

# 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:

Martimoaapa – Lumiaapa – Penikat 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):

65°50' N / 25°08' 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 southwestern part of the province of Lapland, in the municipalities of Keminmaa and Simo, 19 km east of Keminmaa village and 20 km northeast of Kemi city. The municipalities (2 091 sq.km of land) have ca. 12 800 residents. Kemi city (91 sq.km of land) has ca. 23 700 residents.

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

185 – 50 m, mean 80 m.

## 9. Area: (in hectares)

14 086 ha

## 10. Overview:

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

Martimoaapa–Lumiaapa–Penikat is exceptionally rich in the variety of mire types in natural condition. The eccentric bog of Martimoaapa is one of the most valuable bird-mires in Finland.

## 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

<u>1</u>	<u>2</u>	3	4	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 rare example of natural wetland types (dominated by peatlands) in the EU Boreal region, including 3 priority natural wetland habitat types of the Habitats Directive Annex II (aapa mires, active raised bogs, bog woodland).

2) 4 nationally threatened bird species, 1 nationally threatened mammal species, 1 nationally threatened vascular plant species, 1 nationally threatened moss species, 1 nationally threatened lichen species.

Threatened birds species of the Bird Directive Annex I include Peregrine Falcon (*Falco peregrinus*) (EN in Finnish Red List), White-tailed Eagle (*Haliaeetus albicilla*) (VU), Golden Eagle (*Aquila chrysaetos*) (VU) and Merlin (*F. columbarius*) (VU), populations of Wood Sandpiper (*Tringa glareola*), Ruff (*Philomachus pugnax*), both Capercaillie (*Tetrao urogallus*) and Black Grouse (*Tetrao tetrix tetrix*), Crane (*Grus grus*) and Red-throated Diver (*Gavia stellata*), as well as Hazel Grouses (*Bonasa bonasia*), Golden Plovers (*Pluvialis apricaria*) and Tengmalm's Owls (*Aegolius*

*funereus*) breed in the area. Scarce species include e.g. Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Red-necked Phalarope (*Phalaropus lobatus*), Hawk Owl (*Surnia ulula*), Great Grey Owl (*Strix nebulosa*) and Short-eared Owl (*Asio flammea*).

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

4) About 27 species of the EU Birds Directive Annex I breed in the area, including significant populations of Wood Sandpiper (*Tringa glareola*) with >550 pairs, Ruff (*Philomachus pugnax*) with >200 pairs, both Capercaillie (*Tetrao urogallus*) and Black Grouse (*Tetrao tetrix*) with >50 pairs, Crane (*Grus grus*) with 28 pairs and Red-throated Diver (*Gavia stellata*) with ca. 15 pairs. The breeding waders include 14 species. The location near the coast of Bothnian Bay increases the importance of the area as a staging place for waterfowl and waders during migration periods.

### **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:**

Middle boreal forest vegetation zones.

#### **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 Svecokarelian schist belt. Bedrock is composed mainly of leucocratic granite and granodiorite with a smaller area of gabbro and peridotite.

**Origins:** Natural

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

**Soil type:** Peat, glacial ground moraine and bedrock terrain.

**Water quality:** Nutrient-poor and dystrophic.

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

**Climate:** Duration of growing season ca. 140 days, mean annual temperature ca. +1 °C, mean annual rainfall ca. 550 mm. Ice- and snow-covered normally from mid November to early May. Middle boreal forest vegetation zones.

### 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, & Tp, Xf, Ts, M & O

L	<u>M</u>	N	O	P	Q	R	Sp	Ss	<u>Tp</u>	Ts	<u>U</u>	Va	Vt	W	<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

Tp – Permanent freshwater pools

Ts – Seasonal freshwater pools

Xf – Seasonally flooded forests

M – Permanent rivers and streams

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 Southern aapa mires. The area includes ca. 10 000 ha of mires and ca. 300 ha of water. The area is characterized by six extensive and well developed aapa mires close to each other. Within these there are also active raised bogs, of which Martimoaapa is among the best developed in Northern Finland. Mires are rich of flarks and ponds and include also two lakes. The hill chain of Kivalo is rich in vegetation because of calcareous soil. On lower slopes of the hills there are various types of alkaline fens and rich wooded meadows with old-growth 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 plants include sagebrush species *Artemisia campestris* ssp. *bottnica* (CR in Finnish Red List). Threatened bryophytes include moss species *Zygodon conoideus* (EN), and lichens include *Physcia phaea* (EN).

## 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), White-tailed Eagle (*Haliaeetus albicilla*) (VU), Golden Eagle (*Aquila chrysaetos*) (VU) and Merlin (*F. columbarius*) (VU). Ca. 27 species of the EU Birds Directive Annex I breed in the area, including significant populations of Wood Sandpiper (*Tringa glareola*) with >550 pairs, Ruff (*Philomachus pugnax*) with >200 pairs, both Capercaillie (*Tetrao urogallus*) and Black Grouse (*Tetrao tetrix*) with >50 pairs, Crane (*Grus grus*) with 28 pairs and Red-throated Diver (*Gavia stellata*) with ca. 15 pairs. Also >20 pairs of Hazel Grouses (*Bonasa bonasia*), Golden Plovers (*Pluvialis apricaria*) and Tengmalm's Owls (*Aegolius funereus*) breed in the area. Scarce species include e.g. Whooper Swan (*Cygnus cygnus*), Smew (*Mergus albellus*), Hen Harrier (*Circus cyaneus*), Red-necked Phalarope (*Phalaropus lobatus*), Hawk Owl (*Surnia ulula*), Great Grey Owl (*Strix nebulosa*) and Short-eared Owl (*Asio flammea*).

Finland's responsibility species also include e.g. >80 pairs of Broad-billed Sandpipers (*Limicola falcinellus*) and >30 pairs of Bean Geese (*Anser fabalis*). The breeding waders include 14 species. The location near the coast of Bothnian Bay increases the importance of the area as a staging place for waterfowl and waders during migration periods. Threatened mammals include Wolf (*Canis lupus*) (EN). 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, outdoor recreation and reindeer husbandry.

**22. Land tenure/ownership:**

(a) within the Ramsar site:

State-owned for the major part (97 %).

(b) in the surrounding area: Private-owned and state-owned.

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

(a) within the Ramsar site:

**a) and b)** Reindeer husbandry is carried on in nearby areas and is also permitted in the Mire Protection Area. Hunting is permitted for local residents. Also picking of mushrooms and berries is permitted. The area is used for training by the Finnish Defence Forces (Probably only once a year.)

(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:**

Hunting might have negative effects on the site.

Probably the training of FDF causes only minor effects (exact data not available). The snowmobile trail has been planned so that it causes no effects on sensitive early-breeding species. The increasing recreational use might have effects, but the data is missing.

**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. A major part is included in the Mire Conservation Programme and an area of 650 ha is included in the Programme for the Protection of Old-growth Forests. Martimoaapa–Lumiaapa–Penikat Mire Protection Area (13 354 ha) was established in 1981. Further conservation of aapa mires is carried out under the EU Life project in 1997–2002. A management and land use plan for the Mire Protection Area was established 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.

Conservation of the Natura 2000 site outside the already protected areas will be carried out under the Nature Conservation Act. If necessary, restricted areas will be established.

**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 was surveyed in the 1970s, 1987 and 1997. The forest vegetation was studied in 1993.

**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.

Four wilderness huts, a bird-watching tower, a hiking trail (13 km) and a nature trail (2.5 km) have been constructed in the Mire Protection Area. A ski trail and a snowmobile trail crosses the area. The eastern part of the area is crossed by a road. Licensed recreation fishing is carried out in the two lakes. The high season takes place in summer.

**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.

Junninen, K. 1993. Martimoaavan–Lumiaavan–Penikkain soidensuojelualueen metsäkasvillisuusselvitys. Manuscript. Metsähallitus.

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.

Metsähallitus 1991. Martimoaavan–Lumiaavan–Penikkain soidensuojelun hoito- ja käyttösuunnitelma. Metsähallitus SU 4:119.

Rauhala, P. 1987. Martimoaavan–Lumiaavan–Penikkain soidensuojelun linnusto 1987. Manuscript. Metsähallitus.

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.

Väisänen, R.A. & Järvinen, O. 1977. Structure and fluctuation of the breeding bird fauna of a north Finnish peatland area. *Ornis Fennica* 54.

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