Oostvaardersplassen

Dutch Nature Reserve

ANNUAL REPORT
FOR THE PERIOD FROM
1 JANUARY TO 31 DECEMBER 2013

In accordance with the relevant Directive of the Council of Europe, this report describes only the changes that took place during the period under review.

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Oostvaardersplassen
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I. General information

1. Natural heritage
No changes.

1.1. Environment
No changes.

1.2. Flora and vegetation.
A report on the flora and vegetation in the border zone of the Oostvaardersplassen reserve was compiled by Altenburg & Wymenga Ecological Consultants (A&W 1889 SBB, project number 0874). In short, the report concluded that vegetation in saline floodplain grasslands showed the best development, with species such as saltmarsh rush (Juncus gerardii) and/or strawberry clover (Trifolium fragiferum) doing especially well. Red bartsia (Odontites vernus) is a red list species in the Oostvaardersplassen reserve. There was also migration of riparian-zone species, such as small fleabane (Pulicaria vulgaris) and water mudwort (Limosella aquatica). Dry grasslands showed development towards crested dog's-tail (Cynosurus cristatus) meadow.

- Vegetation in saline floodplain grasslands showed the best development in the border zone of the Oostvaardersplassen, with species such as saltmarsh rush (Juncus gerardii) and/or strawberry clover (Trifolium fragiferum) doing especially well.
- Red bartsia (Odontites vernus) is a red list species in the Oostvaardersplassen reserve.
- There was also migration of riparian-zone species, such as small fleabane (Pulicaria vulgaris) and water mudwort (Limosella aquatica).

Border zone
The primary purpose of the border zone is to provide a good foraging area for heron-type birds, Eurasian spoonbills (Platalea leucorodia) and herbivorous waterfowl, a foraging habitat for many species of waders and a safe staging area for geese in

summer and winter. As a secondary objective, the border zone can also provide habitat for breeding birds. The grazers in the reserve play an important role in this respect. At the moment this objective is being adequately met.
The development of common ragwort (Jacobaea vulgaris) in the east side of the area had a significant impact on the use of the terrain. Avoidance of this section of the terrain by the grazers, especially during the growing season, led to the development of woody and herb-rich vegetation. These parts of the terrain were grazed again in the autumn. The ultimate outcome of the development of the common ragwort (Jacobaea vulgaris) has yet to be seen. As a result of the rapid encroachment of invasive plants in particular areas we also saw an increase in the mouse population. This led to greater predation not only by birds of prey, but also and above all by great egrets (Ardea alba), which were sometimes more than 50 in number. A summer conducive to growth and the decline in the number of grazers probably both contributed to the more rapid encroachment of invasive plants in the border zone this year. Creeping thistle (Cirsium arvense) and welted thistle (Carduus crispus) were especially invasive. Large numbers of foraging European goldfinches (Carduelis carduelis) and linnets (Carduelis cannabina) were seen in the autumn after the flowering season. Heck cattle are the only grazer able to eat and digest dead reeds. In short, it can be said that the influence of the grazers is, changing: the downward trend in the number of grazers is reflected by the vegetation. Ligneous seedlings were also found in the Driehoek area once again.

1.3. Fauna

There are currently four beaver lodges in the Oostvaardersplassen reserve. An otter was also spotted near the sand deposit in January 2013. The forester employed by the Dutch Ministry of Infrastructure and the Environment installed a wildlife camera that filmed the otter.

Birds

Geese

During observations of the use of the terrain by the large herbivores the numbers and locations of geese in the border zone were also noted. The geese are mainly greylag geese (Anser anser), barnacle geese (Branta leucopsis) and Egyptian geese (Alopochen aegyptiacus). The geese use the wet and dry grasslands in the border zone. They compete with the large herbivores, especially in the winter, and this influences the use of the terrain by the large herbivores in winter and spring.
The large herbivores support moulting greylag geese in May and June by keeping the grass short before and after the moult. The monitoring of the geese provides insight into the use of the grasslands by these small herbivores and enables an analysis of the interaction between large and small herbivores.

Breeding birds in the border zone of the Oostvaardersplassen reserve in 1997, 2002, 2007 and 2012

The Dutch Centre for Field Ornithology (SOVON) mapped breeding birds in the border zone of the Oostvaardersplassen reserve in 2012 (Van Manen 2013). Five

complete visits were made to the area and the same route was followed, on foot or by bike, in order to observe the birds present in the area.

Transect counts

Counts were conducted along set transects in the border zone every month and records were kept of all birds observed (including non-breeding birds).

Birds of prey

Birds of prey were counted in the morning on the first Tuesday of every month. The whole area was visited, always following the same set route. Records were kept of all of the birds of prey observed and known nests were monitored. The monitoring was conducted in association with the South Flevoland Bird and Nature Conservation Society, which used the monitoring to teach members how to recognise birds of prey.

Aerial counts of birds in the marshland and border zones

An aircraft flew along several transects of the Oostvaardersplassen reserve every month. Records were kept of all birds that could be identified from the aircraft. When conducting the counts a distinction was made between BIKA (which stands for inner section and refers to the marshland zone) and BUKA (which stands for outer section and refers to the border zone). The border zone has only been included in the counts since 1994. Natura 2000 target species and a few other species not designated as target species are discussed in the Results section of this report. The graphs indicate which species have been designated as Natura 2000 target species and whether the bird in question is a breeding bird (b) or non-breeding bird (nb).

Trends are estimated by calculating averages per observation per year. For species that are mainly present during the summer, the average is calculated during the period from January to December. For species that are mainly present during the winter months, the average is calculated during the period from July to June. If data relates to summer guests, single years are noted along the X-axis of a graph (e.g. 1989 = Jan to Dec). If data relates to winter guests, two years are noted along the X-axis of a graph (e.g. 89/90 = July 1989 to June 1990). No averages were calculated for the years 1991 and 1997 due to the lack of several observations in those years.

Two trends are reported for greylag geese (Anser anser). The first is based on the number of greylag geese observed in May and June when large numbers of greylag geese migrate from northwest Europe to the Oostvaardersplassen reserve to moult. The graph shows the maximum numbers for these two months. The second trend is based on the number of greylag geese observed outside the moulting season. The graph shows the average per observation per year during the period from July to April.

This data was gathered by Mennobart van Eerden and Mervyn Roos of the Centre for Water Management (Waterdienst), which is part of the Directorate General of Public Works and Water Management (Rijkswaterstaat).
These observations are supported by so-called hide and dike counts conducted by a volunteer along a set route on the same day of every month. Smaller waterfowl and marshland birds, which cannot always be identified from the aircraft, are counted from the boundaries of the area during these monthly counts.
The graphs can be found in Appendix 1.

Mapping of breeding birds

Breeding birds in the marshland zone are mapped using the same method every year. Reports on developments in the numbers are issued every five years. The most recent report was published last year. The next report will be published in 2017.

Bird counts along transects in the border zone

Annual transect counts in the border zone and the mapping of breeding birds in the border zone (Figure 8.4) showed a similar decline in the number of species that depend on reeds, rough herbage and/or scrub. The decline is particularly noticeable in the spring (the breeding season). There is also a decline in the autumn, but it is not as pronounced as in the spring. The decline in the number of species that depend on reed vegetation has been more rapid in the last three years. In the autumn the numbers appear to be relatively stable. No such trend is evident among species that are more dependent on open habitats, such as grasslands, open water and exposed banks, and in those cases the number of species remains relatively stable. There was a noticeable increase in open-water-dependent species in the spring following the creation of several bodies of water at the end of the 1990s. The water level has also been relatively high. Based on averages, in recent years there appears to be a decline in the spring. But these might also be fluctuations caused by other factors. In the autumn there has been an increase since land management measures were implemented at the end of the 1990s and in recent years numbers appear to be stable.

Aerial bird counts

Herons and Eurasian spoonbills (Platalea leucorodia)

There was a rapid increase in the number of great egret (Ardea alba) from 2000 onwards (Figure 8.5). There was also considerable fluctuation in the numbers from 2006 onwards, but, on average, no increase or decrease. A larger number of great egret were counted in the marshland zone than in the border zone (on average), but the trend in both areas was the same. The little egret (Egretta garzetta) was observed in far smaller numbers than the great egret. As in the case of the great egret, there was an initial exponential increase in the number of little egrets from 2000 onwards, but, unlike the great egret, there was a very sharp decline in the numbers of this species from 2006 onwards. The high numbers reported in 2006 have never been repeated. Having said this, there does

seem to have been some recovery since 2009, but certainly not on a par with the great egret. While very few little egrets were seen in 2012, the number of great egrets continued to increase.

Eurasian spoonbills (Platalea leucorodia) were also observed from 1984 onwards (Figure 8.6). From then on the number of Eurasian spoonbills observed increased exponentially reaching a maximum in 1992, before decreasing once again. There was considerable fluctuation in the number of Eurasian spoonbills observed from 1992 onwards, but no sign of a significant trend. The number of Eurasian spoonbills observed in the marshland zone far outweighed the number observed in the border zone, but the wide fluctuations that occurred in the marshland zone did not occur in the border zone.

Swans and geese

Unlike the tundra swan (Cygnus bewickii), which was only observed from the aircraft from 1996 onwards (Figure 8.8), whooper swans (Cygnus cygnus) and mute swans (Cygnus olor) were observed from 1984 onwards. In the last ten years mute swans have been the most numerous, followed by whooper swans and tundra swans. After a rapid increase in the number of whooper swans in 1991-1992, there was a steady decline in the average number of observed whooper swans (Cygnus cygnus) to a minimum in 2009-2010. The numbers increased slightly from 2010 onwards. More whooper swans were observed in the marshland zone than in the border zone. Development also differed in the two zones. While the trend was negative in the marshland zone, the number of whooper swans increased in the border zone in 1998-1999, and then remained stable for the next few years. A rapid increase in the numbers in 2004-2005 was followed by a sharp decline to a minimum in 2009-2010.

Tundra swans were only observed from 1996 onwards. Their numbers initially increased rapidly to a maximum in 2003 and then declined equally rapidly. The increase in number may be linked to the increase in pondweed (Potamogeton) in the Oostvaardersplassen reserve during the same period (especially in Keersluisplas).

Mute swans were initially present in low numbers in the early years. However from 1997 onwards there was a rapid increase in the number of observed mute swans, which reached a maximum in 2002. From 2002 onwards there was a decline in the number of observed mute swans, but the number still far exceeded the number of mute swans observed in the 1980s. Unlike whooper swans, more mute swans are observed in the border zone than in the marshland zone. Yet the same trend is noticeable in both areas.

Greylag geese (Anser anser) and Egyptian geese (Alopochen aegyptiacus) were observed from 1984 onwards. Barnacle geese (Branta leucopsis) were only observed from 1990 onwards. The number of observed greylag geese varied from one year to the next, but there was a gradual increase. The peak in numbers in

2000-2001 was caused by a single observation: more than 42,000 greylag geese were observed during the observation conducted in November 2000.
The numbers of barnacle geese increased from 1993 onwards. Despite wide fluctuation in the numbers from one year to the next, the averages show a positive trend.
Compared with the numbers of greylag and barnacle geese, the numbers of observed Egyptian geese were low. After an increase in the numbers in 1998-1999, there was a rapid decline in their numbers in 2000-2001. The numbers then remained more or less stable thereafter. The geese were observed mainly in the border zone. Outside the moulting period barnacle geese have been the most numerous geese species in the Oostvaardersplassen reserve in recent years.
The number of greylag geese in the marshland zone during the moulting period was very high at the end of the 1980s and beginning of the 1990s, with maximum numbers of more than 40,000 birds. From then on numbers declined, with maximum numbers ranging from 10 to 20 thousand geese in the marshland zone and 5 to 10 thousand geese in the border zone.
Initially, most greylag geese were observed in the marshland zone, but, following an increase in the number of greylag geese in the border zone in recent years, numbers in the border zone are now similar to those in the marshland zone.
After a gradual decline in the number of observed common shelducks (Tadorna tadorna) (Figure 8.10), numbers have remained more or less stable in recent years. On average, slightly more common shelducks have been observed in the border zone than in the marshland zone in recent years.

Dabbling ducks

The numbers of observed Eurasian widgeon in the marshland zone initially increased from 1984 onwards, reaching a maximum in 1989-1990. Thereafter the numbers gradually declined (Figure 8.11). There was a similar trend in the border zone, with exception of 1999-2000, with between 10 and more than 22 thousand Eurasian widgeon being observed in December 1999 and January-February 2000.
Gadwall (Anas strepera) numbers were lower than those of the Eurasian widgeon. Prior to 1992 numbers were very low. Numbers were slightly higher during the period from 1992 to 2005 and then slightly lower again in the period thereafter. The numbers appear to be stable in recent years.
There was a gradual decline in mallard (Anas platyrhynchos) numbers in both the marshland zone and the border zone, with numbers falling to a provisional minimum in 2011. Northern pintails (Anas acuta) showed a similar pattern: numbers reached a minimum in 1993 and continued to fluctuate around that level in the years that followed.
There was initially a slight increase in the numbers of Northern shovellers (Anas clypeata) from 1984 to 1999. Thereafter averages showed a stable trend. Northern shovellers were observed mainly in the marshland zone.
Winter counts were very high in the marshland zone at the end of the 1980s and beginning of the 1990s (with numbers in excess of 50 thousand in the autumn of

1989 and 1990). The increase was supported by the presence of more pioneer vegetation following the first draining of the marshland. After that numbers declined rapidly once again. Numbers in the marshland zone have been relatively stable in recent years. There was an increase in numbers in the border zone from 1998 to 2003. This increase was also supported by a temporary proliferation of pioneer vegetation as a result of land management measures and the raising of the water level. Winter counts fell as pioneer vegetation decreased. Numbers in the border zone have also been relatively stable in recent years.

Diving ducks

The number of observed common pochards (Aythya ferina) was low during the period from 1984 to 1996 (Figure 8.12). Thereafter numbers increased rapidly to a maximum in 1998. This was followed by a sharp decline, which continued until 2001, when numbers gradually began to increase again, reaching a maximum in 2008. There was another sharp decline in the numbers in 2009 and 2010, followed by a slight increase in 2011. Common pochards were observed almost exclusively in the marshland zone.

The tufted duck (Aythya fuligula) showed a slightly different pattern. From 1984 onwards the observed numbers of tufted ducks increased to maximum numbers during the period from 1994 to 1998, with a noticeable sharp decline in 1996, when a very dry summer caused the water level to drop considerably. Numbers have fallen since 1998, but there does not appear to be a trend in recent years. Tufted ducks were also observed almost exclusively in the marshland zone.

The two sawbill species, smews (Mergellus albellus) and goosanders (Mergus merganser), showed a similar pattern, with high numbers at the beginning of the 1980s followed by a subsequent decline. Smew and goosander numbers have both fluctuated considerably over the years, with smew numbers showing greater fluctuation than goosander numbers in recent years. Smews were noticeably absent, or only present in very low numbers, in the years when the marshland was first drained. Goosander numbers were also low during that period, but the species was present on the reserve every year.

Avocets, plovers and waders

Numbers of observed pied avocets (Recurvirostra avosetta) were relatively consistent from 1984 to 1992. After 1992 there was a rapid decline in the numbers with no sightings at all in 1994. Briefly present in relatively large numbers the following year, after 1995 there was another rapid decline in the numbers, with very few, if any, aerial sightings of pied avocets in the last 8 years.

Northern lapwings (Vanellus vanellus) and European golden plovers (Pluvialis apricaria) showed a different pattern. Despite wide fluctuations in the numbers, the numbers of these two species have increased in recent years. In fact, the golden plover is a species that has only been seen in significant numbers in the last 6 years. Both species were observed almost exclusively in the border zone.

Ruffs (Philomachus pugnax) and black-tailed godwits (Limosa limosa) showed a pattern similar to the pied avocet, with high numbers in the 1980s being followed by a decline. There have even been years with no aerial sightings in recent years. The depth of water this species needs in order to forage during migration has been lacking in recent years.

Birds of prey

A large number of species were sighted during the monthly counts. Some of these species - merlins (Falco columbarius), common kestrels (Falco tinnunculus), Eurasian hobbies (Falco subbuteo), Eurasian sparrowhawks (Accipiter nisus), red kites (Milvus milvus), rough-legged buzzards (Buteo lagopus) and osprey (Pandion haliaetus) - were simply passing through or were incidental visitors. The, white-tailed eagle (Haliaeetus albicilla), which breeds in the area, was sighted during almost every count, with several individuals being observed during many counts. Common buzzards (Buteo buteo) and western marsh-harriers (Circus aeruginosus) were sighted in large numbers during every count. Both are resident species that are present in large numbers. The northern harrier (Circus cyaneus) was last sighted in June 2012, but was not sighted again after the winter.

Large grazers

2013 was an unusual year in several respects. In 2012 the autumn was wet and cold and the winter of 2013 was quite severe. In 2013 the spring was relatively cold and dry. This combined with enormous numbers of barnacle geese (ultimately amounting to 20,000), meant that the grazers quickly started using the added forestry areas, initially as shelter and a source of food, and then primarily as shelter from the beginning of March. With a relatively large number of animals in a small area of shelter, the ground was trampled bare and the animals also left their mark on the existing trees. Several enclosures were created within the reserve to enable the development of a sustainable forest. Ash dieback is an additional complicating factor, with many of the trees in the reserve having been infected. The surviving elderberry bushes in the reserve were not grazed by the grazers: the pesticides are still active.

Grazers in general

A significant increase in the number of barnacle geese combined with a relatively severe winter made 2013 a very difficult year for the Heck cattle. As a result, the number of Heck cattle fell by approximately 100 animals in 2013. The cattle made optimal use of areas of shelter that provided extra cover. The Konik horses had a significant impact on the existing areas of shelter, bark consumption and the trampling of the ground being the main effects. After the strenuous rut in 2013, the red deer (Cervus elaphus) did not have enough time to get back in reasonable condition before the winter. The early onset of winter made this impossible and the males in particular began the winter in poor condition. Having to share the terrain with the Konik horses and Heck cattle also affected the red deer. We continued to apply the principle of 'early reactive management' to control the grazers on the reserve in 2013. On average the approach

works well. The main challenge with this management system is accurate assessment of the environmental score, especially in the early spring, when, with all animals showing increasing similarities, it is difficult to make a distinction. The use of long rifles with silencers is a crucial part of reactive management. It is also essential to fence off areas of shelter from the public in order to be able to implement effective reactive management.

Health status

As in previous years, 10 Konik horses, 10 Heck cattle and 10 red deer were sent to the animal health service for dissection in 2013. Ten blood samples were also taken from each species of grazer and sent to the animal health service for analysis. The results of the dissections were discussed in detail by the Oostvaardersplassen Veterinary Committee. Overall the health status of the grazer population appears to be sound. The level of gastro-intestinal worm infection remains within acceptable limits for all grazers. The number of worm eggs per gram of manure is still the same as it was 30 years ago. Many of the Heck cattle are IBR positive. The incidence of liver fluke infection is also high among the cattle. However, both conditions lack clinical symptoms.

Particulars

The animals sent for dissection revealed consistently lower blood copper levels among the red deer population. Because of these low copper values animals showing symptoms of ataxia sometimes have to be shot. Seventy percent of the grazers that are shot are left in the field and serve as food for scavengers such as foxes, ravens, buzzards and crows. In the summer months, large numbers of red breasted carrion beetles (Oiceoptoma thoracicum) make short work of a carcass. Ninety percent of the Konik horses and Heck cattle are sent away to be destroyed. The remaining carcasses play an important role in the ecosystem. Veterinarians practicing in the livestock sector are showing an increasing interest in the health status of the grazers. The baseline measurement is important in this respect. In other words what are normal blood and body values? There is also the fact that antibiotics have never been administered to the Heck cattle, Konik horse and red deer populations. So, among other things, horse manure has been gathered to develop new drugs to eliminate gastro-intestinal worms.

Population development

Heck cattle

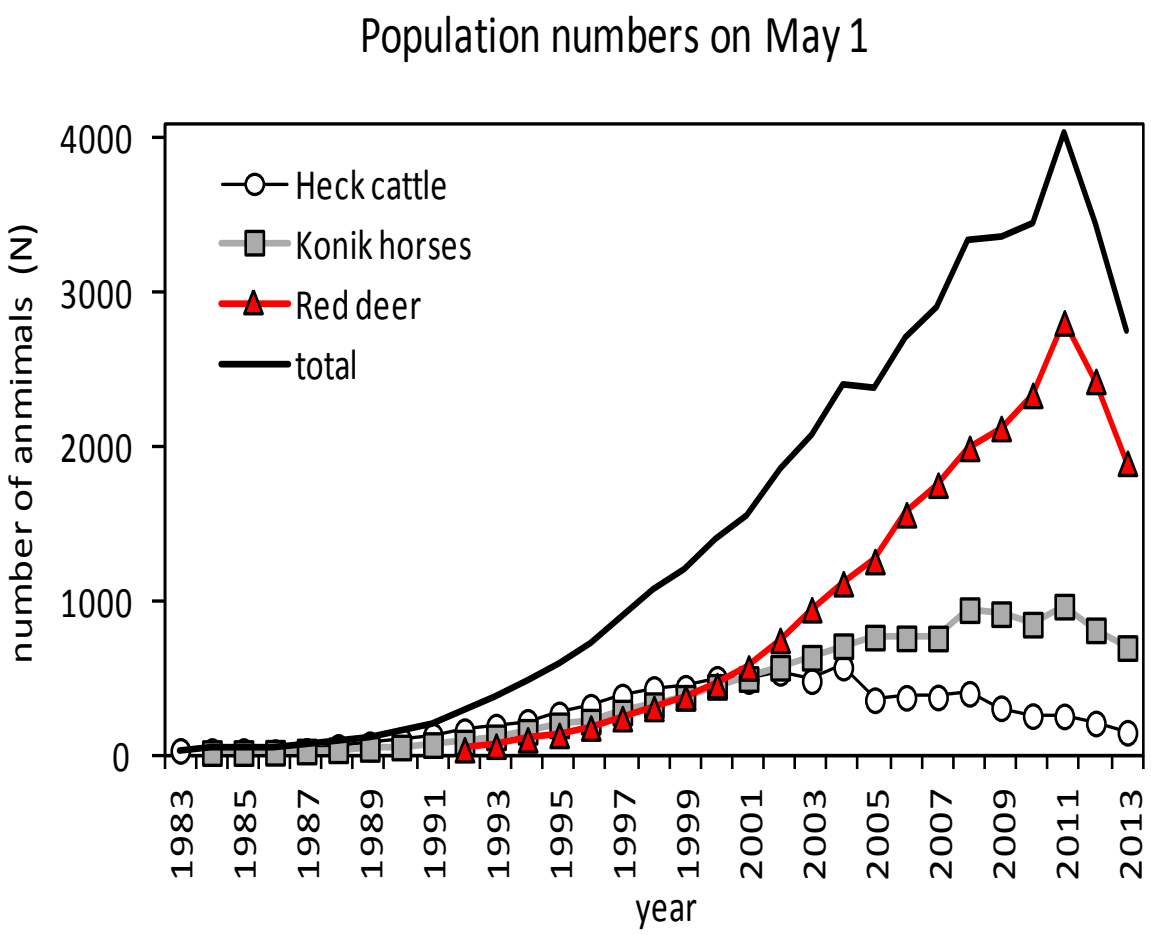
The Heck cattle population is showing a clear shift towards an increasing proportion of females. There are a limited number of adult bulls. Approximately 67 calves were born in 2013 and 160 animals died, which meant that the population decreased by 90 animals.
Most of the cattle that died were young animals followed by older adult animals. A single male animal died. So the Heck cattle population is clearly shrinking.

Konik horses

The Konik horse population is shows a similar pattern of development, the main difference being that the gender ratio is more balanced. Again, many of the animals that died were young animals. There were relatively few deaths among animals in the middle age range. However, the number of deaths among very old animals was higher in relative terms. This is a normal phenomenon in an aging population. Approximately 250 foals were born in 2013 and approximately 325 Konik horses died.

Red deer

The red deer population also shows the same overall trend, with relatively high mortality among males and young animals. A long and strenuous rut followed by a relatively severe winter contributed to mortality among males. This is a cyclical phenomenon. The red deer population is also showing a steadily descending curve. 1,300 animals were removed from the population and approximately 600 red deer calves were born. In recent years the red deer population has declined from 3,300 to approximately 2,300 animals.



2. Cultural heritage and socioeconomic context

No changes.

2.1. Cultural heritage

No changes.

2.1.1. Changes related to cultural heritage
No changes.

2.2. Socioeconomic context
There were no direct changes in the socioeconomic context for the Oostvaardersplassen reserve. However, with the increase in the public and the openness policy adopted by Staatsbosbeheer in recent years, increasing attention is being devoted to the management of the Oostvaardersplassen reserve and other similar areas in the Netherlands. There is some thought that the 'early reactive management' approach used to control the existing grazers in the Oostvaardersplassen reserve, as recommended in the ICMO2 report, may be (partially) adopted to manage the fallow deer (Dama dama) in the Amsterdam Water Supply Dunes.

2.2.1. Changes related to the socioeconomic context
No changes.

3. Education and scientific importance
Education
As in previous years, Staatsbosbeheer was actively involved in offering educational programmes for primary schools. The reserve devoted extra attention to schools in 2013 with EMS Films providing free teaching materials to go with the film of the Oostvaardersplassen reserve. University students and secondary school pupils also saw the film as an extra reason to visit the Oostvaardersplassen reserve.

3.1. Visitors
No changes.

3.1.1. Facilities for receiving and informing the public
Information centre transformed into an outdoor activity centre
In August the existing temporary building was replaced by a new modernised building. There is still the ambition to erect a permanent building, which would be more in keeping with the (inter)national nature of the Oostvaardersplassen reserve. However, due to shortage of funding, another temporary building has been erected for the time being. The new centre will play a more prominent role in the activities in the Oostvaardersplassen reserve and Hollandse Hout, a 900ha forest adjacent to the Oostvaardersplassen reserve.
Rather than providing information in the form of an exhibition, information is now provided electronically as far as possible through 3 touch screens.

3.1.2. Regular visits by visitors

As in previous years, there were a range of excursions with many participants. For the sake of readability, the different types of excursions are simply listed in the following table. In 2013 there were almost 50 more excursions than in 2012, when there were 562 groups and 9,874 participants.

Bird Fair

In 2013 the reserve hosted the second Dutch Bird Fair, a joint venture launched by Staatsbosbeheer and several commercial companies. The purpose of the fair is to draw wider attention to the Oostvaardersplassen reserve, especially among bird watchers and photographers. There has been a significant increase in the number of photographers in particular. The second Dutch Bird Fair attracted approximately 6,000 visitors. A portion of the proceeds will be used to transmit footage of white-tailed eagles (Haliaeetus albicilla) in 2014.

Every year the Oostvaardersplassen reserve welcomes a very considerable number of very diverse guests, who range from day visitors, to universities, to King's Commissioners. The reserve is always visited by a large number of (university) researchers and students with an academic or scientific interest.

International visitors

The reserve also prides itself on the fact that it attracts so many international visitors. In 2013 the reserve was visited by people from Singapore, Serbia, Germany, America, the United Kingdom, many other European countries.

3.1.3. Special guests

An interest in film brought many media representatives and high-ranking officials to the reserve in 2013. Some of these special guests are listed below.

Type of excursion	General	Rut	Total	
	Groups		Participants	Groups
Ecokar excursion from Almere	44	24	1224	68
Ecokar excursion from Lelystad	91	45	2720	136
Toyota/VW minibus	104	31	1080	135
Driehoek/Schollevaar walks	90	12	2040	102
Wagon excursions	57	36	2790	93
Primary school visits	50	0	1250	50
Children's photo safaris	6	0	120	6
Total			**11,224**	**590**

Special guests
Representatives of various local and national political parties.
Researchers and students from universities in Oxford, Wales, Amsterdam, Leiden, Wageningen, Rotterdam and Groningen.

Researchers and students from educational and training institutes such as IPC Groene Ruimte, In Holland, CAH and Helicon.
Representatives of various media, including local and national press, radio and television.
Representatives of international media, such as the *Herald Tribune*, the *New York Times* and a Belgian nature conservation magazine.
Individuals: Andre Kuipers (astronaut), Princess Irene, Minister from Singapore, Serbian State Secretary, King's Commissioner for the province of Flevoland
Colleagues from the German Forestry Commission
Police officers

Media

The release of the De Nieuwe Wildernis [The New Wilderness] film and the opening of the outdoor activity centre attracted considerable media attention, which ranged from local and national radio and television stations and the press, to articles in the *Herald Tribune* and the *New York Times*. The highlight was probably the featuring of Oostvaardersplassen safaris on USA Today's Bucket List.

Notification line

Once again good use was made of the notification line during the winter period, with as many as 255 calls being made during the winter. Throughout the year 164 calls were made via 144 to report situations involving animals and 44 calls were made to the police to request extra attention for an animal. People who call the notification line are put through to the forester on duty, who can then take action. Seven threats were made against a forester via the notification line. The remainder of the telephone calls were mainly questions, in response to which the forester provided information about the Oostvaardersplassen. As during the previous winter, the telephone number is printed on the flyer, the website and the info panels.

De Nieuwe Wildernis film

De Nieuwe Wildernis [The New Wilderness] film was released in September of 2013. EMS Films spent 2.5 years working on the film, which shows the wildlife and developments in the Oostvaardersplassen reserve during the course of a year. The film was a huge success. It attracted considerable attention and won several awards. 680,000 visitors have seen the film to date. The film was also shown on television in December 2013 and VARA is planning to broadcast the film in sections. A great deal of attention is also being devoted to education in the wake of the film. Many schools are using the free teaching materials compiled to go with the film. Almost 3,000 classes have now used the materials. To increase the impact of the film, Staatsbosbeheer developed a campaign that was rolled out nationally across a total of 10 wilderness areas. Various wilderness activities and so-called 'wilderness cafés' were also organised in these areas. This was done with a view to spreading attention as much as possible and sparing the

Oostvaardersplassen reserve while using it as a catalyst to raise awareness of nature in the Netherlands. The film will also be shown internationally. Talks are currently being conducted with Belgian, German and various other cinema and media operators. The film will also be shown in various cinemas in the United States in the spring of 2014.

'Follow the Fox' website
Webcams were installed in the foxes den as they were two years ago. The cameras show the foxes in their lair. In 2013 the website attracted 2.7 million viewers.

3.2. Scientific research.
See 3.2.1.

3.2.1. Current and completed research activities
In 2013 Staatsbosbeheer worked in close collaboration with Utrecht University in monitoring the impact of grazing on the forestry areas of the Oostvaardersbos. Staatsbosbeheer also worked with the University of Groningen. This is expected to result in the publication of a thesis on grazing.

3.2.2. Scientific publications
Various scientific publications were published in 2013.
Article: **De betwiste wildernis (Oostvaardersplassen)** [**The disputed wilderness (Oostvaardersplassen)**] / G. van Maanen. - In: BIOnieuws, Vol. 23.
Book: **Flora en vegetatie van de randzone Oostvaardersplassen in 2012** [**Flora and vegetation in the border zone of the Oostvaardersplassen reserve in 2012**] / R. Bakker, Altenburg & Wymenga Ecological Consultants, 2013.
Book: **Broedvogels van de buitenkaadse Oostvaardersplassen in 1997, 2002, 2007 en 2012 [Breeding birds in the border zone of the Oostvaardersplassen reserve in 1997, 2002, 2007 and 2012** / W. van Manen, SOVON, 2013. - 132 p.
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4. Site
No changes.

4.1. Changes in legislation or regulations
No changes.

4.2. Changes in the property title
No changes.

4.3. Expansion or transfer

Work on the construction of an underpass under the railway was completed in 2013. From 2014 onwards the underpass will connect the Kotterbos forest to the Oostvaardersplassen reserve. The grazers will also have access to the underpass, which will give them approximately another 80 hectares of habitat. The public will be able to continue to use the forest, except during the period when animal management has priority (in the winter). A so-called 'nature boulevard' has been constructed to enhance the public's experience of the animals. The boulevard offers a good view of the animals living in the area.

In spring 2014 work will start on the further development of the neighbouring Oostvaardersveld. The development is primarily intended to provide a recreational experience specifically designed to complement the landscape of the Oostvaardersplassen. The draining of the Hoofddiep, a waterway that is no longer being used to manage the water level, will create a connection between the Oostvaardersveld and the Oostvaardersplassen reserve for red deer, which will give the deer access to approximately another 250 hectares of habitat.
The measures used to close off the Oostvaardersbos during the winter have also been improved and a management footpath has been laid to provide access to the area during the winter. In addition to this, several enclosures have been created using dead wood gathered locally (mostly ash) and planted with a mixture of various tree and shrub species. These enclosures will eventually provide extra shelter for the grazers. The same thing has been done in the Driehoek reserve near Lelystad. Closing off part of the forest during the winter creates more clarity for the public, and provides a more restful environment for the animals. These measures were implemented in close consultation with De Oostvaarders tenant farmers, Stad & Natuur Almere (an organisation that encourages the public to spend more time enjoying nature) and the municipality of Almere.

As far as Hollandse Hout is concerned, it is still not clear as to how this 900ha forest can be physically incorporated in the Oostvaardersplassen reserve. The State Secretary, the municipality of Lelystad and Staatsbosbeheer are conducting talks.

5. Site management

The Government Service for Land and Water Management (DLG) continued to finalise the Natura 2000 Management Plan in 2013. The plan was expected to be delivered by the end of 2013. Unfortunately, however, delivery and adoption of the plan have now been postponed until the beginning of 2014. The content of the plan has been finalised but agreement has yet to be reached at an administrative level. This is partly due to the fact that the adoption of the plan may have significant consequences for the immediate environment. The adoption and implementation of the proposed management plan is expected to enable the achievement of the Natura 2000 objectives within the Oostvaardersplassen reserve

itself in the longer term. For this to be possible, the water level in the marshland area will have to be altered considerably. Among other things, the water level will need to be drastically reduced for several years to give the marshland area a chance to regenerate, which will ensure that the area is suitable for the various target species for at least the first 12 years. In addition to these water level reduction measures, the plan also provides for things such as the construction of fish traps.

5.1. Improvements
5.1.1. Ecological contribution to flora and biotopes, fauna inspections.

See 4.3 and 5.
To ensure good drainage in the area, divers used an excavator to clear excess vegetation in 2013.

5.1.2. Protection against the elements (fire and water regime).
No changes.

5.1.3. Approach roads and through routes
The tunnel that provides access to the Kotterbos forest was widened in 2013. The animals have been able to seek shelter through the side of the tunnel in recent years. Part of the Kottertocht was submerged in 2013 and a culvert was constructed to divert the water. Now the animals can gain access to the Kotterbos forest through a wider passageway. There are also plans to add another 90 hectares where the animals can seek shelter in the winter if necessary.

5.1.4. Field equipment
Some of the field equipment was improved in 2013 with the purchase of a winch, an extra rifle and a second high tipper truck.

5.1.5. Waste management
No changes.

5.1.6. Use of sustainable energy systems
No changes.

5.2. Management
No changes.

5.2.1. Accounting Department
No changes

5.2.2. Wardens Department

As was the case during the winter of 2012, other people came to help with the management of the Oostvaardersplassen reserve in 2013. Among other things these people help with management and surveillance during the winter period.

5.2.3. Internal policing measures
Where necessary, signs have been altered to reflect the change in the situation.

5.2.4. Violation of the bye-laws and damage
In 2013 more incidents in the Oostvaardersbos reserve led to police reports being filed than in previous years. Special investigating officers brought charges against people who failed to follow the rules on 121 occasions. Better fences have been constructed to prevent this in 2014. These fences should ensure that the area is more effectively closed off during the winter period. Conversely, only 3 incidents in the Driehoek reserve led to police reports being filed in 2013. So there it was relatively quiet.

In the winter of 2013 5 skaters decided to make a sport of skating when the ice had almost cleared. Foresters employed by Staatsbosbeheer and the police cautioned the persons in question, but they failed to comply. This led to the imposition of administrative measures on 5 occasions.
In the summer 3 students decided that people should be allowed to camp in the Oostvaardersplassen reserve. The incident was reported to the police in accordance with the Nature Conservation Act.
Three French people who were attempting to catch pied avocets and greylag geese in the Oostvaardersplassen reserve were detained and fined € 1,300 before being allowed to return to France.

II. Influence of the awarding of the European Diploma of Protected Areas

III. Conditions and/or recommendations for the granting or renewal of the award

In 2013 there was continued development in Flevoland, which included the expansion of Lelystad airport. During the consultative procedure concerning the flight routes to and from the airport, Staatsbosbeheer sent a letter expressing its point of view. The letter stressed the importance of protecting and sparing the Oostvaardersplassen reserve as a protected area, and the need to maintain the other nature reserves in Flevoland (see Appendix 2).