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:

Bird Wetlands of Hailuoto Island

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°00’ N / 24°45’ 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 separate areas (five larger and ten smaller areas) are situated in western part of the province of Oulu, in the Bothnian Bay, in the municipality of Hailuoto, 0.5–7 km from Hailuoto village and 28–42 km west of Oulu city. The municipality (195 sq.km of land) has ca. 1 000 residents. Oulu city (328 sq.km of land) has ca. 120 800 residents.

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

22–0 m.

9. Area: (in hectares)

6 512 ha

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

A unique wetland area for breeding and migrating birds, including important threatened and endemic plant communities, and one of the best representatives of ladupheaval’s natural effects.

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, 5 & 8

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 unique example of near-natural wetland types (dominated by shallow marine waters) in the EU Boreal region, including 4 priority natural wetland habitat types of the EU Habitats Directive Annex I (coastal lagoons, boreal Baltic coastal meadows, Fennoscandian deciduous swamp woods, bog woodland).

2) National threatened vascular plants include Four-leaved Mare’s tail (*Hippuris tetraphylla*) (EN in Finnish Red List, arctic group), Siberian Primrose (*Primula nutans*) (EN, arctic group), Arctic Salt-grass (*Puccinellia phryganodes*) (EN, arctic group) and Submerged Water-plantain (*Alisma wahlenbergii*) (VU, endemic), all

listed also in the EU Habitats Directive Annex II, and Marsh Samphire (*Salicornia europaea*) (EN ? Red List).
Threatened birds include 10 species, including e.g. Dunlin (*Calidris alpina schinzii*) (CR in Finnish Red List) with 17 pairs, Black-tailed Godwit (*Limosa limosa*) (EN), Little Tern (*Sterna albifrons*) (EN + Bird Directive A.I), Scaup (*Aythya marila*) (VU) with 20 pairs, Temminck's Stint (*Calidris temminckii*) (VU) with 17 pairs, Black-headed Gull (*Larus ridibundus*) (VU) with 1 000 pairs and Caspian Tern (*S. caspia*). About 27 species of the EU Birds Directive Annex I breed in the area, of which the most common are Ruff (*Philomachus pugnax*) with ca. 300 pairs, Arctic Tern (*S. paradisaea*) with about 230 pairs, Common Tern (*S. hirundo*) with ca. 100 pairs, Wood Sandpiper (*Tringa glareola*) with ca. 80 pairs, Slavonian Grebe (*Podiceps auritus*) with >30 pairs, Crane (*Grus grus*) with >30 pairs, Red-necked Phalarope (*Phalaropus lobatus*) with >30 pairs, Marsh Harrier (*Circus aeruginosus*) with >20 pairs and Whooper Swan (*Cygnus cygnus*) with 14 pairs. Scarce species include e.g. Bittern (*Botaurus stellaris*), Corncrake (*Crex crex*) (globally VU) and Spotted Crake (*Porzana porzana*).

4) Supports endemic and isolated plant communities dependent on special circumstances and provides a refuge for a nearly vanished bird species during migration. (see section 19)
The breeding waterfowl includes ca. 2 000 pairs of 23 species. The most abundant of Finland's responsibility species are Tufted Duck (*Aythya fuligula*) with more than 400 pairs, Red-breasted Merganser (*Mergus serrator*) with more than 200 pairs, Wigeon (*Anas penelope*) with more than 100 pairs and Goosander (*M. merganser*) with more than 100 pairs. The population (>200 pairs) of Greylag Goose (*Anser anser*) (important gamebird) is the strongest in Finland. The breeding waders include more than 1 500 pairs of 19 species.

5) Supports regularly 20 000 or more waterbirds during migration.
The importance is notable in migration and molting periods. About 10 000–20 000 individuals of waterfowl rest at the wetlands in the peak seasons. The most abundant are Finland's responsibility species: Goosander, Goldeneye (*Bucephala clangula*), Tufted Duck, Wigeon and Teal (*Anas crecca*). Even summer flocks of waterfowl reach 8 000 Goosanders and 2 000 Goldeneyes at Isomatala. The bays form the most important staging area for Whooper Swan in the Bothnian Bay, with peak numbers up to 2 000 individuals. According to estimates more than 35% of the overwintering population of the Continental Europe migrate via Hailuoto Island and nearby coasts of Siikajoki and Liminganlahti Bay. Even the summer flocks include 500 individuals at Isomatala. The highest numbers of staging Bean Geese (*Anser fabalis*) (Finland's responsibility species) reach 1 000 individuals in spring. The staging population of Lesser White-fronted Goose (*Anser erythropus*) (CR, globally VU) is estimated (during the 1990s) at 60 individuals in spring. Also thousands of waders rest on the low shores on the best days of spring and autumn, the most abundant being the Dunlin, Ruff and Wood Sandpiper.

8) The shallows are very important for reproduction of many fish species of commercial value, so it is an important habitat and spawning area for Whitefish (*Coregonus lavaretus*), Perch (*Perca fluviatilis*) and Pike (*Esox lucius*)

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 Jotnian sandstones and siltstones. Bedrock is composed of siltstone and shale.
Origins: Natural
Soil type: Mainly littoral gravel and sand with smaller areas of silt and clay and glacigenic ground moraine.
Water quality: General quality good in sea areas. Mesotrophic in sea areas. Salinity ca. 1–4 ‰ in sea areas.
Depth of water: Mostly 1–4 m. Water-level usually low in spring and high in autumn and winter.
Climate: Duration of growing season ca. 145 days, mean annual temperature ca. +1 ºC and mean annual rainfall ca. 500 mm. Waters ice-covered normally from early November 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: Coastal, marine: A, E, J, H

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

Inland: Xf, M , U, Ts, Xp, W, Tp &Y

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
E – Sand, shingle and pebble shores, dune systems
J – Coastal brackish lagoons
Ts – Seasonally flooded meadows and sedge marshes
H – Salt meadows
Xp – Forested peatlands
Xf – Seasonally flooded forests
W – Shrub-dominated wetlands
U – Non-forested peatlands
M – Permanent rivers and streams
Tp – Permanent freshwater pools
Y – Freshwater springs

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 northern shore of Hailuoto Island covers 3 671 ha, Kirkkosalmi 1 019 ha, Isomatala–Maasyvänlahti 1 531 ha and Ojakylänlahti–Kengänkari 291 ha. The area includes >4 000 ha of water. The site is characterized by extensive reedy bays, coastal meadows and sandy shores. Strong landupheaval (3 mm per year) creates new shores rapidly. The northern shore of Hailuoto Island is one of the best representatives of the

landupheaval's natural effects. Almost nowhere else the long series of succession of bogs has remained in natural condition. The flora includes several species of brackish water and also species of the northern *Primula nutans* -group. Waterline vegetation includes growths of e.g. sedge species *C. mackenziei*, Common Spike-rush (*Eleocharis palustris*) and Fiorin (*Agrostis stolonifera*). Coastal meadows are characterized by various sedge species, Red Fescue (*Festuca rubra*), Narrow Small-reed (*Calamagrostris stricta*) and Salt-marsh Rush (*Juncus gerardii*). The waters are shallow and aquatic vegetation is abundant.

The northern shore of Hailuoto Island is formed by a wide esker area. Dunes of various types and regular drift lines, with narrow swamps between, occur on the shores. A series of bogs of different ages in an interval of 1 500 years is represented. Wrinkling flads and gloes are typical. The gloes are reminiscents of *Potamogeton*-type lakes with quaking bogs on shores. The largest lake covers 16 ha. Coastal meadows of Pökönnokka Cape have been grazed or mowed almost continuously until today. Zones of Downy Birch (*Betula pubescens*) and Tea-leaved Willow (*Salix phylicifolia*) occur near shores and further inland there are dry heaths with sparse Pine (*Pinus sylvestris*) forest.

Kirkkosalmi is an eutrophic lake, a former sea bay, which has wrinkled apart from the sea as a consequence of the landupheaval. Common Reed (*Phragmites australis*) and Water Horsetail (*Equisetum fluviatile*) cover large areas. At Viinikanlahti Bay there are traditional rural biotopes, wooded pastures, sedge meadows and growths of Glaucous Bulrush (*Schoenoplectus tabernaemontani*). Coastal meadows, bush-zones and deciduous forests are typical of Pöllännokka–Itänenä. Most of the area is surrounded by agricultural fields.

Sandbanks and silty hollows are typical of Isomatala–Maasyvänlahti area. Small islets, reefs and shoals are abundant. The special characters of landupheaval are most representative at Isomatala–Maasyvänlahti. Open ground dominates the landscape: there are sands, meadows, swampy areas and reedbelts along the shores. Further inland there is a zone of herb-rich forest with Grey Alder (*Alnus incana*), Rowan (*Sorbus aucuparia*) and Bird Cherry (*Prunus padus*) as the dominant trees. Tömppä Meadow is one of the largest coastal meadows in the Bothnian Bay. There are e.g. representative communities of Reflexed Saltmarsh-grass (*Puccinellia distans*) and Arctic Salt-grass (*P. phryganodes*). Ojakylänlahti is a sheltered sea bay fringed by coastal meadows and reedbelts, including the small island of Kengänkari.

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 flora contains two very special groups, the endemic species of the Gulf of Bothnia and the so-called *Primula nutans* –group of arctic species in isolation from the main distribution areas of the Arctic Ocean. Threatened vascular plants include Four-leaved Mare's tail (*Hippuris tetraphylla*) (EN in Finnish Red List, arctic group), Siberian Primrose (*Primula nutans*) (EN, arctic group), Arctic Salt-grass (*Puccinellia phryganodes*) (EN, arctic group) and Submerged Water-plantain (*Alisma*

wahlenbergii) (VU, endemic), all listed also in the EU Habitats Directive Annex II, and Marsh Samphire (*Salicornia europaea*) (EN, Finnish Red List). Near-threatened vascular plants include more than 7 species. Fairly common endemic species include Bothnian Hair-grass (*Deschampsia bottnica*) and Bothnian Eyebright (*Euphrasia bottnica*).

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.***

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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.

Hailuoto Island is a nationally important landscape area. The site includes three nationally (146 ha), three provincially (44 ha) and five locally (25 ha) important traditional rural biotopes. Significant values also include scientific research, environmental education, birdwatching and outdoor recreation.

22. Land tenure/ownership:
(a) within the Ramsar site:

Private-owned (3 % state-owned).

(b) in the surrounding area:

private-owned

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

Intense hunting of waterfowl in autumn. Fishing occurs to some extent.

(b) in the surroundings/catchment:

Agriculture, forestry and fishing are carried out in the surroundings.

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

The nutrient-rich waters from surrounding fields and the dredging of a discharge channel in Kirkkosalmi in the 1960s have accelerated the overgrowing of the area. The hunting of waterfowl is intense in autumn, affecting negatively on the site. The building of holiday cottages has increased strongly. The decreased grazing have caused increase of thickets and overgrowing of meadows. Common Reed inhabits meadows and causes overgrowing in shallow bays. Increasing recreational use causes local disturbance along the shore areas. The planned road from Hailuoto to the mainland would cross the area of Isomatala. (The road project stays as a reservation in provincial plan, but is hardly activated in the near future if at all).

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, and in the Helsinki Commission (HELCOM) network of Baltic Sea Protected Areas. The areas, or parts of them, are also included in the Conservation Programmes of Waterfowl Habitats, Mires, Eskers and Shores. Private protected areas cover ca. 900 ha at Isomatala–Maasyvänlahti.

Mowing and grazing have been carried out in several areas during the 1990s. A plan for sustainable use for Isomatala–Maasyvänlahti was established in 1998; management measures have been carried out under the EU Life project in 1995–98. A restoration plan for Kirkkosalmi was established in 1990; dredging and mowing of reedbeds and meadows have been carried out to prevent overgrowing.

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 outside the already protected areas will be carried out under the Nature Conservation Act and Water Act. Plans include e.g. the establishment of several restricted areas where access would be prohibited in the breeding season of birds. A preliminary management and land use plan was established for Isomatala–Härkäsäikkä Protected Area in 1998.

27. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Studies on bird fauna and flora have been carried out since the late 19th century, intensively since the 1980s. Bird populations and impact of restoration measures are monitored annually in several areas. Hailuoto Island is an important study site for Finnish Game and Fisheries Research Institute and for Biological Institute of Oulu University, which runs a research station at Marjaniemi Cape.

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

Various educational themes are carried out by e.g. Oulu University.

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

Four bird-watching towers, one hide and one nature trail have been constructed. The facilities locate in both Kirkkosalmi (two bird-watching towers, nature trail, hide) and Isomatala–Maasyvänlahti (two bird-watching towers).

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.

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.

Markkola, J. & Merilä, E. 1990. Kirkkosalmen kunnostuksen seurantaohjelma. Mare Botnicum, Oulun vesi- ja ympäristöpiiri.

Markkola, J. & Merilä, E. 1998. Hailuodon Ison Matalan – Härkäsäikän luonnonsuojelualueen käyttö- ja hoitosuunnitelmaehdotus. Liminganlahti Life Nature-project, Oulu. (English summary: The preliminary management plan for the Life-Nature protected area of Iso Matala – Härkäsäikkä on the Isle of Hailuoto, Bothnian Bay, Finland).

Markkola, J., Merilä, E. & Polojärvi, P. 1996. Hailuodon kirkkosalmen linnusto vuonna 1994. Mare Botnicum, Oulun vesi- ja ympäristöpiiri.

Pessa, J. & Anttila, I. 1998. Liminganlahden ja Ison Matalan–Maasyvänlahden kestävän käytön yleissuunnitelma. Alueelliset ympäristöjulkaisut 90, Pohjois-Pohjanmaan ympäristökeskus. (English summary: Plan for sustainable use of wetlands of Liminganlahti and Iso Matala–Maasyvänlahti).

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Siira, J. 1984. On the vegetation and ecology of the primary saline soils of Bothnian Bay. Aquilo Ser. Bothnica 20.

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Vainio, M. 1988. Hailuodon Kirkkosalmen kasvillisuuden ja kasviston kartoitus kesällä 1984. Vesi- ja ympäristöhallituksen monistesarja 135.

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.

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