

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 Kirkkojärvi Area

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):

61°27' N / 24°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 five separate lakes are situated in east-central part of the province of Western Finland, in the municipality of Kangasala, 0.5–4 km south of Kangasala village and 14–20 km southeast of Tampere city centre. The municipality (456 sq.km of land) has ca. 22 300 residents. Tampere city (523 sq.km of land) has ca. 195 500 residents.

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

94–84 m, mean 85 m.

9. Area: (in hectares)

305 ha

10. Overview:

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

Lake Kirkkojärvi Area forms the most valuable wetland complex in Pirkanmaa region especially for migrating and molting waterfowl. The aquatic vegetation is valuable.

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 lakes) in the EU Boreal region, including 1 priority natural wetland habitat type (Fennoscandian deciduous swamp woods).

2) 5 species of the EU Birds Directive Annex I breed in the area: Bittern (*Botaurus stellaris*), Whooper Swan (*Cygnus cygnus*), Marsh Harrier (*Circus aeruginosus*), Spotted Crake (*Porzana porzana*) and Crane (*Grus grus*).

Invertebrates of the EU Habitats Directive Annex II include diving water beetle species *Dytiscus latissimus*.

The site supports 1 nationally threatened bird species (see section 20).

4) Lake Kirkkojärvi is an important staging place for migrating and molting waterfowl in a larger area, the highest daily counts reaching more than 500 individuals in spring and early summer. Finland's responsibility species Tufted Duck

(*Aythya fuligula*) and Goldeneye (*Bucephala clangula*) are the most numerous species in most years.

The breeding waterfowl includes 100–200 pairs of 10–13 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:

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. 284 s. Ympäristöministeriö.

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. 284; 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 Volcanic sedimentary zone of SW Finland. Bedrock is composed of mica gneisses, mica schists, granodiorite, tonalite and quartz diorite.

Origins: Natural

Soil type: Mainly silt and clay with a smaller area of peat.

Water quality: General quality poor in Lake Kirkkojärvi. Eutrophic.

Depth of water: Ca. 1–3 m, in Ahuli ca. 1–7 m. Water-level high in spring because of melting snow.

Climate: Duration of growing season ca. 165 days, mean annual temperature ca. +4 °C, mean annual rainfall ca. 600 mm. Waters ice-covered normally from December to mid 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. Further data are not available.

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, Tp & M

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

Tp – Permanent freshwater marshes

M – Permanent streams

18. General ecological features:

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

Kirkkojärvi covers 199 ha, Ahuli 41 ha, Säckölänjärvi 29 ha, Taivallammi 25 ha and Kyljärvi 11 ha. The area includes ca. 250 ha of water. The lakes form a close group connected to each others by small brooks. Aquatic vegetation is diverse and vegetation zones are extensive. Common Reed (*Phragmites australis*) and Bulrushes (*Typha* spp.) are abundant. Lakes are for the most parts bordered by deciduous shore forests and surrounded by agricultural land. Surroundings of Kirkkojärvi are relatively heavily built.

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.**

The aquatic vegetation is valuable especially at Kirkkojärvi, including several rarities such as Grass-wrack Pondweed (*Potamogeton compressus*) and Curled Pondweed (*P. crispus*). Ca. 13 demanding plant species occur at the lakes.

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 Spotted Woodpecker (*Dendrocopos minor*) (VU in Finnish Red List). 5 species of the EU Birds Directive Annex I breed in the area: Bittern (*Botaurus stellaris*), Whooper Swan (*Cygnus cygnus*), Marsh Harrier (*Circus aeruginosus*), Spotted Crake (*Porzana porzana*) and Crane (*Grus grus*). The breeding waterfowl includes 100–200 pairs of 10–13 species.

Lake Kirkkojärvi is an important staging place for migrating and molting waterfowl in a larger area, the highest daily counts reaching >500 individuals in spring and early summer. Finland's responsibility species Tufted Duck (*Aythya fuligula*) and Goldeneye (*Bucephala clangula*) are the most numerous species in most years. Invertebrates of the EU Habitats Directive Annex II include diving water beetle species *Dytiscus latissimus*.

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 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 in autumn at Taivallammi. Fishing in spring at Taivallammi and Säkölänjärvi. A motor-traffic way crosses the northeastern bay of Kirkkojärvi. A few holiday cottages are located on shores of Ahuli and Säkölänjärvi.

(b) in the surroundings/catchment:

Agriculture is carried out in the surroundings. Surroundings of Kirkkojärvi are densely built on western and northern sides and the motor-traffic way is lined on northern edge of the lake.

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

The wastewaters of Kangasala were discharged into Kirkkojärvi until 1980, thus the lake and downstream waters have become strongly eutrophic. Eutrophication of other lakes has been strengthened by nutrients dissolving from the nearby fields. Dredging of the outlet of Kirkkojärvi in the early 1970s lowered the water-level of Taivallampi by 30 cm, which caused strong overgrowing of the lake. Overgrowing is continuing at Taivallampi and Kyläjärvi.

Fishing in spring causes disturbance at Taivallampi and Säkölänjärvi. Hunting of waterfowl in autumn causes disturbance at Taivallampi. In the surroundings of Kirkkojärvi increased building and noise emission of the motor-traffic way cause disturbance. Increased building is an adverse factor also at Säkölänjärvi. Clearing of thickets and shore forests has been carried out at Kyläjärvi. American Mink (*Mustela vison*) and Raccoon Dog (*Nyctereutes procyonoides*) may cause damage to the breeding of birds. The breeding of waterfowl has been unsuccessful during the late 1990s, while the population of American Mink has been abundant.

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 lakes are included in the Natura 2000 Network, designated both as SPA and SCI, and in the Waterfowl Habitats Conservation Programme. A management and land use plan was established for Kirkkojärvi in 1991. Hunting of waterfowl is prohibited at Kirkkojärvi. The aquatic vegetation has been mowed in two areas, and the lake has been artificially aerated during some winters because of oxygen depletion.

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 will be carried out under the Nature Conservation Act, Environmental Protection Act and Water Act.

27. Current scientific research and facilities:

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

Detailed studies have been carried out on the aquatic vegetation of the lakes in the 1980s, offering opportunity to monitor the succession of vegetation in different stages of eutrophication. The breeding and migrating bird fauna has been monitored since the late 1980s, e.g. in 2000.

28. Current conservation education:

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

Kirkkojärvi is an important education site for the nearby schools.

29. Current recreation and tourism:

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

Kirkkojärvi is a popular birdwatching site

30. Jurisdiction:

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

a) Pirkanmaa 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.

Pirkanmaa Regional Environment Centre, PO Box 297, FIN-33101 Tampere, Finland.

32. Bibliographical references:

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

Bäck, S. & Toivonen, H. 1986. Kangasalan suojelullisesti arvokkaiden pikkujärvien kasvillisuuskartoitus v. 1985. Manuscript. Kangasalan kunta.

Lammi, E. & Venetvaara, J. 1999. Kangasalan Kirkkojärven rantametsien hoito- ja käyttösuunnitelma. Manuscript. Kangasalan kunta.

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.

Liinalaakso, O-P. 2000. Vesilintulaskennat Pirkanmaan lintuvesillä keväällä ja kesällä 2000. Manuscript. Pirkanmaan ympäristökeskus.

Toivonen, H. & Bäck, S. 1989. Changes in aquatic vegetation of a small, eutrophicated and lowered lake (South Finland). Ann. Bot. Fenn. 26.

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