. Relatively many densely populated shellfish banks with > 600 specimens/m<sup>2</sup> are located within the boundaries of the Boschplaat Reserve.

## **2 CULTURAL HERITAGE AND SOCIO-ECONOMIC CONTEXT**

- 2.1 Cultural heritage: nothing of relevance to report.
- 2.2 Socio-economic aspects: nothing of relevance to report.

## **3 EDUCATION AND SCIENTIFIC INTEREST**

- 3.1 Education and information policy
  - 3.1.1 Arrangements for receiving and informing the public

### Receiving visitors

Excursions: Interest among the public in traditional nature excursions has been waning for years. The new excursion programmes emphasise the concept of 'fewer but better', and new themes aimed mainly at experiencing and discovering the natural world are introduced every year. The new themes this year were 'Experience the Boschplaat', 'The Big Five' (especially the seal) and 'Wilderness Hike over the Boschplaat'. These excursions also involved collaboration with local businesses. A total of more than 40 hikes were organised in which around 600 people participated.

### 'Quiet for the birds, an outdoor experience for people'

This project focuses on optimising natural habitats for breeding and migratory birds, and improvements in receiving, informing and managing the public at eleven locations throughout the Wadden Sea region. On the Boschplaat, which is one of these project locations, receiving and informing the public at the guard posts will be improved. The project will start at the end of 2013 and will run until the end of 2016. A total of € 95,000 is being made available for this. The Dutch Society for the Protection of Birds is at the head of this project and is coordinating it; the Dutch Wadden Fund is subsidising it.

### Migratory Birds for People

This project is aimed at a better protection and improvement of wetlands along the entire East Atlantic Flyway and the birds that depend on them. This is being accomplished by such means as communicating and collaborating with site managers. Visitors' centres in 20 participating N2000 / Ramsar sites (from Russia to Senegal) – including Terschelling / the Boschplaat / the Wadden Sea – are playing a central role in this project. A small exhibition in the Centre for Nature and Landscape is devoted to this.

- 3.1.2 Frequentation by visitors
  - When the wardens are at their post, they are also involved in receiving visitors and telling them about their area. Last season, 5400 guests were received in this way, around 70% of them at the post near Pole 22. This is more than double last year's figure. One of the factors in this increase was the deployment of volunteers at both posts.
- 3.1.3 Special visits: nothing of relevance to report.
- 3.2 Scientific research
  - 3.2.1 Current or completed research

### Fire in the Vaste Duinen/Berkenvallei

After the fire in 2004, a study was conducted from 2006 to 2012 into the regeneration of the vegetation as compared to an adjoining control area. The most important conclusions were:

- The effects of a fire have a long-term impact.
- The abiotic factors undergo little change
- Following a profuse development of pioneer species, the vegetation gradually returns to its original composition.

- After a period of 8 years, the low-growing species such as mosses dominated while taller species such as the Crowberry (*Empetrium nigrum*), which was a dominant plant in the control area, had disappeared.
- It will be many years before the original situation is restored.

### 3.2.2 Publications

The following publications were issued during the period under review.

- N. Aerts, K. Akkerman, T.D. Driessen, M.C. Homann, S.D. IJff, 2012. The Post-fire Secondary Succession of the Vegetation on the Berkenvallei, Terschelling. University of Utrecht.
- E. Elias, A. Bruens, 2012. Morphological Analysis of the Boschplaat. Report 1206171-01, Deltares 2012.
- C. van Zweeden, M. van Asch, D. van den Ende, K. Troost: The Mussel Population in Dutch Coastal Waters in 2013. Report C115/13. IMARES, Wageningen UR.

## 4 SITE DESCRIPTION

### 4.1 Changes in legislation or regulations

#### The Natura 2000 management plan for Terschelling

The development of this management plan has been substantially delayed. The draft plan has been completed except for the part known as the Structural Approach to Nitrogen Deposition which still has to be finalised. The draft plan is expected to be submitted for inspection after the summer of 2014 after which it can be submitted for feedback.

The most important primary objectives of the draft plan for the Boschplaat are:

- optimising freshwater to salt water transitions from sand to tidal flat;
- allow for control by natural processes such as sand drift and sedimentation;
- undisturbed succession and development of non-arid dune forests in the Vaste Duinen area;
- maintain grazing management on the Groede;
- allow for control as based on maximising natural processes for the 'tail of the island' in which rejuvenation can be realised from north to south and vice versa.

4.2 Changes in ownership title: nothing of relevance to report.

4.3 Extension or transfer, new uses: nothing of relevance to report.

## 5 SITE MANAGEMENT

### 5.1 Improvements made

#### 5.1.1 Ecological action

##### 5.1.1.1 Flora

5.1.1.2 Fauna: nothing of relevance to report.

5.1.2 Protection against the elements: nothing of relevance to report.

#### 5.1.3 Approaches and thoroughfares

According to the motto 'Fewer signs – more information', the number of prohibitive signs around the area was reduced by approximately 50%. Accessible routes and paths are indicated by means of pictograms. To inform visitors better, small information panels have been installed at a number of crucial points.

The guard post at the Amelandergat has been moved to a more strategic point so that the provision of information and supervision at the eastern point has been substantially improved.

5.1.4 Field equipment: nothing of relevance to report.

5.1.5 Other activities: nothing of relevance to report.

## 5.2 Management

5.2.1 Administration department: nothing of relevance to report.

5.2.2 Wardens' department.

### Guarding

The first day of guarding this year was 1 April and the last day was 28 August.

This year, both guard posts were occupied 24 hours a day by volunteers.

5.2.3 Internal policing measures: nothing of relevance to report.

5.2.4 Infringement of regulations

The numbers in the category "trespassing in closed area" refer to the number of persons involved. In most cases, all that was needed was a correction or warning. In 5 cases, all of them involving the use of motor vehicles, an official report was made (see Table 3).

Category	2009	2010	2011	2012	2013
Trespassing in closed area (number of persons)	105	107	148	50	174
Unleashed dogs	78	19	34	13	41
Motorised vehicles	15	38	33	33	22
Plant picking/digging	-	-	-	-	-
Egg collecting	-	-	-	-	-
Camping	8	5	-	11	-
Horseback riders	1	1	-	-	2
Other, including poaching, kite surfing, disturbing birds	12	18	7	6	10
<b>Total</b>	<b>219</b>	<b>188</b>	<b>222</b>	<b>113</b>	<b>249</b>
<b>Official reports</b>	<b>15</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>3</b>

Table 4: Infringements occurring during the 2009 – 2013 guarding season

## **II INFLUENCE OF THE AWARD OF THE EUROPEAN DIPLOMA OF PROTECTED AREAS (NOTHING OF RELEVANCE TO REPORT)**

## **III CONDITIONS AND/OR RECOMMENDATIONS FOR THE AWARD OR RENEWAL**

*The recommendations of the Council of Europe are added to this report as Annex 4.*

With regard to Recommendation 1:

The budget available, particularly the budget for monitoring, is under pressure. Cuts have been made to the periodic (6-yearly) basic mapping of breeding birds and the deployment of permanent employees. As a result, a shift to using more volunteers has occurred in recent years. In practical terms, having volunteers helping with the inventories has yielded insufficiently useful findings.

## ANNEXES:

**Annex 1: Breeding birds observed in the Derde Duintjes – Boschplaat monitoring area: 2009 – 2013 (215 ha)**

<b>Common name</b>	<b>Scientific name</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Common Spoonbill	<i>Platalea leucorodia</i>	1	2	5	4	11
Greylag Goose	<i>Anser anser</i>	5	3	2	1	3
Egyptian Goose	<i>Alopochen aegyptiacus</i>	0	0	1	0	2
Common Shelduck	<i>Tadorna tadorna</i>	28	20	17	13	23
Mallard	<i>Anas platyrhynchos</i>	3	5	3	0	5
Common Eider	<i>Somateria mollissima</i>	48	64	48	14	15
Marsh Harrier	<i>Circus aeruginosus</i>	2	2	2	2	3
Common Buzzard	<i>Buteo buteo</i>	1	0	1	0	0
Common Pheasant	<i>Phasianus colchicus</i>	16	12	5	4	6
Oyster Catcher	<i>Haematopus ostralegus</i>	76	63	54	43	50
Eurasian Curlew	<i>Numenius arquata</i>	5	3	2	3	2
Common Redshank	<i>Tringa totanus</i>	18	18	17	9	11
Mew Gull	<i>Larus canis</i>	15	17	15	15	13
Lesser Black-headed Gull	<i>Larus fuscus</i>	205	237	148	150	113
Herring Gull	<i>Larus argentatus</i>	255	220	162	145	153
Great Black-backed Gull	<i>Larus marinus</i>	2	1	1	1	1
Wood Pigeon	<i>Columba palumbus</i>	3	3	6	2	3
Common Cuckoo	<i>Cuculus canorus</i>	1	1	0	1	0
Short-eared Owl	<i>Asio flammeus</i>	1	0	0	1	0
Eurasian Skylark	<i>Alauda arvensis</i>	16	11	21	17	21
Meadow Pipit	<i>Anthus pratensis</i>	44	48	57	53	59
Blue-headed Wagtail	<i>Motacilla flava</i>	2	3	4	1	2
Yellow Wagtail	<i>Motacilla f. flavissima</i>	0	1	1	0	0
Hedge Sparrow	<i>Prunella modularis</i>	0	3	2	0	0
Winter Wren	<i>Troglodytes troglodytes</i>	18	18	10	2	8
Common Nightingale	<i>Luscinia megarhynchos</i>	0	1	0	0	0
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	0	1	0	0	0
Lesser Whitethroat	<i>Sylvia curruca</i>	2	4	2	2	4
Blackcap	<i>Sylvia atricapilla</i>	0	3	0	0	0
Garden Warbler	<i>Sylvia borin</i>	0	1	0	0	0
Common Whitethroat	<i>Sylvia communis</i>	9	9	19	14	15
Grasshopper Warbler	<i>Locustella naevia</i>	10	11	23	10	4
Icterine Warbler	<i>Hippolais icterina</i>	0	0	1	0	0
Willow Warbler	<i>Phylloscopus trochilus</i>	2	2	3	4	5
Northern Chiffchaff	<i>Phylloscopus collybita</i>	0	1	0	0	3
Chaffinch	<i>Fringilla coelebs</i>	1	0	0	0	0
Common Magpie	<i>Pica pica</i>	0	1	0	1	1
Carrion Crow	<i>Corvus corone</i>	11	9	9	8	8
Common Redpol	<i>Carduelis cabaret</i>	0	0	0	0	2
Reed Bunting	<i>Emberiza schoeniclus</i>	8	10	18	11	13
<b>Total species</b>		<b>29</b>	<b>34</b>	<b>30</b>	<b>27</b>	<b>29</b>



**Annex 2: Special species, raptors, and colony nesters on the entire Boschplaat 2009- 2013**

This information was not yet available at the time this annual report was completed.

**Annex 3: Counts of shore birds on the Boschplaat in the review period 2012 - 2013**

Common name	Scientific name	Sep 2012	Oct 2012	Nov 2012	Jan. 2013	May 2013	Aug 2013	Peak 1995 - 2013	period	1% norm
Great Cormorant	<i>Phalacrocorax carbo</i>	255	65	1	1	326	433	777	July	3900
Common Spoonbill	<i>Platalea leucorodia</i>	147	0	0	0	71	<b>537</b>	<b>537</b>	Aug. 13	110
Greylag Goose	<i>Anser anser</i>	758	1168	939	2507	75	89	<b>2507</b>	Jan. 13	5000
Barnacle Goose	<i>Branta leucopsis</i>	0	20	0	0	951	84	1475	Apr. 07	4200
Brent Goose	<i>Branta bernicla</i>	7	1691	191	82	3418	9	8700	May	2000
Common Shelduck	<i>Tadorna tadorna</i>	2409	1664	719	753	449	56	8800	Sep.	3000
Wigeon	<i>Anas penelope</i>	265	4359	8100	5290	0	<b>0</b>	17783	Nov. 09	15000
Common Teal	<i>Anas crecca</i>	326	684	1069	376	0	0	1850	Nov. 02	5000
Pintail	<i>Anas acuta</i>	906	832	747	412	0	0	2256	Dec 10	600
Common Eider	<i>Somateria mollissima</i>	2099	58	15	1054	4309	8320	<b>8320</b>	Aug. 13	7600
Oyster Catcher	<i>Haematopus ostralegus</i>	4218	5982	6749	6180	1116	9771	13000	Jan.	10200
Grey Plover	<i>Pluvialis squatarola</i>	2343	1668	744	1358	1748	1257	7200	Dec. 02	2500
Red Knot	<i>Calidris canutus</i>	7068	2685	2383	4042	1102	230	17435	Nov. 06	4500
Sanderling	<i>Calidris alba</i>	985	638	509	487	1824	407	<b>1824</b>	May 13	1200
Dunlin	<i>Calidris alpina</i>	18550	12177	5576	3601	6311	6261	24195	Sep. 09	13300
Bar-tailed Godwit	<i>Limosa lapponica</i>	3874	9915	8647	16265	7712	8485	18322	Jan 12	6000
Eurasian Curlew	<i>Numenius arquata</i>	4801	1444	466	1037	131	4340	11400	Sep.	8500
Common Redshank	<i>Tringa totanus</i>	545	952	790	993	341	2364	7700	Sep.	2800
Black-headed Gull	<i>Larus ridibundus</i>	8942	684	44	29	398	8249	13000	Jul.	20000
Mew Gull	<i>Larus canus</i>	305	135	317	1164	68	5293	16470	Jan. 05	20000
Herring Gull	<i>Larus argentatus</i>	3213	5985	1797	2325	5187	7080	37300	Feb.	5900
Great Black-headed Gull	<i>Larus marinus</i>	1537	501	149	55	29	12	4600	Jan.	4400

#### **Annex 4: Council of Europe recommendations 2010– 2020**

COUNCIL OF EUROPE  
COMMITTEE OF MINISTERS

#### **Resolution CM/ResDip(2010)9 on the renewal of the European Diploma of Protected Areas awarded to the Boschplaat Nature Reserve (Netherlands)**

*(Adopted by the Committee of Ministers on 16 September 2010  
at the 1091st meeting of the Ministers' Deputies)*

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe,

Having regard to Resolution Res (65)6 instituting the European Diploma for certain protected landscapes, reserves and natural features, as amended by Resolution CM/ResDip (2008)1 on the revised regulations for the European Diploma of Protected Areas;

Having regard to Resolution Res (70)25 on the award of the European Diploma to the Boschplaat Nature Reserve (Netherlands);

Taking into consideration both the discussions held between the Secretariat and the site manager and the advice of the Group of Specialists of the European Diploma of Protected Areas;

Having regard to the proposals of the Standing Committee of the Bern Convention,

Renews the European Diploma of Protected Areas awarded to the Boschplaat Nature Reserve (Netherlands) until 30 June 2020;

Attaches the following five recommendations to the renewal:

1. sufficient financial resources need to be available on an ongoing basis in order to safeguard the interests of the Boschplaat's natural environment, especially monitoring, staff, public relations and communication;
2. measures should be taken to restore the original dynamics in the eastern part of the reserve. The present function of the "Stuifdijk" (artificial sand dike) should be taken into consideration. New insights based on recent scientific research on restoring natural dynamics should be included in the management plan, including the consequences of the current rise in sea levels;
3. communication with all those involved in the measures to be taken (which are still being contested locally) requires maximum attention and the deployment of the necessary resources;
4. annual shipping incidents in the North Sea to the north of the Boschplaat are a real concern for both people and the natural environment. Better guarantees of safety with regard to the transport of hazardous substances and oil should be instituted;
5. the number of motorised vehicles on the beach should be reduced.