Designation date: 06/08/02 Ramsar Site no. 1193

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 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:

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DD MM YY

Designation date | Site Reference Number

2. Date this sheet was completed/updated:
August 2012

3. Country:
Norway

4. Name of the Ramsar site:
Kvisleflået
(International No. 1193, National No. 31)

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
i) 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:

No such changes have been reported

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 Ramsar Site is equal with the border of the Kvisleflået Nature Reserve (5682 ha). The reserve was expanded in 2005. As a result of this expansion the Ramsar Site has also been extended.

8. Geographical coordinates (latitude/longitude):
61° 48'N 12° 05'E

9. General location:
Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

The site lies in Engerdal municipality in the country of Hedmark in south-east Norway, towards the border with Sweden. The nearest large town is Hamar, about 130km south-west.

10. Elevation: (average and/or max. & min.)
758-1000 m.a.s.l.

11. Area: (in hectares)
5682 ha

12. General overview of the site:
Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

This is a large, flat mire area bordering Sweden in Engerdal. Several large and flat mire expanses occur, although it is more typical with poorer small mires and low pine covered knolls. Birch *Betula* grows at the edge of the mires as well as along rivers and streams. The area is dominated by numerous small pools and

ponds. A series of morraine ridges run south-east to north-west within the mire. In the southern part we find old forest of mainly spruce and some birch.

Kviseflået is an important area for wetland birds, with 20 – 30 breeding species. The mosaic landscape is ideal for Greenshank *Tringa nebularis* and Whimbrel *Numenius phaeopus*. After the ice melts in spring several duck species stage on route to upland breeding sites around the reserve. Several regionally uncommon species breed, or are suspected to have bred, in the reserve including Whooper Swan *Cygnus cygnus*, Bean Goose *Anser fabalis*, Broad-billed Sandpiper *Limicola falcinellus* and Jack Snipe *Lymnocryptes minimus*.

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13. Ramsar Criteria:
Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

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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).

Criterion 1. A large mire complex with a large number of small pools and ponds, typical and representative for the continental part of southern Norway.

Criterion 2. A high number of red listed species is recorder in the site. Most of them are depended of forest, like following species: *Letharia vulpina* (VU), *Amylocystis lapponica* (EN), *Crustoderma dryinum* (VU), *Diplomitoporus crustulinus* (VU), *Gloeophyllum protractum* (VU), *Laurilia sulcata* (VU), *Perenniporia subacida* (EN), *Skeletocutis odora* (VU), *Skeletocutis stellae* (VU).

Brown bear *Ursus arctos* (EN), Wolverine *Gulo gulo* (EN) and Lynx *Lynx lynx* (VU) uses the site from time to time. Species recorded during the breeding season and which may breed occasionally include Hen Harrier *Circus cyaneus* (VU), and Ruff *Philomachus pugnax* (VU) Protection status is given according to the National Red-List 2010. See also point 21.

Criterion 3. The site is the only regular breeding site for Jack Snipe *Lymnocryptes minimus* in southern Norway. In addition several easterly and north-easterly species nest such as Whooper Swan *Cygnus cygnus*, Bean Goose *Anser fabalis*, Siberian Tit *Parus cinctus* and Rustic Bunting *Emberiza rustica*.

Criterion 4. Kvisleflået is an important area for wetland birds, with 20 – 30 breeding species. After the ice melts in spring several duck species stage on route to upland breeding sites around the reserve. For more details see point 22 and justification of criteria 2 and 3.

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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. Boreal

2. Northern boreal vegetation zone, transitional zone (Nb-OC).

b) biogeographic regionalisation scheme (include reference citation):

1. Biogeographical regions of Europe, European Environment Agency, 2005

2. Zonal division showing the variation in vegetation from south to north and from the lowlands to the mountains, and sectional graduation showing the variation between the coast and inland (In: Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss).

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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.

Geology	The bedrock is made up of hard and nutrient-poor basement rocks, mainly granite. Above the granite is a thin layer of morraine. In the south-west the area borders more nutrient-rich Cambosilurian bedrock. The area is geologically interesting due to the presence of Rogen morraines running from south-east to north-west throughout the whole reserve.
Substrate / soil type	Peat soils dominate in the large areas of mires, although the morraine ridges with pine *Pinus sylvestris* woodland contain mineral soils.
Water quality	No data is available on water quality.
Water depth / fluctuations	The water levels in the mire areas is rather permanent and stable.
Climate	The climate is slightly continental with rather a lot of precipitation (ca. 700 mm p.a.) and relatively warm, but short, summers and extremely cold winters.

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17. Physical features of the catchment area:
Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The catchment area includes, besides the mire itself, only the nearby hills and mountain slopes on both sides of the border between Sweden and Norway. Most of this is nutrient poor basement granite as well as some areas of Cambrosilurian bedrocks in the south-west. The reserve is surrounded by pine *Pinus sylvestris* woodland apart from the richer areas in the south-west which border a fertile slope with Norway spruce *Picea abies*. Forestry is the most important source of income in the area, including within the Ramsar site. The climate of the catchment area is as for the reserve itself.

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

Large mires such as this are important water reservoirs. They provide stability in water drainage in the watercourse by acting as reservoirs in drought periods and as flood barriers during snow melt and periods of heavy precipitation.

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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 • O • P • Q • R • Sp • Ss • Tp Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:
List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

U, Xf, Tp, O, M, Xp

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

Characteristic for the area is a mosaic of small nutrient-poor mires, and low pine-clad knolls, as well as large open mire areas such as at Storkjølen and Rådløskjølen. The vegetation varies from nutrient-poor mire/intermediate mire vegetation, low pine woods on the morraine ridges and willow *Salix*-sump woodland with some birch *Betula* along rivers and edges of mires. In places there are areas of wet mixed woodland with characteristics resembling ancient woodland. The many pools in the area are important for birdlife, although they have little aquatic vegetation. The birdlife includes a good representation of breeding waterbirds - albeit in small numbers.

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21. Noteworthy flora:
Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The site have several red listed species, among them are: *Laurilia sulcata* (VU), *Amylocystis lapponica* (EN), *Perenniporia subacida* (EN), *Skeletocutis borealis* (VU), *Letharia vulpine* (VU) *Skeletocutis chrysella* (VU), *Cyphelium karelicum* (EN), *Cyphelium inquinans* (NT), *Skeletocutis odora* (VU), *Gloeophyllum protractum* (VU), *Crustoderma dryinum* (VU), *Skeletocutis stellae* (VU), *Chaenotheca phaeocephala* (VU), *Trichaptum laricinum* (NT), *Fomitopsis rosea* (NT), *Alectoria sarmentosa* (NT), *Phellinus nigrolimitatus* (NT), *Chaetodermella luna* (NT), *Antrodia albobrunnea* (NT), *Crustoderma corneum (NT)*, *Odonticium romellii* (NT), *Pseudomerulius aureus* (NT), *Phlebia centrifuga* (NT), *Cystostereum murrayii* (NT), *Pseudographis pinicola* (NT), *Gymnadenia conopsea* , *Skeletocutis lenis* (NT), *Cladonia parasitica* (NT), *Onnia leporina* (NT). Red list status is given according to the National Red-List (2010). Most of these red listed species is connected to ancient woodland.

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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.*

Mammals:
Three of Norway's four large carnivores are recorded from time to time within the reserve (brown bear *Ursus arctos*, wolverine *Gulo gulo* and lynx *Lynx lynx*). All of these are uncommon and threatened species both in the region in general and in particular in the whole of Norway.

Birds:
The birdlife in the area is typical for large mire complexes in upland regions, although there are also recorded several threatened and biogeographically interesting species. Nesting by Whooper Swan *Cygnus cygnus* in 1991 was the first record in Hedmark county. Other threatened species which nest include Black-throated Diver *Gavia arctica* (1 pair), Common Crane *Grus grus* (2-4 pairs) and Broad-billed sandpiper *Limicola falcinellus* (1-3 pairs). In addition more common species breed such as Common Teal *Anas crecca* (10-20 pairs), Tufted Duck *Aythya fuligula* (10-20 pairs), Common Goldeneye *Bucephala clangula* (10-20 pairs), Northern Lapwing *Vanellus vanellus* (4-8 pairs), Whimbrel *Numenius phaeopus* (15-20 pairs), Greenshank *Tringa nebularia* (10-15 pairs) and Wood Sandpiper *Tringa glareola* (5-10 pairs). Kvisleflået is the only site in southern Norway where Jack Snipe *Lymnocryptes minimus* are regularly recorded during the breeding season, and the species probably breeds. Other easterly species near the western limit of their range include Siberian Tit *Parus cinctus* and Rustic Bunting *Emberiza rustica*.

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:

Some berry picking (in particular cloudberry) takes place, as well as hunting and fishing.

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: Private
(b) in the surrounding area: Private

25. Current land (including water) use:

(a) within the Ramsar site:
There is limited hobby fishing and hunting within the area. Domestic livestock graze the area – mainly sheep although also some cattle.

(b) in the surroundings/catchment:
Forestry is important in the area.

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 known. Grazing intensity from livestock is low and has little or no impact on the vegetation.

(b) in the surrounding area:
None known.

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.

Kviseflået was designated as a nature reserve on 18th December 1981 and extended in 2005(5682 ha). The boundary of the Ramsar Site was consequently also extended.

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?:
A management plan for the area is being planned.

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.

The reserve was expanded in 2005 (increased to 5682 ha).
The area borders a similar wetland area (Ramsar site) on the Swedish side of the border. There have been some initial efforts to coordinate the management of the transfrontier conservation area.

29. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

None known.

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.

There are no such facilities.

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

The area is used for hunting and hobby fishing by both local residents as well as outsiders, albeit on a small scale.

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

Norwegian Directorate for Nature Management (DN), Tungasletta 2, 7485 Trondheim
Ph +47 73580500
Fax +47 73580501
Email: postmottak@dirnat.no

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.

The site is managed by the County Governor of Hedmark, which is under the instruction of DN.
Address: County Governor of Hedmark, Postboks 4034, N-2306 Hamar, Norway. Phone +47 62551000.
E-mail: postmottak@fmhe.no

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

Botanical and management plans:
Myhr, S. 1973. Kvisleflået. Inventeringer i forbindelse med Landsplanen for verneverdige områder/forekomster. Miljøverndepartementet, 13 pp. (In Norwegian – on national plan for important conservation areas).

Birds:
Bekken, J. 1987. Ornitologiske registreringer i 11 våtmarksreservater 1985-86. Fylkesmannen i Hedmark, Miljøvernavd. Rapport nr. 13: 1-43. (In Norwegian – bird recording in 11 wetland reserves in Hedmark county).
Bekken, J. 2001. Fugler og pattedyr i 18 våtmarksreservater i Hedmark. Fylkesmannen i Hedmark, Miljøvernavd. Rapport nr. 8/2001: 1-122. (In Norwegian – bird and mammal recording in 18 wetland reserves in Hedmark county).

Geology:
Sollid, J. L. & Kristiansen, K. 1982. Hedmark fylke. Kvartærgeologisk verneverdige områder. Universitetet i Oslo, Geografisk institutt. Naturgeografisk seksjon. Notat, 65 pp. (In Norwegian – on geologically valuable areas).
