

# 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:**

Completed: 07.06.1992, updated: 23.11.1998.

FOR OFFICE USE ONLY.

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Designation date

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Site Reference Number

**2. Country:** Hungary

**3. Name of wetland:** Hortobágy / Pentezug-puszta

**4. Geographical coordinates:** 47° 30' N, 21° 07' E

**5. Altitude:** (average and/or max. & min.)

Between 87.5 m and 88.3 m above Baltic Sea level

**6. Area:** (in hectares) 4245 ha

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

Large natural grassland area with three larger alkaline marshes without outlet and few other smaller ones running to River Hortobágy.

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

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

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

**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: Ss, alkaline marshes, grasslands

**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: 1a, 2a, 2b, 3a.

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

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

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

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

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

1a: typical alkaline temporary marshes and meadows.

2a: breeding Ferruginous Duck, Snipe, White-winged Tern, Black Tern, Whiskered Tern, during migration Black Stork, in summer Pallid Harrier, Saker, Imperial Eagle, Great Bustard.

2b: see point 17 and 18.

3a: see point 18.

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

County of Hajdú-Bihar, south from Hortobágy Village. Situated in the middle of the southern grasslands of the national park.

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**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)

The most flat part of the Hortobágy almost without any elevations. Some higher elevated loess ridges on the eastern and southern parts, but on 90 % of the total area alkaline solonetz soil with well developed surface erosion forms and bare surface. Its total watersupply comes from precipitation so the waterlevel in the marshes is changing. From east and west bordered by two rivers: Hortobágy and Árkus, from south also by a channel. The grasslands are basically the catchment areas of the marshes; protecting them is very important in the future. The water collected by the grasslands runs partly into River Hortobágy and Árkus through some small local watercourses. Approximately 30 % of the total area is temporary wetland: wet meadow or for longer time wet marshy meadow, marsh. Until 1996 there was operating an artesian well with water temperature of 25 °C. On the northern part of the area there is an irrigated hay-field. Climate: semi-arid, semi-humid forest steppe, with average annual precipitation of 550 mm, the mean annual temperature is about 10 °C. The annual evaporation loss is about 200 mm.

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

Significant area for research in alkaline micro-formations and soil development processes of surface erosion forms.

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

Main part of the alkaline grassland is the *Artemisio-Festucetum* association. Short grasslands and bare surface patches cover relatively large area. In the marshes large reedbeds can not be found, they are dominated by tussocks, *Glyceria sp.* patches and open water surface patches, *Typha sp.*, *Schoenoplectus sp.*, and *Bolboeschoenus* stands. "Kincses" marsh has special character: the marsh continuous is almost without any transition zone with grassland, with sharp vegetation change.

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**17. Noteworthy flora:** (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

Typical *Artemisio-Festucetum* grassland with astatic marshes and meadows with *Alopecuretum* tall grass associations. Noteworthy is the largest *Orchis morio* population of the Hortobágy with around 1500 stems. In the loess grassland remarkable large population of *Dianthus pontederiae*. In the marshes and

marshy meadows *Glyceria fluitans et maxima*, *Batrachium aquatile*, *Lythrum virgatum*, *Utricularia vulgaris* and *Elatine alsinastrum* (this is an IUCN Red Data Book species) are notheworthy. There is a small island along River Hortobágy with some 100 years old oak (*Quercus robur*) tree.

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

10-15 pairs of Grey-lag Goose (*Anser anser*) breeds here, during migration 800-1000 individuals. In early spring usually 30-40 000 White-fronted Geese (*Anser albifrons*) migrate. During spring migration ducks also occur in large numbers: 2-3000 Teal (*Anas crecca*) and Garganey (*Anas querquedula*), 3-400 Shoveler (*Anas clypeata*). Breeding of Pintail (*Anas acuta*) were occasionally also recorded. In wet years breeds 2-3 pairs of Ferruginous Duck (*Aythya nyroca*). Other nesting species: Quail (*Coturnix coturnix*), few Lapwing (*Vanellus vanellus*), 10-15 pairs of Redshank (*Tringa totanus*), Snipe (*Gallinago gallinago*), 20-25 Great Bustards (*Otis tarda*), 2-3 pairs of Stone Curlew (*Burhinus oedicephalus*), Whiskered Tern (*Chlidonias hybrida*) 100 pairs, Black Tern (*Chlidonias niger*) 20-30 pairs, the maximum number of White-winged Black Tern (*Chlidonias leucopterus*) was 50-60 pairs recorded in one marsh on tussocks. Number of breeding Bluethroat (*Luscinia svecica*) and Grasshopper Warbler (*Locustella naevia*) is increasing. Birds of prey feeding on the area: Long-legged Buzzard (*Buteo rufinus*), Pallid Harrier (*Circus macrorus*), Imperial Eagle (*Aquila heliaca*), Saker (*Falco cherrug*), Peregrine (*Falco peregrinus*). 25-50 Red-footed Falcons breeds here. In migration season are occurring thousands of Common Cranes (*Grus grus*) for feeding on meadows and marshes, the number of the Cranes overnighing in the marshes can reach 15-20 000. 4-500 of Lapwings (*Vanellus vanellus*), large flocks of Ruff (*Philomachus pugnax*) with 10-20 000 individuals.

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

On the northern part there is an irrigated hay-field.

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

- (a) site Main part (4225.3 ha) belongs to Hungarian State (2029 ha Hortobágy National Park Directorate, 2090 ha owned by the Hortobágy Nature Conservation and Gene Maintaining Public Ltd., others), 20.47 ha local community, 0.87 ha private
  - (b) surrounding area Hungarian State (HNP), Collective Farm
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**21. Current land use:**

- (a) site no human use on 2800 ha, cattle grazing, 18 ha arable land, hay-field
  - (b) surroundings/catchment grazing and mowing
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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 the long lasting dry period and the inadequate grazing affected the area in the last 12-14 years. On the northern part rice-fields were created in the 50ies and partly were used as ploughland. The grassland vegetation of these arable lands has partly recovered and used today as hay-fields. Recently there is only 18 hectares arable land on the area. To avoid the negative impact of the agricultural projects implemented in the 50ies a grassland and wetland reconstruction feasibility study has been prepared.
  - (b) around the site those are also protected areas.
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**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 area is national park and Ramsar Site. The whole area is Man and Biosphere Reserve, the two largest marshes covering 295 ha area MAB Core Areas. A general management plan of the national park was prepared in 1998.

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

With some installations water retention of some local water courses deriving the water from the area to the rivers. Elimination of structures of abandoned rice-fields on the northern parts.

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

2800 ha of the natural grassland area is fenced and there is not human impact on it: in 1997 Przewalsky Horses were introduced for research purposes also serving the preservation of this wild horse.

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

As the area is strictly protected, visitors are not allowed to enter. At the northern part of the area, close to the main road since 1998 an animal park interprets the ancient domestic animal races for visitors, also explaining the significance of traditional grazing for nature conservation management. There is a high observation tower to observe the wildlife of Pentezug-puszta.

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

The southern part of the area is not allowed to enter, the northern part is allowed to visit with guide.

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

The directorate is the first instant authority of the Ministry for Environment.

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

Hortobágy National Park Directorate  
H-4024 Debrecen, Sumen u. 2.

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

At the Directorate a lot.

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Please return to: **Ramsar Convention Bureau, Rue Mauverney 28, CH-1196 GLAND, Switzerland**

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