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 and Lupinlahti Bay

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):

60°33' N / 27°13' 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 two separate areas are situated in southeastern corner of the province of Southern Finland, on the coast of the Gulf of Finland, in municipalities of Hamina city. Kirkkojärvi is located 0.5 km northeast and Lupinlahti 1 km southeast of the Hamina city centre. The distance between the areas is 1.5 km. The municipalities (607 sq.km of land) have ca. 21 800 residents.
The road crossing Lupinlahti Bay is a smallish local road. The forested islands were not included in the Natura 2000 because of settlements, land use pressures etc.

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

5 - 0 m

9. Area: (in hectares)

649 ha

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

The site forms a valuable breeding and staging area for an exceptionally wide variety of wetland birds. Recreational importance is notable.

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

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

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 near-natural wetland types (shallow sea bay and freshwater lake) in the EU Boreal region, including 1 priority natural wetland habitat type (boreal Baltic coastal meadows).

2) 8 species of the EU Birds Directive Annex I breed in the area, including e.g. Slavonian Grebe (*Podiceps auritus*) with 15 pairs, Bittern (*Botaurus stellaris*) with 12 pairs, Marsh Harrier (*Circus aeruginosus*) with 5 pairs, Corncrake (*Crex crex*) and Spotted Crake (*Porzana porzana*) with up to 10 males.

The butterfly Large Copper, *Lycaena dispar* and the dragonfly *Leucorrhinia pectoralis*.included in the EU Habitats Directive Annex II are present on site.

The site supports the knotgrass species *Persicaria foliosa* (at Kirkkojärvi) and the Mare's tail species *Hippuris tetraphylla,*.vascular plants also included in the EU Habitats Directive Annex II.

The site supports othernationally threatened species (see section 19).

4) The breeding waterfowl includes more than 500 pairs of 16 species.

Lupinlahti Bay is a very important staging area for waterfowl during migration periods. The highest daily counts reach up to 2 000–3 000 individuals in spring. The most common species are Tufted Duck (*Aythya fuligula*) with up to 2 000, Mallard (*Anas platyrhynchos*) with 600 and both Pochard (*Aythya ferina*) and Coot (*Fulica atra*) with 300 individuals. Considerable numbers of waterfowl occur also in autumn. Significant numbers of species listed in the EU Birds Directive Annex I include Whooper Swans (*Cygnus cygnus*) up to 160, Bewick's Swans (*C. columbianus*) up to 60 and Smews (*Mergus albellus*) up to 120 individuals in spring.

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. 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 Rapakivi granites area. Bedrock is composed of rapakivi granite.
Origins: Natural
Soil type: Mainly silt and clay.
Water quality: General quality passable. Eutrophic in Kirkkojärvi, mesotrophic–eutrophic in Lupinlahti.
Depth of water: Shallow, ca. 1–2 m in Lupinlahti. Water-level of Lupinlahti usually low in spring and high in autumn and winter. Water-level of Kirkkojärvi normally high in spring because of melting snow.
Climate: Duration of growing season ca. 165 days, mean annual temperature ca. +4 ºC, mean annual rainfall ca. 650 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).

General geology and geomorphological features as well as soil types and climate are of same type than in the site. General land use includes mainly private forestry and agriculture, and also one town with surrounding suburban areas.

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, K, H

A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**Zk(a)**

Inland: W, Xf, M

L	**M**	**N**	**O**	**P**	**Q**	**R**	**Sp**	**Ss**	**Tp**	**Ts**	**U**	**Va**	**Vt**	**W**	**Xf**	**Xp**	**Y**	**Zg**	**Zk(b)**

Human-made:

1	2	3	4	5	6	7	8	9	Zk(c)

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.

A – Permanent shallow sea bays
K – Coastal freshwater lagoons
W – Shrub swamps
Xf – Seasonally flooded forests
H – Brackish alluvial meadows
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 249 ha and Lupinlahti 400 ha. The area includes ca. 430 ha of water. Kirkkojärvi is composed of several overgrown gloe lakes, and open-water areas cover only 20 % of the wetland. Gloe lake (in Finnish: kluuvi or kluuvijärvi) is a special type of freshwater lake which has become naturally (by landupheaval) separated from sea in recent times. Before the separation as it still has some contact to sea, it is called flad (in Finnish: flada). These two forms are typical for Finnish coasts because of landupheaval but are unique in universal scale.
Three small rivers discharge into the lake. Common Reed (*Phragmites australis*) is dominating the vegetation. Open-water areas are characterized by e.g. Bulrush (*Typha latifolia*), Broad-leaved Pondweed (*Potamogeton natans*), Unbranched Bur-reed (*Sparganium emersum*), Frogbit (*Hydrocharis morsus-ranae*), Greater Bladderwort (*Utricularia vulgaris*), Common Duckweed (*Lemna minor*) and Water-plantain (*Alisma plantago-aquatica*). On the shore zone there are small areas of Cyprus Sedge (*Carex pseudocyperus*) meadows and Black Alder (*Alnus glutinosa*) forests. Southern part of the lake has become swampy and is conquered by willows (*Salix* spp.). Kirkkojärvi is located just beside Hamina city centre.

Lupinlahti is a long and narrow sea bay, connected to the sea through four narrow sounds. Extensive growths of Common Reed dominate the shore zones with smaller areas of e.g. Common Club-rush (*Schoenoplectus lacustris*), Sea Club-rush (*Bolboschoenus maritimus*), Bulrush and Lesser Bulrush (*Typha latifolia & angustifolia*). The process of overgrowing is slow. Submerged vegetation is abundant, characterized by stoneworts (*Chara* spp.) and Perfoliate Pondweed (*Potamogeton perfoliatus*). There are ca. 20 islands, of which Pappilansaari is an old pasture ground with coastal and wooded meadows rich in vegetation. Shores are covered mainly by mixed forests. Northern part of the bay is crossed by a causeway.

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 of Lupinlahti include Thrift (*Armeria maritima* ssp. *Intermedia*-CR in Finnish Red List) Chaffweed (*Anagallis minima*-EN), and marestail species *Hippuris tetraphylla* (EN, Habitats Directive).

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 (VU in Finnish Red List) include Moorhen (*Gallinula chloropus*) with 7 pairs, Black-headed Gull (*Larus ridibundus*) with ca. 60 pairs, Lesser Spotted Woodpecker (*Dendrocopos minor*) and Great Reed Warbler (*Acrocephalus arundinaceus*) with 26 pairs. Lupinlahti is an important spawning area for several fish species in spring.

Threatened mammals include Russian Flying Squirrel (*Pteromys volans*-VU)

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.

Pappilansaari Island (6 ha) is a nationally important traditional rural biotope. Significant values also include 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:

a) and b) Surroundings of Kirkkojärvi are heavily built. A natural gas pipe crosses the lake. Northern edge of Lupinlahti is quite heavily built and in the southern part there are several holiday cottages. Hunting of waterfowl in autumn occurs in certain parts of

Lupinlahti and fishing is carried out by fyke nets, fish traps and lures especially in spring. Margins of the areas are used for training by Finnish Defence Forces.

(b) in the surroundings/catchment:

General land use includes mainly private forestry and agriculture, and also one town with surrounding suburban areas.

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

Kirkkojärvi is becoming landlocked because of fast overgrowing. The dredging carried out at Mullinkoski rapids, together with nutritious river waters and the earlier landfill, have accelerated the overgrowing. Building of the shores has increased at Lupinlahti and there are plans of constructing a new motorway on northern side of the bay. The present causeway with electric wire lines cause risk especially for larger birds. Boating has increased causing disturbance to the breeding and migrating birds. Hunting of waterfowl in autumn affects negatively on the site. American Mink (*Mustela vison*) and Raccoon Dog (*Nyctereutes procyonoides*) may cause damage to the breeding of birds in both areas.

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 as SPA, Lupinlahti and parts of Kirkkojärvi also as SCI. The areas are also included in the Waterfowl Habitats Conservation Programme. A restoration plan for Kirkkojärvi was established in 1988 and 1999. Water-level was raised by 0.8 m and new pools were dredged during 1994–95.

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 sites will be carried out under the Nature Conservation Act.

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 of Kirkkojärvi has been studied since 1933. The latest surveys were made in 1988, 1996–97 and 2000. The breeding bird fauna of Lupinlahti was surveyed in 1993. Observation of migratory birds has been regular since the early 1970s. The vegetation of Kirkkojärvi was surveyed in 1980, and of Lupinlahti in 1993.

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 schools of Hamina city.

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

The wetlands are very popular for birdwatching especially in spring. A birdwatching tower has been constructed at both Kirkkojärvi and Lupinlahti.

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

a) Southeast Finland 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.

Southeast Finland Regional Environment Centre, PO Box 1023, FIN-45101 Kouvola, Finland.

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

Grönlund, S. 2001. Kirkkojärven pesimälinnusto 2000. Manuscript. Kaakkois-Suomen ympäristökeskus.

Grönlund, S. & Hokkanen, T. 1994. Lupinlahden linnustoselvitys 1993. Manuscript. Kymen vesi- ja ympäristöpiiri.

Kymen vesi- ja ympäristöpiiri 1988. Kirkkojärven kunnostussuunnitelma 1988. Kymen vesi- ja ympäristöpiiri.

Käki, T. 1993. Lupinlahden vesikasvillisuuskartoitus 1993. Manuscript. Kymen 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.

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