

# Information Sheet on Ramsar Wetlands (RIS)

*Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.*

Note 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. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

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FOR OFFICE USE ONLY.

DD MM YY

Designation date Site Reference Number

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

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

January 2005

## 3. Country:

Finland

## 4. Name of the Ramsar site:

Sammuttijänkä – Vaijoenjänkä Mires

## 5. Map of site included:

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

**a) hard copy** (required for inclusion of site in the Ramsar List): Yes.

**b) digital (electronic) format** (optional): Yes.

## 6. Geographical coordinates (latitude/longitude):

69°25' N / 27°30' E

## 7. General location:

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

The unbroken area is situated in northeastern part of the province of Lapland, in the municipalities of Utsjoki and Inari, 42 km north of Inari village. The municipalities (20 340 sq.km of land) have ca. 8 800 residents.

## 8. Elevation: (average and/or max. & min.)

310–190 m

## 9. Area: (in hectares)

51 749 ha

## 10. Overview:

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

The site represents Finland's largest continuous mire area in natural state. It is among the most valuable breeding areas of waterfowl and waders in Fjeld Lapland and palsa mires.

## 11. Ramsar Criteria:

Circle or underline 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).

1, 2 & 4

<u>1</u>	<u>2</u>	3	<u>4</u>	5	6	7	8
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## 12. Justification for the application of each Criterion listed in 11. above:

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

1) A unique example of natural wetland types (dominated by peatlands) in the EU Alpine region, including 2 priority natural wetland habitat types of the European Habitats Directive Annex I (palsa mires, aapa mires).

2) 6 nationally (1 globally) threatened bird species, 2 nationally (1 globally) threatened mammal species.

Threatened birds of the Annex I Birds Directive include Lesser White-fronted Goose (*Anser erythropus*) (CR in Finnish Red List, globally VU), Peregrine Falcon (*Falco peregrinus*) (EN), White-tailed Eagle (*Haliaeetus albicilla*) (VU), Merlin (*Falco columbarius*) (VU) and Temminck's Stint (*Calidris temminckii*) (VU). Scarce species include e.g. Red-throated Diver (*Gavia stellata*), Black-throated Diver (*G. arctica*), Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Osprey (*Pandion haliaetus*) and Short-eared Owl (*Asio flammeus*). Threatened mammals of the EU Habitats Directive Annex II include Wolverine (*Gulo gulo*) (EN, globally VU in IUCN Red List) and Otter (*Lutra lutra*).

4) About 22 species of the EU Birds Directive Annex I breed in the area, of which the most common are Golden Plover (*Pluvialis apricaria*), Ruff (*Philomachus pugnax*), Bar-tailed Godwit (*Limosa lapponica*), Wood Sandpiper (*Tringa glareola*), Red-necked Phalarope (*Phalaropus lobatus*), Arctic Tern (*Sterna paradisaea*) and Bluethroat (*Luscinia svecica*). The site is among the northernmost breeding areas of Crane (*Grus grus*). The breeding waders include 15 species.

**13. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

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

**a) biogeographic region:**

Fjeld Lapland birch forest vegetation zone.

**b) biogeographic regionalisation scheme** (include reference citation):

Etelä-Suomen ja Pohjanmaan metsien suojelun tarve-työryhmä. Puheenjohtaja: Ruuhijärvi, R., Sihteerit: Kuusinen, M., Raunio, A. and Eisto, K. 2000. Metsien suojelun tarve Etelä-Suomessa ja Pohjanmaalla. Etelä-Suomen ja Pohjanmaan metsien suojelun tarve-työryhmän mietintö. Suomen ympäristö 437. Ympäristöministeriö. Helsinki.

Working group on the need for forest protection in southern Finland and Ostrobothnia. Chairman Ruuhijärvi, R., Secretaries Kuusinen, M., Raunio, A. and Eisto, K. 2000. Forest protection in southern Finland and Ostrobothnia. The Finnish Environment 437. Ministry of the Environment.

**14. 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.

**Geology:** Geochemically included in Archaean basement gneiss area. Bedrock is composed mainly of gneissic granite, granite gneiss and hornblende gneiss, paleoproterozoic metasedimentary and metavolcanic rocks.

**Origins:** Natural.

**Hydrology:** Aapa mires dependent on ground or surface waters.

**Soil type:** Mainly peat and drumlins of glacial ground moraine with small areas of hummocky moraine and glacial fluvial gravel and sand.

**Water quality:** General quality excellent in River Näämäjoki. Mostly oligotrophic-mesotrophic and dystrophic. Oxygen deficiency may occur in late winter in lakes and ponds. Acidity nearly neutral in general. Buffering capacity high in rivers. Flood in spring adds contents of sediment and humus together with iron and nutrients and acidity increases because of acid compounds of melting snow, thus weakening buffering capacity of lakes and ponds.

**Depth of water:** Shallow, ca. 2–10 m in lakes and ponds. Water-level high in spring because of melting snow.

**Climate:** Duration of growing season ca. 115 days, mean annual temperature ca. –2 °C, mean annual rainfall ca. 450 mm. Ice- and snow-covered normally from mid October to late May. Fjeld Lapland birch forest vegetation zone.

**15. Physical features of the catchment area:**

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

The climate and general geological features are much the same in the catchment areas as in the Ramsar sites. Look partly chapter 14. Data not available.

**16. Hydrological values:**

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

Virgin aapa mires play an important role in maintenance of water quality and in flood control.

**17. 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)
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**Inland:** U, M, Tp, O, Ts, W, Xf & Xp

L	<u>M</u>	N	<u>O</u>	P	Q	R	Sp	Ss	<u>Tp</u>	<u>Ts</u>	<u>U</u>	Va	Vt	<u>W</u>	<u>Xf</u>	<u>Xp</u>	Y	Zg	Zk(b)
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**Human-made:**

1	2	3	4	5	6	7	8	9	Zk(c)
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**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 – Non-forested peatlands
- M – Permanent rivers and streams
- Tp – Permanent freshwater pools
- O – Permanent freshwater lakes
- Xp – Forested peatlands
- Xf – Seasonally flooded forests
- W – Shrub-dominated wetlands
- Ts – Seasonal freshwater pools

### 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The site represents the Mire vegetation regions of Palsa mires in Fjeld Lapland and of Northern aapa mires. The area includes ca. 36 000 ha of mires and ca. 4 000 ha of water. The palsa mires are extensive and well developed, changing gradually into aapa mires. The peat layer is thin. Wide areas of rounded hummocks, riverbank willow (*Salix* spp.) growths, wet flark fens and rich fens are characteristic of these mires. Areas of rounded hummocks are divided by kilometer-long stretches of mesotrophic sedge (*Carex* spp.) fens or by rich fens without ridges. The area is rich of pools, ponds and lakes, of which largest cover ca. 170 ha. Mires are intersected by River Vaijoki and its numerous tributaries. The southeastern parts are bordered by Lake Iijärvi. The dominant tree in southern parts is Pine (*Pinus sylvestris*), while Mountain Birch (*Betula pubescens* ssp. *czerepanovii*) and treeless fjeld meadows become more abundant northwards.

### 19. Noteworthy flora:

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. **Do not include here taxonomic lists of species present - these may be supplied as supplementary information to the RIS.**

Vascular plants include several rare species, such as sedge species *Carex laxa* (NT in Finnish Red List).

### 20. 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.**

Threatened birds include Lesser White-fronted Goose (*Anser erythropus*) (CR in Finnish Red List, globally VU), Peregrine Falcon (*Falco peregrinus*) (EN), Scaup (*Aythya marila*) (VU), White-tailed Eagle (*Haliaeetus albicilla*) (VU), Merlin (*Falco columbarius*) (VU) and Temminck's Stint (*Calidris temminckii*) (VU). Ca. 22 species of the EU Birds Directive Annex I breed in the area, of which the most common are Golden Plover (*Pluvialis apricaria*), Ruff (*Philomachus pugnax*), Bar-tailed Godwit (*Limosa lapponica*), Wood Sandpiper (*Tringa glareola*), Red-necked Phalarope (*Phalaropus lobatus*), Arctic Tern (*Sterna paradisaea*) and Bluethroat (*Luscinia svecica*). The site is among the northernmost breeding areas of Crane (*Grus grus*). Scarce species include e.g. Red-throated Diver (*Gavia stellata*), Black-throated Diver (*G. arctica*), Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Osprey (*Pandion haliaetus*) and Short-eared Owl (*Asio flammeus*). The breeding waders include 15 species.

Threatened mammals of the large Wilderness Area include Wolf (*Canis lupus*) (EN) and Wolverine (*Gulo gulo*) (EN, globally VU). Species of the EU Habitats Directive Annex II also include Brown Bear (*Ursus arctos*), Lynx (*Lynx lynx*) and Otter (*Lutra lutra*).

**21. Social and 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.

Significant values include scientific research and reindeer husbandry.

**22. Land tenure/ownership:**

(a) within the Ramsar site: State-owned

(b) in the surrounding area: State-owned and private-owned.

**23. Current land (including water) use:**

(a) within the Ramsar site:

**a) and b)** Reindeer husbandry is an important livelihood in the area, and ca. 6 000–10 000 reindeers are kept by the owners in the Wilderness Area. Hunting is permitted to local residents, the only economically important species in the Wilderness Area is Willow Grouse (*Lagopus lagopus*), which is caught by tripwires. Bean Goose and other waterfowl are used in the households. Also fishing and picking of mushrooms and berries (an important species is Cloudberry *Rubus chamaemorus*) are permitted.

(b) in the surroundings/catchment:

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

The acid deposition has weakened the buffering capacity of some lakes and ponds. The acidification has diminished in general since the 1980s. Hunting may have negative effects on the site. We have no exact data of the reindeers' effects in the Mire Protection Area, but as it is the most wettest area around, it's more likely that reindeers are not so numerous inside the site.

**25. Conservation measures taken:**

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

The site is included in the Natura 2000 Network as a part of Kaldoaivi Wilderness Area (altogether 351 633 ha), designated both as SPA and SCI. It is the largest Wilderness Area in Finland. Sammutijänkä–Vaijoenjänkä Mire Protection Area was established in 1988 and Kaldoaivi Wilderness Area in 1991. Forestry, ditching, extraction of earth material and damaging of soil or bedrock are prohibited in the Mire Protection Area. Also construction of new buildings and roads is prohibited in general.

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

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

A management and land use plan will be established in the near future both for the Mire Protection Area and the Wilderness Area.

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

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

The area is an important study site of northern mires and aquatic ecosystems. The breeding bird fauna was studied in the 1970s and in 1996, geology and soil in the 1990s and the surface waters since the 1980s. The research of flora and fauna is carried out at the moment. The research activities are linked with the management and land use plan which is under construction.

**28. Current conservation education:**

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

The area is an important education site for the Kevo Research Station of Turku University.

**29. Current recreation and tourism:**

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

Only few visitors. No facilities. There are six wilderness huts in the Wilderness Area, but none in the Mire Protection Area.

**30. Jurisdiction:**

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

**a)** Metsähallitus – Forest and Park Service, Northern Lapland District for Wilderness Management, **b)** Ministry of the Environment.

**31. 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.

Metsähallitus – Forest and Park Service, Northern Lapland District for Wilderness Management, PO Box 36, FIN-99801 Ivalo, Finland.

**32. Bibliographical references:**

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Leivo, M. 2000. Suomen kansainvälisesti tärkeät lintualueet. Linnut-vuosikirja 1999. (English summary: Important Bird Areas in Finland).

Leivo, M., Asanti, T., Koskimies, P., Lammi, E., Lampolahti, J., Mikkola-Roos, M. & Virolainen, E. 2002. Suomen tärkeät lintualueet FINIBA. BirdLife Suomen julkaisuja 4, Suomen graafiset palvelut, Kuopio.

Länsman, T. 2000. Kaldoivin erämaa-alueen asutus- ja elinkeinohistoriaa. Metsähallituksen luonnonsuojelujulkaisuja A 126.

Manner, R. & Puro, A. 1999. Kaldoivin erämaa-alueen kallio- ja maaperä sekä vesistöt. Metsähallituksen luonnonsuojelujulkaisuja A 110.

Rassi, P., Alanen, A., Kanerva, T. & Mannerkoski, I. (eds.) 2001. The 2000 Red List of Finnish Species. Ministry of the Environment & Finnish Environment Institute, Helsinki

Sihvo, J. 2002. Ylä-Lapin luonnonhoitoalueen ja Urho Kekkosen kansallispuiston luontokartoitus; Loppuraportti osa 2: Ylä-Lapin luontotyytit. Metsähallituksen luonnonsuojelujulkaisuja A 137.

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