

Information Sheet on Ramsar Wetlands

1. Country: Belgium 2. Date: 15-06-92 3. Ref: BE002

4. Name and address of compilers:

Mr. K. Devos
Mr. E. Kuijken
Mr. T. Ysebaert
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 tidal marshes and mudflats of the lower Scheldt river at Doel, Lillo and Zandvliet

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

7. Geographical coordinates: 51°19'N, 04°15'E

8. General location: Located in the Province of Antwerp, 20 km north of the city of Antwerp, near the Belgian-Dutch border.

9. Area: The total area is 417 ha. Three subareas can be distinguished: the 'Schorren' at Doel (115 ha), the 'Galgenschoor' (155 ha) and the 'Groot Buitenschoor' (175 ha). This Ramsar area was originally 445 ha but 28 ha have been deleted in Belgium's "urgent national interest" (Article 4.2 of Convention text).

10. Wetland type: E G Q

11. Altitude: 0 - 4 meter

12. Overview:

The area is situated in the brackish part of the Schelde estuary and represents the last brackish tidal marshes and mudflats in Belgium. The site is important for wintering waterfowl and waders, and is an important moulting area for *Tadorna tadorna*. However, water quality, dredging activities and expanding harbour activities are threatening the area.

13. Physical features:

The Schelde estuary is one of the few remaining estuaries in NW-Europe that are characterized by a natural salinity gradient from salt water, over brackish water to freshwater. Large marine, brackish and freshwater tidal areas occur along this gradient. As such the Schelde estuary has a unique ecological value.

The designated site is situated in the brackish part of the estuary. It includes large intertidal mudflats, fringed by brackish marshes. The mean tidal amplitude in the area amounts to \pm 5 m. Due to the high currents the area is quite dynamic. This dynamic character is intensified by the large dredging activities to maintain a deep shipping channel. The sediment of the mudflats is generally very muddy, but some parts are characterized by sandy 'mega ripples'.

The water coming from the river Schelde is heavily contaminated with heavy metals and organic micropollutants. The large organic matter load causes oxygen depletion and in summer the water in the area is often anoxic.

14. Ecological features:

The intertidal mudflats are generally muddy. The macrofauna is typical for brackish areas but is affected by pollution. *Corophium volutator*, *Nereis diversicolor* en *Oligochaeta* are very common. In summer, large parts of the mudflats are covered by *Vaucheria spec.*

The mudflats are fringed by brackish marshes. Typical plant species are *Phragmites australis*, *Scirpus maritimus*, *Cochlearia officinalis*, *Aster tripolium*, *Atriplex hastata*, *Puccinellia sp.*, *Elytrigia pungens*, *Triglochin maritima* and *Glaux maxima*.

Large dikes form the boundaries of the marshes.

15. Land tenure/ownership of:

(a) site

All three areas are state property.

(b) surroundings

The surroundings are the property of different large industries.

16. Conservation measures taken:

All three subareas are designated as a Classified Landscape and Nature Reserve on rural planning maps. The area is also designated as a an EC special protection zone (SPA).

There is no management plan.

The zones are recognised as private nature reserves, managed by 'Natuurreservaten' (a private nature conservation organisation).

No shooting.

17. Conservation measures proposed but not yet implemented:

none

18. Current land use: principal human activities in:

(a) site

nature conservation

passive recreation along the dikes

sheep grazing on the Schorren at Doel

extensive fishing with traps

(b) surroundings/catchment

Large industrial areas and agricultural land (mainly arable land) are separated from the Ramsar-area by dikes.

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

(a) at the site:

A project exists to build a second container terminal along the Schelde estuary (near Groot Buitenschoor), north of the one that destroyed already a part of the Galgenschoor. This will cause a serious effect on the Groot Buitenschoor Ramsar site, although again the proper surface to be deleted

will be small. However, expected changes in currents and sedimentation rates will certainly affect the Groot Bultenschoor in an indirect way. The negative side-effects and alternatives will be subject of an environmental-effect-study.

(b) in the surroundings/catchment

As already mentioned above, the pollution of the river Schelde has a severe negative effect on the ecosystem. A decrease in the 80thies of the benthic organisms on the mudflats resulted in a decrease of the wader populations. Recently, the situation has become somewhat better.

20. Hydrological and physical values:

The boundaries of the Ramsar site are formed by large dikes that prevent flooding of the surrounding areas. Brackish tidal areas are rare ecosystems when combined with fresh water tidal areas such as these along the river up to Gent (ca. 100 km distance from the sea).

21. Social and cultural values:

Important for scientific research (see further).

Historically important area as a relict of former extended tidal marshes, surrounded with some old fortifications (f.i. at Lillo).

22. Noteworthy fauna:

Important for wintering and migrating waterfowl and waders. Shelduck *Tadorna tadorna* (2000-2500) and Dunlin *Calidris alpina* (2000-2500) are feeding on the mudflats. The marshes are an important foraging site for Greylag Geese *Anser anser* (2000-3000). There is a very intensive exchange of birds between the tidal marshes and mudflats along the Schelde in Belgium and the famous 'Verdronken Land van Saeftinghe', a very large brackish-water tidal area at the Dutch side of the border.

The Ramsar area, especially the 'Bultenschoor', is very important as a moulting place for Shelduck (up to 1250 birds).

Breeding birds include Marsh Harrier *Circus aeruginosus*, Shelduck *Tadorna tadorna* and Bluethroat *Cyanosylvia svecica*.

23. Noteworthy flora:

Typical vegetation of brackish tidal marshes, but only limited surface.

24. Current scientific research and facilities:

Recently, the Institute of Nature Conservation is carrying out several scientific research projects in the area, especially on the Groot Bultenschoor. Topics includes benthic studies (spatial patterns and population dynamics) in relation to pollution, ecological studies on waders and *Tadorna tadorna*, chemical studies on the distribution of heavy metals on the mudflats, etc. These studies will be continued in the future.

25. Current conservation education:

Every year, there are some guided excursions, organised by the organisation 'Natuurreservaten'.

26. Current recreation and tourism:

The areas are unaccessible for unauthorised people. There are some recreational activities (walking and biking) along the dikes; at the left bank of the Schelde at Doel, a small tidal yacht harbour exists.

27. Management authority:

Natuurreservaten vzw.
Koninklijke St. Mariastraat 105
B-1030 Brussel
Belgium

28. Jurisdiction.

*Ministry of the Flemish Community
Department of the Environment and
Infrastructure*

29. Bibliographical references:**30. Reasons for inclusion: 3 (c)****31. Map of site:**