

Ramsar Information Sheet

Published on 29 May 2017 Update version, previously published on : 1 January 2002

Sweden Storkölen



Designation date
Site number
1129
Coordinates
Area
14 November 2001
1129
61°46'58"N 12°14'12"E
6 992,00 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 Storkölen wetland complex consists of huge mires in mix with numerous small lakes and streams surrounded by old-growth forests. There are botanically valuable alkaline fen areas, rich in species. Locally, an extremely rich fen is found, holding a species-rich flora of a composition unusual for this part of the county. The site with its many small tarns and open waters is of importance for breeding water birds and the water bird fauna is rich in uncommon species. The birdlife is very rich both in terms of number of species and individuals. The site is important for breeding wetland birds such as bean goose Anser fabilis, crane Grus grus, ruff Philomachus pugnax, golden plover Pluvialis apricaria and yellow wagtail Motacilla flava. There is an adjacent Ramsar site in Norway.

2 - Data & location

2.1 - Formal data

2.1	.1	-	Name	and	addre	ess of	f the	comp	iler of	this	RIS
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Compiler 1						
Name	Lennart Bratt					
Institution/agency	Länsstyrelsen Dalarna					
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E-mail	dalarna@lansstyrelsen.se					
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Compiler 2						
Name	Jenny Lonnstad					
Institution/agency	Swedish EPA (Naturvårdsverket)					
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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 From year To year 2.1.3 - Name of the Ramsar Site	2002					
Official name (in English, French or Spanish)	Storkölen					
Unofficial name (optional)	Storkölen (peatland)					
	d area of the Site since its designation or earlier update					
	Changes to Site boundary Yes No No No No No No No N					
(Update) The boundary has been o						
	undary has been extended ☑ undary has been restricted ☑					
	(e) B. Changes to Site area the area has decreased					
(Update) The Site area has been o						
	(Update) The Site has been delineated more accurately ☑					
(Update) The Site area has increased because of a boundary extension ☑						
(Update) The Site area has increased because						
(Update) The Site area has increased becaus (Update) The Site area has decreased becaus	se of a boundary extension 🗹					
(Update) The Site area has decreased because 2.1.5 - Changes to the ecological cha	se of a boundary extension se of a boundary restriction racter of the Site					
(Update) The Site area has decreased because	se of a boundary extension se of a boundary restriction racter of the Site the Ramsar Site (including Vas (actual))					
(Update) The Site area has decreased because 2.1.5 - Changes to the ecological cha (Update) 6b i. Has the ecological character of tapplicable Criteria) change	se of a boundary extension se of a boundary restriction racter of the Site the Ramsar Site (including ad since the previous RIS? (Update) Are the changes Positive Negative Positive & Negative					
(Update) The Site area has decreased because 2.1.5 - Changes to the ecological character of to applicable Criteria) change (Update) 6b i. Has the ecological character of to applicable Criteria) change	se of a boundary extension se of a boundary restriction racter of the Site the Ramsar Site (including ed since the previous RIS? (Update) Are the changes Positive Negative Positive & Negative Negativ					
(Update) The Site area has decreased because 2.1.5 - Changes to the ecological cha (Update) 6b i. Has the ecological character of tapplicable Criteria) change	se of a boundary extension se of a boundary restriction racter of the Site the Ramsar Site (including and since the previous RIS? (Update) Are the changes Positive Positive Negative Negative Positive Negative Negative Negative Positive Negative Negative Positive Negative Neg					

RIS for Site no. 1129, So	torkölen, Sweden
	ent upon site boundary reduction alone (e.g., and types formerly included within the site)?
	ent upon site boundary increase alone (e.g., ☑ lusion of different wetland types in the site)?
(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.
In the north the boundar	ary has been adjusted to the boundary of the nature reserve. In general this has resulted in the areas of forest, mires and r included or excluded, but the areas excluded have in general a higher degree of impact from forestry and is of less value. Only one lake and its closest surrounding is unprotected now.
	ological character negative, human-induced ange (above the limit of acceptable change)
2.2 - Site location	
2.2.1 - Defining the Site	boundaries
b) Digital map/image <1 file(s) uploaded>	
	Former maps 0
Boundaries description	
	e border mostly follows the border for the nature reserve. The western border follows the national border. The Ramsar Strent of the Natura 2000 site.
2.2.2 - General location	
a) In which large administra	tive region does the site lie? Dalarna Dalarna
b) What is the nearest to	wn or population centre? Älvdalen
	national boundaries only
a) Does the wetland	extend onto the territory of one or more other countries?
b) Is the site adjacer	to another designated Ramsar Site on the territory of another Contracting Party? Yes No O
2.2.4 - Area of the Site	
Official area,	in hectares (ha): 6992
Area, in hectares (ha) as	GIS boundaries 6994.39
2.2.5 - Biogeography	
Biogeographic regions Regionalisation scheme(s)	Biogeographic region
	03 West Eurasian Taiga
Bailey's Ecoregions	240 Marine division
WWF Terrestrial	Scandinavian-Russian taiga

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	03 West Eurasian Taiga
Bailey's Ecoregions	240 Marine division
WWF Terrestrial Ecoregions	Scandinavian-Russian taiga
Other scheme (provide name below)	Scandinavian-Russian taiga
Freshwater Ecoregions of the World (FEOW)	Northern Baltic drainages
EU biogeographic regionalization	Alpine

Other biogeographic regionalisation scheme

Digital Map of the Eoropean Ecological Regions (DMEER) EEA 2002: Scandinavian-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 huge wetland area is of great importance during snow melting or during heavy rain to level out the flow in river Dalälven.

Other ecosystem services provided

Some years the site produces large amounts of cloudberries (Rubus chamaemorus), resulting in many visitors, both local and tourists picking berries.

Other reasons

The site is a representative example of a natural wetland types in the EU Alpine region. The site contains different mire types and wet forests representative for the region.

- ☑ Criterion 2 : Rare species and threatened ecological communities
- ☑ Criterion 3 : Biological diversity

The site support species that are rare or characteristic for wetlands in the EU Alpin region. There are botanically valuable alkaline fen areas, rich in species. Locally, an extremely rich fen is found, holding a Justification species-rich flora of a composition unusual for this part of the county and probably the most species rich in the county of Dalarna. The site with its many small tarns and open waters is of importance for breeding water birds and the water bird fauna is rich in uncommon species.

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- 3.2 Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4 Red List	Other status	Justification
Bovista paludosa			V		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Carex heleonastes	Hudson Bay sedge	Ø	V		Swedish Red List 2015 (EN).	See the textbox below the table and information in section 3.1.
Cyphelium tigillare	Yellow soot lichen		V		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Epipogium aphyllum			Ø		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Fornitopsis rosea			Ø		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Hypogymnia bitteri	Bitter tube lichen		Ø		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Letharia vulpina	Wolflichen		2		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.
Trichaptum laricinum			V		Swedish Red List 2015 (NT).	See the textbox below the table and information in section 3.1.

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

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/.

Criterion 3: The old-growth forest at the site supports the bryophyte Tayloria tenuis (NT).

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	% occurrence	IUCN Red / List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds											
AVES	Anser fabalis	Bean Goose					LC om			Swedish Red List 2015 (NT).	Breeding and foraging. See textbox below the table and information in section 3.1.
AVES	Aquila chrysaetos	Golden Eagle					LC om			Swedish Red List 2015 (NT). EU Birds Directive Annex I.	Foraging. See textbox below the table and information in section 3.1.
CHORDATA / AVES	EL 🔊	Common Crane					LC			EU Birds Directive Annex I.	Breeding and foraging. See textbox below the table and information in section 3.1.
AVES	Motacilla flava	Western Yellow Wagtail					LC				Breeding and foraging. See textbox below the table and information in section 3.1.
	Philomachus pugnax	Ruff								Swedish Red List 2015 (VU). EU Birds Directive Annex I.	Breeding and foraging. See textbox below the table and information in section 3.1.
CHORDATA / AVES	Pluvialis apricaria	European Golden Plover; European Golden-Plover					LC Sign			EU Birds Directive Annex I.	Breeding and foraging. See textbox below the table and information in section 3.1.

¹⁾ Percentage of the total biogeographic population at the site

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

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/.

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
7230. Alkaline fens	Ø	Wetlands occupied by peat- or tufa-producing small sedge and brown moss communities developed on soils permanently waterlogged, with baserich, often calcareous water supply.	EU Habitats Directive Annex II. The conservation status for the habitat in the Swedish part of the EU Alpine region is favourable, but in the EU Boreal region close to the site the status is unfavourable.
7310. Aapa mire		Mre complexes characterised by centres of minerotrophic fen vegetation. Included mire units: mixed mires, string-fens, flark-fens, unraised Sphagum fuscum-bogs, unpatterned topogenous or soligenous lawn-, carpet or mud-bottom fens.	EU Habitats Directive Annex II. The conservation status for the habitat in the Swedish part of the EU Apine region is favourable, but in the EU Boreal region close to the site the status is unfavourable.

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

4.1 - Ecological character

The Storkölen site displays a wide variety of wetland types; topogenous and soligenous fens, string fens, string mixed mires and different kinds of peat bogs. Rich, calcareous, fens occur in the part called Storgjotkölen. On the border between soft ground and solid ground there are wetland pine Pinus sylvestris forests. The mires are in some parts surrounded by spruce Picea abies forests, rich in herbs. The varied nature displays both species-richness and species-poorness, depending on the mineral content in the soils. In some parts, cloudberry Rubus chamaemorus, dominates. The site contains large areas of continuous old-growth forest.

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		0	43	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Sjöar och tjärnar	3	133	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools	Småtjärnar < 1 ha	2	126	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		1	3555	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		0		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		4	46	Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		0		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Other non-wedand habitats within the site	Area (na) ii known
Coniferous forest	

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	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 a	` //()	
	metres)	ntire river basin □
		rt of river basin ☑
		rt of river basin □
	•	
	•	rt of river basin 🗆
		one river basin
	No	ot in river basin 🗆
		Coastal
The northen part of the southern part drains e	e site drains through a ne eastward through the Riv	sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean. number of small water courses. The central part drains north through the river Stor-Härjanån. The ver Brunnan and then north through the river Borgan. Not far from the site all the water cources haven so the river Österdalälven and finally enters the river Dalälven. Dalälven has its outlet in the Botnia
4.4.3 - Soil		
-		Mineral ☑
	(Update) Changes	s at RIS update. No change
	Onanges	Organic 🗹
	(Update) Changes	s at RIS update No change Increase ODecrease OUnknown O
		ble information
Are sail types subject to		
	o change as a result of changir ons (e.g., increased salinity or	
4.4.4 - Water regime		
Water permanence		
Presence? Usually permanent water	Changes at RIS update	
present	No change	
Source of water that maintair	ns character of the site	
Presence?	Predominant water source	Changes at RIS update
Water inputs from rainfall	Ш	No change
Water destination		
Presence?	Changes at RIS update No change	
Feeds groundwater To downstream catchment	No change	
Otabilit rafi vatar va sina a		
Stability of water regime Presence?	Changes at RIS update	
Water levels largely stable	No change	
Please add any comments	on the water regime and its de	eterminants (if relevant). Use this box to explain sites with complex hydrology.
	igher during snow meltir	<u> </u>
4.4.5 - Sediment regim	ne e	
	Sediment rec	gime unknown
-	mation on sediment (optional)	
There isn't much trans	sportation of sediments a	at the site.
4.4.6 - Water pH		
Water pri		Acid (pH<5.5) ☑
	(I Indate) OF	
		s at RIS update No change Increase ODecrease OUnknown O
		al (pH: 5.5-7.4) 🗹
	(Opuale) Changes	s at RIS update No change Increase ODecrease OUnknown O
		Unknown □

Fresh (<0.5 g/l)

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

4.4.8 - Dissolved or suspended nutrients in water

Oligotrophic 🗹

 $^{ ext{(Update)}}$ Changes at RIS update No change oldot Increase oldot Decrease oldot Unknown oldot

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

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 O site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Reeds and fibre	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	Low
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance	
Recreation and tourism	Recreational hunting and fishing	High	

Other ecosystem service(s) not included above:

Picking	a cloudberries c	an some vear	rs be of great value.	both economically	y and as an outdoor activity	v for visitors.

Within the site: 100s

Outside the site: 1000s

ecosystem services provided by this Ramsar Site?

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 \Box 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 $\hfill \square$ 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 $\ \Box$

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

Pub	ш	OVVI	1013	111	ν

Category	Within the Ramsar Site	In the surrounding area
National/Federal		
government	Se.	S.C.

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

State-owned (through Swedish EPA).	

5.1.2 - Management authority

agency or organization responsible for	Länsstyrelsen i Dalarnas län (County Administrative Board of Dalarna)
managing the site:	
Provide the name and title of the person or people with responsibility for the wetland:	Ansvarig för Ramsarområden (naturvård)
Postal address:	Länsstyrelsen Dalarna, 791 84 Falun
E-mail address:	dalarna@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						
Biological resource use						
Drainage			/			
affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes	
Logging and wood harvesting					✓		

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	Drevfjällen SPA and SAC	http://www.lansstyrelsen.se/Dala rna/SiteCollectionDocuments/Sv/d juroch-natur/skyddad-natur/Natu ra-2000/Bevarandeplaner/Älvdale n/Drevfjällen-SE620009-Bevarand eplanen%20ingår%20i%20skötselp lanen.pdf	

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Area of national interest for nature conservation	Drevfjällen	http://nvpub.vic-metria.nu/hand lingar/rest/dokument/203577	partly
Area of national interest for open air activities	Fjällvärlden från Transtrand till Treriksröset		whole
Nature reserve	Drevfjällen	http://www.lansstyrelsen.se/Dala rna/Sv/djur-och-natur/skyddad-na tur/naturresvaten/alvdalen/drevf jallen/Pages/default.aspx	partly

5.2.3 - IUCN protected areas categories (2008)

la 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		
VProtected 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

Logar protocuori		
	Measures	Status
	Legal protection	Proposed

Other:

The nature reserve will have a new decision about restrictions and management plan.

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 Yes O No

Yes O No site?

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

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

There are a number of trails for hiking. There are shelters and huts along the trails. There is information signs about the site at a number of entrances to the site and some parking lots arranged. See "bilaga 6" in the management plan for the arrangements. See textbox above on how to find the management plan.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

<no data available>

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Sjörs, H. et. al. 1973. Skyddsvärda myrar i Kopparbergs län. Växtekologiska studier. Svenska Växtgeografiska Sällskapet. Uppsala. Skyddsvärda fågelmyrar i Kopparbergs län. 1982. Länsstyrelsen i Kopparbergs län. N1982: 4.

Löfroth, M och Lonnstad, J. 1994: Myrskyddsplan för Sverige. Naturvårdsverket.

Grund, Lars-Olof. 2014: Myrfågelinventering i Älvdalens kommun under perioden 1977 till 2012. Länsstyrelsen Dalarna, rapport 2014:3

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

iv. relevant Article 3.2 reports

v. site management plan

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:



Rich fen at Storgjotkölen. (Lennart Bratt, 11-08-2011)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2001-11-14