

Information Sheet on Ramsar Wetlands (RIS)

— 2006-2008 version

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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).

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

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OR OFFICE USE ONLY.

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

21.03.2007

3. Country: Poland

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.

Karaś Lake Nature Reserve (Rezerwat przyrody „Jezioro Karaś”)

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:

No major change in ecological character of the site was observed.

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 boundary follows the one of the existing Karaś Lake Reserve, running along the ditch separating the State owned and private grounds to the east, south and west of the reserve. The forest to the north is not separated by ditch.

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.

53°33' – 52° 35'N 19° 27' -19° 30'E

appr. centre 53°33'N 019°29'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.

The wetland is located in the Warmińsko-Mazurskie, Voivodeship, 5.5 km southwest from Hawa, the nearest large town.

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

average - 99 m above sea level

11. Area: (in hectares) 815 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 embraces a vast complex of mires, swamps and a lake at late phase of its evolution. The wetland is shallow eutrophic lake of a surface of about 360 ha and the surrounding area ca 440 ha take transition mires colonized densely by reeds with scattered shrub woodland of birch *Betula pendula* and alder *Alnus glutinosa*, and swampy forests. The lake is connected with Osa river via Gać river flowing through the lake. The water surface of the lake is fringed with a 100 m wide belt of reedbeds and its surface is dotted with many muddy islets overgrown by reeds *Phragmites australis* and clusters of alder *Alnus glutinosa*. The site neighbours with pastures and tilled land separated by a strip of swampy alder forest. Shallow water and rich riparian vegetation provide favourable conditions for animal communities especially for nesting and breeding waterfowl.

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).

2. The site is important since it shelters natural processes of lake terrestrialisation with all respective phases which manifest themselves in natural gradient of vulnerable communities from submerged vegetation to forest. These processes occur on large surfaces and present starting points to the development of a several succession series.

Deleted: of

The wetland supports aquatic plant communities, vulnerable and endangered at European scale, listed in Annex I to Habitat Directive (Natura 2000 code enclosed), such as: (3140) mesotrophic waters with benthic vegetation of *Chara* spp. and *Nitella* spp. At least 6 submerged-meadow communities build by stoneworts (*Charales*) were found in the lake – *Nitellopsidatum obtusae*, *Charetum aculeolatae*, *Ch. rudis*, *Ch. contrariae*, *Ch. fragilis* and *Ch. asperae* as well as (3150) natural, eutrophic reservoirs with pondweed vegetation of *Potamogetonalia* Alliance of which 3 communities were found in the lake: *Najadatum marinae*, *Potamogetonum pectinati* and *Nupharo-Nymphaeetum albae*.

The site shelters critically endangered plants including slender-leaved pondweed *Potamogeton filiformis*, small waterlily *Nymphaea candida* and mud sedge *Carex limosa* listed by the Polish Red Data Book of Plants.

The site supports vulnerable birds of prey (white-tailed eagle *Haliaeetus albicilla* and osprey *Pandion haliaetus*) which regularly hunt in the reserve (birds listed in PRDBA and in Annex I to BD) and at least 8 species listed in the Annex I to the BD, endangered at European scale (bittern *Botaurus stellaris*, marsh harrier *Circus aeruginosus*, crane *Grus grus*, white-tailed eagle *Haliaeetus albicilla*, little bittern *Ixobrychus minutus*, bluethroat *Luscinia svecica*, black kite *Milvus migrans*, common tern *Sterna hirundo*).

3. The wetland contributes to the maintenance of regional biodiversity since it supports important populations of waterfowl species such as spotted crake *Porzana porzana* and little crake *P. parva* which regularly breed within the site (Polish Red Data Book of Animals PRDBA and in Annex I to Birds Directive BD). The wetland is one of the three sites in Poland where *Chara polyacantha* was found to occur and create submerged meadows.

4. The wetland provides shelter and foraging grounds for large flocks of migrating birds in autumn and spring. In summer the lake is important moulting site for numerous flocks of greylag goose *Anser anser* and mallard *Anas platyrhynchos*.

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:

continental - according to EEA,

geobotanical region of deciduous forests - according to Kondracki,

Eastern Europe – according to regionalisation used by Waterbird Population Estimates 2002, Third Edition Global Series 12.

b) biogeographic regionalisation scheme (include reference citation):

Geobotanical region of deciduous forests of Central Europe at the edge of the East-European region of mixed forests (boreal) – according to the Polish regionalisation by Jerzy Kondracki, 2001: Regional geography of Poland. The region embraces eastern part of Denmark, southernmost Sweden, central and north-eastern Germany and most of the territory of Poland except for its two mountain ranges (Alpine region) and the north-eastern edge of the country, belonging to sub-boreal or East-European mixed forest biogeographic region.

According to EEA – the region is identified as “continental” (EEA publication 2002: Europe’s biodiversity – biogeographical regions and seas).

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 reserve lies in southern part of Hawskie Lakeland, at the transition zone between the Masurian Lakeland and Western Pomerania region. The origins of the area date back to the activity of glacier during the Pomeranian phase of the Northern Polish Glaciation. The lake is of moraine origin and its catchment belongs to the Osa river basin. Connection to Osa is provided by Gać river flowing through the lake. The lake is in the phase of advanced terrestrialisation. At present its two parts: southern and northern are separated by a natural dike built of accumulated organic material. The local landscape is diverse with numerous moraine hills and depressions which remained after the glacier melted down. The lake water level is fluctuating with maximal depth less than 2 m. Water is mesothropic to eutrophic. Bottom sediments accumulated as a thick gyttia layer. The climate is cool, typical of Lakeland Region with boreal influences. The annual sum of precipitation exceeds 700 mm, and is higher than in central Poland (600 mm). The vegetation season is short, of a duration of less than 200 days.

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 catchment area has typical young glacial landscape of lakeland. Its main formations are moraine hills, depressions and no-outflow hollows. In the close vicinity of Karaś lake there are 108 water eyelets that originate from the post glacial period. Mineral soils have been developed from sands and sandy clays as podsols, gley podsols and rusty and brown soils. In local depressions there dominate peat soils showing various degree of decomposition. Mud and fen peat soils are encountered on Gać river terraces. Agricultural activity in the catchment is of low intensity thus there is little risk of water contamination due to plant

production means, but intensification of agricultural production may become a source of new threats in the future. The regional climate is characteristic of the north-eastern part of the country (Lakeland climate type) with boreal traits, short vegetation season, early and late frosts, and annual precipitation sum about 700 mm.

18. Hydrological values:

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

The Karaš lake is a shallow reservoir fed by ground water and the Gać river. The river brings sewage polluted water what contributes to increase the lake eutrophication. The lake functions as sediment trapping and as flood controlling reservoir.

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.

O, Tp, U, W, Xp

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.

Main habitats of the wetland represent a gradient from open water with immersed and emerged vegetation to reedbeds on lake shores, to willow shrub and to swampy forests – groves of black alder *Alnus glutinosa* and birch *Betula pendula*. A transition mire neighbours the lake on the west. The lake bottom is covered with beds of immersed vegetation creating meadows composed of diverse species of stoneworts *Nitella* spp, *Chara* spp. and pondweeds *Potamogeton* spp. Among the plants with floating leaves the most valuable are “red listed”: *Potamogeton filiformis* and *Nymphaea candida*. The reedbeds are built of *Phragmites australis*, *Schoenoplectus lacustris*, *Typha latifolia* and *T. angustifolia*. Transition mires support sedge moss grasslands or shrublands with groups of *Alnus nigra*, *Salix* spp as well as *Betula pendula* and *B. pubescens*.

The site is used as fishery.

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 site shelters such species rare and vulnerable to extinction as *Botrychium multifidum*, *Ophioglossum vulgatum*, *Teucrium scordium*, *Zannichellia palustris*, *Erythraea centaurium*, *Dryopteris cristata* and legally protected: *Nuphar luteum*, *Daphne mezereum*, *Drosera rotundifolia*, *D. anglica*, *Listera ovata*, *Dactylorhiza incarnata*, *D. majalis*, *Epipactis palustris* and *E. helleborine*.

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.

More than 175 bird species were found in the reserve including 80 species of breeding birds. Most of them are subject to protection under the Polish law and are also listed as endangered in Annex I to Birds Directive. Among the abovementioned species, the nesting birds include: bittern *Botaurus stellaris* (3-6 ranges), common tern *Sterna hirundo*, little bittern *Ixobrychus minutus* and crane *Grus grus* (5 pairs), black kite *Milvus migrans* and marsh harrier *Circus aeruginosus*. Other nesting birds including red-crested pochard *Netta rufina* (1-2 pairs), wigeon *Anas penelope*, shoveler *A. clypeata*, goldeneye *Bucephala clangula*, ferruginous duck *Aythya nyroca*, garganey *Anas querquedula*, greylag goose *Anser anser*, mute swan *Cygnus olor*, great crested grebe *Podiceps cristatus*, red-necked grebe *P. grisegena*, black-necked grebe *Podiceps nigricollis*, water rail *Rallus aquaticus*, green sandpiper *Tringa ochropus*, common snipe *Gallinago gallinago*, redwing *Turdus iliacus*, bearded tit *Panurus biarmicus* (25 pairs) and penduline tit *Remiz pendulinus* are listed by Annexes II and III to Birds Directive. White-tailed eagle *Haliaeetus albicilla*, osprey *Pandion haliaetus*, lesser spotted eagle *Aquila pomarina* and red kite *Milvus milvus* regularly hunt within the site.

Within the Reserve, the bluethroat *Luscinia svecica cyaneacula* was found to attain a highest density in its whole range of occurrence.

Among mammals found in the reserve noteworthy is the presence of otter *Lutra lutra*, species listed in Annex II to Habitat Directive.

Over the last 10-15 years, increased presence of American mink *Mustela vison* has been observed in the reserve and its predatory activity is held responsible for a decline in water bird reproduction.

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 lake is used for commercial fishing, forests are managed by the Forestry Service.

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: The State Treasury
- b) in the surrounding area: The State Treasury and private ownership

25. Current land (including water) use:

- a) within the Ramsar site:
Major types of economic activity include fishery, forestry and agriculture.
The site constitutes a tourist attraction – mainly for walking excursions.
- b) in the surroundings/catchment:
Main activity in the surroundings – agriculture and forestry.

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:
Factors adversely affecting the wetland include attempts to decrease the water level in the vicinity of the reserve and poaching (overfishing), fishing with dragged nets what destroys submerged vegetation.
Predatory activity of *Mustela vison* – decline in broods of waterfowl.
The lake receives pollution brought in with the Gać river water.
- b) in the surrounding area:
Factors threatening the wetland may originate from agricultural pollution of waters, above all from the large farms built near the protected area or from fruit plantations established in the immediate vicinity of the reserve. The farms affect the status of the wetland since they take open spaces of meadows thus contributing to a decline in habitats used by feeding birds.

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.

Nature Reserve „Karaś Lake” since 1958; (815.48 ha),

Ramsar Site “Karaś Lake” since 1984; (815.48 ha),

Natura 2000 Site “Karaś Lake” PLH 280003; (815.48 ha).

The lake is situated within the Area of Protected Landscape of the Warmińsko-Mazurskie Voivodeship.

- 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?:

The Management Plan for Lake Karaś Reserve was elaborated in 2000.

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.

No information

29. Current scientific research and facilities:

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

At the Reserve floristic and faunistic studies are conducted by the Warmińsko-Mazurski University in Olsztyn.

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.

No visitor centre is located within the wetland.

31. Current recreation and tourism:

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

The reserve is used for recreation, mainly as walking area.

32. Jurisdiction:

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

Warmińsko-Mazurskie Voivodeship, Warmińsko-Mazurski Voivode.

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.

Voivode of the Warmińsko-Mazurskie Voivodeship

Office of the Warmińsko-Mazurskie Voivodeship, Al. Marszałka Józefa Piłsudskiego 7/9
10-575 Olsztyn, Poland.

34. Bibliographical references:

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

- Dobrowolski K., Lewandowski. K. 1998. Ochrona środowisk wodnych i błotnych w Polsce. Instytut Ekologii PAN, Warszawa. (Conservation of wetlands in Poland).
- Gromadzki M. z zespołem. 1994. Ostoje ptaków w Polsce. Ogólnopolskie Towarzystwo Ochrony Ptaków, Biblioteka Monitoringu Środowiska, Gdańsk. (Bird sites in Poland – in Polish).

- Mackowicz R. 2000. Plan ochrony rezerwatu „Jezioro Karaś”. Olsztyn. Msc. (Reserve Management Plan for Karas Lake Reserve – in Polish).
- Natura 2000. Sieć ostoi ptaków w Polsce. 2002. Ogólnopolskie Towarzystwo Ochrony Ptaków. Gdańsk. (Network of Bird Areas in Poland – in Polish).
- Pawlaczyk P., Jermaczek A. 2004. Natura 2000 - Narzędzie Ochrony Przyrody. Planowanie ochrony obszarów Natura 2000. WWF, Warszawa. (Management planning in Natura 2000 sites in Polish).
- Personal information from the Conservator of Nature of the Voivode in Olsztyn.
- Polska Czerwona Księga Roślin. 2001. Instytut Ochrony Przyrody im W. Szafera. Kraków 2001.(Polish Red Data Book of Plants - in Polish).
- Rąkowski G., Wójcik J., Walczak M., Smogorzewska M., Brodowska M. 2005. Rezerваты przyrody w Polsce północnej. Monografia pod redakcją G. Rąkowskiego. Instytut Ochrony Środowiska, Warszawa. (Nature reserves in northern Poland – in Polish).
- <http://natura2000.mos.gov.pl/natura2000/pl/>
- <http://www.ramsar.org/>

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