



Ramsar Information Sheet

Published on 2 May 2017

Update version, previously published on : 31 January 2013

Sweden Nittälven



Designation date	19 March 2013
Site number	2175
Coordinates	59°54'14"N 14°49'20"E
Area	1 940,00 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 Nittälven and its delta is one of the most natural catchment areas in Örebro County. It runs from the lake Stora Nitten in the north to lake Ljusnaren in the south. Its watercourse is about 40 kilometres long. The uppermost part of the river is not part of the Ramsar Site. Nordtjämsälven, the largest tributary is also part of the Ramsar Site.

The site is a vast coherent area with a high variation of large streams, small creeks mixed with wetlands and small ponds. The river is heterogeneous both in reference to the water and surrounding habitats. In its upper reaches there are many boulder-rich passages with rapids and cascades. In its lower reaches the river is less turbulent and meanders through a long stretch of old-growth forest before it reaches the mire landscape close to the outlet.

Despite past rock removal efforts to facilitate log driving, today numerous stretches of rapids and cascades make the river a natural watercourse. The shores vary from boulder-rich to sandy overhanging brinks and to annually submerged marshes and swamp forests. In the southern parts of the site mires extend over a glacio-fluvial delta. Several smaller wetlands and heterogeneous clusters of streams, wetlands and forests line the watercourse. Altogether the site is a very diverse wetland.

The wetlands are surrounded by coniferous forest. Deciduous trees are only found in small forest stands or as scattered clusters within the larger coniferous stands.

The bird life is rich with many nationally red-listed species and bird species listed in the EC Birds Directive. Nittälven is situated north of the most evident biological geographical boundary in Sweden, Limes Norrlandicus, where most southern plants and animals have their northern distribution border.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Michael Andersson
Institution/agency	Länsstyrelsen i Örebro län
Postal address	Länsstyrelsen i Örebro län, S-701 86 Örebro, Sweden
E-mail	michael.andersson@lansstyrelsen.se
Phone	+46-10-224 87 51

Compiler 2

Name	Jenny Lonnstad
Institution/agency	Naturvårdsverket (Swedish EPA)
Postal address	Naturvårdsverket, 106 48 Stockholm, Sweden
E-mail	jenny.lonnstad@naturvardsverket.se
Phone	+46 10 698 15 92
Fax	+46 10 698 16 00

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)	Nittälven
Unofficial name (optional)	Nittälven (river)

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 No

(Update) B. Changes to Site area No change to area

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? No

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 of the Ramsar site area follows in part the boundaries of existing nature reserves and in part boundaries of wetlands or the shorelines of water bodies.

2.2.2 - General location

a) In which large administrative region does the site lie?	Örebro, Dalarna
--	-----------------

b) What is the nearest town or population centre?	The site is situated 30 km southwest of the municipality of Ludvika and 75 km north of the city of Örebro in South central Sweden
---	---

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):

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

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	03 West Eurasian Taiga
Bailey's Ecoregions	130 Subarctic Division
WWF Terrestrial Ecoregions	Scandinavian-Russian taiga PA0608
Other scheme (provide name below)	See below.
EU biogeographic regionalization	Boreal
Freshwater Ecoregions of the World (FEOW)	406 Northern Baltic Drainages

Other biogeographic regionalisation scheme

The Nordic Council of Ministers (1983, 1984). Naturgeografiska regioner. The site is in the most southern part of the "boreal zone".

European Environment Agency (EEA). 2002. Digital Map of European Ecological Regions (DMEER). The site is in the southern part of the "Scandinavian and Russian taiga".

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 The wetlands along the river support flood control.

Other ecosystem services provided The mires in the area have good possibilities to continue function as a carbon sink and storage.

Other reasons

The site consists of a section in a river and some of the wetlands along the river. The river is a natural water course with rapids and waterfalls, which is not common for the EU Boreal region. The wetlands along the river contain a wide range of wetland habitats representative of the EU Boreal region. The following Ramsar wetland types are the most important that have representative values at the site: inland deltas (L), freshwater tree-dominated wetlands (Xf), forested and open peatlands (Xp and U). Several of the wetland types also contain a number of representative subtypes.

The area is also situated in a transition zone between northern and southern mire types (situated in the area where two sub-regions of the Boreal meet, the Boreal and the Boreo-Nemoral). Human impact has been fairly gentle on the wetlands, which are natural or near-natural.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The site supports biodiversity typical for natural water courses, mires and wet forests close to the border between the boreal and boreo-nemoral zone (according to the Nordic Council of Ministers). It includes the most important mires for nesting waders in this part of the country with several nesting species. In all about 90 bird species are nesting in the area most of them are dependent on wetland or the ecotones between water, wetlands and forest. Present deterioration of natural habitats is threatening many of these ecotone dependent species and habitats, land-to-water and wetland-to-forest alike. There are many redlisted bryophytes and lichens dependent on the high humidity in old-growth forests (wet or seasonally flooded forest), but also forests that aren't wetlands but benefit from the humidity from the river and the mires. The site is also on a transition zone between eastern and western mire flora in Sweden and a few western species occur.

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

- Criterion 8 : Fish spawning grounds, etc.

Justification The site supports nurseries and/or migratory routes for several fish 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>Dicranodontium denudatum</i> 	Denuded dicranodontium moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. This is a western species. See textbox below the table and in section 3.1.
<i>Evernia divaricata</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU).	The area harbours a significant amount of nationally red-listed bryophytes and lichens. This is one of them. See textbox below the table and in section 3.1
<i>Hylocomiastrum pyrenaicum</i> 	Hylocomiastrum moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. This is a northern species. See textbox below the table and in section 3.1.
<i>Platismatia norvegica</i> 	Oldgrowth rag lichen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU).	Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. This is a western species. See textbox below the table and in section 3.1
<i>Polygonatum verticillatum</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. This is a western species. See textbox below the table and in section 3.1.
<i>Ramalina thrausta</i> 	Angel's hair bush lichen	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN).	The area harbours a significant amount of nationally red-listed bryophytes and lichens. This is one of them. See textbox below the table and in section 3.1
<i>Tilia cordata</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. This is a southern species. See textbox below the table and in section 3.1.

For all species, their status in the Swedish Red List and general information for that classification, their distribution etc can be found at <http://artfakta.artdatabanken.se/>. Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

The bryophyte *Harpanthus scutatus* (VU) is also present at the site.

The rare lichen species *Micarea vulpinaris*, which grows only on seasonally inundated dead wood, occurs in Nittälven.

Biogeographically noteworthy are the flora elements from the south, north and west of Sweden. Many rare species are found here, on the outskirts of their respective natural range in Sweden.

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	GITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7								
Birds																	
CHORDATA/AVES	 <i>Actitis hypoleucos</i>	Common Sandpiper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting along shores. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Aegolius funereus</i>	Boreal Owl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Nesting. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Anas crecca</i>	Eurasian Teal; Green-winged Teal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting along shores. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Cinclus cinclus</i>	White-throated Dipper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting along shores. See textbox below the table and in section 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"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Nesting. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Falco subbuteo</i>	Northern Hobby	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Breeding. See textbox below the table and in section 3.1.
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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Nesting along shores. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Glaucidium passerinum</i>	Eurasian Pygmy Owl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Grus grus</i>	Common Crane	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Breeding. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Lyrurus tetrix</i>	Eurasian Black Grouse; Black Grouse	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Breeding and also the largest mating area in the county. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Mergus merganser</i>	Common Merganser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting along shores. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Motacilla cinerea</i>	Gray Wagtail; Grey Wagtail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Nesting along shores. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Motacilla flava</i>	Western Yellow Wagtail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Breeding. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Numenius arquata</i>	Eurasian Curlew	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Nesting See textbox below the table and in section 3.1.
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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Nesting. See textbox below the table and in section 3.1.
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, NT. EC Birds Directive, Annex I.	Nesting. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Picus canus</i>	Grey-headed Woodpecker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Breeding. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Pluvialis apricaria</i>	European Golden Plover; European Golden-Plover	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Nesting. See textbox below the table and in section 3.1.
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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Nesting occasionally. See textbox below the table and in section 3.1.
CHORDATA/AVES	 <i>Surnia ulula</i>	Northern Hawk Owl; Northern Hawk-Owl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	See textbox below the table and in section 3.1.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	GITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	 <i>Tetrao urogallus</i>	Western Capercaillie	<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. See textbox below the table and in section 3.1.
CHORDATA/ AVES	 <i>Tetrastes bonasia</i>	Hazel grouse	<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"/>					<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex I.	Breeding. See textbox below the table and in section 3.1.
CHORDATA/ AVES	 <i>Tringa nebularia</i>	Common Greenshank	<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.	Nesting. See textbox below the table and in section 3.1.
Fish, Mollusc and Crustacea																		
CHORDATA/ ACTINOPTERYGII	 <i>Esox lucius</i>	Pike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The site supports nurseries and/or migratory routes. See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	 <i>Lota lota</i>	Burbot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	The site supports nurseries and/or migratory routes. See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	 <i>Perca fluviatilis</i>	Perch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The site supports nurseries and/or migratory routes. See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	 <i>Phoxinus phoxinus</i>	Minnow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The site supports nurseries and/or migratory routes. See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	 <i>Rutilus rutilus</i>	Roach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The site supports nurseries and/or migratory routes. See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	 <i>Salmo trutta</i>	Trout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The site supports several good reproduction sites in the upper part of the river and in the tributaries, there are also nurseries and migratory routes. See textbox below the table.
Others																		
CHORDATA/ MAMMALIA	 <i>Castor fiber</i>	Eurasian Beaver	<input type="checkbox"/>	<input 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"/>		A population of <i>Castor fiber</i> inhabits the lower reaches of the river. See textbox below the table and in section 3.1.
CHORDATA/ MAMMALIA	 <i>Lutra lutra</i>	European Otter	<input 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"/>	Swedish Red List 2015 (NT).	An intermittent guest in river. See textbox below the table and in section 3.1.
ARTHROPODA/ INSECTA	 <i>Sembliis phalaenoides</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT). Indicate significant conservation values in running water on a national scale.	See textbox below the table and in section 3.1.

1) Percentage of the total biogeographic population at the site

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

Criteria 3, 4, 7, 8: Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

There are two subspecies of *Motacilla flava* that uses the site, the northern *Motacilla flava thunbergi* and the southern *Motacilla flava flava*.

At Nittälven the mire harbours the largest mating arena for *Lyrurus tetrix*, black grouse in the county, with 60 displaying males.

Lutra lutra, the otter (NT) is an intermittent guest in river Nittälven.

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
Active raised bogs (7110)	<input checked="" type="checkbox"/>	Acid bogs, ombrotrophic, poor in mineral nutrients, sustained mainly by rainwater, with a water level generally higher than the surrounding water table, with perennial vegetation dominated by Sphagnum.	In the article 17 report to EU 2013 the habitat was in an unfavourable conservation status in the boreal region in Sweden.
Alkaline fens (7230)	<input checked="" type="checkbox"/>	Wetlands mostly or largely occupied by peat- or tufa-producing small sedge and brown moss communities developed on soils permanently waterlogged, with a soligenous or topogenous base-rich, often calcareous water supply.	In the article 17 report to EU 2013 the habitat was in an unfavourable conservation status in the boreal region in Sweden. Rare wetland type in the boreal region, due to an overall dominance of acidic bedrock.
Fennoscandian mineral-rich springs and springfens (7160)	<input checked="" type="checkbox"/>	Springs and springfens are characterized by continuous flow of ground-water. The water is cold, of even temperature, and rich in oxygen and minerals, due to the rapid percolation.	In the article 17 report to EU 2013 the habitat was in an unfavourable conservation status in the boreal region in Sweden. Rare wetland type in the boreal region, due to an overall dominance of acidic bedrock.
Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachion vegetation (3260)	<input checked="" type="checkbox"/>	Water courses of plain to montane levels, with submerged or floating vegetation of the Ranunculus fluitans and Callitriche-Batrachion (low water level during summer) or aquatic mosses.	In the article 17 report to EU 2013 the habitat was in an unfavourable conservation status in the boreal region in Sweden. An unexploited watercourse like the one at the site is rare in the region.

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

4.1 - Ecological character

The site contains parts of a small river with a natural water regime and water flow. There are rapids and water falls along the river and no hydroelectric dams. Along the river there are some large mire complexes.

The site contains a wide range of representative vegetation types and habitats typical of the boreal region. The bedrock and soils are overall acidic, with only very local alkaline influence. The humidity of the area is proportionately high. The vascular plant flora is consequently characteristically species poor for all main habitats and vegetation types. The cryptogam flora on the other hand is species-rich, typical for the boreal region.

Most of the included wetland types are typical for the boreal region. South central Sweden and Örebro County is situated on a transition zone between northern and southern wetland types and also on a transition zone between eastern and western wetland types. This is also observed in the distribution of wetland plants, e.g. some Sphagnum-species, one being the western species Sphagnum molle. South central Sweden is therefore exceptionally rich in wetland types and wetland species representative of the boreal region (Gustafsson & Ahlén 1996, Naturvårdsverket 2007).

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 >> L: Permanent inland deltas		3		Representative
Fresh water > Flowing water >> Mt Permanent rivers/ streams/ creeks		2		Representative
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks		4		
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		2		Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		2		Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		3		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1		Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		4		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Western taiga (9010)	
Fennoscandian herb-rich forests with Picea abies (9050)	
Coniferous forests on or connected to glaciofluvial eskers (9060)	

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

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

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 site contains a part of the sub-basin Nittälven. The river Nittälven is one of many tributaries that finally enter the river Arbogaån. Arbogaån is one of many rivers that enter the lake Mälaren. The water from the lake Mälaren catchment area finally reaches the Baltic Sea.

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

Please provide further information on the soil (optional)

The bedrock consists of metamorphic siliceous rocks and extremely old granites, in some parts bisected by greenstone belts. The bedrock is bare from mineral soils only in the northern parts.

The soil types constitute of glacially deposited till, glacio-fluvial deposited sediments, fluvial sediments and peat. Till is the dominating soil type in the catchment area.

The mineral soils above HS (the highest coast line) consist of acid and boulder-rich, primary deposited till. Upstream the HS are evident supra-aquatic glacial sediments, e.g. eskers. Below HS a floodplain follows, originally a glacial delta (Weichsel glaciation) deposited in the Yoldia Sea (8 000–7 000 BC) with large boulders, kettle ponds and distributary channels on the surface. The lower parts of river Nittälven meander through these sediments.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change
Usually seasonal, ephemeral or intermittent water present	No change

Source of water that maintains character of the site

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

Water destination

Presence?	Changes at RIS update
To downstream catchment	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 flow of the river is not controlled by man. There are no dams or electrical power stations associated with the river system. As a result the water depth of the river varies greatly on a yearly basis. Measures of the water flow of river Nittälven has been performed continuously during 1984-2004 and the data are obtainable in weekly communications from the SMHI (Swedish Meteorological and Hydrological Institute). Mean annual flow is about 3,4 m3 per second, but with great variations during a year, e.g. the highest and lowest water flows during 1980-2004 were 17,8 and 0,2 m3 per second, respectively. A normal year the water flow is at its highest in spring, during the snowmelt. The timing of the spring flooding varies significantly from year to year, but typically happens from late March to early May. The water flow is approximately 10-20 times higher in this period than during the lowest water flow in summer and mid-winter. Strong rainfall during summer and autumn raises the water flow significantly and the flows can for short periods of time reach the same levels as the springtime flooding.

4.4.5 - Sediment regime

Sediment regime unknown

(EOD) Water turbidity and colour The Nittälven has clear, brown-coloured water.

4.4.6 - Water pH

Acid (pH<5.5)

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

Circumneutral (pH: 5.5-7.4)

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

Unknown

Please provide further information on pH (optional):

The river has slightly acidic (pH 5-6) water. The water in the tarns in the mires is more acid.

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

Oligotrophic

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

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Nittälven is an oligotrophic river system i.e. nutrient-poor with naturally very low phosphorus concentrations.

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.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Timber	Low

Regulating Services

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

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Low
Scientific and educational	Educational activities and opportunities	Low

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	Medium

Within the site:

Outside the site:

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

Description if applicable

Historical land use:

Nittälven is situated in a very sparsely populated part of southern Sweden. The area was colonised in the late 16th century by Finnish immigrants. They managed the forests with slash-and-burn-cultivation. Today the traces of the Finnish immigrants are few, only local names remain. For example Niitty, the first part in Nittälven is Finnish for hay meadow. Along the river there are seasonally inundated marshes with Carex-vegetation, which were mowed for hay during the period 1600-1900. This was practiced along most of the river. The extent of the hay meadows is documented on maps from the 1860's. Only one small hay-meadow is still mowed today by a local society. The remains of the mowing are scarce today, only a few barns are preserved. When the barns lost their function for storage of hay, many of them were burnt for charcoal. Charcoal burning has been extensive and widespread in the forests of south central Sweden since the medieval until the First World War. The sites of charcoal stacks are easy to find. It is a very common type of historical remains in the forest in the Nittälven area. The river has also been used for log driving during 1770-1957. So far 43 historical remains from this era have been recorded (Roslund-Forenus 2007). Mining had a minor importance in the vicinity of the Ramsar site during the period 1600-1920. A couple of areas with mine shafts and heaps of leftover rocks bear witness of this. The rivers and streams were used as power sources for the mining. The water power was also used in two mills. By the river Nordtjärnsälven the remains of an old mill can be seen.

Historical/archaeological significance:

According to local perception the historical remains from log driving were built as early as in the 18th century. In that case these remains are among the oldest in Sweden. Other historical land-use remains are typical of the early industrial region of Bergslagen.

Current socio-economic values:

Today the Nittälven area is mainly used for forestry and outdoor recreation. Canoeing in spring and early summer is the biggest recreational activity. The tourism value is high and can be further developed. The nature reserves in the area attract many visitors throughout the entire year. Moose-hunting is an important activity during late autumn and winter. Angling is most common in the summer, but to a quite limited extent.

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

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

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 checked="" 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"/>

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

The major landowner is the joint-stock forestry company Bergvik Skog AB (owns 90% of the area). The other land-owners are the joint-stock mining company Boliden Mineral AB, the State-owned forestry company Sveaskog AB, the State through the Swedish Environmental Protection Agency and outside the nature reserves five private owners. Within the existing nature reserves there are about 10 private landowners, with provisions concerning the management of land, forest and water.

5.1.2 - Management authority

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

1. Länsstyrelsen i Örebro län/County Administrative Board of Örebro
 2. Länsstyrelsen i Dalarnas län/County Administrative Board of Dalarna (the northernmost section, Nature Reserve Nittälven)

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

Kontaktperson för Ramsarområden Örebro län/Contact Ramsar sites Örebro County, Johan Wretenberg

Postal address:

1. Länsstyrelsen i Örebro län, (County Administrative Board of Örebro)
 S-701 86 Örebro, Sweden
 2. Länsstyrelsen i Dalarnas län, (County Administrative Board of Dalarna)
 S-791 84 Falun, Sweden (E-mail: dalarna@lansstyrelsen.se)

E-mail address:

orebro@lansstyrelsen.se

5.2 - Ecological character threats and responses (Management)

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

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying			<input type="checkbox"/>		<input checked="" type="checkbox"/>	

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified			<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Gathering terrestrial plants			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Logging and wood harvesting			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Please describe any other threats (optional):

"Unspecified" pollution within the Ramsar site:

Forestry using clear-cutting, fertilizing and draining by ditching pose an on-going threat in areas where forestry practices are still unregulated. Most of the wetland-dependent species listed in this sheet would disappear from the area if the old forests surrounding the watercourses and wetlands were to be clear-cut.

In the surrounding area:

Besides on-going forestry, a potential threat is leakage of metalliferous water from mining waste products from the former mines in Yxsjöberg, 1.7 kilometres northeast of the northern parts of river Nittälven. In spite of the fact that is prohibited by Swedish law, off-road driving with motorized vehicles constitutes a growing problem.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	See national legislation below.		partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000 SAC & SPA	Römyren	http://www.lansstyrelsen.se/orebro/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natur-a-2000/SE0240042_Romyren.pdf	partly
EU Natura 2000 SAC (1)	Brattforsen	http://www.lansstyrelsen.se/orebro/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natur-a-2000/SE0240093_Brattforsen.pdf	partly
EU Natura 2000 SAC (2)	Nittälvsbrännan	http://www.lansstyrelsen.se/orebro/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natur-a-2000/SE0240117Nittalvsbranna_n.pdf	partly
EU Natura 2000 SAC (3)	Övre Nittälvsdalen	http://www.lansstyrelsen.se/orebro/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natur-a-2000/SE0240107OvreNittalvdalen.pdf	partly
EU Natura 2000 SAC (4)	Utterjärnsberget	http://www.lansstyrelsen.se/orebro/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natur-a-2000/SE0240160_Utterj%c3%a4msberget.pdf	partly
Nature Reserve (1)	Nittälven	http://www.lansstyrelsen.se/dalarna/Sv/djur-och-natur/skyddad-natur/naturresvaten/ludvika/nittalven/Pages/default.aspx	partly
Nature Reserve (2)	Övre Nittälvsdalen	http://www.lansstyrelsen.se/orebro/Sv/djur-och-natur/skyddad-natur/naturreservat-och-nationalparker/sevarda-naturmiljoer/ljusnarsberg/ovre-nittalvsdalen/Pages/index.aspx	partly
Nature Reserve (3)	Brattforsen	http://www.lansstyrelsen.se/orebro/Sv/djur-och-natur/skyddad-natur/naturreservat-och-nationalparker/sevarda-naturmiljoer/ljusnarsberg/brattforsen/Pages/index.aspx	partly
Nature Reserve (4)	Mördarheden	http://www.lansstyrelsen.se/orebro/Sv/djur-och-natur/skyddad-natur/naturreservat-och-nationalparker/sevarda-naturmiljoer/ljusnarsberg/mordarheden/Pages/index.aspx	partly
Nature Reserve (5)	Nittälvsbrännan	http://www.lansstyrelsen.se/orebro/Sv/djur-och-natur/skyddad-natur/naturreservat-och-nationalparker/sevarda-naturmiljoer/ljusnarsberg/nittalvsbrannan/Pages/index.aspx	partly
Nature Reserve (6)	Kaljoxadalen	http://www.lansstyrelsen.se/orebro/Sv/djur-och-natur/skyddad-natur/naturreservat-och-nationalparker/sevarda-naturmiljoer/ljusnarsberg/kaljoxadalen/Pages/index.aspx	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	Partially implemented

Other:

Where forestry still is unregulated, some negative effects on biological life of the rivers and wetlands are likely to occur. The Environmental Code includes fundamental provisions for the management of land and water areas. One of the provisions is about how areas of national interest due to their natural value should be taken care of when there are development plan and applications for permits etc under a large number of Acts are considered. Large parts of this Ramsar site have the status of being of national interest.

The area Römyren (Natura 2000: SCI, SPA, SE0240042) still unprotected within the Nittälven Ramsar site has been proposed by the County Administrative Board of Örebro to become legally protected as a nature reserve. The County Administrative Boards' plan is to regulate forestry practices within a wider area surrounding the rivers and wetlands, also outside the Ramsar site. The negotiation with the major land-owner has been initiated. There is also a proposal to forbid drainage at the site that will strengthen the protection for the areas that aren't protected as nature reserves yet.

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:

The nature reserves in the area have marked hiking trails, information boards, and cabins equipped for overnight stays. People planning to visit the nature reserves or canoe on the river Nittälven can gather information via the County Administrative Boards website. By the mire Römyren there is a hut (hiding-place) for bird-watching.

URL of site-related webpage (if relevant): <http://www.lansstyrelsen.se/OREBRO/EN/DJUR-OCH-NATUR/SKYDDAD-NATUR/Pages/default.aspx>

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
Animal community	Implemented
Water quality	Implemented

The County Administrative Board has been surveying the benthic fauna, the fish stock and the contents of metals etc in river Nittälven since the 1960's. Inventories covering forest habitats, birds, lichen flora and wood-inhabiting fungi have also taken place. The surveys are possible to follow up in the future. The limnic habitats were thoroughly mapped in 2006.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Andersson, M., 2000. Naturvärdesinventering av skogarna i Hjulsjö socken. Miljöförvaltningen, Hällefors kommun.

Artdatabanken, 2006. Internet-information on *Semblis phalaenoides*.

Backéus, I. (ed.), 1978. Skyddsvärda myrar i Örebro län. Länsstyrelsen i Örebro län.

Berglind, S-Å., Eliasson, C., Engblom, E. & Lingdell, P-E. 1999. Naturligt sällsynta, hotade eller förbisedda? Nattsländorna *Semblis phalaenoides* och *S. atrata* i Sverige. Ent. Tidskr. 120(1-2): 1-16.

Calluna AB, 2006. Biotopkartering av Nittälven samt förslag till utökade skyddszoner och provtagning av bottenfauna och fisk. Opublicerad rapport.

Degerman, E., Fernholm, B. och Lingdell, P-E. 1994. Bottenfauna och fisk i sjöar och vattendrag. Naturvårdsverket, rapport nr 4345.

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.

Gustafsson, L. & Ahlén, I. (ed.) 1996. Växter och djur. Sveriges Nationalatlas, SNA Förlag, Stockholm.

Gärdenfors, U. (ed.) 2010. Rödlistade arter i Sverige 2010 - The 2010 Red List of Swedish Species. Artdatabanken, SLU, Uppsala.

Hermansson, J-O., 2006. Inventering av lavar i Nittälvsområdet. Bergslagens Miljö- och byggförvaltning. Opublicerad rapport.

Länsstyrelsen, 1980. Bird census report from the Nittälven area. Unpublished material.

Länsstyrelsen, 1984. Naturvårdsöversikt Örebro län. Publ.nr: 1985:5

Länsstyrelsen, 1998. Våtmarker i Örebro län - norra delen. Publ.nr: 1998:9

Löfgren, R. & Andersson, L. 2000. Sydsvenska lövskogar och andra lövbärande marker. Naturvårdsverket, rapport nr: 5081, Stockholm.

Löfgren, R. & Henriksson, S. 2004. Skyddsvärda statliga skogar – Dalarnas, Gävleborgs och Västernorrlands län. Naturvårdsverket, Stockholm.

Löfroth, M. (ed.) 1997. Svenska naturtyper I det europeiska nätverket Natura 2000. Naturvårdsverkets förlag, Stockholm.

Malmgren, U. 1982. Västmanlands flora. SBT-förlaget, Lund

Naturvårdsverket, 2007. Myrskyddsplan för Sverige. Huvudrapport över revidering. Rapport nr: 5667, Stockholm.

Nordic Council of Ministers, 1983. Representative Types of Nature in the Nordic Countries.

Nordiska Ministerrådet (Nordic Council of Ministers), 1984. Naturgeografisk regionindelning av Norden.

Påhlsson, I., 1972. Naturvärdsinventering i Nittälvsdalen. Länsstyrelsen i Örebro län.

Påhlsson, L., 1994. Vegetationstyper i Norden. Nordic Council of Ministers, TemaNord 1994:665

Roslund-Forenus, Y., 2007. Kulturinventering av flottningslämningar vid Nittälven 2007. Länsstyrelsen i Örebro län (rapportmanuskript i Länsstyrelsens arkiv).

Sandgren, L., 1982. Fågelmynrar i Örebro län. Länsstyrelsen i Örebro län.

Store, K. 2007. Nittälven-Nordtjärnsälven – Naturvärdesinventering av skog. Länsstyrelsen i Örebro län (rapportmanuskript).

Ursberg, K., 1976a. Översiktlig naturinventering av Ljusnarsbergs kommun. Länsstyrelsen i Örebro län.

Ursberg, K., 1976b. Översiktlig naturinventering av Hällefors kommun. Länsstyrelsen i Örebro län.

6.1.2 - Additional reports and documents

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

<2 file(s) uploaded>

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

<no file available>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Nittälven (Kjell Store, Örebro County Administrative Board, 2013)



Several photos from Nittälven (Kjell Store, Örebro County Administrative Board, 2013)



Nittälven at Mirdarheden (Kjell Store, Örebro County Administrative Board, 2013)



Nittälven at the Nature reserve Brattforsen (Kjell Store, Örebro County Administrative Board, 2013)



Nittälven at the Nature reserve Brattforsen (Kjell Store, Örebro County Administrative Board, 2013)



A mire at Nordtjärnsälven, Nittälven (Kjell Store, Örebro County Administrative Board, 2013)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2013-03-19