

Nature Conservation in Europe: Approaches and Lessons

Annex NL.1. Dealing with Ecological Processes in a Densely Used Delta: the Oostvaardersplassen

Erik Gerritsen

The Oostvaardersplassen (5 600 ha) is a unique semi-natural area whose development and management illustrate the challenges and opportunities of nature conservation in a densely populated delta as the Netherlands. The area originated during the development of a large polder complex built for food production in the 1950s and 60s in the former Zuider Sea, which was dammed in 1932. The deepest part of the youngest polder, consisting of shallow lakes on a sandy section of the former seabed, was deemed unsuitable for agriculture and therefore designated as a site for future industry and greenhouse development. However, after an exceptionally rich ecosystem developed spontaneously on the lakes, the area was ultimately recognised as a protected area, which became a model of the 'rewilding' approach to nature conservation and restoration.

To limit the establishment of undesirable vegetation (i.e. weeds) in the new polders in the late 1960's, large-scale sowing of reed (*Phragmites australis*) was undertaken by helicopter and later airplane. While the polder sections on clay soils designated for farmland were gradually reclaimed, the large marshlands with reedbeds that remained around the lakes were unique in size in the Netherlands and attracted large number of then threatened bird species such as Greylag Goose (*Anser anser*), Spoonbill (*Platalea leucorodia*) and Bearded Reedling (*Panurus biarmicus*). After long campaigns by nature NGOs and biologists, the site was finally recognised in 1974 as a temporary protected area after the oil crisis pushed development into the future. After some years of management, over-grazing by the rapidly growing goose population was recognised as negatively impacting marshland vegetation and other breeding marshland birds dependent on it. To overcome this challenge, a second successful campaign in 1982 managed to increase the reserve's size, adding a higher-elevated area for geese to feed outside of the moulting season. A train line initially planned through this part of the reserve was diverted, which confirmed the site's current site boundaries, which became a Ramsar Site and Special Protection Area under the EU Birds Directive in 1989.

To prevent vegetation succession and maintain the site's open character favoured by marshland breeding birds, in 1983–84 32 semi-wild Heck cattle and 20 Konik horses were introduced, followed in 1992 by 40 Red Deer (*Cervus elaphus*). In 1996, site management was handed over to the State Forest Service, which introduced a more 'hands-off' approach to the management of the site's water-level fluctuations and growing populations of grazing animals – or rewilding before the term was popularised. This approach was also criticised, as it led to overgrazing by multiple species that increasingly turned the site into a savannah-like landscape unsuitable for many breeding birds for which the site was designated as a protected area. In addition, the lack of predation and migratory opportunities of the large grazing mammals resulted in high population densities and high mortality rates in harsh winters. This triggered various public outcries over the management decisions, resulting in, among others, Parliamentary questions and threats of violence to site managers. In May 2020, the Province of Flevoland adopted a new management plan by site manager Staatsbosbeheer, with drastic reductions in the grazing herd size, and a hydrological management regime that is more favourable to breeding and migratory wetland birds (Staatsbosbeheer, 2020). No nature site in the Netherlands has had such a profound impact on awareness of nature conservation, while at the same time polarising public opinion on it.

Sources

Staatsbosbeheer (2020) *Managementplan Oostvaardersplassen 2020-2027* (versie 1.3, Mei 2020) [in Dutch], www.staatsbosbeheer.nl/-/media/oostvaardersplassen/oostvaardersplassen-beheer/20200526-managementplan-oostvaardersplassen.pdf?la=nl-nl&hash=018C20F0E30BDE1A30E7756E941F3C0CF83EF761

Ministry of Agriculture, Nature and Food Quality Natura 2000 web portal on the Oostvaardersplassen [in Dutch],: www.natura2000.nl/gebieden/flevoland/oostvaardersplassen

Wikipedia page on the Oostvaardersplassen [in Dutch], <https://nl.wikipedia.org/wiki/Oostvaardersplassen>

Further background documentation on the Oostvaardersplassen, including some English-language sources, can be found on the dedicated web page of the State Forest Service (see in particular section 'Links and downloads': www.staatsbosbeheer.nl/uit-in-de-natuur/locaties/oostvaardersplassen

Recommended citation

Gerritsen, E. (2023) Dealing with Ecological Processes in a Densely Used Delta: the Oostvaardersplassen. In *Nature Conservation in Europe: Approaches and Lessons*, ed. G. Tucker, online Annex NL.1. Cambridge, UK / New York: Cambridge. www.cambridge.org/natureconservation