

# Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from [http://www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm).

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

## Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

---

### 1. Name and address of the compiler of this form:

Per-Olof Nystrand  
Länsstyrelsen i Jämtlands län,  
S-831 86 Östersund, Sweden.  
per-olof.nystrand@lansstyrelsen.se

Jenny Lonnstad  
Naturvårdsverket (Swedish EPA),  
S-106 48 Stockholm, Sweden.  
jenny.lonnstad@naturvardsverket.se

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

---

### 2. Date this sheet was completed/updated:

July 2013

---

### 3. Country:

Sweden

---

### 4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Gullhög-Tönningfloarna

---

### 5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

a) Designation of a new Ramsar site ; or

b) Updated information on an existing Ramsar site

---

**6. For RIS updates only, changes to the site since its designation or earlier update:****a) Site boundary and area**

The Ramsar site boundary and site area are unchanged:

or

**If the site boundary has changed:**

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted\*\*

and/or

**If the site area has changed:**

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced\*\*

\*\* **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

**b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:**

---

**7. Map of site:**

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

**a) A map of the site, with clearly delineated boundaries, is included as:**

- i) a **hard copy** (required for inclusion of site in the Ramsar List): ;
  - ii) an **electronic format** (e.g. a JPEG or Arc View image) ;
  - iii) a **GIS file providing geo-referenced site boundary vectors and attribute tables** .
- Included in the GIS file for all Swedish Ramsar sites version 2013.

**b) Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchments boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a water body, etc.

The site is fully overlapping a Natura 2000 site.

---

**8. Geographical coordinates** (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

62°12'N, 14°09'E

---

**9. General location:**

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The site is located in Jämtland county (population 126 300) and Härjedalens municipality (10 300), 110 km south of the town Östersund and 19 km NNW of the community of Sveg.

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

Average 380 metres.

**11. Area:** (in hectares)

1 883 hectares.

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

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site is a large, untouched and hydrological intact mire complex. The site consists of mixture of different wetlands as string-flark fens, topogenous fens, mixed mires, bogs, lake and wet forest. The texture in the mire is extremely well developed. The dominated mire vegetation in the region has a poor character, but the fens in this site have a rich flora in large areas. The birdlife is very abundant and the ornithological values therefore high.

**13. Ramsar Criteria:**

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

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

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

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

**Criterion 1:** The site contains a representative example of a natural mire complex in the EU boreal region. Wetland types present at the site are None-forested peatlands (U), Forested wetlands (Xp) and Permanent rivers and streams (M). The mires are ecologically complex and extremely well developed. Mire types in the area are topogenous fen, non-raised bog, stringed mixed mires and stringed fens. The area contains a lot of pools. The southern part of the site consists of rich fens, a fen type which is rare in large parts of the boreal region. The mires in the area have good possibilities to continue function as a carbon sink and storage.

**Criterion 2:** The site supports the nationally red-listed *Carex heleonastes* (EN), curlew *Numenius arquata* (VU) and ruff *Philomachus pugnax* (VU).

**Criterion 3:** The site supports populations of mire plant and animal species important for the biological diversity of the boreal region. The mires are very diverse considering mire and vegetation types that create a lot of diversity. The site covers the whole scale from poor vegetation in the bogs to very rich brown moss fens. The bird life is rich.

**15. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation): Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) bio geographic region:

Boreal

**b) bio geographic regionalisation scheme** (include reference citation):

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

#### 16. Physical features of the site:

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

The bedrock contains granite and the soils are therefore poor of nutrients. The wetland soils consist of peat, and the soil on the land is dominated of till. In the north part of the site, near Vemvallen, there is a small part of glacial sediments.

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

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The region consist of pre-mountains, plateaus, and large mountains. In the north part of the region there are some small isolated mountains. The average elevation exceeds 500 m. The bedrock is miscellaneous with primary rock such as granite, porphyry, sandstone and dolerite and Caledonian thrust nappe with quartzite. The dominate soil type is till with a miscellaneous content of blocks. The winter is cold, and the average temperature (January -14 C°). The average summer temperature is relatively high (June 14 C°), but decrease with the altitude. The precipitation is moderate (yearly average 350 mm) and low in some parts, especially in the north.

#### 18. Hydrological values:

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

The hydrology in the site is intact, only a few small ditches are located in peripheral parts. These small ditches have no hydrological influence. Large areas of the fens are very wet and store vast amount of water. The sites support groundwater from surrounding hills and drain to the river Veman, which at some parts, form a meandering river. There are a few ponds in the mire. The peatlands store and sequestrates carbon.

#### 19. Wetland Types

##### a) presence:

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

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

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

##### b) dominance:

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

U, Xp, M

---

## 20. General ecological features:

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

The site is a large mire complex with a mixture of fens, bogs, mixed mire and wet forest. The fen vegetation types are rich with brown mosses (*Scorpidium*, *Campylium* etc). The bogs have poor sprig vegetation. The main habitats include:

The *string-flark fens* have very well differentiated strings and hollow structures. The vegetation is of brownmoss type and pine and birch grow on the strings. The flarks are very wet and covered with sedge and brown mosses.

The *topogenous fens* cover big areas and have moderate rich vegetation. Some parts are open and other parts are covered by birch shrubs. Some of the open parts are very wet. In this part of the mire *Hamatocaulis vernicosus* is found.

The *light raised bogs* have very well differentiated structures of strings and hollows in a net shaped pattern. The strings consist of sprig vegetation (*Andromeda*, *Empeterum*, *Vaccinium* etc) and in the hollows *Sphagnum balticum* and *Eriophorum vaginatum* grow.

The *wet forest* can be divided into 6 units. Some of them are of wet *Pine*-type with *Carex globularis*.

There are also four *ponds* in the central part of the site, which is significant for the birdlife.

The mixed mire contains ombrotrophic bog vegetation of sprig type and minerotrophic fen vegetation with sedge and bryophytes. The mixed mire therefore has several different plant communities.

---

## 21. Noteworthy flora:

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

Rich fens are fairly rare in the boreal region. The large fens of rich type in the site have therefore a high value for the species inhabiting this habitat. *Hamatocaulis vernoicosus* (NT) grows in the rich fen; there are only a few registrations of *this species* in the province Härjedalen. The site is therefore an importance site for the species in this province.

According to older sources *Carex heleonastes* (EN) grows in the site as well. Another interesting bryophyte in the site is *Warnstorfia tundrae* which grows in the rich topogenous fen. There is only one other observation of this species in the province.

Other interesting rich fen species in the site are *Scirpus hudsonianus*, *Eriophorum gracile*, *Campylium stellatum*, *Meesia triquetra*, and *Paludella squarrosa*.

---

## 22. Noteworthy fauna:

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

The mires structure with strings, flarks, hollows and ponds, covering large areas, offers good condition for an interesting and rich birdlife. This kind of mires constitutes fine habitats for nesting and offer good feeding places for waders. During the survey of birdlife in Jämtland county mires in the 1980's, the site received very high points and was classified as a class 1 object. The following nationally redlisted birds (2010) were found during the investigation: short-eared owl *Asio flammeus* (NT), velvet scoter *Melanitta fusca* (NT), curlew *Numenius arquata* (VU), ruff *Philomachus pugnax* (VU) and Slavonian grebe *Podiceps auritus* (NT). Another bird of interest are Teminck's stint *Calidris temminckii*.

---

### 23. Social and cultural values:

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

Hunting, fishing, berry-picking and bird-watching.

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

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

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

---

### 24. Land tenure/ownership:

a) within the Ramsar site:

Forest company app. 80% and private land owners app. 20%.

b) in the surrounding area:

Forest company and private landowners.

---

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

a) within the Ramsar site:

Forestry on the dryer parts of the site. Hunting of moose and other quarry and fishing in river Veman. Picking berry in the forest and on the bogs and mixed mire areas.

b) in the surroundings/catchments:

Forestry, hunting.

---

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

a) Within the Ramsar site:

There have been plans and there is still some interest for peat mining in the site. Peat mining would damage the mire complex very seriously, as the hydrological and ecological functions will be completely destroyed. Also forestry operating on the firm parts in, and in direct connection to the site may pose a problem.

b) in the surrounding area:

Forestry is the main land use in the surrounding area. Near the site, west of Veman, peat mining will take place, an activity which is fairly extensive activity in this county.

---

**27. Conservation measures taken:**

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

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

The site is fully overlapping a Natura 2000 site.

b) If appropriate, list the IUCN (1994) protected areas category/-ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

There is no management plan for the area right now.

d) Describe any other current management practices:

There are no particular management practices for the site right now. There is a general Environmental Code that 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. This Ramsar site has the status of being of national interest.

---

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

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

County Administrative Board of Jämtland has elaborated a proposal for establishing a nature reserve. A management plan will be part of the future decision about establishing the new nature reserve and is under preparation. There is also a proposal to forbid drainage at the site.

---

**29. Current scientific research and facilities:**

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

None.

---

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

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

None.

---

**31. Current recreation and tourism:**

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

Birdwatching activities.

---

**32. Jurisdiction:**

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

County Administrative Board of Jämtland.

---

**33. Management authority:**

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

County Administrative Board of Jämtland, S-831 86 Östersund, Sweden.

Tel. +46 63 14 60 00. E-mail: [jamtland@lansstyrelsen.se](mailto:jamtland@lansstyrelsen.se) (to the registry).

---

**34. Bibliographical references:**

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

Länsstyrelsen i Jämtlands län, Björkbäck, F. 1983. Myrar i östra Härjedalen.

Länsstyrelsen i Jämtlands län. 2002. Våtmarker i Jämtlands län – Del 2 Härjedalens kommun. Rapport 2002:2.

Länsstyrelsen i Jämtlands län. 1992. Fågelmyrar i Jämtlands län.

Länsstyrelsen i Jämtlands län, Danielsson, Å. & Schedin L.O. 1977. Tönningfloarna med omgivningar.

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

Naturvårdsverket. 2007. Myrskyddsplan för Sverige – Delrapport objekt i Norrland. Rapport 5669.

---

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: [ramsar@ramsar.org](mailto:ramsar@ramsar.org)