

# 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:

River Luiro 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):

67°20' N / 27°33' 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 nearly unbroken area is situated in east-central part of the province of Lapland, in the municipalities of Pelkosenniemi and Savukoski, 6 km north of Pelkosenniemi village and 49 km north of Kemijärvi city. The municipalities (8 266 sq.km of land) have ca. 2 700 residents. Kemijärvi city (3 502 sq.km of land) has ca. 10 500 residents.

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

185 – 155 m, mean 162 m.

## 9. Area: (in hectares)

12 345 ha

## 10. Overview:

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

River Luiro mires are among the most outstanding mire areas in Finland. The mire types are extremely diverse and the site includes the most extensive unbroken birch fen area in Finland. An important breeding and staging area for waterfowl and waders.

## 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 representative example of natural wetland types (dominated by peatlands) in the EU Boreal region, including 4 priority natural wetland habitat types of the Annex I of the EU Habitats Directive (aapa mires, bog woodland, active raised bogs, Fennoscandian deciduous swamp woods).

2) 1 nationally threatened bird species, 1 nationally threatened vascular plant species, 1 nationally threatened moss species.

Threatened vascular plant species of the Annex II of the EU Habitats Directive include Marsh Saxifrage (*Saxifraga hirculus*) (VU in Finnish Red List) as well as for the Bryophytes the moss species *Hamatocaulis vernicosus* (VU).

In the Bird Directive Annex I listed threatened birds include Peregrine Falcon (*Falco peregrinus*) (EN in Finnish Red List), the scarce species include e.g. Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Crane (*Grus grus*), Golden Plover (*Pluvialis apricaria*), Red-necked Phalarope (*Phalaropus lobatus*) and Short-eared Owl (*Asio flammeus*).

Mammals of the EU Habitats Directive Annex II include the Otter (*Lutra lutra*).

4) About 13 species of the EU Birds Directive Annex I breed in the area, including significant populations of Wood Sandpiper (*Tringa glareola*) with >500 pairs, Capercaillie (*Tetrao urogallus*) with >100 pairs and Ruff (*Philomachus pugnax*) with >50 pairs. The breeding waders include 14 species.

Bird list (Status in Finnish Red List, BD=Birds Directive Annex I, FRS=Finland's Responsibility Species):

Breeding grouses, waders, wetland passerines and/or valuable species, pairs, minimum estimation (based on line transect counts): Willow Grouse (*Lagopus lagopus*) >120, Black Grouse (*Tetrao tetrix*) >20 (NT, BD, FRS), Capercaillie (*Tetrao urogallus*) >200 (NT, BD, FRS), Crane (*Grus grus*) >50 (BD), Ringed Plover (*Charadrius hiaticula*) >160, Golden Plover (*Pluvialis apricaria*) >60 (BD), Broad-billed Sandpiper (*Limicola falcinellus*) >260 (NT, FRS), Ruff (*Philomachus pugnax*) >90 (NT, BD), Jack Snipe (*Lymnocyptes minimus*) >20 (FRS), Snipe (*Gallinago gallinago*) >330, Whimbler (*Numenius phaeopus*) >20 (FRS), Curlew (*Numenius arquata*) >10 (FRS), Spotted Redshank (*Tringa erythropus*) >30 (FRS), Greenshank (*Tringa nebularia*) >5 (FRS), Wood Sandpiper (*Tringa glareola*) >1600 (BD, FRS), Red-necked Phalarope (*Phalaropus lobatus*) >70 (BD), Cuckoo (*Cuculus canorus*) >60 (NT), Meadow Pipit (*Anthus pratensis*) >1950, Yellow Wagtail (*Motacilla flava*) >2600, Bluethroat (*Luscinia svecica*) >10 (BD), Whinchat (*Saxicola rubetra*) >160 (NT), Wheatear (*Oenanthe oenanthe*) >10 (NT), Great Grey Shrike (*Lanius excubitor*) >9 (NT), Rustic Bunting (*Emberiza rustica*) >220, Reed Bunting (*Emberiza schoeniclus*) >1550.

**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:**

Northern boreal 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 Greenstone area. Bedrock is composed mainly of carbonate- and calc-silicate rocks and black schists, mafic and felsic metavolcanic rocks, quartzite, arkosite and mica schist.

**Origins:** Natural.

**Hydrology:** Aapa mires dependent on ground or surface waters and raised bogs on rain water.

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

**Water quality:** General quality good in River Luro. Mesotrophic in rivers. Ponds and mire waters dystrophic.

**Depth of water:** Shallow in ponds. Water-level high in spring because of melting snow.

**Climate:** Duration of growing season ca. 125 days, mean annual temperature ca. -1 °C, mean annual rainfall ca. 550 mm. Ice- and snow-covered normally from late October to mid May. Northern boreal 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, Xp, Xf, Tp, M, Ts & O

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
- Xp – Forested peatlands
- Xf – Seasonally flooded forests
- Tp – Permanent freshwater pools
- M – Permanent rivers and streams
- Ts – Seasonal freshwater pools
- O – Permanent freshwater lakes

### 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 region of Main aapa mires of middle and northern types. The area includes ca. 11 000 ha of mires and ca. 120 ha of water. The area is situated on both sides of River Luiro, which is characterized by extensive alluvial meadows and alluvial grove forests. Several brooks and small rivers traverse the mires together with small esker formations, and interchanging open-water flarks are typical of the area. Birch fens are typical of Sakkala-aapa, while Lämsänaapa is an eccentric bog and Kairanaapa is a barren aapa mire. There are plenty of rich Pine (*Pinus sylvestris*) and Spruce (*Picea abies*) bogs, and on the riverbanks also grass- and hay-rich Spruce fens. Forests consist mainly of mesic heath forests.

### 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.**

Threatened vascular plant species include Marsh Saxifrage (*Saxifraga hirculus*) (VU in Finnish Red List). Bryophytes include moss species *Hamatocaulis vernicosus* (VU).

### 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 Peregrine Falcon (*Falco peregrinus*) (EN in Finnish Red List). Ca. 13 species of the EU Birds Directive Annex I breed in the area, including significant populations of Wood Sandpiper (*Tringa glareola*) with >500 pairs, Capercaillie (*Tetrao urogallus*) with >100 pairs and Ruff (*Philomachus pugnax*) with >50 pairs. Scarce species include e.g. Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Crane (*Grus grus*), Golden Plover

(*Pluvialis apricaria*), Red-necked Phalarope (*Phalaropus lobatus*) and Short-eared Owl (*Asio flammeus*). The population of Bean Goose (*Anser fabalis*) (Finland's responsibility species) is among the densest in Finland. The breeding waders include 14 species.

Mammals of the EU Habitats Directive Annex II include Brown Bear (*Ursus arctos*) 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 reindeer husbandry.

### **22. Land tenure/ownership:**

(a) within the Ramsar site:

State-owned for the major part (65 %). The rest is private-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 surrounding areas and also permitted in the Mire Protection Area. Hunting, fishing and picking of mushrooms and berries 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 alluvial meadows of River Luiro are slowly turning into forests because of the cessation of hay cutting. Some drainage has been carried out on the margins of the mires. Hunting may have negative effects on 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, designated both as SPA and SCI, and partly in the Mire Conservation Programme. Lämsänaapa-Sakkala-aapa Mire Protection Area (4 589 ha) was established in 1988. Forestry, ditching, extraction of earth material and damaging of soil or bedrock are prohibited in the Mire Protection Area. Also construction of new buildings 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.

Conservation of the Natura 2000 site outside the already protected areas will be carried out under the Nature Conservation Act. A management and land use plan for the Mire Protection Area will be established in the near future.

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

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

The breeding bird fauna and flora were studied in the 1970s. The volume of bird populations was estimated in 1995 by using line transect censuses.

**28. Current conservation education:**

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

None significant.

**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. A snowmobile trail crosses the 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, Natural Heritage Services, Northern Finland, **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, Natural Heritage Services, Northern Finland, PO Box 8016, FIN-96101 Rovaniemi, 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.

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.

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