

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.

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Designation date

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Site Reference Number

2. Country: Hungary

3. Name of wetland: Hortobágy / Zám-puszta

4. Geographical coordinates: 47° 30' N, 21° 04' E

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

Between 87 and 89 m over Baltic Sea level

6. Area: (in hectares) 2822 ha

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

This area belongs to the deeper located, more alkaline parts of the southern Hortobágy, diversified with many marshes. Approximately 10 km long alkaline marsh and marsh system surrounded with seasonally wet meadows, alkaline short grasslands and loess grasslands in the best status of the southern 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 seasonal marshes

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).

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):

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: good example of rare shallow ephemere water bodies and natural semistatic marsh type.

2a: halophytic plants, endemic species is *Plantago schwarzenbergiana*, Bittern, Snipe, Montagu's Harrier, Rails, Crane, White-winged Tern, Black Tern, (Great Bustard), Aquatic Warbler, more see at point 18.

2b: see point 17 and 18.

3a: census data see in point 18.

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

County of Hajdú-Bihar, south-west from Hortobágy village.

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)

Perfect flatlands on alluvial base. Heavy clay soils, in which there are layers with enrichment of Na-salts. Temporarily inundated, depending on precipitation. Maximum depth is around 1 m in the marsh. By the end of summer the area becomes dry, in dry years even the deepest marshes dry out. Marshes were developed from beds of ancient watercourses, which derived the water of the floods to the south. There are some marshes without any outlet. Higher elevations covered by loess covers 2-2.5 % of the total area. The largest part is alkaline solonetz soil. On north and east characterised by nice surface erosion forms and bare surfaces, on the south, west and the middle part wet meadows, marshy meadows, alkaline marshes. 35 % of the total area is astatic or semistatic marshes, seasonally wet meadow. 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 some 200 mm.

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

A good example of rare shallow ephemere water bodies and semistatic marsh type.

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

Openwater surfaces are only sporadically occurring. Some parts are covered with halophytic vegetation and Hungarian endemics. The vegetation coverage in the deeper parts is abundant and consists mainly of reeds and bulrush. The largest and deepest marsh (Halas) is a chloridic-salinized area which is nearly unique in the Carpatian Basin and is characteristic for East European and Central Asian steppe climate. Very nice zonation of alkaline marsh-marshy meadow-wet meadow-alkaline grassland.

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

Endemics: *Suaeda pannonica*, *Limonium gmelini ssp. Hungarica*, *Plantago schwarzenbergiana*.

Some halophytic species are also present as: *Salicornia herbacea*, *Suaeda maritima*, *Salsola soda*, *Atriplex littoralis*, *Bupleurum tenuissimum*. Relic loess grasslands (*Salvio-Festucetum rupicolae*): *Salvia*

nemorosa, *Salvia austriaca*, *Nonea pulla*, *Filipendula hexapetala*, *Dianthus pontederiae*, *Agropyron pectinatum*. Significant population of *Phlomis tuberosa*. Alkaline grasslands: *Artemisio-Festucetum*, on more wet parts *Puccinellietum limosae*. Marshy meadows with *Alopecurus pratensis*, *Beckmannia eruciformis*, *Agrostis alba*, *Eleocharis palustris*, *Schoenoplectus sp.*, *Typha sp.*, *Glyceria sp.*, the protected *Cirsium brachycephalum*.

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

Fish: *Missgurnus fossilis*, a protected species.

20 pairs of Bittern (*Botaurus stellaris*), in wet years also Purple Heron (*Ardea purpurea*) breeds, feeding area for other Herons. Spoo-bill (*Platalea leucorodia*) and Glossy Ibis (*Plegadis falcinellus*) also used to feed here. In 1996 300 subadult White Storks (*Ciconia ciconia*) were feeding on the hay-fields. Important migrating place for ducks and geese: White-fronted Goose (*Anser albifrons*) 100-150 max., Lesser White-fronted Goose (*Anser erythropus*) 20-30 maximum, 40-50 pairs of Grey-lag Goose (*Anser anser*) also breeds. Ducks occur in huge masses in spring: maximum 20-30 000 Mallards (*Anas platyrhynchos*), 5-6000 Teal (*Anas crecca*), 1500-2000 Garganey (*Anas querquedula*), 350-400 Wigeon (*Anas penelope*). In some years 1-2 pairs of Pintail (*Anas acuta*) even breed, not only migrates. Birds of prey hunting on the area: in winter 12-15 White-tailed Eagle (*Haliaeetus albicilla*), in summer Long-legged Buzzard (*Buteo rufinus*), Short-toed Eagle (*Circaetus gallicus*). Montagu's Harrier (*Circus pygargus*) breeds on the area since the 80ies, recently 6-7 pairs. Red-footed Falcon (*Falco vespertinus*), Kestrel (*Falco tinnunculus*), occasionally 1-1 pair Hobby (*Falco subbuteo*) also breeds. Spotted Crake (*Porzana porzana*), Little Crake (*Porzana parva*), Water Rail (*Rallus aquaticus*) also breeds. Common Cranes (*Grus grus*) overwinter here in wet years (1000-4000). Usually 25-30 Great Bustard (*Otis tarda*) lives in Zám. Waders rarely migrate in large numbers here, but in 1994 30-40 000 Ruffs (*Philomachus pugnax*) occurred. Snipe (*Gallinago gallinago*), Godwit (*Limosa limosa*), Redshank (*Tringa totanus*) also breeds. Sometimes remarkably lot of Curlews (*Numenius arquata*) and Wood Sandpipers (*Tringa glareola*) are overwintering. Black Tern (*Chlidonias niger*) and White-winged Black Tern (*Chlidonias leucopterus*) breeds in varying numbers, 10-70 pairs. Short-eared Owl (*Asio flammeus*) was breeding in 1992 and 1997. Population of Mustached Warbler (*Acrocephalus melanopogon*) expands, Aquatic Warbler (*Acrocephalus plaudicola*) breeds since 1982 here (5-12 pairs). Many pairs of Yellow Wagtail (*Motacilla flava*) breeds.

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

There is a base (ruine) of a church originating from 11th century.

20. Land tenure/ownership of:

(a) site Hungarian State (1402 ha, Hortobágy National Park)

(b) surrounding area Hungarian State (National Park), Cooperative Farms, Fishery

21. Current land use:

(a) site grazing of cattle, mowing

(b) surroundings/catchment grazing and mowing, arable lands. Not too far there are some fishponds.

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 caused a decrease of wet parts and open water surfaces, but if the reconstruction will be implemented this danger will totally disappear.

(b) around the site not known

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 part of Hortobágy N.P. It is registered as Man and Biosphere Reserve. 14 ha of it is MAB Core area. Also registered as Ramsar site. A management plan prepared in 1998 exists and also a grassland-wetland reconstruction feasibility study prepared in summer of 1991. Also other feasibility study for grazing projects. Currently going on the construction of the water supply system of the deepest marshes, funded by the Dutch Government. The implementation will be finished in 1999 and the marshes will be flooded gravitationally by this system.

24. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)
Elimination of the old fence system. To alter the present stock of Hereford Cattle to other, more traditional races, adopted much more to extensive farming. Renovation of draw-wells. Elimination of old rice-fields structures on the north-eastern part of the area.

25. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)
Paleoecological research is recently going on. Also currently runs a research on zooplankton of ephemeral waters. The uniqueness of the area in sense of halophytic vegetation associations means a scientific research value. Also some research were started on loess vegetation.

26. Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)
The area is strictly protected so entering the site is possible only with permission and guide.

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)
There is no use in this sense.

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.

29. Management authority: (name and address of local body directly responsible for managing the wetland)
Hortobágy National Park Directorate
H-4020 Debrecen, Sumen u. 2.

30. Bibliographical references: (scientific/technical only)
At HNP directorate a lot.

Please return to: **Ramsar Convention Bureau, Rue Mauverney 28, CH-1196 GLAND, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: **Error! Reference source not found.**