

Information Sheet on Ramsar Wetlands

1. Country: Belgium 2. Date: 15-06-92 3. Ref: BE003

4. Name and address of compilers:

Mr. K. Devos
Mr. E. Kuijken
Mr. P. Meire

Institute of Nature Conservation
Kiewitdreef 5
3500 Hasselt
Belgium
Tel. +32.11.210110
Fax. +32.11.242262

5. Name of wetland: The 'Zwin'

6. Date of Ramsar designation: 27-09-84

7. Geographical coordinates: 51°21'N, 03°22'E

8. General location: Located in the Province of West-Vlaanderen, in the municipalities of Knokke-Heist. At the Dutch Border, 18 km north-east of Bruges

9. Area: 550 ha (including buffer zone)

10. Wetland type: G H

11. Altitude: 0 - 5 m

12. Overview:

A tidal salt marsh, including mudflats, creeks, and (artificial) brackish ponds. Agricultural land in the surroundings.

13. Physical features:

The site is the southernmost remainder of a late mediaeval estuary. It is enclosed by 1.5 km of dunes to the north and by dykes to the south and west. An open connection to the North Sea is formed by a shallow creek at the eastern end which feeds a system of four brackish lagoons. The water level in these lagoons is kept artificially high. The lagoons were created in 1960 to encourage waterfowl to remain and breed. The whole area is often flooding during winter and at spring tides.

The buffer zone includes sandy grasslands on a former airfield, wet and dry dunes with shrubs and polder areas which have clay soils and consists of ploughed fields and some relicts of grasslands along former creeks.

14. Ecological features:

There are mudflats with a pioneer vegetation of *Salicornia europaea* and *Spartina townsendii*. In the lower salt marshes mainly *Puccinellia maritima*, *Limonium vulgare*, *Plantago maritima*, *Halimione pedunculata*, *Halimione portulacaoides*, *Triglochin maritima* and *Suaeda maritima*. In the higher parts of the salt marshes *Juncus gerardii*, *Artemisia maritima* and *Armeria maritima*.

The lower dunes are dominated by *Elymus farctus*.

15. Land tenure/ownership of:

(a) site

The 'Zwin' reserve is owned by the 'Compagnie du Zoute', a private commercial company. The grasslands in the buffer zone are the ownership of a large number of people, mainly farmers.

(b) surroundings

The surroundings of the area exists of more intensively managed agricultural land, owned by farmers.

16. Conservation measures taken:

The area is designated as a Classified Landscape (since 1941) and Nature Reserve on rural planning maps. 125 ha of the reserve is in Belgium and extends a further 25 ha into the Netherlands, with a 1500 ha. buffer zone.

Also designated as a an EC special protection zone (SPA).

As a result of external factors (mainly sand deposits on the beach of Knokke-Heist), a gradually increasing silting up of the creeks, mudflats and saltmarshes occurred. This caused a less frequent flooding of the reserve by high tides and a decrease of the ornithological importance, mainly as a feeding area.

In 1989 the Minister of Public Works decided to support the necessary works to re-open the main inlet creek (on the Dutch border). As a first attempt about 150.000 m³ of sand has been removed in november 1989 to restore a regular tidal rythm.

In the wildlife park, adjacent to the reserve, reintroduction programmes have lead to feral populations of Greylag Geese *Anser anser*, Night Heron *Nycticorax nycticorax* and White Stork *Ciconia ciconia*. Some of the saltings are grazed by sheep. No shooting in the Zwin reserve itself.

17. Conservation measures proposed but not yet implemented:

Currently under investigation.

18. Current land use: principal human activities in:

(a) site

nature conservation, education and tourism

(b) surroundings/catchment

agriculture (more intensive, arable land)

19. Disturbance/threats, included changes in land use and major development projects:

(a) at the site:

- Heavy recreation
- Silting up of the creeks

(b) in the surroundings/catchment

- Threats exist on the Dutch side, where tourism is still increasing. Holiday villages have been build in the buffer zone of this reserve resulting in an increased recreation pressure.
- The buffer area of the former airfield grasslands and shrub is used for cattle grazing; lower intensity of grazing and lower level of fertilisers used could result in an increase of the high botanical interest. (betwiste) Plans exist for the creation of an enormous congress centre/hotel complex in the surrounding buffer zone of the dunes west of the Zwin reserve.

- The farmers in the polder area (arable land and small grasslands) regularly disturb geese and other waterfowl from their fields.

20. Hydrological and physical values:

21. Social and cultural values:

Important for conservation education, tourism and scientific research.

22. Noteworthy fauna:

Internationally important for wintering waterfowl and waders.

Large number of waders roost in the saltmarsh, e.g. Ruff *Philomachus pugnax* (1500-2000) and Whimbrel *Numenius phaeopus* (800-1000 in 1977-81, now less numerous).

Ducks are most numerous during cold spells, especially Wigeon *Anas penelope* (2000-3000).

Geese use the area as a roosting site. In hard winters numbers can reach more than 5000 (mainly Whitefronted Geese *Anser albifrons* and Pinkfooted Goose *Anser brachyrhynchos*).

Breeding birds in 1991 include Redshank *Tringa totanus* (12 pairs), Avocet *Recurvirostra avosetta* (30 pairs in the reserve, 20 pairs in the adjacent Polder area, Common Tern *Sterna hirundo* (135 pairs), and Mediterranean Gull *Larus melanocephalus* (4 pairs).

23. Noteworthy flora:

Halimione pedunculata

Fungi of dune grasslands

24. Current scientific research and facilities:

Regular counts of waterfowl and waders, and censuses of breeding birds are carried out by the conservator and volunteers. Several thousands of birds are ringed annually. In autumn, there is a permanent ringing site that can be visited.

25. Current conservation education:

Especially in the summer season, there are every day several guided excursions in the Zwin reserve. Several hundreds of these excursions are for schools.

26. Current recreation and tourism:

The 'Compagnie du Zoute' has established a visitor centre close to the reserve. This centre includes a small shop, a cafeteria + restaurant and a large collection of captive birds (mainly waterfowl). There are some 300,000 visitors a year (most in the summer months).

27. Management authority:

Le Compagnie Du Zoute
Berkenlaan 4
8300 Knokke-Heist
Belgium

28. Jurisdiction.

Territorial : MINISTRY OF THE FLEMISH
COMMUNITY
Administration for Environment
Nature Conservation and Rural
Planning

7BE003

29. Bibliographical references:

30. Reasons for inclusion: 3 (c)

31. Map of site: