



Ramsar Information Sheet

Published on 31 March 2017

Update version, previously published on : 1 January 2002

Sweden Färnebofjärden



Designation date	14 November 2001
Site number	1116
Coordinates	60°13'02"N 16°48'55"E
Area	16 866,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The river Dalälven runs in a flat and open landscape, resulting in a widening of the river and the formation of a series of broad and shallow lakes. Short, often multi-branched rapids separate the lakes. The river is bordered by a large number of wetlands types. Flooding is common, particularly in spring. The unexploited rapids, along with the limited forestry and small human population in the immediate vicinity of the site, give an impression of untouched wilderness. Most of the area is protected as a national park.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

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2.1.2 - Period of collection of data and information used to compile the RIS

From year	2013
To year	2015

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Färnebofjärden
Unofficial name (optional)	Färnebofjärden (river), originally designated as Dalälven-Färnebofjärden

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) The boundary has been restricted	<input checked="" type="checkbox"/>
(Update) B. Changes to Site area	the area has decreased
(Update) The Site area has been calculated more accurately	<input checked="" type="checkbox"/>
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Yes (likely)
(Update) Are the changes	Positive <input checked="" type="radio"/> Negative <input type="radio"/> Positive & Negative <input type="radio"/>
(Update) No information available	<input checked="" type="checkbox"/>
(Update) Changes resulting from causes operating within the existing boundaries?	<input type="checkbox"/>
(Update) Changes resulting from causes operating beyond the site's boundaries?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?	<input checked="" type="checkbox"/>
(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?	<input checked="" type="checkbox"/>

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

The boundary has been changed so it more often is corresponding to other protected areas in the area. In general this has resulted in that the area of mires and wet forests have increased and non-wetland habitats like forests, arable land, areas around summer cottages has been excluded. Some areas with open waters have also been excluded due to the wish of not having too many different non-corresponding borders in the area. Those parts were not included in protected areas due to disturbance from built-up areas, visitors on beaches etc.

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change) Yes

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps

0

Boundaries description

The boundary mostly corresponds to the boundaries of protected areas (Färnebofjärden national park, Gysinge and Ålbo nature reserves). Unprotected parts which are included have boundaries that follow the extent of the wetland area.

2.2.2 - General location

a) In which large administrative region does the site lie?

Four counties: Västmanland, Gävleborg, Uppsala and Dalarna

b) What is the nearest town or population centre?

Avesta (32 km V of the site), Gävle (50 km NO of the site), Heby, Sala, Sandviken (40 km N of the site)

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

16866

Area, in hectares (ha) as calculated from GIS boundaries

16875.71

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	10. Boreonemoral
Bailey's Ecoregions	240 Marine Division
WWF Terrestrial Ecoregions	Sarmantic mixed forest
Freshwater Ecoregions of the World (FEOW)	Ecoregion 406 Northern Baltic drainages
EU biogeographic regionalization	Boreal

Other biogeographic regionalisation scheme

TEOW - Terrestrial Ecoregions of the world: Sarmantic mixed forest PA0436.

Boreonemoral zone (Nordiska ministerrådet, 1977)

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

Flood control, nutrient retention and sediment trapping is an important feature of the river system.

Other ecosystem services provided

Mires capture and support long-term storage of atmospheric carbon dioxide.

Other reasons

A rare example of a near natural wetland type (river system with regular flooding) in the EU Boreal region. Important habitats are alluvial forests, exposed river bottoms with fine grained soils, rapids and open fens along the river.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The site a very important site for maintaining the biodiversity in the EU boreal region, both for the more common species and the rare ones. The site supports vascular plant, bryophytes, lichens and fungi, birds and insects living in habitats maintained by the flooding of the river, habitats in wet forests and mires and the open water areas. The site is situated on the border between the boreal and borenemoral biogeographic zone and species from both regions occur at the site and the species variety is high. The site is a staging area for migratory water birds and support birds that need natural forests with a lot of dead wood for breeding and foraging.

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

- Criterion 6 : >1% waterbird population

- Criterion 7 : Significant and representative fish

Justification















The site is a good site for fish. The site supports a significant proportion of several fish species including Thymallus thymallus and Esox lucius. The site holds rich fish communities and is one of Sweden's top ten fishing spots for pike, perch and zander. More than 20 fish species occur at the site and that is quite much for the FEOW region "Northern Baltic Drainages".

- Criterion 8 : Fish spawning grounds, etc.

Justification

The site is part of a migration route along the river Dalälven. The site with its flooded wetlands is also of high importance for spawning, as well as nursery for many species.
















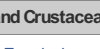









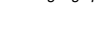

3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Cardamine parviflora</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN).	Important rich locality. See textbox below the table.
<i>Crassula aquatica</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT). Part of rare river shore community.	See textbox below the table.
<i>Dichelyma capillaceum</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT).	The site has many localities for this rare species. See textbox below the table.
<i>Elatine hydropiper</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU).	Key species for threatened habitats. See textbox below the table.
<i>Elatine triandra</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Part of rare river shore community.	See textbox below the table.
<i>Limosella aquatica</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Swedish Red List 2015 (NT). Part of rare river shore community.	See textbox below the table.
<i>Lythrum portula</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Swedish Red List 2015 (NT). Part of rare river shore community.	See textbox below the table.
<i>Myrinia pulvinata</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU).	See textbox below the table.
<i>Persicaria foliosa</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT).	The FEOW "Northern Baltic drainages" holds about 50% of the known world population and this is an important site for the species. See textbox below the table.
<i>Scirpus radicans</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT). Part of rare river shore community.	See textbox below the table.
<i>Tritomaria exsecta</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN).	The site has many localities for this rare species. See textbox below the table.
<i>Viola uliginosa</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT).	The site probably has the largest population of the species in Europe. See textbox below the table.

Criterion 2: For all species, the Swedish Red List status and general information for that classification, distribution etc can be found at <http://artfakta.artdatabanken.se/>.

Criteria 2 and 3: Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
Birds																		
CHORDATA/ AVES	 <i>Cygnus cygnus</i>	Whooper Swan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1200	2006	2	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Resting site during migration. During spring time, about 2% of the north-west mainland European population visit the site. Ref Holmstedt 2006. For criteria 3, see textbox below and under 3.1.
CHORDATA/ AVES	 <i>Dendrocopos leucotos</i>	White-backed Woodpecker	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (CR), EC Birds Directive Annex I.	Historic important breeding area for white-backed woodpecker. Reintroduction program is on-going. See textbox below and under 3.1.
CHORDATA/ AVES	 <i>Dendrocopos minor</i>	Lesser Spotted Woodpecker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	2003			<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT),	Breeding and foraging. See textbox below the table.
CHORDATA/ AVES	 <i>Dryocopus martius</i>	Black Woodpecker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	2003		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT), EC Birds Directive Annex I.	Breeding and foraging. See textbox below the table.
CHORDATA/ AVES	 <i>Gavia arctica</i>	Arctic Loon; Black-throated Loon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Breeding and foraging. See textbox below the table.
CHORDATA/ AVES	 <i>Haliaeetus albicilla</i>	White-tailed Eagle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Swedish Red List 2015 (NT), EC Birds Directive Annex I.	Breeding and foraging. See textbox below the table.
CHORDATA/ AVES	 <i>Pandion haliaetus</i>	Osprey, Western Osprey	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20			LC 	<input type="checkbox"/>	<input type="checkbox"/>		Breeding and foraging. Important site for the European population of western osprey. See textbox below, under 3.1 and Holmstedt 2006
CHORDATA/ AVES	 <i>Picoides tridactylus</i>	Eurasian Three-toed Woodpecker; Three-toed Woodpecker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	2004		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT), EC Birds Directive Annex I.	Breeding and foraging. See textbox below the table.
CHORDATA/ AVES	 <i>Strix uralensis</i>	Ural Owl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	2003		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Breeding and foraging. See textbox below and Holmstedt 2006.
Fish, Mollusc and Crustacea																		
CHORDATA/ ACTINOPTERYGII	 <i>Esox lucius</i>	Pike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Important site for spawning and nursery. See textbox below and under 3.1
CHORDATA/ ACTINOPTERYGII	 <i>Perca fluviatilis</i>	Perch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Important site for spawning. See textbox below and under 3.1
CHORDATA/ ACTINOPTERYGII	 <i>Sander lucioperca</i>	Zander	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		See textbox below and under 3.1
CHORDATA/ ACTINOPTERYGII	 <i>Thymallus thymallus</i>	Grayling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The rapids are good habitat for the species, for example their reproduction. See textbox below and under 3.1
Others																		
CHORDATA/ MAMMALIA	 <i>Lutra lutra</i>	European Otter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EC Habitats Directive Annex II.	See textbox below the table.

1) Percentage of the total biogeographic population at the site

The site is also important for birds especially migrating whooper swans, ural owl and 7 breeding species of woodpeckers. Many rare and threatened insects, lichens, mushrooms and mosses are present. There is an outstanding variety of species present and staging area for migratory water birds.

Criterion 2: For all species, the Swedish red-list status and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>.

Criteria 2, 3, 5 and 7: Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Residual alluvial forests	<input checked="" type="checkbox"/>	Flooded deciduous or mixed forests	Priority habitat in EC Habitats Directive Annex 1. Important habitat for species in deciduous forests
The Limosella Community	<input checked="" type="checkbox"/>	River bottoms on fine grained soil, exposed during low water levels provide a habitat for threatened annual water plants. Limosella is the character species.	The Limosella community have decreased its area a lot due to changed water flows because of dams in rivers. There is a Swedish action programme for Persicaria foliosa that covers the community as well.
Active raised bogs	<input checked="" type="checkbox"/>	Several examples of raised bog in the site.	Good undisturbed examples of importance. Designated for protection in the Swedish Mire Protection plan 2007. Priority habitat in EC Habitats Directive Annex 1.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The site offers a large diversity in freshwater habitats, resulting in a diverse birdlife, many fish species and rich flora. There are several rare species included in the Swedish Red List 2015 within the site. River Dalälven runs through a flat and open landscape, resulting in a widening of the river and the formation of a series of shallow lakes. Short, often multi-branched rapids separate the lakes. In this area, the river is bordered by a large number of wetlands. Because of the flat landscape, flooding is common, particularly in spring. The large number of unexploited rapids, along with the limited forestry and small human population in the immediate vicinity of the site, give an impression of untouched wilderness. Downstream the site, the rapids are exploited to a larger extent.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		3	1300	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		1	5700	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4	1000	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		2	2300	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		0	100	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		0	500	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		0	500	Representative

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
4: Seasonally flooded agricultural land		0		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
old-growth coniferous forests	1500

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Neckera pennata</i>		Swedish Red List 2015 (NT)

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Elodea canadensis</i>		No impacts	No change

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range / endemism/other
CHORDATA/MAMMALIA	<i>Castor fiber</i>	Eurasian Beaver				
CHORDATA/MAMMALIA	<i>Lynx lynx</i>	Eurasian Lynx				Swedish Red List 2015 (VU), EC Habitats Directive Annex II

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfc: Subarctic (Severe winter, no dry season, cool summer)

Not known as far.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The river Dalälven has a catchment area of 28954 km2 and reaches the Baltic sea 50 km downstream the site Färnebofjärden.

4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change Increase Decrease Unknown

Organic

(Update) Changes at RIS update No change Increase Decrease Unknown

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	
Usually seasonal, ephemeral or intermittent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	<input checked="" type="checkbox"/>	No change
Water inputs from rainfall	<input type="checkbox"/>	No change
Water inputs from groundwater	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The water regime is somewhat modified by hydroelectric power stations and dams higher up in the system. This causes higher winter flow and lesser and shorter spring flood. But no change in the water regime has occurred lately.

(ECD) Connectivity of surface waters and of groundwater

(ECD) Stratification and mixing regime

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Significant transportation of sediments occurs on or through the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime unknown

RIS for Site no. 1116, Färnebofjärden, Sweden

Please provide further information on sediment (optional):

Transportation and deposition of fine grained river sediments are normal and typical for this river system.

(EOD) Water temperature 0-27 Celcius

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Mesotrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself.

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The site consists of undisturbed wetland, lakes and forests without settlements. Most of the site is strictly protected from agriculture, forestry and other means of exploitation. In the surrounding area there are no such restrictions and much less wetlands.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Recreational hunting and fishing	High
Scientific and educational	Educational activities and opportunities	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Within the site: 70000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

RIS for Site no. 1116, Färnebofjärden, Sweden

iv) 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

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial (company)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

Protected areas owned privately, mainly by the state and to lesser extent by companies.

The surrounding area is mainly owned privately and by companies.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

County Administrative Board of Uppsala, S-751 86 Uppsala, Sweden.
County Administrative Board of Västmanland, S-721 86 Västerås, Sweden.
County Administrative Board of Dalarna, S-791 84 Falun, Sweden.
County Administrative Board of Gävleborg, S-801 70 Gävle, Sweden.

Provide the name and title of the person or people with responsibility for the wetland:

Nature conservancy manager Ann Gudehn

Postal address:

County Administrative Board of Gävleborg, S-801 70 Gävle, Sweden

E-mail address:

gavleborg@lansstyrelsen.se

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Tourism and recreation areas	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Canalisation and river regulation	Medium impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use			<input type="checkbox"/>		<input checked="" type="checkbox"/>	

Please describe any other threats (optional):

Mosquitos (e.g. *Aedes rossicus*) is particularly common in the area. Large-scale decimation of mosquitoes take place yearly with BTI which is spread by helicopters. The effect on other species is small but not yet fully elucidated.

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Nedre Dalälven River Landscape	http://www.nedredalalven.se/index.php/svbiosphere	whole

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Several sites. See national legislation below until the data base allows more than one Natura site here		partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Park	Färnebofjärdens nationalpark	http://www.sverigesnationalparke r.se/farnebofjarden	partly
Natura 2000 SCI	Östa SE0210369	http://www.lansstyrelsen.se/upps ala/Sv/djur-och-natur/skyddad-na tur/Natura-2000/lanets-natura-20 00-omraden/heby/Pages/osta.aspx	partly
Natura 2000 SCI and SPA(1a)	Färnebofjärden syd SE0210368 (in the county of Uppsala)	http://www.lansstyrelsen.se/upps ala/Sv/djur-och-natur/skyddad-na tur/Natura-2000/lanets-natura-20 00-omraden/heby/Pages/farnebofja rden-syd.aspx	partly
Natura 2000 SCI and SPA(1b)	Färnebofjärden syd SE0210368 (in the county of västmanland)	http://www.lansstyrelsen.se/vast manland/Sv/djur-och-natur/skydda d-natur/natura-2000/ista-over-b evarandeplaner/sala/Pages/farneb ofjarden.aspx	partly
Natura 2000 SCI and SPA(2)	Ista SE0630191	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630191_Ista1.pdf	partly
Natura 2000 SCI and SPA(3)	Färnebofjärden SE0630190	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630190_Farnebofjarde n.pdf	partly
Natura 2000 SCI and SPA(4)	Gysinge SE0630192	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630192_Gysinge.pdf	partly
Natura 2000 SCI and SPA(5)	Övre Hedesundafjärden SE0630189	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630189_Ovrehedesunda fjarden_rev.pdf	partly
Natura 2000 SCI and SPA(6)	Jordbärsuren-Ålbo SE0630153	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630153_Jordbarsmuren .pdf	partly
Natura 2000 SCI and SPA(7)	Pellesberget SE0210367	http://www.lansstyrelsen.se/upps ala/Sv/djur-och-natur/skyddad-na tur/Natura-2000/lanets-natura-20 00-omraden/heby/Pages/pellesberg et.aspx	partly
Natura 2000 SCI and SPA(8)	Färnebofjärden nordväst SE0620234	http://www.lansstyrelsen.se/dala ma/SiteCollectionDocuments/Sv/d jur-och-natur/skyddad-natur/Natu ra-2000/Bevarandeplaner/Avesta/F arnebofjarden-nordvast-0620234.P DF	partly
Natura 2000 SPA(1)	Hedesunda SE0630186	http://www.lansstyrelsen.se/gavl eborg/SiteCollectionDocuments/Sv /djur-och-natur/skyddad-natur/na tura2000/SE0630186_Hedesunda1.pd f	partly
Natura 2000 SPA(2)	Hedesundafjärden SE0210366	http://www.lansstyrelsen.se/upps ala/Sv/djur-och-natur/skyddad-na tur/Natura-2000/lanets-natura-20 00-omraden/heby/Pages/hedesundaf jarden.aspx	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve (1)	Jordbärsmyren-Ålbo	http://www.lansstyrelsen.se/gavl/eborg/Sv/djur-och-natur/skyddad-natur/naturreservat/gave/jordbarmyren-albo/Pages/index.aspx	partly
Nature reserve (2)	Gysinge	http://www.lansstyrelsen.se/gavl/eborg/Sv/djur-och-natur/skyddad-natur/naturreservat/sandviken/gysinge/Pages/index.aspx	partly
Nature reserve (3)	Ista	http://www.lansstyrelsen.se/gavl/eborg/Sv/djur-och-natur/skyddad-natur/naturreservat/sandviken/ista/Pages/Index.aspx	partly
Nature reserve (4)	Hedesundafjärden	http://www.lansstyrelsen.se/uppsala/Sv/djur-och-natur/skyddad-natur/naturreservat/heby/hedesundafjarden/Pages/default.aspx	partly
Nature reserve (5)	Östa	http://www.lansstyrelsen.se/uppsala/Sv/djur-och-natur/skyddad-natur/naturreservat/heby/osta/Pages/default.aspx	partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Färnebofjärden	http://datazone.birdlife.org/site/factsheet/farnebofjarden-iba-sweden	partly

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Partially implemented
Catchment management initiatives/controls	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

There is a central information Centre and exhibition for visitors at Gysinge. There is a nature trail in the National Park and also information pamphlets available. Outdoor information is displayed at several places within the site.

URL of site-related webpage (if relevant): <http://www.sverigesnationalparker.se/en/choose-park---list/farnebofjarden-national-park/#.VSfzhk0cSUk>

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal species (please specify)	Implemented
Plant species	Implemented

Ospreys and white-backed woodpeckers are monitored yearly. Insects, plants and mushrooms are studied and monitored occasionally.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Artdatabanken, 2015: Rödlistade arter i Sverige 2015. (Redlist of Sweden 2015)

Nordiska ministerrådet, 1977. Naturgeografisk regionindelning av Norden. NU B 1977:34.

Aspenberg, P. 2010: Något om sångsvanarna vid nedre Dalälven (från 1979). Fåglar i X län 2010:1, sid 18.

Andersson, H. C. 2004. Under ytan i Färnebofjärden, fiskbeståndet – då och nu. Naturvårdsverket. . [Fishes and angling in the National park of Färnebofjärden. In Swedish].

Hermasson, J. & Steinbach, G. 2002. Lavar i Färnebofjärdens nationalpark. Länsstyrelsen i Västmanlands län 2002:9. [Lichens in the National park of Färnebofjärden. In Swedish].

Holmstedt, S. 2006. Fåglar vid Färnebofjärdens nationalpark. Naturvårdsverket... [The birds of the national park of Färnebofjärden.. In Swedish].

Naturvårdsverket. 1999. Färnebofjärdens nationalpark. Skötselplan med föreskrifter. Allmänna råd 99: 3. Naturvårdsverket.[Management plan for the national park, published by the Swedish Environmental Protection Agency. In Swedish].

Pettersson, T. 2005. Mossor i Färnebofjärdens nationalpark. Länsstyrelsen i Västmanlands län 2005:10. [Mosses in the National park of Färnebofjärden. In Swedish].

Naturvårdsverket 2008: Åtgärdsprogram för ävjepilört 2007-2011. Naturvårdsverket Rapport 5821.

Vegetationskarta över Färnebofjärdens nationalpark. 2004. Naturvårdsverket. Rapport 5423.

Ståhl, Peter. 2009: Vegetationsuppföljning ett år efter branden vid Altberget i Färnebofjärdens nationalpark. Länsstyrelsen i Gävleborg.

Ståhl, P. Manus 2014 (unpublished): Växter vid Färnebofjärden – en inventering av kärlväxter och vegetation i Färnebofjärdens nationalpark. Länsstyrelsen i Gävleborg [Vascular plants in the National park of Färnebofjärden. In Swedish].

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Streams close to Gysinge. In the background Färnebofjärdens visitor centre (Peter Ståhl, 13-07-2011)



Swamp forest with *Viola uliginosa*, *Calla palustris*, *Caltha palustris*. (Peter Ståhl, 28-05-2013)



Wetlands along the river, river meadows formerly used for mowing (Peter Ståhl, 12-07-2011)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2001-11-14