

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.

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:

Lake Sysmäjärvi

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):

62°41' N / 29°03' 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 central part of the province of Eastern Finland, in the municipalities of Outokumpu city and Liperi, 3 km south of Outokumpu city centre. The municipalities (1 185 sq.km of land) have ca. 19 600 residents.

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

90–85 m, mean 86 m.

9. Area: (in hectares)

734 ha

10. Overview:

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

Lake Sismäjärvi is the most valuable of the North Karelian bird-lakes and among the ten most important wetlands in Finland. The high conservational value is due to the high diversity of breeding and migrating wetland bird species.

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 a near-natural wetland type (shallow freshwater lake) in the EU Boreal region.

2) Threatened birds include (VU in Finnish Red List), Merlin (*Falco columbarius*), Black-headed Gull (*Larus ridibundus*) with 80 pairs, Lesser Spotted Woodpecker (*Dendrocopos minor*) and Great Reed Warbler (*Acrocephalus arundinaceus*).

Eleven species of the EU Birds Directive Annex I breed in the area, of which the most common are Spotted Crake (*Porzana porzana*) with 10–13 pairs, Common Tern (*Sterna hirundo*) and Bittern (*Botaurus stellaris*) with six pairs. Scarce species include e.g. Slavonian Grebe (*Podiceps auritus*), Whooper Swan (*Cygnus cygnus*), Marsh Harrier (*Circus aeruginosus*), Corncrake (*Crex crex*) (globally VU at IUCN Red List), Crane (*Grus grus*) and Wood Sandpiper (*Tringa glareola*).

1 nationally threatened mammal species, the Russian Flying Squirrel (*Pteromys volans*) (VU).

4) The breeding waterfowl at the site includes about 250 pairs of 14 species and the breeding waders about 50 pairs of 8 species.

Sysmäjärvi is of great importance as a staging area for waterfowl during migration and moulting periods. In spring the highest daily counts of waterfowl reach up to 1 000–1 500 individuals with Anatids dominating, including also tens of Whooper Swans and Bean Geese (*Anser fabalis*).

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:

Southern 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 Ladoga – Bothnian Bay belt. Bedrock is composed of mica schists and intercalated black schists.

Origins: Natural

Soil type and chemistry: Mainly silt and clay with littoral and glacial fluvial gravel and sand and peat.

Water quality: General quality poor. Eutrophic.

Depth of water: 1.65 m on average, maximum 5 m. Water-level high in spring because of melting snow.

Climate: Duration of growing season ca. 155 days, mean annual temperature ca. +2 °C, mean annual rainfall ca. 600 mm. Ice- and snow-covered normally from mid November to late April. Southern 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.

16. Hydrological values:

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

None significant.

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: O, Ts, W & Xf

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

O – Permanent freshwater lakes

Ts – Seasonally flooded meadows

W – Shrub-dominated wetlands

Xf – Seasonally flooded forests

18. General ecological features:

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

Sysmäjärvi is characterized by extensive growths of Common Reed (*Phragmites australis*) and Water Horsetail (*Equisetum fluviatile*). The area includes ca. 690 ha of water and 22 small islands. Alluvial meadows and bush zones occur narrowly on shores.

The lake is surrounded by a narrow forest zone and agricultural land.

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.**

None significant.

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 (VU in Finnish Red List), Merlin (*Falco columbarius*), Black-headed Gull (*Larus ridibundus*) with 80 pairs, Lesser Spotted Woodpecker (*Dendrocopos minor*) and Great Reed Warbler (*Acrocephalus arundinaceus*). Yellow-breasted Bunting (*Emberiza aureola*) (CR) has bred still in the early 1990s. 11 species of the EU Birds Directive Annex I breed in the area, of which the most common are Spotted Crake (*Porzana porzana*) with 10–13 pairs, Common Tern (*Sterna hirundo*) and Bittern (*Botaurus stellaris*) with six pairs. Scarce species include e.g. Slavonian Grebe (*Podiceps auritus*), Whooper Swan (*Cygnus cygnus*), Marsh Harrier (*Circus aeruginosus*), Corncrake (*Crex crex*) (globally VU), Crane (*Grus grus*) and Wood Sandpiper (*Tringa glareola*). The breeding waterfowl includes ca. 250 pairs of 14 species and the breeding waders ca. 50 pairs of 8 species.

Threatened mammals of shore forests include Russian Flying Squirrel (*Pteromys volans*) (VU Finnish Red List).

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 birdwatching.

22. Land tenure/ownership:

(a) within the Ramsar site:

Private-owned.

(b) in the surrounding area:

Private-owned.

23. Current land (including water) use:

(a) within the Ramsar site:

Hunting of waterfowl is intense in autumn. Fishing occurs to some extent. One summer cottage is located on an island of the lake.

(b) in the surroundings/catchment:

Agriculture is carried out in the surroundings. A mining area is located nearby.

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

Hunting of waterfowl is intensive in autumn. The persecution of gulls has affected negatively on the bird populations since the 1980s. Fishing in spring affects negatively on breeding of waterfowl. Regulation of water-level in spring disturb breeding of birds.

The lake is continuously overgrowing and the populations of breeding waterfowl have declined by 40 % in 1983–99. The amount of heavy metals and salt has still increased in the 1990s. Some plant species favoring unpolluted waters have disappeared during the last ten years. Discharges from sewage plants, mining industries and agricultural land pollute the waters. Especially the waters of River Lahdenjoki contain high loads of nutrients. A peat production area is planned to be established nearby with waters discharging into the lake. American Mink (*Mustela vison*) and Raccoon Dog (*Nyctereutes procyonoides*) may cause damage to the breeding of birds.

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 lake is included in the Natura 2000 Network, designated as SPA and in the Waterfowl Habitats Conservation Programme. Private protected areas cover 690 ha. Clearing of thickets was carried out in a small area in 1998.

EU Life project is ongoing at Lake Sysmäjärvi in 2005–06. The project includes at least restoration of meadows, removing of aquatic plants and intensifying the removal of predatory mammals (Raccoon Dog and American Mink).

26. Conservation measures proposed but not yet implemented:

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

The conservation of the Natura 2000 site will be carried out under the Nature Conservation Act and Water Act.

A preliminary restoration plan was drafted in 1991 and 1994. Plans include dredging, raising the median water-level to reduce the effects of rank growth and restoring the meadows in some areas.

An EIA concerning the planned peat production area discharging waters into the lake has been carried out. The waters of peat production area will be discharged into other areas than Lake Sysmäjärvi.

Additional information:

Also the possibility to raise water-level is under examination. Dredging is not included since the sediments contain heavy metals. The management and land use plan will be established in 2007.

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, 1984, 1990 and 1999. The aquatic vegetation was surveyed in 1983 and 1992. The water quality is monitored.

The breeding bird fauna is under examination in 2005. The preliminary results show increase of some species of the EU Birds Directive Annex I, such as Whooper Swan (1 pair in the 1990s, 6 pairs in 2005) and Bittern (1 pair in the 1990s, 7 pairs in 2005) and also the population of Marsh Harrier (4 pairs) is comparatively strong. On the other hand the population of Black-backed Gull has nearly vanished. The lake has become more important to staging (spring) Whooper Swans, totaling 200 individuals on a single count in 2005.

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.

Two birdwatching towers have been constructed.

30. Jurisdiction:

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

a) North Karelia Regional Environment Centre, **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.

North Karelia Regional Environment Centre, PO Box 69, FIN-80101 Joensuu, Finland.

32. Bibliographical references:

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

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.

Hottola, P. 1993. Lintuvesiohjelma puntarissa – Linnustoselvityksiä Pohjois-Karjalan lintujärvillä. Vesi- ja ympäristöhallituksen julkaisuja A 158. (English summary: Wetland Conservation Programme Evaluated – Breeding Bird Surveys in North Karelian Wetlands).

Hottola, P. & Ratilainen, M. 1994. Outokummun Sysmäjärven kunnostussuunnitelma. Pohjois-Karjalan vesi- ja ympäristöpiiri.

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.

Venetvaara, J. 1992. Sysmäjärven vesikasvillisuus kesällä 1992. Pohjois-Karjalan vesi- ja ympäristöpiiri.

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