

Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes 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. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Ann Wahlström, Swedish Environmental Protection
Agency, S-106 48 Stockholm, Sweden Tel. +46 8 698
14 51, fax +46 8 698 10 42. E-mail:
ann.wahlstrom@naturvardsverket.se

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Designation date

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Site Reference Number

Niklas Kemi, County Administrative Board of Norrbotten, S-971 86 Luleå, Sweden

2. Date this sheet was completed/updated:

February 2009

3. Country:

Sweden

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Laidaure

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

- a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a **hard copy** (required for inclusion of site in the Ramsar List): ;
- ii) an **electronic format** (e.g. a JPEG or ArcView image) ;
- iii) a **GIS file providing geo-referenced site boundary vectors and attribute tables** .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The borderline follows the topography of the area and delimits the site from surrounding mountains. To the west it also includes the delta of River Rapa.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

67°08'N 018°17'E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The Laidaure site is situated in the mountainous area of northern Sweden approximately 100 km from the Swedish/Norwegian border, about 150 km west of the town of Gällivare, in the county of Norrbotten (population 250 602), municipality of Jokkmokk (pop. 5 406).

10. Elevation: (in metres: average and/or maximum & minimum)

Min.–max. 494–520 metres

11. Area: (in hectares)

4 319 hectares

12. General overview of the site:

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

The site comprises a freshwater lake lying between the mountains of Sarek National Park and a zone of coniferous forests. The natural delta of the River Rapa, which forms part of Lake Laidaure, is unique by Swedish standards and represents a landscape of great scenic value. It is one of the most active deltas in the mountain region, and the water, land and islets change form and character continually. The land is dominated by *Salix* vegetation. Alpine grassland with high biodiversity grows on the calcareous mountain slopes. The delta is the most important bird locality in the Sarek region of Sweden, especially important as a breeding ground for ducks and waders. The Rapa valley is also known to support a large amount of elks (*Alces alces*).

13. Ramsar Criteria:

Tick the box under 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). All Criteria which apply should be ticked.

1 •	2 •	3 •	4 •	5 •	6 •	7	8 •	9
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14. Justification for the application of each Criterion listed in 13 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. The delta in lake Laidaure is a rare example of a natural wetland type in the alpine region, and the site includes representative examples of wetlands such as the Natura 2000 habitats *Alpine rivers and the herbaceous vegetation along their banks* (3220) and *Transitions mires and quaking bogs* (7140).

2. The site supports nationally threatened species, including Wolverine *Gulo gulo* (EN), Gyrfalcon *Falco rusticolus* (EN), Hen harrier *Circus cyaneus* (VU), Golden eagle *Aquila chrysaetos* (NT), White-tailed eagle *Haliaeetus albicilla* (NT) and Ruff *Philomachus pugnax* (VU), as well as a number of other near threatened (NT) species. The site also supports species included in Annex 1 of the EU Birds Directive and Annexes 2 and 4 of the EU Habitats Directive (see item 22).

3. The site supports populations of animal species important for maintaining the biological diversity of the alpine region, including rich avian fauna with a number of nationally red-listed species and species of Annex 1 of the EU Birds Directive (see item 22).

4. The site provides important staging areas and breeding localities for ducks, waders and birds of prey (see item 22). It also provides refuge from storms in the high mountains and a stop-over site for migrating birds waiting for the disappearance of ice in higher altitudes.

15. 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:

Alpine

b) biogeographic regionalisation scheme (include reference citation):

European Environment Agency. 2003. Europe's environment: the third assessment, p 231. Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

16. 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.

Owing to the large quantities of glacial outwash brought down by the river from the mountains, the delta of the Rapa River is expanding into the northern end of lake Laidaure and therefore changes character continuously. The delta is mainly sandy, with numerous lagoons and levees.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The bedrock in the area is mainly acid. Some parts consist of alkaline bedrock (limestone, marble). Moraine is the dominating soil type in the area and open bedrock is common at higher altitudes. Just outside the site, in the west, there are high mountains lying in the Sarek National Park, some of them reaching over 2,000 meters above sea level. Some parts have steep mountain slopes falling right into the delta ground.

18. Hydrological values:

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

The delta of Rapa River is the most prominent delta formation in the country and its continuous growth and large sediment transport is unique in Fennoscandia.

19. 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 • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • Q • 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.

O, L, M, W

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Laidaure is well known as a bird location. Subalpine birch forest *Betula pubescens* ssp. *czerepanovii* dominates in the area but in the east there are parts containing coniferous woodland. In the delta, *Salix* vegetation is dominating. In some south exposed areas with easily weathered bedrock of limestone, the vegetation on the alpine heaths and grasslands get very lush with a high diversity of species.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.*

There is a high diversity of plants along the Rapa River and the Laidaure delta area. For example you can find moor-king (*Pedicularis sceptrum-carolinum*), arctic butterbur *Petasites frigidus*, yellow marsh marigold (*Caltha palustris* ssp. *palustris*), cut-leaved potentilla (*Potentilla multifida*), rock speedwell (*Veronica fruticans*) and baneberry (*Actaea spicata*) in the area.

22. 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.*

The site supports a rich avian fauna, including several bird species which are nationally red-listed (marked with *EN/VU/NT*) and/or listed in Annex 1 of the EU Bird Directive (marked with *), such as Merlin *Falco columbarius* (*), Gyrfalcon *Falco rusticolus* (*EN), Hen harrier *Circus cyaneus* (*VU), Golden eagle *Aquila chrysaetos* (*NT), White-tailed eagle *Haliaeetus albicilla* (*NT), Osprey *Pandion haliaetus* (*), Ruff *Philomachus pugnax* (*VU), Black-throated diver *Gavia arctica* (*), Red-throated diver *Gavia stellata* (*NT), Golden plover *Pluvialis apricaria* (*), Wood sandpiper *Tringa glareola* (*), Arctic tern *Sterna paradisaea* (*), Hawk owl *Surnia ulula* (*), Tengmalm's owl *Aegolius funereus* (*), Bluethroat *Luscinia svecica* (*), Red-necked phalarope *Phalaropus lobatus* (*), Whooper swan *Cygnus cygnus* (*), Short-eared owl *Asio flammeus* (*NT), Dotterel *Charadrius morinellus* (*), Pintail *Anas acuta* (NT), Teal *Anas crecca*, Long-tailed skua *Stercorarius longicaudus* and Lapland bunting *Calcarius lapponicus*.

Mammals at the site include Brown bear *Ursus arctos* (NT) and Wolverine *Gulo gulo* (EN), the first species included in Annex 4, and the second species in the Annex 2 of the EU Habitats Directive.

23. Social and cultural values:

a) Describe if the site has any general social and/or 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 area is frequently used for reindeer grazing.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

a) within the Ramsar site:

About 58 percent of the site is owned by the state, the rest by the Swedish Society for Nature Conservation (an NGO) and private owners.

b) in the surrounding area:

Part of the surrounding area is private, but the bordering National Park (Sarek) and Nature Reserve are state-owned.

25. Current land (including water) use:

a) within the Ramsar site:

The area has a low impact of human activities. Reindeer husbandry has been present in the area for a long time. The wetland is used mainly for hiking and fishing. The King's Trail (Kungsleden) - a hiking path from north to south through the Swedish mountains - passes through the valley.

b) in the surroundings/catchment:

The main part of the surrounding area is set aside for nature conservation purposes (Sarek National Park and Ultevis fjällurskog Nature Reserve), and used for reindeer farming and recreational purposes.

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

a) within the Ramsar site:

There is increasing pressure on the area from tourism/recreation – especially canoeing. In the past there have been proposals to regulate the waterways in order to generate hydro-electric power, but to date these proposals have not been accepted for implementation.

b) in the surrounding area:

No major threats are identified as most of the area is protected as National Park or Nature Reserve.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Since 1996, the western parts of Laidaure site have been designated as a World Heritage Site. The Laidaure site is listed as being of national importance for nature conservation, and is also covered by the special provisions in the Swedish Environmental Code, (Chapter 4, section 5: Special provisions concerning land and water management in certain areas in Sweden), which restricts exploitation for buildings and other structures. Smaller parts (totally about 7 percent) of the site are included in the bordering protected areas:

- Sarek National Park – some 300 hectares of the park is included in the Ramsar site. The park has a total area of 197 000 ha and was established in 1909. Land is state-owned but managed by the County Administrative Board of Norrbotten.
- Ultevis fjällurskog Nature Reserve – the reserve overlaps a small part of the Ramsar site. The reserve has a total area 117 268 ha, and was established in 2000. Land is state-owned but managed by the County Administrative Board of Norrbotten. In accordance with the officially approved management plan the area is allowed to develop naturally.

Three sites of the Natura 2000 network contain parts of the Ramsar area:

- SE0820295 Laidaredeltat (1 919 ha) – SPA, SCI
- SE0820186 Ultevis fjällurskog (117 268 ha) – SCI
- SE0820185 Sarek (198 658 ha) – SCI

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

There are five management/conservation plans concerning the Ramsar area:

Sarek National Park Management plan

Ultevis fjällurskog Nature Reserve Management plan

Laidaredeltat Natura 2000 Conservation plan

Ultevis fjällurskog Natura 2000 Conservation plan

Sarek Natura 2000 Conservation plan

The plans are being implemented.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No plans

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Occasional inventories of large mammals and birds take place

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

No ongoing activities apart from information on hiking trails.

31. Current recreation and tourism:

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

The wetland is used mainly for hiking and fishing. The King's Trail (Kungsleden) - a hiking path from north to south through the Swedish mountains - passes through the valley.

32. Jurisdiction:

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

County Administrative Board of Norrbotten, S-971 86 Luleå, Sweden

33. 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.

Niklas Kemi, County Administrative Board of Norrbotten, S-971 86 Luleå, Sweden

Tel. +46 920 960 00, fax +46 920 22 84 11. niklas.kemi@lansstyrelsen.se

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Gärdenfors, U. (ed.) 2005. *Rödlistade arter I Sverige 2005 – The 2005 Red List of Swedish Species*. ArtDatabanken, SLU; Uppsala.

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org