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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PO Box 140, FIN-00251 Helsinki, Finland. Timo.Asanti@ymparisto.fi

2. Date this sheet was completed/updated:

January 2005

3. Country:

Finland

4. Name of the Ramsar site:

Krunnit Islands

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°23’N/ 24°47’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 four separate areas are situated in northwestern corner of the province of Oulu, in the Bothnian Bay, in the municipality of Ii, 16–26 km west–northwest of Ii village and 42–53 km northwest of Oulu city. The municipality (620 sq.km of land) has ca. 6 300 residents. Oulu city (328 sq.km of land), the nearest large town has ca. 120 800 residents.

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

7–0 m

9. Area: (in hectares)

4 435 ha

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

Krunnit Islands form a unique and virgin series of island landupheaval succession. Breeding bird populations are the most valuable in the Bothnian Bay archipelago, and the site is one of the most important summer-molting areas of Greylag Goose 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 & 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 a near-natural wetland type (archipelago in shallow marine waters) in the EU Boreal region, including 1 priority natural wetland habitat type of the EU Habitats Directive (boreal Baltic coastal meadows).

2) The sites host three vascular plants species listed at the EU Habitats Directive Annex II, these are *Hippuris tetraphylla* (EN in Finnish Red List), primrose species *Primula nutans* (EN) and water-plantain species *Alisma wahlenbergii* (VU). Threatened birds include Little Tern (*Sterna albifrons*) (EN in Finnish Red List), Caspian Tern (*S. caspia*) (VU), Temminck's Stint (*Calidris temminckii*) (VU) with 11 pairs, Black-headed Gull (*Larus ridibundus*) (VU) with 400 pairs, Lesser Black-backed Gull (*L. fuscus*) (VU) with 170 pairs and Lesser Spotted Woodpecker (*Dendrocopos minor*) (VU). Nine species of the EU Birds Directive Annex I breed in

the area, of which the most common are Arctic Tern (*Sterna paradisaea*) with 230 pairs, Common Tern (*S. hirundo*) with 45 pairs, Red-necked Phalarope (*Phalaropus lobatus*) with 16 pairs and Ruff (*Philomachus pugnax*) with 14 pairs.

4) The breeding waterfowl includes ca. 350 pairs of 13 species and the breeding waders ca. 280 pairs of 14 species. The area is one of the most important summer-molting areas of Greylag Goose in Finland with ca. 1 200 individuals. The number of molting Goosanders (*Mergus merganser*) (Finland's responsibility species) may reach 2 000 individuals. In autumn, the number of staging Whooper Swans (*Cygnus cygnus*) (Birds Directive) reach 250 individuals on peak days.

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 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 Svecokarelian schist belt. Bedrock is composed of tonalite-trondhjemite-granodioritic gneiss and migmatite.
Origins: Natural
Soil type: Mainly glacigenic ground moraine.
Water quality: General quality excellent. Oligotrophic–mesotrophic. Salinity ca. 1–3 ‰.
Depth of water: Mostly 1–8 m, maximum 42 m. Water-level usually low in spring and high in autumn and winter.
Climate: Duration of growing season ca. 140 days, mean annual temperature ca. +1 ^{o}C, mean annual rainfall ca. 500 mm. Waters ice-covered normally from early December to late May. Middle 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.

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: Marine: A, D, E & H

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

Inland:

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 marine waters
D – Rocky marine shores
E – Sand, shingle and pebble shores
H – Salt meadows

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 four separate groups of islands are located in the outer archipelago. The three largest islands are forested mainly by Downy Birch (*Betula pubescens*) and Pine (*Pinus sylvestris*). The northern part of Ulkokrunni Island is crossed by a low esker formation with heath-like vegetation. The area includes additionally ca. 20 small islands or islets which are either grassy, sandy or bare and rocky skerries. The shore

meadows are representative. Because of strong landupheaval (3 mm per year), the shores are in a continuous stage of succession. The land area covers ca. 360 ha.

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 mare's tail species *Hippuris tetraphylla* (EN in Finnish Red List), primrose species *Primula nutans* (EN) and water-plantain species *Alisma wahlenbergii* (VU), all listed also in the EU Habitats Directive Annex II.

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 iclude Little Tern (*Sterna albifrons*) (EN in Finnish Red List), Caspian Tern (*S. caspia*) (VU), Temminck's Stint (*Calidris temminckii*) (VU) with 11 pairs, Black-headed Gull (*Larus ridibundus*) (VU) with 400 pairs, Lesser Black-backed Gull (*L. fuscus*) (VU) with 170 pairs and Lesser Spotted Woodpecker (*Dendrocopos minor*) (VU). 9 species of the EU Birds Directive Annex I breed in the area, of which the most common are Arctic Tern (*Sterna paradisaea*) with 230 pairs, Common Tern (*S. hirundo*) with 45 pairs, Red-necked Phalarope (*Phalaropus lobatus*) with 16 pairs and Ruff (*Philomachus pugnax*) with 14 pairs. The breeding waterfowl includes ca. 350 pairs of 13 species and the breeding waders ca. 280 pairs of 14 species. The northernmost colony of Great Cormorant (*Phalacrocorax carbo sinensis*) in the Baltic Sea was established at Pohjanletto Island with 30 pairs in 2000. The population of Greylag Goose (*Anser anser*) (important game bird) is stable with 26 pairs. The area is one of the most important summer-molting areas of Greylag Goose in Finland with ca. 1 200 individuals. The number of molting Goosanders (*Mergus merganser*) (Finland's responsibility species) may reach 2 000 individuals. In autumn, the number of staging Whooper Swans (*Cygnus cygnus*) (Birds Directive) reach 250 individuals on peak days.

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.

22. Land tenure/ownership:

(a) within the Ramsar site:

Owned by a private foundation.

(b) in the surrounding area:

Private-owned and state-owned

23. Current land (including water) use:
(a) within the Ramsar site:

None significant.

(b) in the surroundings/catchment:

Fishing

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

Runaways of fur-farmed Arctic Fox (*Alopex lagopus*) cause occasionally 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 site is included in the Natura 2000 Network as a part of the Bothnian Bay Islands (7 136 ha), designated both as SPA and SCI. The area was established as Maakrunni Protected Area in 1936.
The whole site is a private protected area. Landing is prohibited in the breeding season of birds.

26. Conservation measures proposed but not yet implemented:
e.g. management plan in preparation; official proposal as a legally protected area, etc.

None known.

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 first surveyed in 1939, regularly since 1949, and latest extensive counts were carried out in 1997. The plant succession was studied in the 1960s and 1970s. The University of Oulu has a research station at Ulkokrunni Island.

28. Current conservation education:
e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The area is an important education site for the University of Oulu.

29. Current recreation and tourism:

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

None significant.

30. Jurisdiction:

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

a) North Ostrobothnia 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 Ostrobothnia Regional Environment Centre, PO Box 124, FIN-90101 Oulu, Finland.

32. Bibliographical references:

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

Helle, E., Helle, P. & Väisänen, R.A. 1988. Population trends among archipelago birds in the Krunnit sanctuary, northern Gulf of Bothnia, in 1939–1985. Ornis Fennica 65.

Hilden, O. & Hario, M. 1993. Muuttuva saaristolinnusto. Forssan kirjapaino Oy.

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.

Pulliainen & Tynjälä 1984, Vartiainen, T. 1980. Succession of island vegetation in the land uplift area of the northernmost Gulf of Bothnia, Finland. Acta Bot. Fennica 115.

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. 1998. Krunnien pesimälinnusto 1997. Manuscript. Helsingin yliopisto, eläintieteen laitos.