

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 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 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
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:

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

June 2011

3. Country:

Denmark (Greenland)

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.

Ørsted Dal, Pingel Dal and Enhjørningen Dal

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:

Not applicable

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) X;
- 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.

See map. The inland borders are as far as possible drawn between mountaintops indicated on the official 1: 250,000 map and encompass the entire lowland area. The marine part is delimited by a line from Kap Biot to 4 km east of the top on Kap Seaforth

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.

71° 40' N, 23 ° 24' W

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 site is located in central East Greenland, approx. 110 km north of the town Ittoqqortoormiit (Scoresbysund), which hold approx. 450 inhabitants.

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

0-1300 m

11. Area: (in hectares)

218,000
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.

Three wide valleys (Ørsted/Colorado Dal, Pingel Dal and Enhjørningen Dal) with extensive freshwater wetlands, including large rivers and extensive marshes along these, in an otherwise alpine area.. In Østed Dal there are some lakes. Especially Ørsted Dal becomes snow free providing breeding habitats of shorebirds and waterbirds, earlier than other valleys in the region. The drier parts with continuous vegetation have low dwarf scrub heath with *Cassiope* in the snow rich parts and *Salix* and *Dryas* in areas where the snow cover is less stable throughout the winter. Grasslands are also widespread where the soil is more humid, especially in Colorado Dal. The wet parts have *Carex* and moss (with *Eriophorum*) marshes. In the valley mouth at the sea there are dunes. On mountain sides there are herb slopes in moist sites where the snow disappears early, and snowbed vegetation where snow persists longer. However in the valley floor and especially in Pingel and Enhjørningen Dal there are wide expanses of gravel areas in the river bed and areas with solifluctuous soils with sparse vegetation are wide spread on many slopes. In the higher altitudes there are fell fields also with very sparse vegetation. The area is internationally important due to its high number of Barnacle and Pink-footed Geese. Furthermore 150 species of vascular plants and an endemic species, *Saxifraga nathorstii* as well as an endemic variety of *Potentilla stipularis* var. *groenlandica* occurs.

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
X		X	X	X		<input type="checkbox"/>		X		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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 area represents a typical valley wetland ecosystem in the southern part of the high Arctic of Greenland.
2. Nationally red-listed species included in the Greenland Red List:
 - Arctic Wolf *Canis lupus* (Vulnerable VU)
 - Polar Bear *Ursus maritimus* (Vulnerable VU). Globally also listed as VU (IUCN 2010)
3. The biodiversity is high, compared to other valley systems in the same area. Breeding birds comprise 18-20 species and vascular plants more than 150 species. An endemic species, *Saxifraga nathorstii* and an endemic variety of *Potentilla stipularis* var. *groenlandica* occurs.
4. The area is important to large populations of moulting and breeding geese, especially Barnacle Geese (*Branta leucopsis*) and Pink-footed Geese (*Anser brachyrhynchus*).
6. The area supports internationally important numbers of Barnacle Geese (*Branta leucopsis*): 4700 in July 2008 (~ 6.7 % of total flyway population*) and Pink-footed Geese (*Anser brachyrhynchus*): 3030 in July 2008 (~ 1.1 % of total flyway population*). (Boertmann et al. 2009, Boertmann & Nielsen 2010).

* See WWT 2008.

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:

- 1) Middle Arctic, oceanic (Bay 1997) or high Arctic in a more wide sense.
- 2) Neartic

b) biogeographic regionalisation scheme (include reference citation):

- 1) Bay 1997 (for details see point 34)
 - 2) A classification of the Biogeographical Provinces of the World, Udvardy 1975
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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.

The area consists of three long and wide valleys: Ørsted/Colorado Dal, Pingel Dal and Enhjørningen Dal. All have large rivers and extensive marshes along these. In Ørsted Dal there are some lakes. Ørsted Dal becomes snow free much earlier in spring than the surrounding lowlands incl. Pingel and Enhjørningen Dal. The sea off the mouth of the valleys is ice covered throughout most of the year except in late July and August. The site has continuous permafrost.

17. Physical features of the catchment area:

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

See above

18. Hydrological values:

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

No information

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.

M, Tp, A, O, E, L, G, F, D, E, G

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.

The main wetland habitats are the rivers with adjacent marshes, and in Ørsted Dal also the lakes and ponds. The marine parts are ice covered most of the year and are not particularly important to water birds.

The dry lowland parts have extensive dwarf scrub heaths and grasslands.

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.*

The flora was studied in detail in the 1980s and 145 species of vascular plants were recorded in the upper reaches of the Ørsted Dal and Colorado Dal (Fredskild et al. 1982). Here was the special Greenland variety of Stipulated Cinquefoil *Potentilla stipularis* found as well as Strict Primrose *Primula stricta* and Gentian *Gentiana tenella*. An endemic species, East Greenland Saxifrage *Saxifraga nathorstii* grows in the outer part of the valley.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The most significant birds in this area are the geese. An aerial survey for moulting geese on July 18th 2008 resulted in 4700 Barnacle Geese (*Branta leucopsis*) and 3030 Pink-footed Geese (*Anser brachyrhynchus*). A similar count on July 16th 2009 resulted in 3739 Barnacle geese and 2352 Pink-footed Geese.

The valleys also hold a significant breeding population of Barnacle Geese (in several colonies on the steep cliffs) and Pink-footed Geese.

Ørsted Dal is also rich in breeding shorebirds: Ringed Plover (*Charadrius hiaticula*), Red Knot (*Calidris canutus*), Sanderling (*Calidris alba*), Dunlin (*Calidris alpina*), Turnstone (*Arenaria interpres*) and Red-necked Phalarope (*Phalaropus lobatus*). Long-tailed Skua (*Stercorarius longicaudus*) is common, and Snowy Owl (*Nyctea scandiaca*) breeds with several pairs in rich lemming-years. There is usually a pair of Gyr Falcons (*Falco rusticolus*) in Ørsted Dal. Whoopers Swans (*Cygnus cygnus*) has been observed several times, and in 2008 a flock of 9 stayed in Ørsted Dal.

The most significant mammal is the Muskox (*Ovibos moschatus*). Particularly the upper part of Ørsted Dal (Coloradodal) is a very important site for this species, and several hundred may be counted on a single day here. Lemming (*Dicrostonyx collaris*), Stoat (*Mustela erminea*), Arctic Fox (*Alopex lagopus*) are usually common and Arctic Wolf (*Canis lupus*) occur occasionally. Polar Bear (*Ursus maritimus*) occurs regularly in the near shore areas.

National responsibility species include (> 20 % of total population in Greenland):
Pink-footed Goose

Red Knot

Arctic Redpoll (*Carduelis hornemanni*)

Dunlin (ssp. *arctica*, an endemic subspecies breeding exclusively in NE Greenland)

Barnacle goose (East Greenland flyway population)

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:

Cultural values include at least one old trappers hut (Mikkelsen 2008), and there are probably also archaeological sites in the area (cf. the National Museum of Greenland).

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?

No

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:

Public property

b) in the surrounding area:

Public property

25. Current land (including water) use:

a) within the Ramsar site:

Except for occasional subsistence hunting, none.

b) in the surroundings/catchment:

As a) and potential mining activities – see 26.

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:

None

b) in the surrounding area:

Two mineral exploration licences have been granted in areas bordering the eastern part of the proposed Ramsar site. These licences expire in December 2011.

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.

Not protected

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?:

No management plans.

d) Describe any other current management practices:

The major part of this Ramsar-site is included as an “area important to wildlife” by the Bureau of Minerals and Petroleum. This means that all activities related to mineral exploration are regulated with the aim to minimise impacts on the wildlife.

28. Conservation measures proposed but not yet implemented:

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

Consideration to designate “Ørsted Dal” as a national protected area where among others mineral exploration and exploitation will not be permitted, is ongoing based upon the dialog with the Ramsar Secretariat.

29. Current scientific research and facilities:

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

Ørsted Dal has been the study field for many ornithological expeditions since the 1960s, and all have had geese as their main study species. The most recent studies were carried out in 1982 (Cabot 1984). The moulting geese were surveyed from airplane in 1988 and 1989 (Mosbech & Glahder 1990) and again in 2008 and 2009 (Boertmann et al. 2009, Boertmann & Nielsen 2010). Moreover breeding birds were surveyed in the summers of 2008 and 2009 (Glahder et al. 2010, 2011, Meltofte & Dinesen 2010).

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.

None

31. Current recreation and tourism:

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

None

32. Jurisdiction:

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

Greenland

Ministry of Domestic Affairs, Nature and Environment (NNPAN)

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.

International Coordinator Inge Thaulow (inth@ghsdk.dk), Ministry of Domestic Affairs,
Nature and Environment (NNPAN)
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34. Bibliographical references:

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

- Bay, C. 1997. Floristic division and vegetation zonation of Greenland in relevance to a circumpolar arctic vegetation map: 27-31. In: Proceedings of the second circumpolar arctic vegetation mapping workshop, Arendal, Norway, 19.-24. May 1996. Walker, S. & A.C. Lillie, eds.). – Occasional Paper No. 52, 1997. Institute of Arctic and Alpine Research, University of Colorado.
- Boertmann, D. & Nielsen, R.D. 2010. Geese, seabirds and mammals in North and Northeast Greenland. Aerial surveys in summer 2009. – NERI Technical Report No. 773. 66 pp. <http://www2.dmu.dk/Pub/FR773.pdf>
- Boertmann, D., Olsen, K. & Nielsen, R.D. 2009. Seabirds and marine mammals in Northeast Greenland. Aerial surveys in spring and summer 2008. – NERI Technical report no.721. <http://www2.dmu.dk/Pub/FR721.pdf>
- Cabot, D. (ed.) 1984. Biological expedition to Jameson Land, Greenland 1984. – Barnacle Books, Dublin: 102 pp.
- Egevang, C. & Boertmann, D. 2001. The Greenland Ramsar Sites, a status report. – National Environmental Research Institute (NERI) Technical Report No. 346, 96 pp.
- Fredskild, B, Bay, C. & Holt, S. 1982. Botaniske undersøgelser på Jameson Land 1982. – Grønlands Botaniske Undersøgelse, Botanisk Museum, København
- Glahder, C.M., Boertmann, D., Madsen, J., Tamstorf, M., Johansen, K., Hansen, J., Walsh, A., Jaspers, C. & Bjerrum, M. 2010. Biological baseline study in the Ramsar site "Heden" and the entire Jameson Land, East Greenland. – NERI Technical Report no. 769. National Environmental Research Institute, Aarhus University. 86 p. <http://www2.dmu.dk/Pub/FR769.pdf>
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- Greenland Red List 2007. (Boertmann, D., 2008). Rødliste 2007 over planter og dyr i Grønland. – Danmarks Miljøundersøgelser, Grønlands Hjemmestyre.
- IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. '<<http://www.iucnredlist.org>>. Downloaded on 16 January 2011.
- Meltofte, H. & Dinesen, L. 2010: Population densities of birds in Ørsted Dal, NE Greenland, 2009. - Dansk Ornitologisk Forenings Tidsskrift 104: 59-72.
- Mikkelsen, P.S. 2008. North-east Greenland 1908-60 - The Trapper Era" – Scott Polar Research Institute.
- Mosbech, A. & Glahder, C. 1990. Gåseundersøgelser i Jameson Land 1989 og resultater af monitoringen af gæs i Jameson Land fra 1983 til 1989. – Grønlands Miljøundersøgelser, 50 pp.

WWT 2008. GooseNews 7. – Wildfowl and Wetlands Trust.

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
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