

3SK002

# Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

NOTE: It is important that you read the accompanying *Explanatory Note and Guidelines* document before completing this form.

**1. Date this sheet was completed/updated:**

30 June 1998

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DD MM YY

3SK002

Designation date

Site Reference Number

02/07/90

**2. Country:** Slovak Republic

**3. Name of wetland:** Parížske močiare (Paríž Marshes)

**4. Geographical coordinates:** 47° 52' N 18° 30' E  
(47° 51' 40" - 47° 52' 20" N, 18° 29' - 18° 31' 30")

**5. Altitude:** (average and/or max. & min.) 120 - 125 m a.s.l. **6. Area:** (in hectares) 184 ha

(enlarged from 141 ha.)

**7. Overview:** (general summary, in two or three sentences, of the wetland's principal characteristics)

Extensive marshes are located in the SE part of the Podunajská Nižina Lowland (Danube Lowland) in a shallow depression of the Paríž Brook, with a water depth 1 - 2 m. They are covered almost exclusively by reed *Phragmites australis* and rush *Typha latifolia*. The site has been protected as a nature reserve since 1966, and it is an important breeding site of waterbirds (especially warblers with a high concentration of breeding pairs of 14 species) and resting site for migrating waterbirds; this is the only breeding site of *Acrocephalus melanopogon* and the most important breeding site of *Panurus biarmicus* in Slovakia. The site is important also from a hydrological and ecological point of view.

**8. Wetland Type** (please circle the applicable codes for wetland types as listed in Annex I of the *Explanatory Note and Guidelines*)

marine-coastal: A . B . C . D . E . F . G . H . I . J . K

inland: L . **M** . N . O . P . Q . R . Sp . Ss . **U** . Va . Vt . **W** . Xf . Xp . Y . Zg . Zk . **U** . Ts

man-made: 1 . 2 . 3 . 4 . 5 . **6** . 7 . 8 . 9

Please now rank these wetland types by listing them from the most to the least dominant: Tp, U, M, 6

**9. Ramsar Criteria:** (please circle the applicable criteria; see point 12, next page)

1a . **1b** . 1c . 1d | **2a** . **2b** . **2c** . 2d | 3a . **3b** . 3c | 4a . 4b

Please specify the most significant criterion applicable to the site: 1 b

**10. Map of the site included?** Please tick **yes**  -or- **no**

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits)

**11. Name and address of the compiler of this form:**

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02 NOV 1998

**Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):**

**12. Justification of the criteria selected under point 9, on previous page.** (Please refer to Annex II in the Explanatory Note and Guidelines document).

- 1 b - The site is a particularly good representative example of the natural reed marshes characteristic of the Pannonian biogeographical province which were, in the past, common to European lowlands.  
 2 a - The site supports an appreciable number of breeding warblers and other waterbirds.  
 2 b, 2 c - The site is important as a breeding site for birds, fish and amphibians, but also for migrating water birds.  
 3 b - The site regularly supports substantial numbers of individuals from particular groups of waterfowl, such as grebes, herons, swans, ducks and raptors (see par. 17).

**13. General location:** (include the nearest large town and its administrative region)

The site is situated in the Podunajská Pahorkatina Hills in Southern Slovakia, district Nové Zámky (population about 150,000 inhabitants), c. 26 km SE of district town Nové Zámky (population to 43,500), 17 km NW of Štúrovo (13,500), between villages Nová Vieska (1,500 inhabitants) and Gbelce (3,000 inhabitants).

**14. Physical features:** (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth; water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

**Origin:** natural, artificially modified. **Geology:** The bedrock of the site consists of Pliocene freshwater and partly brackish clays, sands and gravels. In some places they approach on the surface, but largely are covered with Quaternary sediments, either Pleistocene (loess and loess clays, gravel and sand of the river terraces) or Holocene clayey and sandy-clayey floodplain sediments. **Soil types:** haplic chemozems on loess, orthic luvisols on loess clays, fluvi-gleyic phaeozems and eutric fluvisols on clayey floodplain sediments and histosols (fen) in marshes. **Geomorphology:** The alluvial floodplain of the Paríž Brook, adjacent river terraces and hills with available relief up to 100 - 200 m are the principal landforms. The Paríž Brook catchment lies between 109 - 285 m a.s.l. The valley is relatively narrow, but in the upper part of the Ramsar site, it widens and creates a basin c. 3 km long and 1 km wide. In Gbelce, the valley abruptly narrows. **Hydrology:** The Paríž Brook is a right side tributary of the Hron River and its catchment (total area 232.78 km<sup>2</sup>, 141 km<sup>2</sup> to the cross-section of the site) is situated in Hronská Pahorkatina Hills. Its overall length is 41.5 km. In its section within the Ramsar site it flows from NW to SE (gradient 1.5 - 0 ‰). The mean annual discharge is 0.299 m<sup>3</sup>.s<sup>-1</sup>. Peak discharges occur in February - May. Minimum discharges appear in July, with the driest period in September (protracting to winter). The maximum water depth reaches to 1.5 m. **Climate:** The site is situated in warm and dry climatic district with an average air temperature around 9.5 °C; temperatures in January vary from -1 °C to -3 °C, in April between 9 - 8 °C, in July 21 - 20 °C. The mean annual rainfall in the area is 560 mm with a minimum of 380 mm (320 - 380 mm in vegetation period, 230 - 270 mm in winter). The mean annual evaporation from the open water surface is 425 - 450 mm.

**15. Hydrological values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilisation, etc.)

The site has an important role in the recharge of local groundwater and in sediment trapping and nutrient retention.

**16. Ecological features:** (main habitats and vegetation types)

The site includes permanent flowing waters (a stream and artificial canal), herbaceous (mostly reed) marshes and swamps, shrub-dominated swamps, wet meadows and an artificial impoundment. From the phytogeographical point of view, the site belongs to the province of Pannonian flora (*Pannonicum*), a district of true Pannonian xerophytic flora (*Eupannonicum*). The main vegetation types are *Phragmitetum communis*, *Sparganietum erecti*, *Lemnetum trisulcae*, *Lemnetum minoris*, *Polygonetum amphibii*, *Rorippo amphibiae-Oenanthetum aquaticae* and *Scirpion maritimi*.

**17. Noteworthy flora:** (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.) Several vulnerable species of Slovak flora have been found within the site: *Berula erecta*, *Butomus umbellatus*, *Myosotis palustris*, *Myriophyllum verticillatum*, *Utricularia vulgaris*. *Senecio paludosus* is considered the most vulnerable and rare species. Roughly 100 vascular plant taxa have been found within the site.

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**18. Noteworthy fauna:** (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

During the few invertebrate surveys, more than 110 species of water invertebrate fauna (*Turbellaria*, *Hirudinea*, *Oligochaeta*, *Mollusca*, *Arachnida*, *Crustacea*, *Insecta*: *Ephemeroptera*, *Heteroptera*, *Coleoptera*, *Diptera*) have been found. Faunistically important findings are *Uranotaenia unguiculata* EDW. (*Diptera*: *Culicidae*), the first finding in Slovakia. A new genus and species *Gbelcia crassiceps* BOUČEK, 1961 (*Hymenoptera*) was described from the site. Three molluscan species (family *Planorbidae*) are listed in the Red Lists of Slovak fauna: *Anisus vorticulus* (E), *Gyraulus laevis* (R), *Planorbis carinatus* (V). Rare species are also *Stagnicola corvus* and *Eucomulus alderi*.

Vertebrate surveys provided information on 10 species of fish, including critical species of Slovak fish fauna *Misgurnus fossilis* and endangered species *Carassius carassius*; 10 species of amphibians, including Red List species *Triturus vulgaris*, *Bombina bombina*, *Hyla arborea*, *Pelobates fuscus*, *Rana ridibunda*, *R. lessonae*, *R. kl. esculenta*, *R. dalmatina*; 2 species of reptiles *Lacerta agilis*, *Natrix natrix*. Most of the information is on birds: more than 100 species of 12 orders and 34 families have been recorded within the site and censuses were done during the last few years. Twenty nine breeding waterbird species have been recorded. Breeding of another 8 species is probable. Large numbers of *Passeriformes* with 14 species (48.3 %) are typical and approximately 1,415 breeding pairs (85.1 %), which represents the biggest concentration of these birds in Slovakia. This is the most important breeding site of *Pamurus biarmicus* and the only breeding site of *Acrocephalus melanopogon* in Slovakia. A list of bird species and census data is in Appendix I. Noteworthy mammal species include European Otter *Lutra lutra* and probably *Microtus oeconomus*.

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**19. Social and cultural values:** (e.g. fisheries production, forestry, religious importance, archaeological site, etc.)

The site is used for regulated reed harvesting by a local small-scale industry (various reed products) and for scientific (mostly ornithological) research.

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**20. Land tenure/ownership of:**

- (a) site: Most of the area is under cooperative land tenure; the owners are unknown. About 3 ha of the area (waters) are in state ownership (managed by water authorities).
  - (b) surrounding area: Most of the surrounding area is cooperative land, with the SW part of the site adjacent to village Gbelce with private lands.
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**21. Current land use:**

(a) site: The site is used for reed harvesting in winter, under the permission and guidance of the nature conservation authorities. The reed is used for a local industry in Nová Vieska (various reed products). The site is protected as a national nature reserve, and no hunting and fishing is permitted (poaching does occur).

(b) surroundings/catchment: The catchment consists mainly of arable land (less than 10 % of the catchment is forested), where high soil erosion rates lead to increased sedimentation and eutrophication of the lake. Two small villages are in contact with the site. During 1962 - 1987, 6 ponds in the catchment of the Pariž Brook were constructed and used for irrigation of the arable land and fish production whereby the hydrological regime was disturbed. In the NW, the upstream part of the site is in contact with the protected site, Floodplain of the Pariž Brook (103 ha).

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**22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:**

(a) at the site: During the second half of the 19<sup>th</sup> century a canal was constructed in the site near Gbelce to drain the water flooding the marshes. Its course has been retained until now. It was deepened several times (e.g. in 1899, 1935, 1936), but every time it was filled quickly with silt. In the end of the 1950s, systematic stream regulation and land reclamation started in the area and the deepening of the Pariž Brook affected the site and its plant and animal communities (e.g. birds). In 1967, a lateral canal was constructed in the southern part of the site, and dikes were built along the canal. Most of the site now lies in this „reservoir“ with an artificial outlet and overflow regulation. Increased sedimentation and eutrophication has caused an elevation reservoir bed. At the same time, lowering of the groundwater levels is remarkable along with accelerating vegetation succession. Changes in character of the site are visible as the water bodies are filled by sediments, including a unification of the marshy habitats (reed „monocultures“) and an increased proportion of willow bushes, mainly in the NW part of the site. Illegal angling and hunting for waterfowl by local inhabitants also occurs in and around the site.

(b) around the site: Agricultural (production of cereals, vegetables and fruits) and water management activities have affected the site mainly since the 1960s. During 1962 - 1987 six ponds were constructed in the Pariž Brook catchment and 3 additional ponds were planned. Their main purpose is irrigation and fish production. For irrigation of local private land tracts, the lateral canal also is used. Drainage of the land around the site and channelisation of streams have adversely influenced the water regime of the marshes (hydrological budget becomes increasingly deficient).

**23. Conservation measures taken:** (national category and legal status of protected areas - including any boundary changes which have been made; management practices; whether an officially approved management plan exists and whether it has been implemented)

The site was declared as protected for the first time by the Decree of Slovak National Council No. 30 on 25 May 1966, with an area of 140.59 ha. This area was extended by the Decree of Ministry of Culture No. 1160/1988-32, on 30 June 1988, to 184.0464 ha and categorized as a State Nature Reserve. According to the Act on Nature and Landscape Protection No. 278/1994, since 1 January 1995, the site has been protected as a National Nature Reserve. The site is listed as a biocentre of supraregional importance in the national General Scheme of Supraregional Territorial System of Ecological Stability (TSES; general landscape planning document) adopted by the Government on 27 April 1992. In the National Ecological Network (NECONET) document (IUCN 1995), it is listed as a core area of national importance. This is also a part of a regional biocorridor listed in the General Scheme and District TSES and in the IUCN NECONET proposal. The Protected Site Floodplain of the Pariž Brook (area 103.0941 ha) is in contact with the Pariž Marshes Reserve, in the upstream Western part of the Ramsar site. The site was designated as an Important Bird Area (No. 017-5, a part of the Danube Floodplain IBA) (GRIMMET, JONES 1989).

The management plan for the site was developed in 1995 - 1996, but it has not been officially approved by the responsible authorities because of different priorities. Management practices include reed harvesting in selected parts of the marshes in the winter season so as to reduce biomass production. Some proposed measures of the management plan have been implemented (elevating the water-table, botanical and zoological surveys, excavation of sediments in selected parts, monitoring) or will be a part of the Slovak-Japan project for the development of a management plan for the Hron River basin starting in 1998. Fishing and hunting is prohibited in the National Nature Reserve. A local NGO (local organization of the Slovak Union of Nature and Landscape Conservationists) is involved in the management of the site.

**24. Conservation measures proposed but not yet implemented:** (e.g. management plan in preparation; officially proposed as a protected area, etc.)

The integrated management of the catchment of the site and water quality analysis is proposed to be a part of the Regional Environmental Management Plan for the Hron River basin being developed by the Slovak Environment Agency, the Japan International Cooperation Agency and the Japan Environment Agency. The Pariž Brook, upstream to Kolta village, has been proposed to be a protected site.

**25. Current scientific research and facilities:** (e.g. details of current projects; existence of field station, etc.)

The site is used mostly for ornithological studies. Research of other groups of animals and plants is sporadic. There is no special research facility at the site.

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**26. Current conservation education:** (e.g. visitors centre, hides, information booklet, facilities for school visits, etc.)

Excursions for local pupils and/or students from the district primary and secondary schools are organized occasionally and guided by nature conservation professionals or volunteers. No special facilities or information for the public exist. It is proposed to build a visitors information centre near the site.

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**27. Current recreation and tourism:** (state if wetland is used for recreation tourism; indicate type and frequency/intensity)

The site is not used for recreation/tourism.

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**28. Jurisdiction:** (territorial e.g. state/region and functional e.g. Dept. of Agriculture/Dept. of Environment, etc.)

Ministry of Environment, Department of Nature and Landscape Protection at Bratislava  
 Ministry of Agriculture, Forest and Water Management at Bratislava  
 Regional Office at Nitra, Department of Environment  
 District Office at Nové Zámky, Department of Environment  
 Municipal authorities at Nová Vieska and Gbelce

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**29. Management authority:** (name and address of local body directly responsible for managing the wetland)

Slovak Environment Agency, Centre for Nature and Landscape Conservation, Samova 3, 949 01 Nitra;  
 tel.: +421 87 515420, fax: +421 87 515209, e-mail: xsea\_pnr@uniag.sk

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**30. Bibliographical references:** (scientific/technical only)

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- KLOUBEC, B., ČAPEK, M., 1993: Hitherto results of the avifauna research in the Parižske močiare swamp. *Zprávy MOS*, 51: 55-69 (in Slovak with English summary).
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- MURÁNSKY, P., OŤAHEĽOVÁ, H., 1995: Národná prírodná rezervácia „Parižske močiare“. *Chránené územia Slovenska*, 24: 13-14 (in Slovak).
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