

# Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

Available for download from [http://www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm).

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9<sup>th</sup> 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 7, 2<sup>nd</sup> edition, as amended by COP9 Resolution IX.1 Annex B). A 3<sup>rd</sup> 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.

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### 1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

Eva Ekholm Pehrson, Örebro County Administrative Board, S-701 86 Örebro, Sweden  
Mats Rosenberg, Municipality of Örebro, S-701 35 Örebro, Sweden

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### 2. Date this sheet was completed/updated:

December 2008

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### 3. Country:

Sweden

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### 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.

Kvismaren

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### 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

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### 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:**

During 2006-2008 significant restoration measures have been carried out, resulting in an increased area for cattle grazing and a change in water regulation regime more beneficial for biological diversity.

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#### 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 border line mainly corresponds to the border between land used for cattle grazing (inside) and cultivated land (outside). By large the borderline thus coincides with limits of the former lakes that were drained in the 1880's.

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#### 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.

59°10'N 015°23'E

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#### 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 situated in central southern Sweden about 15 km southeast of the town of Örebro, in the County of Örebro (population 274 000), municipality of Örebro (100 000).

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

Average 25 metres, with small variations.

**11. Area:** (in hectares)

780 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.

The Kvismaren site covers the area once occupied by two freshwater lakes, which were drained during the 1880s. Kvismaren valley is a mainly fertile and rather flat agricultural landscape. The wetland is now restored and consists of large wet meadows with grazing cattle, deciduous forests, reeds and open water. The site supports many species of breeding wetland birds and is internationally important for staging geese, cranes, *Anatidae*, to some extent also waders. Kvismaren is also an important site for hibernating snakes.

**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).

1. Kvismaren is a representative example of flat land lakes in the Boreal region of Sweden and includes the Natura 2000-habitats 6270 (Fenno-scandian lowland species-rich dry to mesic grasslands), 6430 (Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels) and 91E0 (Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). It hosts nature types and species of great conservation and educational values.

2. The site supports bird species which are nationally red-listed and/or included in Annex 1 of the EU Bird Directive, such as Black tern (*Chlidonias niger*) (VU), Black-tailed godwit (*Limosa limosa*) (VU), Garganey (*Anas querquedula*) (VU), Hen harrier (*Circus cyaneus*) (VU), Honey buzzard (*Pernis apivorus*) (EN), Penduline tit (*Remiz pendulinus*) (VU), Peregrine falcon (*Falco peregrinus*) (VU), River warbler (*Locustella fluviatilis*) (VU), Ruff (*Philomachus pugnax*) (VU), Slavonian grebe (*Podiceps auritus*) (VU) and Spotted crake (*Porzana porzana*) (VU). There are also Asp (*Aspius aspius*) (VU), Sharp-leaved pondweed (*Potamogeton acutifolius*) (VU) and Grass-wrack pondweed (*Potamogeton compressus*) (VU). The site has a function as a centre for dispersal of Otter (*Lutra lutra*) (VU) in the region.

4. The area is a key hibernating place for snakes in the surrounding area, namely Common European adder (*Vipera berus*) and European Grass snake (*Natrix natrix*).

5. The area regularly supports more than 20 000 resting waterbirds, including Common crane *Grus grus* (10 - 15 000), geese, mainly Bean goose *Anser fabalis* (20 - 40 000) and

ducks/coots (3 000), which makes the site one of the most valuable inland wetland areas in the country.

6. The area supports more than 1% of the population of Common crane *Grus grus* and Bean goose *Anser fabalis* during the migration period. (see Cr.5 above)

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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:**

Boreal.

**b) biogeographic regionalisation scheme** (include reference citation):

European Environment Agency. 2003. Europe's environment: the third assessment, p 231. Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

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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 Kvismare valley is built up by thick layers of clay covered by mould. Before lowering the water level of the large Lake Hjälmaren, the areas today covered with reeds in East and West Lake Kvismaren were open water. From 1877 to 1887 Lake Hjälmaren and Lake Kvismaren were lowered to gain more land for agriculture. Lake Kvismaren was lowered some 1.5 m and most of the lakes were dried out. Kvismare canal was built to facilitate the lowering, and within a couple of years the former lake bottoms were covered with reeds. Several thousands of hectares of wet meadows surrounding the lakes were turned into agricultural areas, in all more than 17 000 hectares were effected.

A restoration of part of the overgrown lake bottoms started in the early seventies, starting with the eastern part of Lake Fågelsjön. In 1981-1982 Lake Rysjön was restored and some years later also the western part of Fågelsjön. The restored lakes are monitored and maintained continuously, e. g. by regulating the water level. In 1997 a second restoration project was initiated in Rysjön and 2006 – 2008 additional restoration measures have been carried out (see 27 below).

Grazing of wetlands and shore meadows is another important part of the conservation work at Kvismaren. Local areas such as Hammarmaden as well as Nyängen and Fiskingemaden constitute the main areas for grazing.

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**17. Physical features of the catchment area:**

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

Kvismaren valley is a mainly fertile and rather flat agricultural landscape. Formerly there were two lakes here but following a comprehensive lowering of the water level during the 1880s the lakes dried out completely. The hydrology of the region is subject to strict regulation by canals and embankments in order to protect the agricultural land from flooding. However, small areas have been isolated by embankments in order to raise water levels to benefit wildlife. Bedrock is mainly of granite.

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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.

Great efforts have been made to restore some of the earlier water regime which is beneficial to the biological diversity in general, but also promotes the value of wetlands as a nutrient sink.

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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.

Tp, 4, M, 9

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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, and the ecosystem services of the site and the benefits derived from them.

The two lakes are shallow, have open water areas in the middle and broad zones of reeds. The lakes are surrounded by meadows, both wet and dry, grazed by cattle. The partly restored wetland constitutes a refuge for birds and other animal species depending on wet grassland or shallow waters in a region otherwise dominated by agricultural practises.

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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 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.*

See above (14) – the area hosts the nationally listed species Sharp-leaved pondweed (*Potamogeton acutifolius*) (VU) and Grass-wrack pondweed (*Potamogeton compressus*) (VU), as well as some interesting and/or uncommon plant species that thrive in the nutrient-rich flat country lake, e.g. Lesser bulrush (*Typha angustifolia*), Mare's tail (*Hippuris vulgaris*), Water-soldier (*Stratiotes aloides*) and Sweet-flag (*Acorus calamus*).

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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.*

See above (14) - a number of species at the site are nationally red listed as endangered or vulnerable, e.g. Ruff (*Philomachus pugnax*) (VU), Hen harrier (*Circus cyaneus*) (VU), Honey buzzard (*Pernis apivorus*) (EN), Otter (*Lutra lutra*) (VU) and Asp (*Aspius aspius*) (VU).

The area also hosts many species of dragonflies.

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**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:

In the grazed areas traces of the old farming landscape can be found as foundations, earth cellars, stone walls and cairns.

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:

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**24. Land tenure/ownership:**

a) within the Ramsar site:

Most of the site (more than 90 percent) is privately owned, one smaller area is state-owned.

b) in the surrounding area:

The surrounding area is privately owned.

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**25. Current land (including water) use:**

a) within the Ramsar site:

Livestock grazing, nature conservation and recreational activities.

b) in the surroundings/catchment:

The surrounding areas are used for agricultural practises and for forestry.

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**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:

Potential threats are increased drainage and cultivation, as well as a reduced level of grazing, although great efforts are made to encourage grazing. Another potential threat is the overgrowing of open waters, partly depending from high nitrogen contents in agricultural run-off water. Birds such as Hen harrier (*Circus cyaneus*) (VU), Black-tailed godwit (*Limosa limosa*) (VU), Short-eared owl (*Asio flammeus*) (and Long-eared owl (*A. otus*)) used to breed regularly in the 1950s - early 1960s but are now rarely seen in the region.

b) in the surrounding area:

The intensive use of fertilizers and pesticides in the surrounding agricultural areas is of some concern. There are also current discussions about the possibility to establish wind power stations in the surroundings.

Special attention, in cooperation with the landowners, is paid to minimise the impact on crops caused by high concentrations of cranes and geese.

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**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.

The Kvismaren site is listed as being of national importance to nature conservation and is also an EU Special Protection Area (SPA) in the Natura 2000 network (SE0240058 Kvismaren (739 ha) – SPA, pSCI). The site includes one nature reserve, protecting 94 percent of the Ramsar site:

- Kvismaren Nature Reserve – total area 732 ha. It was established in April 1978 but has since been expanded. A management plan exists and the reserve is managed by Örebro municipality in cooperation with Örebro County Administration, the land-owners and the association “Kvismare fågelstation”. Restoration measures carried out since 1980 have included the burning of reed and scrub, rotary cultivation, and raising of water levels over an area of 85 ha.

In 2006-2008 significant restoration measures were carried out in extensive parts of the site, including refinement of the water regulation devices, transferring forest areas to open areas for cattle grazing, restoring dikes and small canals and the creation of a small wetland designed for the retention of nutrient-rich water. A pond meant as a breeding site for particularly amphibians has been built. Further measures are planned for 2009.

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 according to EU habitat directive articles has been developed and is implemented. The restoration measures mentioned above are part of this plan.

d) Describe any other current management practices:

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**28. Conservation measures proposed but not yet implemented:**

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

Current discussions may lead to a slight enlargement of the existing Nature Reserve in the future to include additional valuable habitats.

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**29. Current scientific research and facilities:**

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

A non-profit association, "Föreningen Kvismare Fågelstation", runs Kvismare Bird Observatory. Amateur ornithologists and bird enthusiasts carry out most of the work. Since the start in 1961 more than 260 000 birds have been ringed and some 100 different research projects have been or are still carried out at the bird observatory.

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**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 illustrates well the consequences of large-scale drainage activities. Conservation education is facilitated through the presence of a bird observatory with 2 observation towers, 1 hide and 2 observation platforms. The area also has a toilet, a grilling place and trails. In parallel with the restoration measures, significant improvements have been made in relation to the accessibility of the site. These measures include a new parking place, new information signs, trails and toilet, and different measures to facilitate for disabled people to visit and move around in the area, including a bird watching tower designed for handicapped people.

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**31. Current recreation and tourism:**

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

The social value of the site is meant to increase along with the restoration measures. One aspect of the current restoration project is to attract more people to the site, which could also be beneficial for the local people from economic point of view.

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**32. Jurisdiction:**

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

Örebro County Administrative Board, S-701 86 Örebro, Sweden

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**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.

Municipality of Örebro, S-701 35 Örebro, Sweden

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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.

European Environment Agency. 2003. Europe's environment: the third assessment, p 231.  
Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

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