

INFORMATION SHEET ON RAMSAR WETLANDS

Country: Sweden

Date: December 1991

Ref: 7SE009

Name and address of compiler: Tiina Laantee, Swedish Environmental Protection Agency, 17185 Solna, Sweden
Tel: +46 8 7991000
Fax: +46 8 291106

Name of wetland: Lake Hornborgasjön

Date of Ramsar designation: 5 December 1974

Geographical coordinates: 58°19'N 13°33'E

General location: Situated between lakes Vänern and Vättern in the county of Sharaborg.

Area: 6,370 ha

Wetland type: Q W X S

Altitude: Minimum 119 m, maximum 125 m above sea level.

Overview: Lake Hornborgasjön was until the beginning of the 20th century Sweden's most well-known bird lake. Several lowerings and overgrowth have threatened the lake's qualities and this has led to intensive restoration activities which are now in progress. Large numbers of crane rest at hornborgasjön during migration.

Physical features: Hornborgasjön is a shallow lake, originally 3 m deep, in which the water level has been lowered five times since 1802 in an attempt to increase arable land. By 1933 it had been completely canalised, with inflow being led directly to the outlet, and the lake used to dry up every summer. In 1954, the waterlevel was raised in the northern part. Adjacent land is regularly subject to flooding.

Ecological features: In the northern part of the lake, where reed vegetation has been eliminated, there is a rich underwater vegetation of *Chara* spp. among others. Locally there is also *Scirpus*. *Phragmites australis* still dominates the lake. The lake's southern parts are largely covered by shrubs and *Carex*. Around the lake there are woods of *Alnus* and *Betula*.

Land tenure/ownership of

a) site: state owned (about 2,000 ha) and privately owned.

b) surrounding area: privately owned.

Conservation measures taken: The designated site includes two Nature Reserves: 1) Fågeludden (16 ha, established 20 December 1974) and 2) Bjurum-Dasnäs (3,600 ha, 27 March 1952). Fågeludden

has a management plan. Public access is restricted during April-May when cranes are present. Some potatoes are grown as food for cranes. Since the end of the 1960's clearing of reeds has been carried out. At the time an investigation of the best method of preserving the area for waterfowl was instigated. In 1990 the Swedish Government approved to a restoration plan involving extensive removal of reeds and scrub to give rise in waterlevel of 0.85 meters.

Conservation measures proposed but not yet implemented: the rise of the water is expected to take place step by step during 1992-1995. The entire area is expected to become a nature Reserve within two years.

Current land use: principal human activities in

a) site: Agriculture; Nature conservation; restoration of the lake

b) surroundings/catchment: The nearest surroundings are used for agriculture. Farms and small communities.

Disturbances/threats, including changes in land use and major development projects

a) at the site: The area has been extensively modified by man over the past 200 years. It used to be famous as a resting and nesting site for waterfowl, and it is hoped that after restoration it will once again become one of Sweden's finest waterfowl lakes. To safeguard the values of the site, extensive areas should be grazed or used for hay-cutting. Waterfowl shooting will be prohibited in certain areas.

b) in the surroundings/catchment: no information supplied.

Hydrological and physical values: no information supplied.

Social and cultural values: no information supplied.

Noteworthy fauna: Breeding: *Tachybaptus ruficollis* (occasional), *Podiceps grisegena*, *P. auritus* (>10 pairs), *P. nigricollis* (10-15), *Anser anser* (20), *Grus grus* (10), *Anas clypeata* (10), *A. querquedula* (10), *A. strepera*, *Aythya ferina* (20), *Fulica atra* (1000), *Porzana porzana* (10-15), *Tringa totanus* (5-10), *T. Ochropus*, *T. glareola*, *Philomachus pugnax* (10), *Larus ridibundus* (8000), *Locustrella naevia* (40-80), *Carpodacus erythrinus* (>20), *Crex crex* (occasional), *Botaurus stellaris* (5), *Calidris alpina* (1-3), *Numerius arquata* (<10), *Chlidonias niger* (a few), *Larus minutus* (a few), *Panurus biarmicus*, *Acrocephalus arundinaceus* (20-50). Resting: *Grus grus* (4000 birds in spring, 2000 in autumn), *Cygnus olor*, *Philomachus pugnax* (1000), *Anas crecca* (5000), *Cygnus cygnus*. The site supports the second largest population of *Circus aeruginosus* (15-20 pairs) in Sweden, and the only known remnant of the southern Swedish population of *Circus cyaneus*.

Noteworthy flora: no information supplied.

Current scientific research and facilities: Avifaunal studies have been carried out for a long period. More recently, there has been extensive research into lake restoration methods,

especially on developing methods for reed eradication. A field station has been established.

Current conservation education: A visitors centre offering guided tours and including a café was opened in 1986. There are also observation towers and footpaths.

Current recreation and tourism: The area is visited by more than 100,000 people each year.

Management authority: The managers of the Nature Reserves are:
Fågeludden NR - the County Forestry Board
Bjurum-Dagsnäs NR - the County Administration
Outside the reserves the landowner himself manages the land.

Jurisdiction: Territorial and functional: the County Administration of Skaraborg.

Bibliographical references:

- Grimmett, R.F.A. & Jones, T.A. (1989). Important Bird Areas of Europe. ICBP.
- Svenska våtmarker av internationell betydelse (1989). Swedish EPA information. (English summary).
- Gelin, C. (1978). The restoration of freshwater ecosystems in Sweden. In: Holdgate, M.W. & Woodman, M.J. (Eds.). The Breakdown and Restoration of Ecosystems. NATO Conference Series, I. Ecology
- Swedish Environmental Protection Agency (1991). Lake Hornborga - Past, present and future. A presentation by maps - Naturvårdsverket informerar.
- Environmental Protection Board (1973). Hornborgasjön Utredningen 3 vols (summary, limnological and ornithological aspects). Committee Report PM 280 (in Swedish).
- Björk, S. (1972). Swedish lake restoration program gets results. *Ambio* 1:153-165.
- Hertzman, T. & Larsson, T. (1991): Lake Hornborga - A Case Study. In: Finlayson, C.M. and Larsson, T. (Eds.) Wetland Management and Restoration - Proceedings of a Workshop. Sweden (1990). Swedish Environmental Protection Agency, Report 3992.
- Management plan for Fågeludden Nature Reserve.

Reasons for inclusion: 1a, 2a, 3b, 3c

Map of site: enclosed