

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties

Note: It is important that you read the accompanying Explanatory Note and Guidelines document before completing this form.

Date this sheet was completed/updated:

July 18th, 2002

Country:

NORWAY

Name of wetland:

BALSFJORD WETLAND SYSTEM
(two separate areas (units) in the same fjord)

Geographical coordinates:

Sørkjosleira: 69° 14'N - 19° 15'E

Kobbevågen: 69° 29'N - 18° 52'E

Elevation: (average and/or maximum and minimum)

0-1 m.a.s.l.

Area: (in hectares)

Sørkjosleira 750 (ca. 7,5km²)

Kobbevågen 1165 (ca. 11,6km²)

Total: 1915 (ca. 19km²)

7. **Overview:** (general summary, in two or three sentences, of the wetland's principal characteristics)

Two large marine tidal areas in the inner part of the fjord, which at low tide reveal large areas of mud- and sandflats. Wet meadows fringe the areas between the cultivated areas outside of the Ramsar site and the site. Gallery forests fringe the site at some places. Several rivers and streams discharge into the fjord through the tidal flats within the site.

8. **Wetland Type:** (please circle the applicable codes for wetland types as listed in Annex I of the Explanatory Note and Guidelines document)

marine-coastal:	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)		

Please now rank these wetland types by listing them from the most to the least

dominant: G, A, Ts, Xf, U

9. **Ramsar Criteria:** (please circle the applicable criteria; see point 12 below)

1

2

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Please specify the most significant criterion applicable to this site: 6

10. **Map of site included? YES**

(Please refer to the Explanatory Note and Guidelines document for information regarding desirable map traits.)

11. **Name and address of the compiler of this form:**

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Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):

12. **Justification of the criteria selected under point 9, on previous page.** (Please refer to Annex II in the Explanatory Note and Guidelines document).

Selected criteria:

Criterion 1. The Balsfjord sites are representative in this region of northern Norway of fjords with shallow seabays with large intertidal zones (mudflats and sandflats), which occur in particularly in the inner parts of the fjords and where rivers discharge into the fjord. Balsfjord is a particularly good example of this type of system in the region, with high densities of intertidal invertebrates (notably *Macoma* and *Mytilus*) and fish populations which support large numbers of shorebirds and seabirds.

Criterion 3. Balsfjord supports significant numbers and diversity of waterfowl, waders and passerines, particularly in spring, notably being one of only two sites in northern Norway for large numbers of spring migrant Knots *Calidris canutus islandica*. It is also unusual for the region in supporting one of the most northerly breeding populations of Shelduck *Tadorna tadorna* in Europe. Balsfjord also supports a very northerly wintering population of Purple Sandpiper *Calidris maritima*, although these occur mostly outside the two designated areas.

Criterion 4. Balsfjord is a critically important migratory spring staging area for a significant proportion (average 5%) of the Nearctic-breeding population of Knot *Calidris canutus* ssp. *islandica* as a late spring staging and refuelling area. These birds fly direct to Balsfjord from early spring staging areas in the United Kingdom and Wadden Sea, and are present for 2-3 weeks in May, during which time they store substantial fat reserves before being believed to fly non-stop to their breeding grounds in Greenland and arctic Canada. Balsfjord is one of only two fjords in the region used by this population, the other being Porsangerfjord: although numbers are variable between years in Balsfjord the total number using northern Norway is more stable (c. 60,000-80,000 birds, 17-23% of the population) – it is thought that more birds may use Balsfjord in years when ice extensively covers Porsangerfjord feeding

grounds. Balsfjord also has importance as a staging and wintering area for a number of other waterbird species, including ducks and waders.

Criterion 6. The Knot population using the fjord in spring (May) consistently exceeds 1% of the biogeographical population: 1984-1989 average 5% of the population; range between 2.8 – 8.1% in different years. The Slavonian Grebe is also present with more than 1% of the biogeographical population (5,2% of the NW European population).

Criterion 7. The local and separate population of Herring *Clupea herengus* is totally confined to this area throughout its annual cycle. Whether the population constitutes a separate subspecies or only a population remains to be seen, however studies shows that it is genetically separate from other populations. Normally the entire stock spawns inside the site. The herring population is particularly important for breeding birds in the area, during winter the stock is also preyed upon by Killer Whale *Orcinus orca* (usually at other sites than the Ramsar site).

Criterion 8. A local separate population of herring spawned only at a limited area of 70.000m² inside the site as showed by studies in 1988. Normally the population will use this limited area as a spawning site.

13. **General location:** (include the nearest large town and its administrative region)

Troms county, Balsfjord (Sørkjosleira) and Tromsø (Kobbevågen) municipalities, nearest town Tromsø lies to the north (the distance is 7 km from Kobbevågen and 20 km from Sørkjosleira respectively). Tromsø has a population of 70.000.

14. **Physical features:** (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

The intertidal mudflats typically consists of moraine deposits and deposits from watercourses. The climate is coastal and northern, with relatively warm and short summers, long, but relatively mild winters in coastal areas. Annual precipitation is >1000mm. Sørkjosleira: Three watercourses and some smaller creeks enter the site. By full ebb the mudflats stretches 700m out.

Kobbevågen: Two larger rivers enter the site. Some places the mudflats are replaced by harder surfaces.

15. **Hydrological values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.)

No data known, since both sites are sheltered inside a fiord they are not particularly prone to erosion by wave action.

16. **Ecological features:** (main habitats and vegetation types)

Situated in the northern boreal zone, characterized by:

Coastal forests of *Betula pubescens* and *Alnus incana*.

Besides the dominant ecological feature of extensive mudflats, smaller areas of wet meadows occur along the shorelines.

The shorelines and wet meadows have been mapped and six different plant communities have been described all quite typical for the northern regions and mostly dependent/influenced by salt or brackish waters.

Zostera spp and *Najas* spp beds in the shallow waters, wet and salt influenced foreshores with eg *Puccinella* spp, and salt tolerant *Carex subspathacea* meadows is a dominant feature and biogeographically typical.

At Sørkjosleira brackish waters is evident and with a high production of molluscs.

At Kobbevågen a small mire constitutes part of the protected site.

Gallery forests (*Betula*, *Alnus* and *Salix*) occur along rivers and shorelines, but are not extensive, but an important feature for flora and fauna.

17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

A number of northern arctic species occur, rare or absent in other parts of Europe, but common in the extreme north of Europe, cf. point no. 16.

Some species that are rare elsewhere in Europe occur commonly, eg. *Najas* spp. and *Ruppia maritima*.

18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

Birds:

Common species: Sørkjosleira: Most known as a spring-stopover site for the Greenland population of *Calidris canutus*, with records of 30.000 individuals at the same time. Other important species are (with record numbers in brackets): *Clangula hyemalis* (6800), *Melanitta fusca* (5500), *Haematopus ostralegus* (1200), *Anas penelope* (840), *Charadrius hiaticula* (450), *Podiceps auritus* (260) and *Gavia stellata* (56). In addition high numbers of passerines occur in the surrounding areas, like *Plectrophenax nivalis* (2200) and *Fringilla montifringilla* (5000).

Common species: Kobbevågen: As Sørkjosleira this is an important staging area for migratory birds; ia *Calidris canutus* (20.000), *Clangula hyemalis* (2100), *Melanitta fusca* (1500), *Haematopus ostralegus* (1100), *Calidris maritima* (500), in addition 20 *Gavia adamsii* winter in the area. 10 pairs of *Tadorna tadorna* breed in the area, which is one of the northernmost populations in Europe.

During spring staging the Knots are known to move extensively around the fiord between different feeding and roosting areas, which include the two designated areas (Sørkjosleira and Kobbevågen) and several other areas within the fiord important for feeding and roosting, including Kantornes and Selnes on the eastern shore, and Hestnes (adjacent to Kobbevågen) on the western shore.

Fish:

The local population of herring *Clupea harengius* (called the Balsfjordherring) is a distinct genetic separate population and sedentary in this fjord. Spawning occur on the shallow shores of ia Kobbevågen and Sørkjosleira, and only in an area of 70.000m². The population numbers ca. 3 millions spawning individuals.

Molluscs:

A high production of molluscs (especially *Macoma* and *Mytilus*) is the main attraction for the migratory birds. The tiny molluscs numbers millions pr. m².

19. **Social and cultural values:** (e.g., fisheries production, forestry, religious importance, archaeological site, etc.)

Not known.

20. **Land tenure/ownership of:** (a) site Private (b) surrounding area Private

21. **Current land use:**

(a) site

Some grazing of the wet meadows by husbandry, gravel digging for local use occurs, some leisure activities as horseriding and swimming also occur. In general little impact and low traffic.

(b) surroundings/catchment

Cultivation of land is the most widespread activity, an annual transport of reindeers passes the area.

22. **Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:** (a) at the site: Little impact today. (b) around the site: Little impact today.

23. **Conservation measures taken:** (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented):

Both sites established as Nature reserves on December 8th 1995.

24. **Conservation measures proposed but not yet implemented:** (e.g, management plan in preparation; officially proposed as a protected area, etc.)

Except a draft, no management plan exists.

25. **Current scientific research and facilities:** (e.g., details of current projects; existence of field station, etc.)

No facilities erected. High international interest in research on the migration of waders in the area, cf. a number of publications. The birds in the area are annually monitored and research on birds by Norwegian Institute for Nature Research continues.

26. **Current conservation education:** (e.g., visitors centre, hides, information booklet, facilities for school visits, etc.)

Posters have been erected in both areas, no other educational facilities have yet been produced.

27. **Current recreation and tourism:** (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

Not known.

28. **Jurisdiction:** (territorial, e.g., state/region and functional, e.g., Dept. of Agriculture/Dept. of Environment etc.)

The Ministry of the Environment.

29. **Management authority:** (name and address of local body directly responsible for managing the wetland)

The site is managed by the County Governor of Troms, which is a subsidiary body of the Ministry of the Environment. Adress: County Governor of Troms, Statens Hus, N-9291 Tromsø.

30. **Bibliographical references:** (scientific/technical only)

Botany:

Fjelland, M., Elven, R. & Johansen, V. 1983. Botaniske verneverdier på havstrand i Troms. Miljøverndepartementet. Rapport T-551. 291pp. (in Norwegian - on marine wet meadows and botanical values).

Birds:

Davidson, N.C. & Evans, P.R. 1986. The ecology of migrant knots in North Norway during May 1985. Report SRG86/1, Shorebird Research Group, University of Durham.

Strann, K.B. 1990. The status of breeding Shelducks *Tadorna tadorna* in North Norway.

Fauna norv. Ser. C. Cinclus 14:1-5.

Strann, K.B. 1992. Numbers and distribution of Knot *Calidris canutus islandica* during spring migration in North Norway 1983-1989. Wader Study Group Bull. 64, Suppl.: 121-125.

Summers, R.W., Strann, K.B., Rae, R. & Heggås, J. 1990. Wintering Purple Sandpipers *Calidris maritima* in Troms county, northern Norway. *Ornis scand.* 21:248-254.

Fish:

Lurås, I.J. 1994. Gytebiologi hos Balsfjordsild og betydningen av gytebiotopens sammensetning for eggens fordeling og tetthet. Hovedfagsoppgave i marin økologi. Norges fiskerihøgskole, Universitetet i Tromsø. (in Norwegian - on the local population of Balsfjordherring)

Invertebrates:

Oug, E. 1999. Polychaetes from intertidal rocky and sedimentary habitats in the region of Tromsø, northern Norway. Norwegian Institute for Water Research. Short note.

Study on the distribution and densities of *Mytilus* and *Macoma* molluscs.