

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 2004

3. Country:

Finland

4. Name of the Ramsar site:

Vassorfjärden 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):

63° 12' N / 21° 59' 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 the province of Western Finland, on the coast of the Quark between the Gulf of Bothnia and the Bothnian Bay and in the municipalities of Maksamaa and Mustasaari, 14 km northeast of Mustasaari village and 18 km northeast of Vaasa city. The municipalities (975 sq.km of land) have ca. 17 700 residents. Vaasa city (186 sq.km) has ca. 56 700 residents.

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

10–0 m

9. Area: (in hectares)

1 537 ha

10. Overview:

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

The estuary is one of the largest in Finland with a diverse and representative wetland bird fauna both in breeding and migration periods. The reed zone is exceptionally wide and water depth is low in the whole wetland.

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 (estuarine waters) in the EU Boreal region, including 1 priority natural wetland habitat type of the EU Habitat Directive, the Fennoscandian deciduous swamp woods.

2) Threatened birds listed in the Finnish Red List as VU include Black-headed Gull (*Larus ridibundus*) with 1 100 pairs and Lesser Black-backed Gull (*L. f. fuscus*). Four species of the EU Birds Directive Annex I breed in the area: Marsh Harrier (*Circus aeruginosus*), Ruff (*Philomachus pugnax*), Wood Sandpiper (*Tringa glareola*) and Crane (*Grus grus*). The breeding waterfowl includes ca. 300 pairs of 13 species. Among threatened species is the Russian Flying Squirrel (*Pteromys volans*) (Finnish Red List - VU).

4) The estuary is an important staging area for waterfowl and waders during migration and molting periods. In autumn, the highest daily counts of Finland's responsibility species reach e.g. up to 200 individuals of Whooper Swans (*Cygnus cygnus*) (Birds Directive), 1 300 Goosanders (*Mergus merganser*), 450 Teals (*Anas crecca*), 300 Wigeons (*A. penelope*) and 60 Bean Geese (*Anser fabalis*). Waders are abundant both in spring and autumn with e.g. up to 1 000–2 000 Ruffs (*Philomachus pugnax*) (Birds Directive) and 400 Wood Sandpipers. In spring, up to 110 Temminck's Tints (*Calidris temminckii*) (VU) can be observed.

Bird lists (Status in Finnish Red List, BD=Birds Directive Annex I, FRS= Finland's Responsibility Species):

Autumn, single counts, individuals: Whooper Swan (*Cygnus cygnus*) 200 (BD, FRS), Bean Goose (*Anser fabalis*) 60 (NT, FRS), Wigeon (*Anas penelope*) 300 (FRS), Teal (*Anas crecca*) 450 (FRS), Mallard (*Anas platyrhynchos*) 1500, Pintail (*Anas acuta*) 80, Shoveler (*Anas clypeata*) 120, Pochard (*Aythya ferina*) 100, Goosander (*Mergus merganser*) 1300 (FRS), Coot (*Fulica atra*) 140, Ruff (*Philomachus pugnax*) 1200 (NT, BD), Wood Sandpiper (*Tringa glareola*) 380 (BD, FRS).

Spring single counts, individuals: Tufted Duck (*Aythya fuligula*) 250 (FRS), Temminck's Stint (*Calidris temminckii*) 110 (VU), Broad-billed Sandpiper (*Limicola falcinellus*) 185 (NT, FRS), Ruff (*Philomachus pugnax*) 1800 (NT, BD), Wood Sandpiper (*Tringa glareola*) 400 (BD, FRS), Red-necked Phalarope (*Phalaropus lobatus*) 40 (BD), Little Gull (*Larus minutus*) 310 (FRS).

Breeding waterfowl, pairs: Great Crested Grebe (*Podiceps cristatus*) 49, Wigeon (*Anas penelope*) 50 (FRS), Teal (*Anas crecca*) 40 (FRS), Pintail (*Anas acuta*) 5, Shoveler (*Anas clypeata*) 3, Garganey (*Anas querquedula*) 3, Tufted Duck (*Aythya fuligula*) 20 (FRS), Pochard (*Aythya ferina*) 10, Goldeneye (*Bucephala clangula*) 39 (FRS), Red-breasted Merganser (*Mergus serrator*) 2 (FRS), Goosander (*Mergus merganser*) 13 (FRS), Coot (*Fulica atra*) 9.

Breeding numbers of some other wetland species, pairs: Little Gull (*Larus minutus*) 28 (FRS), Black-headed Gull (*Larus ridibundus*) 1100 (VU), Crane (*Grus grus*) 3 (BD), Marsh Harrier (*Circus aeruginosus*) 2 (NT, BD).

Other breeding waders (a few pairs): Lapwing (*Vanellus vanellus*), Snipe (*Gallinago gallinago*), Curlew (*Numenius arquata*) (FRS), Redshank (*Tringa totanus*), Wood Sandpiper (*Tringa glareola*) (BD, FRS), Common Sandpiper (*Actitis hypoleucos*) (FRS).

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 Svecokarelian schist belt and in Volcanic sedimentary zone of SW Finland. Bedrock is composed of mica gneisses and mica schists with granodiorite, tonalite and quartz diorite.

Origins: Natural

Soil type: Mainly silt and clay and glacial ground moraine.

Water quality: General quality passable. River Kyrönjoki dystrophic.

Depth of water: Shallow, mostly <5 m. Water-level high in spring because of melting snow.

Climate: Duration of growing season ca. 160 days, mean annual temperature ca. +3 °C, mean annual rainfall ca. 550 mm. Ice- and snow-covered normally from early December to early 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: Coastal: F, A

<u>A</u>	B	C	D	E	<u>F</u>	G	H	I	J	K	Zk(a)
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Inland: Ts & Xf

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

F – Estuarine waters

A – Sea bays

Ts – Seasonally flooded meadows

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.

Vassorfjärden is a long and winding sea bay, formed by River Kyrönjoki estuary. Northern part is composed of bays Österfjärden and Söderfjärden. The area includes ca. 1 200 ha of water. The waters are shallow because of silt brought by the river. The reed

zone is very extensive, formed by Common Reed (*Phragmites australis*) in north and Common Club-rush (*Schoenoplectus lacustris*) in south. Shores are diverse with silt-rocky and turf shores and extensive sedge (*Carex* spp.) meadows. Because of sedimentation and land upheaval the vegetation is in a continuous process of change. The wetland is for the major part surrounded by forests and on the north-western side also by 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 (VU in Finnish Red List) include Black-headed Gull (*Larus ridibundus*) with 1 100 pairs and Lesser Black-backed Gull (*L. f. fuscus*). 4 species of the EU Birds Directive Annex I breed in the area: Marsh Harrier (*Circus aeruginosus*), Ruff (*Philomachus pugnax*), Wood Sandpiper (*Tringa glareola*) and Crane (*Grus grus*). The breeding waterfowl includes ca. 300 pairs of 13 species.

The estuary is an important staging area for waterfowl and waders during migration and molting periods. In autumn, the highest daily counts of Finland's responsibility species reach e.g. up to 200 individuals of Whooper Swans (*Cygnus cygnus*) (Birds Directive), 1 300 Goosanders (*Mergus merganser*), 450 Teals (*Anas crecca*), 300 Wigeons (*A. penelope*) and 60 Bean Geese (*Anser fabalis*). Waders are abundant both in spring and autumn with e.g. up to 1 000–2 000 Ruffs (*Philomachus pugnax*) (Birds Directive) and 400 Wood Sandpipers. In spring, up to 110 Temminck's Tints (*Calidris temminckii*) (VU) can be observed. 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.

Significant values include birdwatching.

22. Land tenure/ownership:

(a) within the Ramsar site:

Private-owned (1 % state-owned).

(b) in the surrounding area:

Private-owned.

23. Current land (including water) use:

(a) within the Ramsar site:

Fishing and hunting of waterfowl in autumn occurs in the area.

(b) in the surroundings/catchment:

Forestry and agriculture are carried out in the surroundings. Eastern shores are densely built, including holiday cottages.

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

Dredging of boating channels, embankment creation and acid waters leaking from embankments have destroyed vegetation in many places, and wetland area has diminished by hundreds of hectares. The former significance as an important spawning area has weakened as fish and bottom fauna have disappeared in certain areas. Eastern shores are densely built and a main road crosses southern edge of the bay. 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 site is included in the Natura 2000 Network, designated both as SPA and SCI, and in the Waterfowl Habitats Conservation Programme. Hunting of waterfowl is prohibited in an area of ca. 100 ha, which is based on the decision of the local Game Management Society.

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.

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 1982–84 and in 1996. The macrophyte vegetation was studied in 1982.

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.

A birdwatching tower has been constructed.

30. Jurisdiction:

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

a) West 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.

West Finland Regional Environment Centre, PO Box 262, FIN-65101 Vaasa, Finland.

Mr. Harri Hongell

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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.

Jaaksi, V. 1985. Vassorfjärdenin ja Österfjärdenin pesimälinnusto 1982–84. Siipipeili 1.

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.

Meriläinen, J. 1984. Macrophyte vegetation at the River Kyrönjoki estuary in 1982. Vesientutkimuslaitoksen julkaisuja 57, Vesihallitus.

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