# Information Sheet on Ramsar Wetlands

(RIS) - 2006-2008 version

Available for download from http://www.ramsar.org/ris/key ris index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

## Notes for compilers:

- 1. The RIS should be completed in accordance with the attached Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands. Compilers are strongly advised to read this guidance before filling in the RIS.
- 2. Further information and guidance in support of Ramsar site designations are provided in the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
- 3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar

1. Name and address of the compiler of this form: Ann Wahlström, Swedish Environmental Protection Agency, S-106 48 Stockholm, Sweden, Tel. +46 8 698 14 51, fax +46 8 698 10 42. E-mail: ann.wahlstrom@naturvardsverket.se	FOR OFFICE USE ONLY.  DD MM YY  Designation date  Site Reference Number	
Mats Nordin, County Administrative Board, Box 22067  2. Date this sheet was completed/updated: February 2009	7, 104 22 Stockholm, Sweden	
3. Country: Sweden		
4. Name of the Ramsar site:  The precise name of the designated site in one of the three official language. Alternative names, including in local language(s), should be given in parenthe.		on.

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

This RIS is for (tick one box only):

a) Designation of a new Ramsar site  $\square$ ; or

b) Updated information on an existing Ramsar site ⊠

The Ramsar site boundary and site area are unchanged: ⊠	
or  If the site boundary has changed:  i) the boundary has been delineated more accurately ; or  ii) the boundary has been extended ; or  iii) the boundary has been restricted**	
and/or	
If the site area has changed: i) the area has been measured more accurately ii) the area has been extended □; or iii) the area has been reduced** □	
** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.	
b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:  There are no major changes to the ecological character of the site.	
7. Map of site: Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps, including digital maps.	
a) A map of the site, with clearly delineated boundaries, is included as: i) a hard copy (required for inclusion of site in the Ramsar List): □;	
ii) an electronic format (e.g. a JPEG or ArcView image) □;	
iii) a GIS file providing geo-referenced site boundary vectors and attribute tables $\Box$ .	
b) Describe briefly the type of boundary delineation applied: e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.  The borderline is drawn in the water to separate four neighbouring archipelagos from the surrounding islands and skerries.	
8. Geographical coordinates (latitude/longitude, in degrees and minutes): Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas. 59°26'N 019°22'E	•

**9. General location:**Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large

The site is situated in the Baltic sea, off the southeast coast of Sweden about 70 km east of Stockholm city centre, in the County of Stockholm (population 1 949 516), municipalities of Värmdö (pop. 36 870) and Norrtälje (pop. 55 225).

10. Elevation: (in metres: average and/or maximum & minimum)

Min.-max. 0-10 metres

11. Area: (in hectares) 15 000 hectares

#### 12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland. The site is a part of the outermost archipelago outside of Stockholm and includes four groups of islands. **Stora Nassa archipelago** consists of 400 closely spaced, sparsely vegetated rocky islands and islets, separated by narrow channels. **Lilla Nassa archipelago** includes islands which are small, often devoid of vegetation, and more dispersed. **Gillöga archipelago** is composed of low, flat islands separated by shallow water. **Svenska Högarna archipelago** consists of low, flat islands covered with moor vegetation. The whole outer archipelago constitutes an important breeding ground for many coastal and marine bird species.

#### 13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the Explanatory Notes and Guidelines for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

<b>1</b> •	2 •	3 •	4 •	5 •	6 •	7	8 •	9
IXI	X	X	X					

### 14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

- 1. Stockholm outer archipelago contains a representative example of natural wetland type found within the boreal region, including the Natura 2000 wetland habitats *Reefs* (1170), *Boreal Baltic islets and small islands* (1620) and *Coastal lagoons* (1150, priority habitat). The area constitutes a mixture of many islands surrounded by shallow marine water, altogether of high natural value.
- 2. Nationally threatened species include breeding bird species such as velvet scooter *Melanitta fusca* (NT), white-tailed eagle *Haliaeetus albicilla* (NT), turnstone *Arenaria interpres* (VU), lesser black-backed gull *Larus fuscus* (VU), shoveler *Anas clypeata* (NT), and eagle owl *Bubo bubo* (NT), furthermore turbot *Psetta maxima* (NT), cod *Gadus morhua* (EN), viviparous eelpout *Zoarces viviparous* (NT) and little grape fern *Botrychium simplex* (EN). The site also supports species included in Annex 1 of the EU Birds Directive and Annexes 2 and 4 of the EU Habitats Directive (see point 22).
- 3. The site supports populations of animal species important for maintaining the biological diversity of the boreal region, including grey seals and a rich avian fauna during the breeding and migration periods (see point 22).

- 4. The site provides important staging areas and breeding localities for waterbirds such as sea ducks and auks and constitutes a refuge of great significance in adverse weather conditions (see point 22).
- **15. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

#### a) biogeographic region:

Boreal

b) biogeographic regionalisation scheme (include reference citation):

European Environment Agency. 2003. Europe's environment: the third assessment, p 231. Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

## 16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The area's bedrock contains limestone spar and basic rock types. There are also interesting geological structures such as geological folds, kettle holes and glacio-fluvial channels.

### 17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type). The area is surrounded by mainly shallow marine water and a large numbers of scattered offshore islets, most of them devoid of vegetation.

#### 18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

There are no specific hydrological values.

## 19. Wetland Types

### a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the Explanatory Notes & Guidelines.

Marine/coastal:  $\underline{A} \cdot B \cdot C \cdot \underline{D} \cdot E \cdot F \cdot G \cdot H \cdot I \cdot J \cdot K \cdot Zk(a)$ 

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

#### b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

**A**, **D**, **U** 

# 20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Stockholm outer archipelago consists of many hundreds of islands and islets. Bare bedrock is dominating and the environment is very barren with few trees and bushes. Some small deciduous woods can be found in the lower laying areas. Very small meadows are found close to the sea in many places. The archipelago is rich in reefs. There are also numerous small, nearly isolated bays. In parts of the area the vegetation is characterized by different heath types. The avian fauna is rich, with more than 50 breeding species, and the site is very important to some migrating and breeding waterbirds and auks.

### 21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

The island at Stora Nassa harbors the nationally endangered Little grape fern *Botrychium simplex* (EN). Other noteworthy species in the site include *Ceratophyllum submersum*, *Sagina maritima*, and *Utricularia australis*.

### 22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

See 14 above. Typical species at Stora Nassa, Gillöga and Högarna islands include Arctic tern *Sterna paradisaea\**. At Svenska Högarna, colonies of black guillemot *Cepphus grylle*, guillemot *Uria aalge* and razorbill *Alca torda* are found. Nassa and Högarna islands support populations of breeding Eider duck *Somateria mollissima* and are probably also important for moulting males. Among bird species breeding irregularly, pintail *Anas acuta* (NT), slavonian grebe *Podiceps auritus\** (VU) and curlew *Numenius arquata* (NT) can be mentioned. During the migration period the area is used by species like long-tailed duck *Clangula hyemalis* and divers. Other species include great crested newt *Triturus cristatus* # and grey seal *Halichoerus grypus#*.

- \* included in Annex 1 of the EU Birds Directive
- # included in Annex 2 of the EU Habitats Directive
- partial in Land in Annex 4 of the EU Habitats Directive

#### 23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

The area is quite well known to the public and attracts many visitors during the summer.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box  $\square$  and describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

### 24. Land tenure/ownership:

a) within the Ramsar site:

The site is predominantly privately owned. The state owns 2 668 ha, which is a Nature Reserve, in the archipelago of Svenska Högarna.

b) in the surrounding area:

Mainly privately owned

### 25. Current land (including water) use:

a) within the Ramsar site:

The area is mainly used for recreation, boating and fishing.

b) in the surroundings/catchment:

The surroundings are mainly used for recreation, boating and fishing.

# 26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site:

Predators like the fox, mink and badger may disturb seabird colonies and pose a serious threat. Recreational use of the area is also increasing which may disturb wildlife during the breeding season in the area. This may eventually require additional zonation to concentrate such pressure into the least sensitive areas. Oil spill is a potential threat to the site.

The population of cod *Gadus morhua*,, which is the main fish predator, is very much depleted, which may lead to a chain reaction in the trophic levels. Changes in the fish and plankton societies coupled with eutrophication of the Baltic may lead to reduced water visibility and therefore also a reduction of important plant societies.

b) in the surrounding area:

Depending on wind and currency, oil spill could be a threat to the area.

## 27. Conservation measures taken:

**a)** List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

The site is listed as being of national importance for nature conservation. The site includes parts of two nature reserves, protecting about 37 percent of the area:

• Stora Nassa Nature Reserve – total area 2 951 ha, thereof 310 ha on land. The reserve was established in 1965 and is privately owned. Management plan adopted 2002. The

- reserve is managed by the land owners in consultation with the Regional Forestry Board. Within the reserve, 440 ha are set aside as a bird sanctuary where public access is restricted during parts of the year.
- Svenska Högarna Nature Reserve total area 2 668 ha, thereof 105 ha on land. The reserve was established in 1976 and an officially approved management plan exists. The area is state-owned but managed by a private foundation, the Archipelago Foundation in the County of Stockholm. Parts of the reserve are set aside as a bird sanctuary where public access is restricted during parts of the year.

Parts of the Ramsar site has been included in the Natura 2000 network:

- SE0110092 Stora Nassa (2 950 ha) SPA, SCI
- SE0110096 Svenska Högarna (2 668 ha) SPA, SCI
- **b)** If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia	□;Ib	$\mathbf{X}$ ;	II	□;	III	□;	IV	□;	V	□;	VI	
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- c) Does an officially approved management plan exist; and is it being implemented?: For parts of the area a management plan is adopted and implemented.
- **d)** Describe any other current management practices: Not relevant.

### 28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

New management plans are underway which will take into account both terrestrial and marine aspects.

### 29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

From time to time, the bird fauna is monitored. Biological surveys in the marine environment have been carried out in the whole site during 2006-2008. Bird ringing takes regularly place at Svenska Högarna, which includes both breeding auks and migrating passerines.

# 30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There are information signs about protected areas and bird sanctuaries and information about the site is also included in brochures.

### 31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

The area is very attractive for out-door recreation and the number of private boats visiting the area during the summer is high. The large number of visitor has made restriction in access necessary in parts of the area during the breeding season.

## 32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

County Administrative Board of Stockholm, Hantverkargatan 29, S-104 22 Stockholm, Sweden

Tel. +46 8 785 40 00

## 33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

A large part of the area, including Gillöga and Svenska Högarna islands, is managed by the Archipelago foundation, Box 7669, 103 94 Stockholm, Sweden

Tel. +46 8 440 56 00. Contact person Johan Ahlbom, tel. +46 70377 62 70, johan.ahlbom@skargardsstiftelsen.se

# 34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Gärdenfors, U. (ed.) 2005. Rödlistade arter i Sverige 2005 – The 2005 Red List of Swedish Species. ArtDatabanken, SLU; Uppsala.

Please return to: Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org