

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:

April 2011

3. Country: Norway

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.

Rott-Håstein-Kjør

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

This RIS is for (tick one box only):

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

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

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or

- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

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

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

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

7. Map of site:

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

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

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

b) Describe briefly the type of boundary delineation applied:

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

The boundaries are the same as for a bird sanctuary which is part of Jærstrendene Landscape Protection Area with sanctuaries and natural monuments. Kjørholmane Nature Reserve is enclosed by the bird sanctuary.

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.

58° 55' N 5° 28' E

9. General location:

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

Rott-Håstein-Kjør is an archipelago in Sola municipality, Rogaland County, south-western part of Norway. The nearest city being Stavanger, approximately 10 km to the east (app. 115 000 inhabitants).

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

0 m – 50 m.a.s.l.

11. Area: (in hectares)

The total area is 10721.8 ha (nature reserve 993.8 ha, and sanctuary (biotope protected area) 9728 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.

The site is characterised by a large number of small islands, skerries and islets, with shallow marine waters in the outermost coastal zone; average depth is about 30 m, maximum 80 m. The outermost parts of the area have naked skerries and rocky outcrops devoid of vegetation due to rough sea. Sheltered islands have valuable small bays with rich sub- and supraterrrestrial vegetation of national interest. A few islands (Håstein and Rott) are partly covered with thin moraine and coastal heath-vegetation, and shallow marine beach-deposits. The bedrock consists of slightly to strongly altered cambro-silurian gabbro and green schist. Several islands have shallow ponds and lakes with saltwater-influence.

The high-diversity marine ecosystems have extensive areas of shellsand and kelp *Laminaria hyperborea*, thereby important habitat for large numbers of breeding Common seal *Phoca vitulina* and Grey Seal *Halichoerus grypus*. The site is located just outside the coast of main-land Jæren (Ramsar-site Jæren Wetland system) and is of vital importance for the ecological link and interaction for birdlife, both regional and international, as one of the main migrating routes. All year around the site has large numbers of staging, moulting and breeding seabirds, including the highest national population of breeding European Shag *Phalacrocorax aristotelis* with about 4500 pairs (2005), in addition to several 1000 moulting Common Eider *Somateria mollissima* and several critical endangered, rare, or vulnerable bird-species.

The island Rott has active farmland (grazing) and some deciduous forest. It represents a still living 4000 year old traditional farming-fishing-tradition, with a number of pre-historic stone-remains, more modern stone fences and harbour architecture. Today also used for boat recreation and a number of cabins. The island Flatholmen has an old lighthouse. Apart from these islands there are no man-made impacts or buildings in the archipelago.

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

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.

This is a marine archipelago with shallow waters dotted with numerous islets and Islands, and large sub-water areas of shell sand and kelp. This kind of archipelago is typical of the North European coast. The calcareous/green schist bedground, in addition to guano, is regional rare and give habitats to partly rich and specially adapted vegetation. Small ponds and lakes with brackish marshes occur on some of the islands. The site represents a minimum 4000 year old, and still actively managed, cultural landscape.

Criterion 2.

Large numbers of seabirds are breeding in the archipelago, among them are the red listed species Puffin *Fratercula arctica* (VU), Black guillemot *Cepphus grylle* (VU), Kittiwake *Rissa tridactyla* (EN), Common guillemot *Uria aalge* (CR), the Common guillemot has its southernmost breeding site here, in 2008 there where 20 pair. Possibly Eagle owl *Bubo bubo* (EN) also occurs here. It is referred to the national red list 2010.

The site also supports nationally rare herb- and lichen-species which were listed as vulnerable according to the Norwegian Red List, 2010. Please see point 21 for details.

Criterion 3.

In addition, it is a main biodiversity area (breeding, staging, moulting and/or migration) along the west coast, for a number of other seabirds, like Lesser Blackbacked Gull *Larus fuscus fuscus* - 200 pairs 2008, Great Black-backed Gull *Larus marinus*, Common Eider *Somateria mollissima*, (1000-1500 ind.) Northern gannet *Morus bassanus*, Northern fulmar *Fulmarus glacialis*, Black-legged kittiwake *Rissa tridactyla*, Herring gull *Larus argentatus*, Razorbill *Alca torda* - Norway's southernmost breeding site, White-tailed Eagle *Haliaeetus albicilla*, and Greylag goose *Anser anser*. There is also breeding Common seal *Phoca vitulina* and Grey Seal *Halichoerus grypus*.

The adjacency to mainland Ramsar-site "Jæren Wetlandssystem" is of crucial ecological importance for seabirds, including divers, waders and ducks (10 000 -15 000 in wintertime), all year around.

Criterion 4.

During seasonal migration and moulting tens of thousands of birds use the area, many of them endangered species, like waders and divers. The numbers of moulting Common eider is significant in thousands, likewise Great cormorant and Greylag goose. The site is also an important breeding site for many bird species as well as for Common seal *Phoca vitulina* and Grey Seal *Halichoerus grypus*, for which it is the main breeding site along western Norway, about 300 animals/40 pups 2008.

Criterion 6

The site contains among the highest populations of European Shag *Phalacrocorax aristotelis* in Europe, with about 4500-5000 pairs (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:

- Boreonemoral vegetation zone, highly oceanic section requiring mild winters (Bn-O3t).
- Atlantic

b) biogeographic regionalisation scheme (include reference citation):

- Moen, A. 1998. *National Atlas of Norway: Vegetation*. Norwegian Mapping Authority, Hønefoss (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)
- Biogeographical Regions, European Environment Agency, 2005

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 consists of slightly to strongly altered cambro-silurian gabbro and green schist |
| Geomorphology | The site is typified with a large number of small islands, skerries and islets, with shallow marine waters in the outermost coastal zone. A few islands (Håstein and Rott) are partly covered with thin moraine and coastal heath vegetation, bogs and shallow marine beach deposits. Several islands have shallow ponds and lakes with saltwater influence. The high diversity marine ecosystems have extensive areas of shell sand and kelp. The outermost parts have naked skerries and rocky outcrops devoid of vegetation due to the rough sea. Sheltered islands have valuable small bays with rich sub- and supraterrrestrial vegetation of national interest. |
| Water depth/ | Average depth about 30 m, maximum 80 m |

| | |
|--------------|--|
| fluctuations | |
| Climate | Rott-Håstein-Kjør lies in an area of relatively cool and humid summers (1000-1500 mm annual precipitation), and mild winters. The area receives precipitation 200-220 days in a year |

17. Physical features of the catchment area:

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

The skerries and islands have a maximum height of 55 m a.s.l., mostly of metamorphic cambro-silurian gabbro and green schists, partly covered with shallow moraine-sediments and coast-heath, a few lakes and bogs. The site is surrounded by shallow marine waters (less than 80 m deep).

18. Hydrological values:

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

Most of the shoreline consists of barren, non-erotional bedrock. The high numbers of islands represent a somewhat sheltered environment against western storms, also of importance for the adjacent sanddune-coast of Ramsar-site "Jæren wetlandssystem". Except a small pond (3 ha) on the island Rott, practically all fresh water in the area originates from precipitation, but strongly influenced by saltwater.

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.

B, A, D, E, Tp, Sp

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.

*Marine subtidal beds with extensive areas less than 20 m deep provide rock/morain-habitat for the most productive kelp-habitat in Norway, with its extreme benthic diversity, and basic feeding ground for fish and seabirds. Likewise, large areas of shallow-marine seashell-beds.

*The shallow marine straits and small sheltered bays in between the archipelago have rich benthic fauna and a variety of different seaweeds, like *Chorda filum*, *Zostera marina*, *Fucus vesiculosus*, *Ascophyllum nodosum*, *Laminaria saccharina*, *Silene uniflora* and *Fucus serratus*.

* The western marine part is characterised by battered islets and skerries, with typical lichens like *Verrucaria maura*, *Xanthoria* and *Ramalina*.

*Onshore-zone with stone or gravel dominated foreshore with kelp-drifts, shell-beds, and minor salt meadows. On higher ground rich meadows (caused by rich bedrock and guano), with dominating species of flowering plants like *Armeria maritima*, *Silene dioica*, *Cochlearia officinalis* and *Rhodiola rosea*.

* Some islands have relatively extensive coast-heath and grassland, with minor mires and moores, ponds and small lakes.

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.*

Nationally rare herb- and lichen-species are *Ophioglossum vulgatum*, *Parmotrema chinense*, *Degelia atlantica* and *Parmotrema chinense* (all designated as vulnerable in 2010 Norwegian Red List). Also found *Leptogium tenuissimum*, *Primula vulgaris*, *Orchis mascula*, *Crambe maritima* and *Carex flacca*. The strongly guano-influenced meadows (with shell sand) are representative for the southwest-coast, dominated by species of flowering plants like *Armeria maritima*, *Silene dioica*, *Cochlearia officinalis* and *Rhodiola rosea*.

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 site has also among the highest number of breeding seabirds in southern Norway, and plays a major role for moulting, winter-staging or migrating for a number of seabirds in general, waders, divers and birds of prey, some of them threatened (as listed under point 14). Additional species of interest are: Peregrine Falcon *Falco peregrinus*, Red-throated Diver *Gavia stellata*, Great northern diver *Gavia immer*, White-billed Diver *Gavia adamsii* and others. Breeding colony of Grey Heron *Ardea cinerea* in the forest at island Rott (uncertain status 2009).

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

The island Rott has a 4000 year old traditional farming and fishing tradition, with a number of pre-historic stone remains, more modern stone fences and harbour architecture. The island Håstein has a relatively extensive area of coast heath, with traditional burning- and grazing practice. The site (and adjacent Jæren mainland) is the earliest prehistoric settlement area in Norway (about 10 – 12 000 B.P).

- 11 pre-historic burial-, seahouse- and living/farming-sites (Rott)
- Cabin-ruins from traditional very rich lobster-fishing (1800, Håstein)
- Light-house built in 1862 (Flatholmen)
- Traditional living-house from 1800 century (Rott)

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, except of 23 a)

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/State (marine area)

b) in the surrounding area:
State (marine)

25. Current land (including water) use:

a) within the Ramsar site:
The island Rott has one farm, with extensive areas of cultivated and non-cultivated grass-production and sheep-grazing, in addition to a number of private cabins for recreation. Extensive fishing, crab- and lobster fisheries. Regulated kelp trawling.

b) in the surroundings/catchment:
Extensive fishing, crab- and lobster fisheries. Regulated kelp trawling.

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:
Intensive burning of coast heath has led to slow revegetation on the island Håstein. The spruce forest (about 60 years old) at Rott adversely affected the cultural landscape and past coast heath. Extensive leisure fishing and boat-related outdoor-life might represent some disturbance to breeding seabirds.

b) in the surrounding area:
Potential danger of oil pollution from nearby oil base and oil tankers/marin transport.

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.
Kjørholmane was designated as nature reserve on 7th May 1982, while the other parts of the proposed Ramsar site were designated as biotope protected area (sanctuary) (Jærstrendene Wildlife Conservation Area and Protected Area) on 12th December 2003 (according to The nature conservation act).

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 was implemented in 2011.

d) Describe any other current management practices:

Status as protected areas according to The nature conservation act is given by a Royal Resolution. All kind of human activity in the conservation area is regulated by an official set of detailed regulations specific for the area, supervised by the Norwegian "coast-guard" and Norwegian Nature Inspectorate. Extensive extermination hunt for mink *Mustela vison* (a introduced species farmed for its fur).

28. Conservation measures proposed but not yet implemented:

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

None.

29. Current scientific research and facilities:

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

Colonies of Great Cormorant *Phalacrocorax carbo* will be included in the national monitoring program for seabirds (SEAPOP). The County Governor is monitoring all the seabird-breeding every 3 year. The Institute for main research is monitoring the population of Grey Seal *Halichoerus grypus*.

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.

The site is incorporated in information booklet, The County Governor of Rogaland internet presentation, information-center and posters.

31. Current recreation and tourism:

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

Extensive use in summertime for boat related recreation/sports fishing, and a number of cabins (Rott)

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 proposed site is managed by the County Governor of Rogaland, which is under the instruction of DN. Address: County Governor of Rogaland, Lagårdsveien 9B, Box 59, 4001 Stavanger. Phone: +47 51 56 87 00. E-post: pka@fmro.no. Net: <http://www.fylkesmannen.no/rogaland>

34. Bibliographical references:

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

Kålås, J.A., Viken, Å. og Bakken, T. (red.) 2006. Norsk Rødliste 2006 – 2006 *Norwegian Red List*. Artsdatabanken, Norway

Nilssen, K.T & Haug, T. 2007 Status of Grey seals (*Halichoerus Grypus*) in Norway. NAMMCO Sci. Publ.6:23-31

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