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:

Pernajanlahti Bay

5. Map of site included:
Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps.

The green line is a highway, which is not included in the site (although it looks to be so in the picture).
Some of the islands have not been included because of land use pressures etc. (the boundaries are convergent with Natura 2000).

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°26' N / 26°00' 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 Southern Finland, on the coast of the Gulf of Finland, in the municipality of Pernaja, 1 km west of Pernaja village. The municipality (418 sq.km of land) has ca. 3 800 residents.

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

10–0 m

9. Area: (in hectares)

1 143 ha

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

The site is one of the longest sea bays in the southern coast of Finland, with salinity increasing gradually from 0 % in the estuary of two rivers to 5 % in the mouth of the bay. The bay is an important area both for breeding and migrating wetland birds.

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**	**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, estuarine waters) in the EU Boreal region, including 1 priority natural habitat type (boreal Baltic coastal meadows).

2) Threatened birds (VU in Finnish Red List) include Black-headed Gull (*Larus ridibundus*) with ca. 350 pairs, Moorhen (*Gallinula chloropus*), Great Reed Warbler (*Acrocephalus arundinaceus*) and Ortolan Bunting (*Emberiza hortulana*). 10 species of the EU Birds Directive Annex I breed in the area, including e.g. Bittern (*Botaurus stellaris*), Marsh Harrier (*Circus aeruginosus*), sporadically Montagu's Harrier (*C. pygargus*), Spotted Crake (*Porzana porzana*), Corncrake (*Crex crex*-globally VU) and Crane (*Grus grus*).

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 South Finland high metamorphic area. Bedrock is composed mainly of microline granite, granodiorite, tonalite and quartz diorite.
Origins: Natural
Soil type: Mainly silt and clay.
Water quality: General quality passable, in southernmost part satisfactory. Eutrophic. Salinity 0–5 ‰.
Depth of water: Ca. 1–7 m. Water-level usually low in spring and high in autumn and winter.
Climate: Duration of growing season ca. 170 days, mean annual temperature ca. +4 ºC, 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).

Data not available.

16. Hydrological values:
Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

As a sea bay the site has no particular hydrological values. As an estuary it functions with sediment trapping (reducing e.g. agricultural nutrient load going to sea).

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: A, F & 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 – Shallow sea bays
F – Estuarine waters
H – Brackish marshes

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

Pernajanlahti is a narrow, over 10 km long sea bay with numerous islands. The area includes ca. 1 100 ha of water. The northern part is composed of River Koskenkylänjoki

estuary. Aquatic vegetation is very abundant and reed zone extensive in northern parts. Common Reed (*Phragmites australis*) is the dominant species. Common Club-rush (*Schoenoplectus lacustris*), Grey Club-rush (*S. tabernaemontani*) and Lesser Bulrush (*Typha angustifolia*) are abundant. Floating-leaved vegetation is dominated by Yellow Water-lily (*Nuphar lutea*) and White Water-lily (*Nymphaea alba*). Shore areas include coastal meadows and some fine wooded meadows. Most of the bay is surrounded 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.***

Near-threatened vascular plants include Greater Pond-sedge (*Carex riparia*).

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.***

See information in section 12.

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.

The site is a part of a nationally important landscape area. In past, the bay has been an important waterway and the earliest settlements date back to Bronze Age. The western shores are characterized by three medieval manors with traditional cultural characters. Significant values also include 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 and fishing occur in certain parts of the area.

b) in the surroundings/catchment:

Agriculture is 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:

A motor-traffic way was constructed in 1983–87 through Gammelbyviken Protected Area on northern edge of the bay. The highway with increasing traffic causes disturbance to the birds. The numbers of breeding waders have declined and some demanding species of wetlands have vanished. Conservation value of the wetland bird community has declined by 26 % in the manipulated area. Overgrowing of coastal meadows has accelerated after grazing was stopped in the late 1980s. The motor-traffic way will be enlarged into motorway in the near future, which will cause further negative affects on the site.

Hunting of waterfowl in autumn and fishing affects negatively on the site. A motorboat harbour, constructed in Gammelbyviken Protected Area in the mid 1980s, has increased boat traffic and disturbance on the bay. A power line crossing the bay causes risk for larger bird species. 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 as a part of the Protected Sea Area of Pernajanlahti Bay and Pernaja Archipelago (65 760 ha), designated both as SPA and SCI, and in the Helsinki Commission (HELCOM) network of Baltic Sea Protected Areas as a part of BSPA 25 "Eastern Gulf of Finland National Park"(the site itself is not a part of the Park). Most of the area is also included in the Waterfowl Habitats Conservation Programme.
Private protected areas cover about 650 ha.

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

The conservation of the Natura 2000 site outside the already protected areas will be carried out under the Nature Conservation Act. Plans include noise reduction measures and management of coastal meadows.

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 and migrating bird fauna was studied in 1982–96. Impact of the motor-traffic way on birds was studied in 1987–92, producing the first post-project analysis (PPA) of ecological impacts of highway construction and traffic in Finland.

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.

Head of the bay is a popular birdwatching site in migration periods.

30. Jurisdiction:

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

a) Uusimaa 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.

Uusimaa Regional Environment Centre, PO Box 36, FIN-00521 Helsinki, Finland.

32. Bibliographical references:

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

Hirvonen, H. & Rintala, J. 1995. Moottoriliikennetien vaikutukset Pernajanlahden linnustoon: Ympäristövaikutusten jälkiarviointi. Tielaitoksen tutkimuksia 2, Uudenmaan tiepiiri, kehittämiskeskus.

Hirvonen, H., Heinonen, M. & Rintala, J. 1996. Pernajanlahden ekologinen seurantatutkimus: Linnustomuutosten seuranta 1996. Helsingin yliopisto, Ekologian ja systematiikan laitos, Populaatiobiologian osasto.

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.