

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:

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 / Egyek-Pusztakócs Marshes: Hagymás, Jusstus, Fekete-rét

4. Geographical coordinates: 47° 34' N; 20° 55' E

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

Between 90 and 93 m over Baltic Sea level.

6. Area: (in hectares) 3073 ha

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

A restored alkaline marsh system, which earlier was a flooded area by River Tisza, after regulations it became gradually drier and drier which during the 40-50-ies was drained and dried up.

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: Sp (permanent alkaline marsh) and Ss (seasonal alkaline marsh) have the same importance on the area.

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 , 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: Hagymás is a marsh in natural status representing temporary marsh type, Jusztus is an astatic marsh type, Fekete-rét represents permanent marsh type.

2b: alkaline marshes have almost disappeared from Europe, this marshes have preserved the typical flora and fauna of them.

3a: see migration data at point 18.

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

County of Jász-Nagykun-Szolnok, 16 km East from Tiszafüred town.

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)

Earlier it was flooded by River Tisza, cut down by regulation works. After this it was drained for agricultural purposes, but it did not succeed. During 1980-82 it was partly restored, the restoration of the total area finished in 1997. Now the marsh system receives watersupply from River Tisza, which has very good water quality. Waterdepth varies between 0,5-2,5 m. The area is flooded at the end of winter, during the year marshes gradually dries out to different degree. The fluctuation of waterlevel is around 0,5 m. At the end of the Pleistocene silty-loamy material accumulated on the surface. These alluvial materials originate from depositions of different rivers from the today Tisza river and tributaries. The Egyek-Pusztakócs marshes represent the deepest part of an ancient, large marsh system. The area was formed by the alluvial materials of the local waterways, its deposition kept the feature of the landscape in a permanent change. The differences can reach 6-10 metres, which is rather significant compared to other places of the Hortobágy: deeper marshes in ancient riverbeds, shallow astatic marshes, natural levees, some nice surface erosion forms of alkaline soils. Over the Pleistocene layers superposed a loessy clay of 4-5 m thickness. On the edges of the marsh the large sediments are characteristic, causing micro surface erosion and in this way rich micromorf structure. Typical soil type: black alkaline soil-alkali solonetz soil. Climate: semi arid-semi humid forest steppe climate, average annual precipitation is 550 mm, the mean annual temperature is about 10 °C.

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

As an emergency reservoir it can have some role in flood control.

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

Typical vegetation of temporary alkaline marshes, marshy meadows and alkaline grasslands. The marshes are surrounded by a belt of alkaline meadows and alkaline short grasslands forming a transition between the aquatic and terrestrial habitats. The boundaries show seasonal and interannual fluctuation in accordance with waterlevel changings. Nowadays the natural levees along the marshes are cultivated, smaller patches of grasslands are grazed. Open water surfaces with White Water Lily (*Nymphaea alba*), Yellow Water Lily (*Nuphar lutea*), Floating heart (*Nymphoides peltata*), Water-Chestnut (*Trapa natans*). Large reedbeds and narrow- and broadleaved bulrush and *Bolboschoenus maritimus* stands can be found. Marshes are surrounded with marshy meadows with *Glyceria* sp, in Hagymás nice tussocks, wet

meadows with *Alopecurus* and *Beckmannia* sp. and also alkaline short grasslands (*Achilleo-Festucetum*). Higher levees are separating the marsh units covered by loess grasslands (*Salvio-Festucetum*).

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

Protected species of the marshes: White Water Lily (*Nymphaea alba*), Yellow Water Lily (*Nuphar luteum*), Floating-heart (*Nymphoides peltata*), *Cirsium brachycephalum*, also IUCN Red Data Species are Water Chestnut (*Trapa natans*), *Ranunculus polyphyllus*, *Elatine alsinastrum*. Large population in the marshes of *Utricularia vulgaris*, *Salvinia natans*, *Hydrocharis morsus-ranae*. Protected species of the loess patches: *Phlomis tuberosa*, *Dianthus pontederiae*. Largest population of *Taeniatherum caput-medusae* in Hungary. *Carex disticha* is recorded only in Hagymás marsh in the Hortobágy, also the largest population of Yellow Flag (*Iris pseudacorus*) of the Hortobágy region can be found here.

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

Most important nesting species: about 80 pairs of Grey-lag Goose (*Anser anser*), Crested Grebe (*Podiceps cristatus*), Little Grebe (*Tachybaptus ruficollis*) 25 pairs, Red-necked Grebe (*Podiceps griseigena*) 3-5 pairs, Purple Heron (*Ardea purpurea*) 2-3 pairs, Bittern (*Botaurus stellaris*) 20 pairs, Spoonbill (*Platalea leucorodia*) 2-3 pairs, Little Bittern (*Ixobrychus minutus*) 15 pairs, Great White Egret (*Egretta alba*) 30 pairs, Garganey (*Anas querquedula*) 60 pairs, Pintail (*Anas acuta*) 1-5 pairs, Gadwall (*Anas strepera*) 1-2 pairs, Shoveler (*Anas clypeata*) 8 pairs, Ferruginous Duck (*Aythya nyroca*) 12 pairs, Marsh Harrier (*Circus aeruginosus*) 15 pairs, Montagu' Harrier (*Circus pygargus*) 1 pair in Hagymás almost each year, Water Rail (*Rallus aquaticus*) 15-20 pairs, (*Porzana porzana*) 15 pairs, (*Porzana parva*) 10 pairs, (*Porzana pusilla*) 0-3 pairs, (*Vanellus vanellus*) 40 pairs, (*Limosa limosa*) 10-15 pairs, (*Tringa totanus*) 15 pairs, (*Gallinago gallinago*) 10 pairs, Avocet (*Recurvirostra avosetta*) 5-12 pairs, but breeding success varies very much in different years, Black Tern (*Chlidonias niger*) 20-50 pairs, Whiskered Tern (*Chlidonias hybrida*) 10-50 pairs, White-winged Black Tern (*Chlidonias leucopterus*) 0-8 pairs, Bearded Tit (*Panurus biarmicus*) 40 pairs, Sand Martin (*Riparia riparia*) 70-100 pairs.

During migration: Grey-lag Goose (*Anser anser*) 3000, White-fronted Goose (*Anser albifrons*) 5000 (10 000 in 1996), occasionally some Lesser White-fronted Goose (*Anser erythropus*), also occasionally last time 13 individuals Red-breasted Goose (*Branta ruficollis*) in 1996, Bean Goose (*Anser fabalis*) 500, Mallard (*Anas platyrhynchos*) 5000, Garganey (*Anas querquedula*) 500, Teal (*Anas crecca*) 2000, Pintail (*Anas acuta*) 200, Wigeon (*Anas penelope*) 600, Gadwall (*Anas strepera*) 500, Shoveler (*Anas clypeata*) 400, Pochard (*Aythya ferina*) 800, Ferruginous Duck (*Aythya nyroca*) 150, Common Cranes (*Grus grus*) 1000-2000, Ruff (*Philomachus pugnax*) 2000-7000.

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

In the area the main benefit is the reed-harvesting. The old road-side inn built in the 18th century, which is museum today, represents outstanding cultural value.

20. Land tenure/ownership of:

- (a) site 3693 ha is owned by the Hungarian State (used by HNP)
 - (b) surrounding area Cooperative Farms.
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21. Current land use:

- (a) site reed-harvesting, mowing, grazing
 - (b) surroundings/catchment reed-harvesting, mowing, ploughlands
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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 before the restoration the lack of water supply, but now it is solved, other not known

(b) around the site use of fertilizers, chemicals can be a source of danger by infiltration, ploughlands year by year expands a few metres to the marsh areas

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)

Part of the Hortobágy National Park. Registered on the list of Ramsar sites. There is a management and development plan for the area prepared in 1998.

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

Proposed nature conservation management measures: to stop with cultivation on approximately 50 % of the today cultivated arable lands, to continue with the restoration of loess grasslands, to increase the number of grazing animals (mostly cattle, extensive grazing).

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

Hydrobiological and ornithological status survey is going on, occasional investigations on dragonflies and fishes. The area has potential for further research activities.

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

Ecotourism developments were implemented in 1996-97: new observation tower and 1.2 km long wooden path connected with it were built in the Fekete-rét marsh, 30 km long bicycle path was built in the area, five new sign-boards were installed along it, new leaflet will be published about the area. Also new cages were built to interpret for visitors the work of the bird repatriation center operating at the Fekete-rét marsh.

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 Ministry for Environment.

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

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H-4024 Debrecen Sumen u.2.

30. Bibliographical references: (scientific/technical only)

At HNP Directorate a lot.

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