



Ramsar Information Sheet

Update version, previously published on 1 January 2008

Sweden

Tjålmejaure-Laisdalen



| | |
|------------------|-----------------------|
| Designation date | 5 December 1974 |
| Site number | 30 |
| Coordinates | 66°14'48"N 16°17'57"E |
| Area | 21 602,00 ha |

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The site is situated in the mountainous area of northwest Sweden. The site consists of two converging valleys. The water courses of both valleys join to form a delta in lake Yraft, and the site comprises a number of lakes, bogs, marshes, as well as riparian forest and subalpine birch forest. The southern valley has many lakes with shallow shores which are important breeding sites for birds. The northern valley, Laisdalen, is one of the most wildlife-abundant valleys in the Swedish mountain area, and forms an important species distribution corridor into nearby mountainous areas. The site supports a rich avian fauna and is an important breeding and staging area for a large number of threatened bird species.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

| | |
|--------------------|------------------------------------|
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Compiler 2

| | |
|--------------------|--|
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2.1.2 - Period of collection of data and information used to compile the RIS

| | |
|-----------|------|
| From year | 2008 |
| To year | 2015 |

2.1.3 - Name of the Ramsar Site

| | |
|---|--|
| Official name (in English, French or Spanish) | Tjålmejaure-Laisdalen |
| Unofficial name (optional) | Tjålmejaure-Laisdalen (lake-rivervalley) |

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

| | |
|--|---|
| (Update) A. Changes to Site boundary | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| (Update) The boundary has been delineated more accurately | <input checked="" type="checkbox"/> |
| (Update) The boundary has been extended | <input checked="" type="checkbox"/> |
| (Update) The boundary has been restricted | <input type="checkbox"/> |
| (Update) B. Changes to Site area | the area has increased |
| (Update) The Site area has been calculated more accurately | <input checked="" type="checkbox"/> |
| (Update) The Site has been delineated more accurately | <input checked="" type="checkbox"/> |
| (Update) The Site area has increased because of a boundary extension | <input type="checkbox"/> |
| (Update) The Site area has decreased because of a boundary restriction | <input type="checkbox"/> |

2.1.5 - Changes to the ecological character of the Site

| | |
|--|--|
| (Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS? | Yes (likely) |
| (Update) Are the changes | Positive <input checked="" type="radio"/> Negative <input type="radio"/> Positive & Negative <input type="radio"/> |
| (Update) Positive % | 1 |
| (Update) No information available | <input type="checkbox"/> |
| (Update) Changes resulting from causes operating within the existing boundaries? | <input type="checkbox"/> |

(Update) Changes resulting from causes operating beyond the site's boundaries?

(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?

(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

The site area has been better calculated but there are also some minor changes in the boundary (the GIS-boundary is now also the decided boundary on paper).

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change) Yes

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps

Boundaries description

The boundary is the same as the Natura 2000 SPA site Tjålmejaure SE0820714.

2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

| Regionalisation scheme(s) | Biogeographic region |
|---|---|
| Udvardy's Biogeographical Provinces | 03 West Eurasian Taiga |
| Bailey's Ecoregions | 130 Subarctic division |
| WWF Terrestrial Ecoregions | Scandinavian montane Birch forest and grasslands PA1110, Scandinavian-Russian taiga PA0608. |
| Other scheme (provide name below) | |
| EU biogeographic regionalization | Boreal and Alpine |
| Freshwater Ecoregions of the World (FEOW) | Ecoregion 406 Northern Baltic drainages |

Other biogeographic regionalisation scheme

TEOW - Terrestrial Ecoregions of the World. "Scandinavian montane Birch forest and grasslands PA1110" and "Scandinavian-Russian taiga PA0608".
 EEA, 2002: Digital Map of the European Ecological Regions (DMEER): "Scandinavian montane Birch forest and grasslands" and "Scandinavian-Russian taiga".

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

| | |
|-----------------------------------|---|
| Hydrological services provided | The site is important for flood control and for sedimentation of eroded material from the mountains upstream. |
| Other ecosystem services provided | High cultural values connected to the preserved barns and the mowing of the vegetation. |
| Other reasons | Tjålmejaure-Laisdalen contains representative examples of a natural wetland types in the EU Alpine region in the sense of two converging valleys with a mixture of wetlands, lakes, bogs and the rivers Laisälven and Barasjåkkå. The site includes the inland delta in the lake Yraft, which has rare vegetation types dependent on mowing. The rivers are unaffected by hydropower plants and have natural water regimes. |

- Criterion 2 : Rare species and threatened ecological communities







- Criterion 3 : Biological diversity

| | |
|---------------|--|
| Justification | There are many representative and rare species typical for the Alpine region in the Nordic countries at the site. The site is an important breeding area for waterbirds and it supports an outstanding range of bird species of which many are threatened. The site is also important for mammals. |
|---------------|--|

- Criterion 4 : Support during critical life cycle stage or in adverse conditions





- Criterion 6 : >1% waterbird population





















3.2 - Plant species whose presence relates to the international importance of the site

| Scientific name | Common name | Criterion 2 | Criterion 3 | Criterion 4 | IUCN Red List | CITES Appendix I | Other status | Justification |
|---|-----------------------|--------------------------|-------------------------------------|--------------------------|---------------|--------------------------|--------------|------------------------------|
|  <i>Carex atrofusca</i> | Scorched Alpine-sedge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | See textbox below the table. |
|  <i>Carex capillaris</i> | Hair Sedge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | See textbox below the table. |
|  <i>Carex capitata</i> | Capitate sedge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | See textbox below the table. |
|  <i>Carex microglochin</i> | Bristle Sedge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | LC | <input type="checkbox"/> | | See textbox below the table. |
|  <i>Carex ornithopoda</i> | Bird's-foot Sedge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | See textbox below the table. |
|  <i>Carex parallela</i> | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | See textbox below the table. |

Criterion 3: For all species, their status in the Swedish Red List and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in www.artportalen.se

3.3 - Animal species whose presence relates to the international importance of the site

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence ¹⁾ | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|-----------------|---|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-----------|---------------------|----------------------------|--|-------------------------------------|-------------------------------------|---|--|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | | | | | | | | |
| Birds | | | | | | | | | | | | | | | | | |
| CHORDATA / AVES |  <i>Anser erythropus</i> | Lesser White-fronted Goose | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 45 | | 35 | VU  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Swedish Red List 2015 (CR). EC Birds Directive Annex I. | The site offers undisturbed breeding sites. See textbox below the table and in section 3.1. Information about criterion 6 is in the textbox below the table. |
| CHORDATA / AVES |  <i>Anthus pratensis</i> | Meadow Pipit | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). | Breeding. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Aquila chrysaetos</i> | Golden Eagle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). EC Birds Directive Annex I. | The species has been observed at the site. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Asio flammeus</i> | Short-eared Owl | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Aythya marila</i> | Greater Scaup | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). | Breeding. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Buteo lagopus</i> | Roughleg; Rough-legged Buzzard; Rough-legged Hawk | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). | Staging. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Calcarius lapponicus</i> | Lapland Longspur | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). | Breeding. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Circus cyaneus</i> | Northern Harrier | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Cygnus cygnus</i> | Whooper Swan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Emberiza schoeniclus</i> | Reed Bunting; Common Reed Bunting; Common Reed-Bunting | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Falco columbarius</i> | Merlin | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Gallinago media</i> | Great Snipe | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | NT  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). EC Birds Directive Annex I. | Breeding. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Gavia arctica</i> | Arctic Loon; Black-throated Loon | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Gavia stellata</i> | Red-throated Diver; Red-throated Loon | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). | Breeding. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Haliaeetus albicilla</i> | White-tailed Eagle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Swedish Red List 2015 (NT). EC Birds Directive Annex I. | The species has been observed at the site. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Limosa lapponica</i> | Bar-tailed Godwit | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). | Staging. See textbox below the table and in section 3.1. |
| CHORDATA / AVES |  <i>Luscinia svecica</i> | Bluethroat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. |

| Phylum | Scientific name | Common name | Species qualifies under criterion | | | | Species contributes under criterion | | | | Pop. Size | Period of pop. Est. | % occurrence ¹⁾ | IUCN Red List | CITES Appendix I | CMS Appendix I | Other Status | Justification |
|---------------------|--|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|---|-----------|---------------------|--|-------------------------------------|--------------------------|---|--|---------------|
| | | | 2 | 4 | 6 | 9 | 3 | 5 | 7 | 8 | | | | | | | | |
| CHORDATA / AVES |  <i>Melanitta fusca</i> | Velvet Scoter; White-winged Scoter | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | VU  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). | Breeding. See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Pandion haliaetus</i> | Osprey; Western Osprey | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Phalaropus lobatus</i> | Red-necked Phalarope | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Philomachus pugnax</i> | Ruff | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). EC Birds Directive Annex I. | Breeding. See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Pluvialis apricaria</i> | European Golden Plover; European Golden-Plover | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Sterna parasaeae</i> | Arctic Tern | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. | |
| CHORDATA / AVES |  <i>Tringa glareola</i> | Wood Sandpiper | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | EC Birds Directive Annex I. | See textbox below the table and in section 3.1. | |
| Others | | | | | | | | | | | | | | | | | | |
| CHORDATA / MAMMALIA |  <i>Gulo gulo</i> | Wolverine | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). EC Habitats Directive Annex II. | Adult wolverines have been observed in the area. See textbox below the table and in section 3.1. | |
| CHORDATA / MAMMALIA |  <i>Lynx lynx lynx</i> | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (VU). EC Habitats Directive Annex II. | The species has been observed at the site. See textbox below the table and in section 3.1. | |
| CHORDATA / MAMMALIA |  <i>Ursus arctos</i> | Brown Bear; Grizzly Bear | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | LC  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Swedish Red List 2015 (NT). | See textbox below the table and in section 3.1. | |

1) Percentage of the total biogeographic population at the site

Criterion 2, 3 and 4: For all species, their status in the Swedish Red List and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in www.artportalen.se

Anser erythropus, criterion 6. The used population for the estimation is the "Fennoscandia/Eastern Mediterranean" 60-80 + 50-70 for the Swedish part of that population (that Wetlands International excludes from their accounting). Altogether approximately 130 individuals in total.

3.4 - Ecological communities whose presence relates to the international importance of the site

| Name of ecological community | Community qualifies under Criterion 2? | Description | Justification |
|--|--|---|---|
| 6450. Northern boreal alluvial meadows | <input checked="" type="checkbox"/> | Along large rivers with placid river sections which are frozen every winter, the type is affected by flooding in spring. The traditional management as hay meadows has usually ceased. Type includes areas that are not yet severely overgrown with trees | This habitat is included in the EC Habitat Directive Annex I. It has a small distribution and a bad conservation status (2013) in Sweden. |

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The site is formed by two mountain river valleys which converge above Yraft lake, forming a large delta. The southern valley (Tjålmejaure) contains a series of lakes with wide, flat shores. The northern valley (Laisdalen) is much narrower. The natural hydrology of the system remains intact because the valley has not been developed for hydro-electrical power. The climate in the county of Norrbotten is characterized by cold winters and short summers. Tjålmejaure-Laisdalen is situated in the alpine region, with relatively harsh conditions during the winter season. The site contributes with biodiversity and a rich avian fauna. The site also harbours the brown bear (*Ursus arctos*) and pine marten (*Martes martes*). Fly fishing is popular in Lake Tjålmejaure. The area is frequently used by the indigenous Saami people for reindeer grazing. Only the North-eastern part of the area has been subject to archaeological surveys. That part of the area contains numerous archaeological sites, mainly hearths, places for food storage and sacrificial sites which represent the Sami hunting society and later reindeer husbandry. In the area there are also sites with prehistoric settlements. The area from the Yraft delta and downstream Laisälven is listed as being of national importance due to its high cultural values. Along Laisälven there are findings and remains of settlements from prehistoric to modern times. These remains, both archaeological and historical, represent a wide diversity of cultures; hunting and gathering, reindeer husbandry, farming and mining. The numerous amount of hay barns bare witness of how important the meadow lands once were to the nearby farms. Parts of the delta are still being mowed on a yearly basis to preserve the cultural landscape and the wetlands and herb-rich meadows are of great importance to many bird species.

4.2 - What wetland type(s) are in the site?

Inland wetlands

| Wetland types (code and name) | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
|---|------------|--|---------------------------|------------------------------|
| Fresh water > Flowing water >> L: Permanent inland deltas | | 1 | 10000 | Rare |
| Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks | | 0 | | Representative |
| Fresh water > Lakes and pools >> O: Permanent freshwater lakes | | 2 | 3096 | Representative |
| Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools | | 0 | | Representative |
| Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands | | 3 | 1200 | Representative |
| Fresh water > Marshes on inorganic or peat soils >> Va: Montane wetlands | | 0 | | Representative |
| Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands | | 0 | | Representative |

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

Invasive alien animal species

| Phylum | Scientific name | Common name | Impacts | Changes at RIS update |
|------------------|--------------------------|---------------|-------------|-----------------------|
| CHORDATAMAMMALIA | Neovison vison | American Mink | Potentially | unknown |
| CHORDATAMAMMALIA | Nyctereutes procyonoides | Raccoon dog | Potentially | No change |

4.4 - Physical components

4.4.1 - Climate

| Climatic region | Subregion |
|---|--|
| D: Moist Mid-Latitude climate with cold winters | Dfc: Subarctic (Severe winter, no dry season, cool summer) |

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The site consists of two converging valleys. The water courses of both valleys join to form a delta in lake Yraf in the river Laisälven. The southern valley has many lakes with shallow shores which are important breeding sites for birds. It's a tributary to the river Laisälven. The rivers Dellikälven, Duolbajäkkå, Barasjäkkå, Hurasjäkkå, Laisälven are part of the site. The river valley Laisdalen itself is a tributary to the river Vindelälven, that finally enters the Bothnian Bay (Baltic sea).

4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change Increase Decrease Unknown

Organic

(Update) Changes at RIS update No change Increase Decrease Unknown

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

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 (some of the mountains have peaks reaching over 1600 meters above the sea level). The area has a low impact of human activities. Reindeer management has been present in the area for a long time. There are small peat forming areas at the site, especially close to lake Tjålmejaure and along the river Laisälven.

4.4.4 - Water regime

Water permanence

| Presence? | Changes at RIS update |
|---------------------------------|-----------------------|
| Usually permanent water present | |

Source of water that maintains character of the site

| Presence? | Predominant water source | Changes at RIS update |
|---------------------------------|--------------------------|-----------------------|
| Water inputs from surface water | <input type="checkbox"/> | No change |

Water destination

| Presence? | Changes at RIS update |
|-------------------------|-----------------------|
| To downstream catchment | No change |

Stability of water regime

| Presence? | Changes at RIS update |
|--|-----------------------|
| Water levels fluctuating (including tidal) | No change |

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

Water levels fluctuate seasonally. During snow melting the water level is high. During winter water levels are low, due to that most precipitation is snow.

4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Significant accretion or deposition of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Significant transportation of sediments occurs on or through the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime is highly variable, either seasonally or inter-annually

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime unknown

Please provide further information on sediment (optional):

The site receives large amounts of sediments from the mountains higher up in the mountain range. A delta has formed through the influx of sediments. New areas take form and others slowly fade through erosion.

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

Please provide further information on pH (optional):

pH is measured every 6th year. 2013-09-30 the pH was 7,28.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ii) significantly different

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The site is surrounded by more alpine areas and virgin forests. A bit further to the east there are less mountains and the area is covered by forest (many affected by forestry) and mires.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|---------------------------|--|--------------------------------|
| Food for humans | Sustenance for humans (e.g., fish, molluscs, grains) | Low |
| Wetland non-food products | Livestock fodder | Low |

Regulating Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|--------------------|---------------------------------------|--------------------------------|
| Erosion protection | Soil, sediment and nutrient retention | Medium |
| Hazard reduction | Flood control, flood storage | Medium |

Cultural Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-----------------------------|---|--------------------------------|
| Recreation and tourism | Nature observation and nature-based tourism | High |
| Recreation and tourism | Recreational hunting and fishing | High |
| Recreation and tourism | Picnics, outings, touring | Medium |
| Spiritual and inspirational | Cultural heritage (historical and archaeological) | High |

Supporting Services

| Ecosystem service | Examples | Importance/Extent/Significance |
|-------------------|---|--------------------------------|
| Biodiversity | Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part | High |
| Soil formation | Sediment retention | Medium |

Within the site:

Outside the site:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

Description if applicable

The area is frequently used by the indigenous Sami people for reindeer grazing. Only the North-eastern part of the area has been subject to archaeological surveys. That part of the area contains numerous archaeological sites, mainly hearths, places for food storage and sacrificial sites which represent the Sami hunting society and later reindeer husbandry. In the area there are also sites with prehistoric settlements.

The site includes the Yraft delta, listed as being of national importance due to its high cultural values. The delta is situated by the foot of the mountain range which gives the site a spectacular surrounding. The delta has been subjected to a long management through mowing. The mowing in this area started during the late 1600s. The hay was stored in barns that are characteristic for the county of Norrbotten. These barns are still used at Yraft and today the area is a nature reserve. The site therefore has a high cultural value. The site is managed by the land owners.

The area is one of the few alluvial meadows that are still managed in Norrbotten. The area has a long history and continuity of mowing. The site could therefore serve as an example of earlier traditional use of wetlands. In addition a vast number of plant species are favoured by the mowing. If the management should stop, shrubs and trees would take over.

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) 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

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

| Category | Within the Ramsar Site | In the surrounding area |
|-----------------------------|-------------------------------------|-------------------------------------|
| National/Federal government | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Private ownership

| Category | Within the Ramsar Site | In the surrounding area |
|--|-------------------------------------|-------------------------------------|
| Other types of private/individual owner(s) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Provide further information on the land tenure / ownership regime (optional):

The site is an important reindeer foraging area and of cultural value to the reindeer herding district Semisjaur-Njarg.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Länsstyrelsen i Norrbottens län/County Administrative Board of Norrbotten

Provide the name and title of the person or people with responsibility for the wetland: Naturvårdsenheten, County Administrative Board of Norrbotten

Postal address: Stationsgatan 5
971 86 Luleå
Sweden

E-mail address: norrbotten@lansstyrelsen.se

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Energy production and mining

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|-----------|--------------------------|-----------|
| Mining and quarrying | | High impact | <input checked="" type="checkbox"/> | No change | <input type="checkbox"/> | No change |

Biological resource use

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|--|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Logging and wood harvesting | | High impact | <input type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |
| Fishing and harvesting aquatic resources | High impact | | <input checked="" type="checkbox"/> | increase | <input checked="" type="checkbox"/> | unknown |
| Hunting and collecting terrestrial animals | Low impact | High impact | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Human intrusions and disturbance

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|-------------------------------------|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Recreational and tourism activities | Medium impact | | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Natural system modifications

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|-----------|-------------------------------------|-----------|
| Dams and water management/use | | High impact | <input checked="" type="checkbox"/> | No change | <input checked="" type="checkbox"/> | No change |

Invasive and other problematic species and genes

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|----------|-------------------------------------|----------|
| Unspecified | High impact | High impact | <input checked="" type="checkbox"/> | increase | <input checked="" type="checkbox"/> | increase |

Pollution

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|----------------------------------|---------------|------------------|-------------------------------------|-----------|--------------------------|-----------|
| Unspecified | Low impact | | <input checked="" type="checkbox"/> | No change | <input type="checkbox"/> | No change |

Please describe any other threats (optional):

Unspecified under pollution: Heavy metals exceed limit values.

The site is used mainly for reindeer husbandry and recreational activities (e.g. sport fishing, hunting and hiking.). The Kungsleden, (a hiking trail through the Swedish mountains), passes through the Laisdalen valley. The site lies between the neighbouring Vindelfjällen Nature Reserve and the Pieljekaise National Park. These activities can - if they increase in extent - become a possible threat.

Red fox and White-tailed eagle pose a threat to lesser White-fronted goose. Also the presence of marten may be a plausible threat. However, it is uncertain to what extent both the White-tailed eagle and the marten move and prey in the area.

Some of the lakes but not the streams between the lakes are forbidden to trespass during certain time periods, but there are fishermen moving in the area along the streams and it may well be that sensitive species are affected by their presence.

There is a potential threat from invasive species (mink and racoon dog) to the ecosystem in the area but to what extent is unknown at present. Mink occurs in Tjålmejaure and it has been reported that it pose a threat to lesser White-fronted goose. This however is not documented. Racoon dog has been observed in the area but there are no documented reports from the Ramsar site or in the adjacent area that it is a threat to other species in the site.

5.2.2 - Legal conservation status

Regional (international) legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|------------------|--------------------------------|------------------------|--------------------------|
| EU Natura 2000 | See national legislation below | | whole |

National legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|---|------------------------|---|--------------------------|
| Bird sanctuary with access forbidden during breeding season 2017-2019 | Tjålmejaure | http://www.lansstyrelsen.se/Norr-botten/Sv/djur-och-natur/skyddad-natur/ovriga-skyddsformer/djur-och-vaxtskyddsomraden/fagelskydd-somraden/arjeplog/Pages/tjalmejaure.aspx?keyword=tjalmejaure | partly |
| EU Natura 2000 SAC (1) | Laisdalens fjällurskog | http://www.lansstyrelsen.se/norr-botten/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/Naturreservat/Arjeplog/Beslut%20och%20BP/LaisdalensFUR_BP.pdf | partly |
| EU Natura 2000 SAC (2) | Laisälven | http://www.lansstyrelsen.se/norr-botten/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/Naturreservat/Arjeplog,%20bevarandeplaner/Laisalven_BP_2007.pdf | partly |
| EU Natura 2000 SAC (3) | Yrafdeltat | http://www.lansstyrelsen.se/norr-botten/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/Naturreservat/Arjeplog/Beslut%20och%20BP/Yrafdeltat_BP.pdf | partly |
| EU Natura 2000 SPA | Tjålmejaure | http://www.lansstyrelsen.se/norr-botten/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/Naturreservat/Arjeplog,%20bevarandeplaner/Tjalmejaure_BP_2007.pdf | whole |
| Nature reserve (1) | Yrafdeltat | http://www.lansstyrelsen.se/norr-botten/Sv/djur-och-natur/skyddad-natur/naturreservat/arjeplog/Pages/yrafdeltat.aspx | partly |
| Nature reserve (2) | Laisdalens fjällurskog | http://www.lansstyrelsen.se/norr-botten/Sv/djur-och-natur/skyddad-natur/naturreservat/arjeplog/Pages/laisdalen.aspx | partly |
| Restrictions in bird hunting | Tjålmejaure | | partly |
| site of national importance for nature conservation | Graddis-Täma-Laisälven | | whole |

Non-statutory designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|---------------------|-----------------------------------|---|--------------------------|
| Important Bird Area | Lake Tjålmejaure-Laisdalen valley | http://datazone.birdlife.org/site/factsheet/lake-tjalmejaure-la-isdalen-valley-iba-sweden | whole |

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

| Measures | Status |
|------------------|----------|
| Legal protection | Proposed |

Species

| Measures | Status |
|---|-------------|
| Reintroductions | Implemented |
| Threatened/rare species management programmes | Implemented |

Human Activities

| Measures | Status |
|--|-----------------------|
| Regulation/management of recreational activities | Proposed |
| Fisheries management/regulation | Partially implemented |

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

| Monitoring | Status |
|---------------------------------|-------------|
| Water quality | Implemented |
| Animal species (please specify) | Implemented |

Water quality is measured every sixth year. Natura 2000 sites are linked to a monitoring program of which the Swedish Environmental Protection Agency is responsible for. Habitats, species, plausible threats are examples of what is being monitored. For more info visit URL: [http://www.naturvardsverket.se/Stod-i-miljoarbetet/Vagledning/Miljoovervakning/Uppfoljning-i-skyddade-omraden/](http://www.naturvardsverket.se/Stod-i-miljoarbetet/Vagledning/Miljoovervakning/Uppfoljning-i-skyddade-omraden/Manualer-for-uppfoljning-i-skyddade-omraden/)

The County Administrative Board of Norrbotten conducts surveillance of and measurements in protected areas. There is an on-going work with the national action plan for Arctic fox and Lesser White-fronted goose, including attempts to reduce the numbers of red foxes to increase the number of Arctic fox and lesser White-fronted geese.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Gärdefors,U. 2015. Rödlistade arter i Sverige 2015 - The 2015 Red List of Swedish Species. Artdatabanken, SLU, Uppsala.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<3 file(s) uploaded>

vi. other published literature

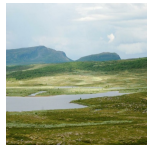
<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



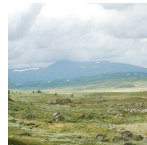
Tjälmejaure (*Erilia*
Vesterberg, 12-07-2010)



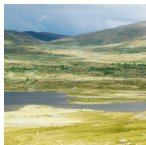
Tjälmejaure and
surroundings (*Erilia*
Vesterberg, 12-07-2010)



Tjälmejaure and
surroundings (*Erilia*
Vesterberg, 12-07-2010)



Tjälmejaure (*Erilia*
Vesterberg, 12-07-2010)



Tjälmejaure (*Erilia*
Vesterberg, 12-07-2010)

6.1.4 - Designation letter and related data

Designation letter

<2 file(s) uploaded>

Date of Designation 1974-12-05