

The area has been designated as a Nature Reserve since 1965, Ramsar Site since 1979 and as a core area of Körös-Maros NP since 1997. Grasslands and reedbeds are managed in harmony with purposes of nature conservation.

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

Planned management measures: restoration of previous water regime of the Lake Fehér at Kardoskút. A detailed management plan is to complete by the end of 1998.

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

Detailed hydrological, hydrobiological, botanical, paleoecological, entomological and ornithological surveys have been carried out in the past 30 years.

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

A visitor centre shall be built within 2 years on the wetland site in order to implement educational measures.

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

There is no significant recreational activities on the Ramsar Site or on its surroundings.

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

On the wetland the National Park Directorate is the responsible authority.

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

Körös - Maros National Park Directorate  
5541 Szarvas, Pf. 72. Anna liget, Hungary.  
Tel.:+36 66 313 855, fax: +36 66 311 658

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

Zs., Molnár, Zs. & M., Bíró (1996) : Vegetation history of the Kardoskút area (SE Hungary). In:  
Regional versus local history, ancient versus recent habitats.-*Tiscia* 30, 15-25.  
Further references can be found at the NP Directorate.

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: [ramsar@hq.iucn.org](mailto:ramsar@hq.iucn.org)

# 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.

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Designation date Site Reference Number

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

Completed: during 80's, updated: 24.11. 1998.

## 2. Country:

Hungary

## 3. Name of wetland: Lake Fehér at Kardos kút -

## 4. Geographical coordinates: 46o 28' N, 20o 30' E

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

Between 85 and 91.5 m over Baltic Sea level.

## 6. Area: (in hectares) 492 ha

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

Lake Fehér at Kardoskút is an alkaline steppe lake in Southeast Hungary. As a former branch of river Maros, the area had been subject to a gradual salt accumulation resulting in a typical *puszta* fauna and flora associations on the wetland site. The wetland is one of the most fragile and valuable nature reserve in Hungary, along with several archaeological remains. Lake Fehér at Kardoskút has fundamental role in the passage of thousands of migratory birds in Eastern Hungary.

## 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

see ecological features  
(20/09/00 db)

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: R

**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: 1d, 2a, 3a, 3c

**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:**

Gusztáv Jakab  
Kőrös - Maros National Park Directorate  
5541 Szarvas, Pf. 72. Anna liget, Hungary.  
Tel.: +36 66 313 855, fax: +36 66 311 658

*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(d): As a specific wetland type, Lake Fehér at Kardoskút is rare in the appropriate geographical region.

2(a): The lake supports an appreciable assemblage of rare and endangered species of animals. (See point 18)

3(a)(b): During migration more than 100.000 wildfowl occur on the wetland at the same time.

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

County of Békés, 8 km south of town Orosháza.

**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)

During Quaternary period the river Maros had a branch that developed the alluvial plains of the region. Further development of the area therefore has been determined by the thick layers of sediment deposited by the rivers. During its history of few thousands year, the lake was dried out several times. The lake is rather shallow, depth of water is usually less than 1 meter, there are no outlets of the wetland. There are soils associated with riverine soil types and alkaline solonetz type.

Annual mean temperature is 10.5 degrees Centigrade, total precipitation is approximately 550-600 mm yearly.

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

Groundwater recharge plays important role in water regime of the wetland.

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

Main habitats of the wetland are as follows:  
lake bed that is regularly dries out by summer  
alkaline marshes  
drying and dried-up marshes  
typical *puszta* vegetation (short grasslands)

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

Important plant associations are as follows:

- Puccinellia zone
- Phragmites-Bolboschoenus stands
- Camphorosma-associations
- Phragmites-Bolboschoenus –Aster stands

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

Endangered species are as follows:

- Recurvirostra avosetta
- Himantopus himantopus
- Aquila heilaca
- Aquila clanga
- Aquila nialensis
- Grus grus
- Anser erythropus
- Branta ruficollis
- Otis tarda
- Otis tetrax     few recorded nesting
- Numenius tenuirostris
- Circus macrourus
- Anthropoides virgo     few records

Maximum numbers of waterfowl species during migration:

Anser albifrons	11.900
Anser anser	400
Grus grus	11.000
Limosa limosa	4.000

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

Ruins of Csomorkány and the windmill of Székkutas are examples of historic cultures of the region.

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

at the site: Körös-Maros National Park Directorate (state owned) 62 %, private 31%, other (cooperatives and local government) 7%

(b) surrounding area: cooperative farms or privately (95%) owned

**21. Current land use:**

on the site:

	Ploughland	Grassland	Marshland	Forest	Other	Total in hectares
Lake Fehér at Kardoskút	39%	39%	5%	-	17 %	492 ha

on the surrounding areas:

	Ploughland	Grassland	Marshland	Forest	Other
Surroundings of Lake Fehér at Kardoskút	51%	43 %	1%	-	5 %

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

at the site: Drainage of the former extensive wetland system had a fairly negative impact on the area. In recent years decreasing numbers of grazing livestock may cause problems in the management of the wetland. Geese farms not far from the Ramsar Site threaten the quality of groundwater as well as the vegetation.

Intensified agricultural activities may have adverse impact on the wetland in the future.

**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)