

Information Sheet on Ramsar Wetlands (RIS)

— 2006-2008 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).

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

Grzegorz Rąkowski and Jadwiga Sienkiewicz
Institute of Environmental Protection,
Krucza 5/11D
00 548 Warsaw, Poland

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--	--

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.

Milicz Fishponds Nature Reserve (Rezerwat przyrody „Stawy Milickie”)

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 boundary of the wetland is the same as that of the existing Nature Reserve.

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.

Centroid: 51°34'N 017°20'E

Coordinates of individual site centres from east to west:

51°31'N – 17°00' E; 51°28'N – 17°02' E; 51°32'N – 17°07' E; 51°33'N – 17°23' E;

51°33'N – 17°30' 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.

Southwestern Poland, Dolnośląskie Voivodeship (region)

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

100-110 m above sea level

11. Area: (in hectares) 5,324 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 covers the total area of the “Stawy Milickie” Nature Reserve (Milicz Ponds), dated since 1973. It is one of the greatest nature reserves in Poland. It covers five separate enclaves with fish ponds’ complexes, that have been in place in this region since several centuries, and a part composed of surrounding marshlands, meadows and forests. It is one of the largest wetland waterbird sites in Europe with their nesting, feeding and resting places. Most ponds are surrounded by a wide belt of rushes. There are also numerous species of rare plants found in the reserve, mainly aquatic species, such as: *Salvinia natans*, *Nymphaea alba*, *Nuphar luteum*, *Nymphoides peltata*, *Limosella aquatica*, in addition to plants of drier habitats, such as: *Osmunda regalis*, *Herminium monorchis*, *Epipactis helleborine* and *Listera ovata*. The ornithofauna of the reserve includes 137 breeding species, including many rare ones, over 50 further species appear here during their migratory flights. Numerous common species are found here in significant numbers. Large flocks of ducks and geese as well as other waterbirds gather here during their spring and autumn migrations. The Milicz Ponds reserve together with surrounding areas lies within the boundaries of the Landscape Park of the Barycz River Valley, established in 1996 and covering an area of 87,040 ha.

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. The site represents an area of wetland which is typical of this region of Poland and Central Europe and provides a very good example of wetlands used as fish ponds for many centuries and are important for seasonal water retention in a region deprived of large natural lakes.

2. Several endangered bird species listed in the Polish Red Data Book of Animals, which are threatened by extinction nest in the site. The following are among them: little bittern *Ixobrychus minutus*, whooper swan *Cygnus cygnus*, ferruginous duck *Aythya nyroca* and ruff *Philomachus pugnax*; whereas other endangered and threatened species feed regularly here, such as e.g. osprey *Pandion haliaetus*. All the abovementioned species are also listed by Annex I to Birds Directive.

3. Habitats of rare bird species that are important for maintaining the biodiversity of the continental region are found in the site. Apart from those mentioned above, they are, among others: bittern *Botaurus stellaris*, greylag goose *Anser anser*, black stork *Ciconia nigra*, little crane *Porzana parva*, spotted crane *Porzana porzana*, corncrake *Crex crex*, crane *Grus grus*, white-tailed eagle *Haliaeetus albicilla*, red kite *Milvus milvus*, black kite *M. migrans*, lesser spotted eagle *Aquila pomarina* and bearded tit *Panurus biarmicus*.

The flora is also diversified and rich, especially that which is associated with water, marshland and peatland habitats, and composed of especially rare species, seldom found in Poland and Europe, e.g.: *Herminium monorchis*, *Viola stagnina*, *Limosella aquatica*, *Cyperus fuscus* and *Juncus tenageina* (species listed by Annex II to Habitat Directive and/or Polish Red Data Book of Plants).

4. The Milickie Ponds site constitutes a very important feeding and resting place for marshland waterbirds during their spring and autumn migrations; this in particular relates to geese and ducks (*Anatidae*).

5. Large flocks of waterfowl gather within the site during migrations. With populations of bean goose *Anser fabalis* attaining more than 20 000 observed on migration, the numbers of waterbirds within the site regularly exceed the threshold established by Criterion 5.

6. During migration seasons flocks of bean goose *Anser fabalis* gather at the site with the population attaining 30000 birds, what accounts for app. 5 % of the estimated Central, Southern and Western European population of that species.

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 J. Kondracki.

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 site covers a large complex of fish ponds, located on flat wetland with numerous natural marginal waters. They form postglacial drainage-like basins created as a result of the disappearing glacier, surrounded by moraine highlands and hills. Artificial ponds, that have been built as early as since the end of the 13th century, took advantage of natural depressions or developed with the use of artificial dikes. The numerous moraine sand dunes and hills that are surrounding the valley are mostly covered with forests and meadows. Sandy soils, podzols and sandy muds are the dominating soil types. The climate of the Barycz River Valley is moderately warm and humid, shaped by arctic air masses from above the Atlantic Ocean. The average annual temperature is 7.7°C, with annual precipitation amounting to around 600 mm.

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 Milicz Ponds lie in the catchment area/basin of the Barycz River and are supplied with its waters. The lack of industry and low population density contributed to the rather good quality of waters in the Barycz River and the Milicz Ponds. The Barycz River is a typically lowland watercourse with a small gradient (bed vertical declines), and an average annual water flow of 27.5 m³/s. The extreme flooding water levels occur in early spring and are connected with snow melting. The river is mostly regulated and controlled by 15 impounding dams, directing waters to fish ponds and irrigating nearby meadows.

18. Hydrological values:

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

The Milicz Ponds are artificial, man-made but already considerably naturalised water reservoirs. They are located in the Barycz River valley and function partially as reservoirs for flood control. The small Barycz River, which supplies water to the ponds, flows across the central part of the lowland, creating numerous oxbows and surrounded by wetland meadows.

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, W, Xf, 1, 3, 6

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.

Within the boundaries of the wetland area the dominating communities are those connected with water – marshlands, marshy forests, rich submerged and floating vegetation communities. Among the most valuable associations with regard to the species composition are the phytocenoses associated with the aquatic environment such as: *Riccietum fluitantis*, *Nupharo-Nymphaeetum albae*, *Cypero fusci-Limoselletum*, *Acoretum calami*, and in organo-mineral soils – forest and shrub communities, e.g. *Salicetum pentandrocineriae*, *Circaeo-Alnetum*, *Ficario Ulmetum*, *Galio sylvatici-Carpinetum* and moist pine forest *Molinio-Pinetum*.

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.

Species nationally endangered and vulnerable at European scale include *Nymphoides peltata* and *Herminium monorchis* (Polish Red Data Book of Plants). Rare and endangered species under strict or partial protection include: *Nuphar luteum*, *Nymphaea alba*, *Salvinia natans*, *Listera ovata*, *Epipactis helleborine*, *Viola stagnina*, *Limosella aquatica*, *Cyperus fuscus*, *Juncus tenageia*, *Daphne mezereum* and *Hedera helix*.

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 shelters at least two bat species of the Annex II of the Habitat Directive – *Barbastella barbastellus* and *Myotis myotis*. The avifauna of the Milicz Ponds reserve includes 137 breeding species and app. 50 migratory species, including many rare ones, inter alia: bittern *Botaurus stellaris* - 44-64 ranges, little bittern *Ixobrychus minutus*, black stork *Ciconia nigra* - 9 pairs, little crane *Porzana parva* - 12-30 pairs, crane *Grus grus* - 10-18 pairs, white-tailed eagle *Haliaeetus albicilla* - 3 pairs nesting nearby (species of Birds Directive Annex I). 35 protected in Europe bird species appears at the site during migration periods, including: red kite *Milvus milvus* - 1 pair, black kite *Milvus migrans* - 5 pairs, spotted crane *Porzana porzana* - 1-2 pairs, little crane *P. parva*, corncrake *Crex crex*, ruff *Philomachus pugnax*, lesser spotted eagle *Aquila pomarina*, whooper swan *Cygnus cygnus*, greylag goose *Anser anser* - 180-230 pairs, ferruginous duck *Aythya nyroca*, bearded tit *Panurus biarmicus* - 15-75 pairs. Other important bird species gathering in greater numbers are: marsh harrier *Circus aeruginosus* - 64-85 pairs, black cormorant *Phalacrocorax carbo* - 15-20 nesting pairs, 230-700 birds during spring and autumn migrations, mute swan *Cygnus olor*, common tern *Sterna hirundo* - 50-105 pairs, black tern *Chlidonias niger* - 25-60 pairs, marsh warbler *Acrocephalus palustris* - 500-1800 pairs and kingfisher *Alcedo atthis* - 7-28 pairs. During spring and autumn migrations significant numbers of ducks (*Anatidae*), are also gathering around the ponds, and in particular, flocks of bean goose *Anser fabalis*, totaling up to 30 000 birds.

Several fish species are bred in the ponds, mainly carp *Cyprinus carpio*. Smaller amounts of such species as: *Perca fluviatilis*, *Tinca tinca*, *Esox lucius*, *Hypophthalmichthys molitrix*, *Ctenopharyngodon idella* are also subject to fishing. Habitats of rare and threatened by extinction *Emys orbicularis* are also found here.

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 area of the reserve with its surrounding grounds has archaeological sites from the stone-age period and the later early medieval settlements, providing evidence on the presence of the fishermen and hunter settlements. In the adjacent towns (Milicz, Sułów, Żmigrod) there are historical architectural monuments of religious importance (baroque and late gothic churches).

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? Yes.

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:
The Milicz Ponds are of major historical, social and cultural value as wetlands managed since the 12th century and used for developing fish ponds, which also today serve that purpose and are continuously used for extensive fish breeding.
- 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 area of the “Milicz Ponds” reserve is mainly owned by the State Treasury (4 459 ha owned by the Agricultural Ownership Agency of the State Treasury, and 154 ha – by the State Forests management); small parts of land belong to individual owners.

- b) in the surrounding area:

The surrounding area is owned by the State Treasury and by private persons.

25. Current land (including water) use:

- a) within the Ramsar site:

Extensive fish breeding, angling, tourism

- b) in the surroundings/catchment:

Extensive agricultural and forestry use

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:

Fish-eating birds (black cormorant *Phalacrocorax carbo*, common heron *Ardea cinerea* – predatory birds) are combated and frightened away due to carp breeding in the ponds. For this reason fishermen are trying to limit the area of reedbeds. Bird frightening can also be caused by tourists visiting the reserve.

- b) in the surrounding area:

Beyond the boundaries of the reserve game-shooting is carried out of hunted waterfowl (ducks, geese, woodcocks); at the same time the predatory bird species also get killed.

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 since 1973,

Ramsar Site since 1995, current surface 5324.31 ha

Natura 2000 Site “Barycz River Valley” (PLH020001) 55 480.7 ha

- 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 protection plan for the Milicz Ponds Reserve, which was prepared in 2000, is currently being implemented.

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.

Protection zones are planned to be established around the ponds, where duck and goose shooting would be prohibited. Reserve protection does not protect those birds (hunters usually shoot them from dikes, which form the boundaries of the reserve). Due to the nesting requirements of the larger birds it is planned to extend the felling age of alder *Alnus glutinosa* and oak *Quercus robur*, and to maintain absolute compliance with the standards on protection zones of the white-tailed eagle *Haliaeetus albicilla* nests.

29. Current scientific research and facilities:

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

Ornithological research is carried out on the reserve's area by scientists from the Ornithological Station of the University of Wrocław – inter alia, constant monitoring of the distribution of selected bird species in the breeding period, and research on the population of waterbirds in all phenological phases.

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.

A nature trails has been established within the boundaries of the site; there are also two sightseeing spots with observation towers. The Ornithological Station of the University of Wrocław located in Ruda Milicka at the reserve's boundary plays a significant educational and informative role.

31. Current recreation and tourism:

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

There are two tourist trails crossing the territory of the reserve. The intensity of tourism is relatively low. Areas surrounding the reserve are used for recreation with the dominating holiday seasonal visitor movement (Holiday and Recreation Centre in Milicz).

32. Jurisdiction:

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

Dolnośląskie Voivodeship, Voivode of the Dolnośląskie Voivodeship

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 Dolnośląskie Voivodeship

Pl. Powstańców Warszawy 1, 50-951 Wrocław, Poland.

34. Bibliographical references:

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

- Dokumentacja przyrodnicza rezerwatu "Stawy Milickie" – praca zbiorowa pod kier. J. Witkowskiego (maszynopis) (Nature documentation of the "Milickie Ponds" Reserve – manuscript in Polish).
- Jankowski W., Świerkosz K.: Park Krajobrazowy "Dolina Baryczy". (maszynopis) ("Barycz River Valley" Landscape Park – manuscript in Polish).

- Kondracki J.: Geografia regionalna Polski. Wydawnictwo Naukowe PWN, Warszawa 2001. (Regional geography of Poland – in Polish).
 - Mazurski K. M. “Kraina Stawów Milickich” Zakład Wydawniczo – Propagandowy PTTK Warszawa. (The Milickie Ponds Region – in Polish).
 - Ostoje ptaków o znaczeniu europejskim w Polsce, red. P.O. Sidło, B. Błaszowska i P. Chylarecki. OTOPI, Warszawa 2004. (Bird sites of European importance in Poland – in Polish).
 - 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., Janczewska A., Pisarski Z.: Parki krajobrazowe w Polsce. Instytut Ochrony Środowiska, Warszawa 2002. (Landscape parks in Poland – in Polish).
 - Walczak M., Radziejowski J., Smogorzewska M., Sienkiewicz J., Gacka-Grzesikiewicz E., Pisarski Z.: Obszary chronione w Polsce. Instytut Ochrony Środowiska, Warszawa 2001. (Protected areas in Poland – in Polish).
 - Waterbird Population Estimates. Fourth Edition. Wetlands International 2006.
 - <http://www.ramsar.org/>
 - <http://natura2000.mos.gov.pl/natura2000/pl/>
-

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

Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org