

Information Sheet on Ramsar Wetlands (RIS) – 2006 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Csilla Drogman, ecological supervisor
Fertő-Hanság National Park Directorate
H-9435 Sarród, Rév-Kócsagvár

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

2. Date this sheet was completed/updated:

19. 02. 2007

3. Country:

Hungary

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Lake Fertő

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged: X

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
ii) the boundary has been extended ; or
iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

No major change in the area since the last update.

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): X;
- ii) an electronic format (e.g. a JPEG or ArcView image) X;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The whole Hungarian part of Lake Fertő (Lake Neusiedl in Austria), following the shoreline of the lake.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

47° 45' N, 16° 45' E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The site is on the NW edge of Hungary, in Győr-Moson-Sopron county. It lies E from Sopron town, between Hungary and Austria.

10. Elevation: (in metres: average and/or maximum & minimum)

the water level of the lake is limited on 114 m above Baltic sea level

11. Area: (in hectares) 8432

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Lake Fertő is the westernmost shallow, alkaline steppe lake in Europe in the state of advanced eutrophication. Reedbeds and undisturbed bays of the open water give an extraordinarily important nesting place and stopover site for migratory bird species. Approximately three-quarters of the lake belong to Austria, and one quarter to Hungary.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1	•	2	•	3	•	4	•	5	•	6	•	7	•	8	•	9
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

1: As the second largest lake in Hungary and fifth largest in Europe, the transboundary and highly intact wetland of Lake Fertő provides a wide range of natural habitats within a narrow strip of 50 km from mountain ranges of the Alps to plains of the Kisalföld.

Habitat types listed in Annex I EU Habitats Directive:

1530: Pannonic salt steppes and salt marshes

6410: *Molinia* meadows on calcareous, peaty clayey-silt-laden soils (*Molinion caeruleae*)

6510: Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)

7210: Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*

6240: Sub-Pannonic steppic grasslands

3150: Natural eutropic lakes with Magnopotamion or Hydrocharition – type vegetation

3160: Natural dystrophic lakes and ponds

2: The site supports numerous species considered endangered and listed on various red lists:

Parnassius mnemosyne Annex IV Habitats Directive

Maculinea teleius LR/nt IUCN Red list + Annex II Habitats Directive

Maculinea nausithous LR/nt IUCN Red list + Annex II Habitats Directive

Lycaena dispar LR/nt IUCN Red list + Annex II Habitats Directive

Leucorrhinia pectoralis Annex II Habitats Directive

Coenagrion ornatum Annex II Habitats Directive

Aspius aspius Annex II Habitats Directive

Misgurnus fossilis Annex II Habitats Directive

Pelecus cultratus Annex II Habitats Directive

Rhodeus sericeus amarus Annex II Habitats Directive

Bombina bombina Annex II Habitats Directive

Triturus cristatus or *dobrogicus* Annex II Habitats Directive

Ophrys sphegodes (EU – CITES Annex B. II.)

Cirsium brachycephalum Habitats Directive Annex II

For bird species, see Criterion 4 and 5.

Spermophilus citellus VU IUCN Red list + Annex II Habitat Directive

3: westernmost site of the continental alkaline temporary wetlands, with numerous species whose westernmost occurrence is here (. Also, like other inland saline lakes in the Carpathian Basin, it holds numerous species whose occurrence outside the Carpathian Basin is only coastal. Four endemic or subendemic plant species/subspecies occur: *Suaeda maritime* ssp. *pannonioca*, *Puccinellia peisonis* (also

described as *Puccinellia festuciformis* ssp. *intermedia*), *Aster tripolum* ssp. *pannonicus*, *Cirsium brachycephalum*. Endemic invertebrates supported by the site are *Rotatoria fertőiensis* and *Lepidocyrtus peisonis*.

4: the water body of Lake Fertő dries up only once in a hundred years and provides refuge area for aquatic and semi-aquatic species and communities in a dry season and dry period.

Breeding species:

Botaurus stellaris LC IUCN Red list + Annex I Birds Directive
Ixobrychus minutus LC IUCN Red list + Annex I Birds Directive
Egretta garzetta LC IUCN Red list + Annex I Birds Directive
Ardea purpurea LC IUCN Red list + Annex I Birds Directive
Platalea leucorodia LC IUCN Red list + Annex I Birds Directive
Ciconia nigra LC IUCN Red list + Annex I Birds Directive
Anser anser LC IUCN Red list
Anas platyrhynchos LC IUCN Red list
Anas crecca LC IUCN Red list
Anas clypeata LC IUCN Red list
Anas strepera LC IUCN Red list
Netta rufina LC IUCN Red list
Aythya nyroca NT IUCN Red list + Annex I Birds Directive
Haliaeetus albicilla NT IUCN Red list + Annex I Birds Directive
Circus aeruginosus LC IUCN Red list + Annex I Birds Directive
Falco cherrug EN IUCN Red list Annex I Birds Directive
Himantopus himantopus LC IUCN Red list + Annex I Birds Directive
Recurvirostra avosetta LC IUCN Red list + Annex I Birds Directive
Vanellus vanellus LC IUCN Red list
Charadrius alexandrinus LC IUCN Red list + Annex I Birds Directive
Larus melanocephalus LC IUCN Red list + Annex I Birds Directive
Luscinia svecica LC IUCN Red list + Annex I Birds Directive
Acrocephalus melanopogon LC IUCN Red list + Annex I Birds Directive

List of important staging and wintering bird species:

Egretta alba LC IUCN Red list + Annex I Birds Directive
Anser fabalis LC IUCN Red list
Anser albifrons LC IUCN Red list + Annex I Birds Directive
Anser erythropus VU IUCN Red list + Annex I Birds Directive
Branta ruficollis VU IUCN Red list + Annex I Birds Directive
Philomachus pugnax LC IUCN Red list

5: Numbers of migratory waterfowl at the same time often reach or even exceed 20,000.

Estimated numbers of waterfowl species during the whole migration season, calculating takeover.

<i>Anser fabalis</i>	40.000
<i>Anser anser</i>	20.000
<i>Anser albifrons</i>	40.000
<i>Anas platyrhynchos</i>	10.000
<i>Anas crecca</i>	12.000
<i>Anas clypeata</i>	5.000
<i>Anas strepera</i>	1.500
<i>Netta rufina</i>	1.500
<i>Philomachus pugnax</i>	7.000
<i>Vanellus vanellus</i>	7.000

:
Lake Fertő, 2004-
2005

Species	Aug	Sept	Okt	Nov	Dec	Jan	Feb	Mar	April
TAC RUF	3	0	2	2	0	0	0	0	0
POD CRI	1	7	4	6	0	1	0	6	6
POD NIG	0	0	0	0	0	0	0	0	4
PHA CAR	4	2	3	26	0	0	0	71	0
ARD CIN	5	21	16	7	4	5	0	2	5
EGR ALB	1	21	61	6	0	0	0	1	9
CYG OLO	11	16	3	1	0	2	0	20	37
TAD FER	0	0	0	1	0	0	0	0	0
TAD TAD	0	0	0	4	0	0	0	0	4
ANA PEN	2	20	16	134	0	0	0	0	118
ANA STR	20	12	16	0	0	0	0	2	72
ANA CRE	1020	4520	1055	5340	0	0	0	0	257
ANA PLA	1723	42	318	2578	0	0	0	22	11
ANA ACU	0	0	8	45	0	0	0	0	5
ANA QUE	153	4	0	0	0	0	0	0	48
ANA CLY	66	130	10	110	0	0	0	0	649
NET RUF	2	4	0	0	0	0	0	190	108
AYT FER	0	60	4	0	0	0	0	0	15
AYT NYR	0	0	0	0	0	0	0	0	7
AYT FUL	1	0	2	0	0	0	0	5	1
BUC CLA	0	0	0	0	0	1	0	0	0
HAL ALB	0	1	3	2	0	0	0	0	1
FUL ATR	18	115	38	0	0	0	0	365	16
Total of individuals	3030	4975	1559	8262	4	9	0	684	1373
Total of species	15	15	16	14	1	4	0	10	19
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April
<i>Anser albifrons</i>	0	0	200	4692	4082	4327	229	1322	0
<i>Anser anser</i>	0	420	1045	2134	2391	643	196	104	0
<i>Anser fabalis</i>	0	0	537	2430	270	107	2	0	0

There are no census data for gulls and most waders, whose numbers are also in the thousands.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) **biogeographic region:** Pannonic

b) **biogeographic regionalisation scheme** (include reference citation):

European Commission DG Environment webpage
Bern Convention/ EU Habitats Directive

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Geology and geomorphology

Altitude of the water level is 114 m over Baltic sea. Maximum length of the lake is 35 km, width is 15 km, minimum width is 7 km. The total length of its bank is 100 km of which 25 km can be found in Hungary. The lake bed is even, depth of water is 0.5-0.6 m along the bank and 1-2 m in open water. However, maximum depth does not exceed 1.6-1.8 m. Maximum width of reedbelt is 6 km and can be found on the Hungarian part of the Lake.

Origin of the lake

As a consequence of the geomorphological–geological characteristics of Carpathian Basin, basins of Lake Fertő and its neighbouring basin Hanság has been developed through continuous tectonic sinking of the crustal area during Tertiary and Quaternary Periods. Age of the lake is estimated at 20.000 years based on studies on fossils.

Soils

Higher elevations are covered by loess. On the eastern part of the site alkaline soils can be found. Soils associated with lacustrine and riverine systems are also present.

Catchment

The catchment of the lake is almost 4 times larger than the lake itself, covering 1116 km².

Climate

Climate of this area is rather complex due to several climate types in the region. In general it can be classified as wet continental. Yearly mean temperature is 10.6 °C on the wetland. Lake Fertő is the windiest region of the country. Total precipitation yearly varies between 650-550 mm. Evapo-transpiration is extremely high, 900 mm annually due to the winds.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

Geology and geomorphology

On the western side the lake is surrounded by a row of Lajta limestone hills whereas on the eastern side lowlands follow with high groundwater level.

Soils

The surrounding hills are covered by rendzina soils. The adjoining lowlands are characterized partly with alkaline, partly with meadow type soils and locally peat.

Climate

Climate of the catchment area is roughly the same as of the wetland itself.

Land use

On the surrounding hills and at their feet traditional vineyards dominate. On the lowland grasslands are dominant near the lake. Further, where the conditions are set, crop production (mainly corn, wheat, sunflower) is present. The top of the hills and non-cultivated areas are covered with forests.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Hydrology

Catchment area of Lake Fertő was always smaller than that of the Hanság basin, therefore less water was gathered in the lake resulting in an unpredictable water regime. The lake dried up relatively frequently in every 400-500 years during prehistoric times, consequently its salt content increased gradually. This process was also indicated by the encroachment of reed beds. In order to drain the Lake Fertő and Hanság region a canal was built in 1908 that resulted even more unpredictability in water regime. The water level has been stabilised since 1965 that stopped the expansion of reed. Water level fluctuates

annually. It increases in winter with 25-30 cm and decreases in summer with 10-50 cm. Temperature of the water varies according to seasons, in summer it may reach 29 degrees Centigrade. Days with ice cover are 42 in average; the width of ice cover might be 40-50 cm. The only natural watercourse on the surface is the streamlet Rákos, which has a mean water supply of 0.059 m³/second.

Water quality

Water in Lake Fertő is characterised by a high organic matter (humic acids) and salt content with relatively low nutrient content suitable for aquatic plants. There is no significant human activity that may pollute the lake seriously; even fertilisers and chemicals are not carried to the lake through drainage canals. Water purification stations have been built at villages that are close to the Lake.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

Q, Ss, W, 9

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Three-quarters of the Hungarian part of the lake are covered by a reedbelt with wedged in small inner lakes. There is a narrow alkaline steppe stripe on the southern and south-eastern part of the area which was extended as a result of former drainage of the basins. Marshy meadows are also present.

Important plant associations are as follows:

Lemno-Utricularietum
Hydrochari-Stratiotetum
Carici flavi-Eriophoretum
Schoenetum nigricantis
Juncetum subnodulosi
Seslerietum uliginosae
Puccinellietum peisonis
Juncetum gerardi
Agrostri-Alopecuretum pratensis

Animal communities are related to the open waters, Phragmites dominated area, littoral zone, wet meadows around the lake, alkaline small temporary wetlands, alkaline grasslands, marshland vegetation containing *Sanguisorba officinalis* and *Maculinea teleius* & *M. nausithous* butterflies. Around the lake (surrounding the Ramsar site) there are mainly limestone characterized forests, supporting animal communities typical on the xerotherm woodlands (containing *Quercus cerris* and *Q. pubescens*) and grasslands, locally extremely rich in Orchids.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Important plant species are as follows:

Ophrys sphegodes (EU – CITES Annex B. II.)

Cirsium brachycephalum Habitats Directive Annex II

Saline species: Acorellus pannonicus, Bolboschoenus maritimus, Crypsis aculeatus, Puccinellia limosa, P. peisonis, Suaeda pannonica, Hordeum hystrix, Juncus gerardii, Scorzonera parviflora, Pholiusus pannonicus, Plantago tenuiflora, P. maritima, Salsola soda, Salicornia herbacea, Aster tripolium ssp. pannonicus, Matricaria chamomilla, Festuca pseudovina

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Endemic invertebrates are Rotatoria fertőiensis and Lepidocyrtus peisonis.

Further noteworthy invertebrates:

Maculinea teleius & M. nausithous, Lycaena dispar, Parnassius mnemosyne, Leucorrhinia pectoralis, Tetragnatha sp. (reed spiders), Lycosa singoriensis, etc.

Vertebrates:

Spermophilus citellus (westernmost occurrence)

Birds as indicated in 12.

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

On the Ramsar area there are no inhabited settlements. Due to the varying water level of the Lake Fertő and the nearby Hanság the people inhabited the safer areas on higher ground. Legends tell about villages built in dryer periods later swallowed by the water. In the Hanság we know about remnant settlements left by its people, hardly a trace of these can be found today. But in the region of Lake Fertő such are not known, the basis of the legend are probably Roman-age findings originating from some earlier, longer dry period.

From the Roman age survived the stone-quarry of Fertőrákos where even in the first half of the 20th century the soft, easily workable Lajta limestone was mined. In the nearest vicinity of Fertőrákos there is another important Roman-age monument, the Mithras Sanctuary, which is a cultic place originating from the 3rd century.

Biggest part of the area was in the hands of two historic families – on the western part of the lake the estates of the Family Széchenyi, on the eastern part those of the Family Esterházy stretched. Both families built a castle practically on the edge of the marsh. The still standing castles are outstanding monuments of Hungary and besides significant cultural centres. Both contain a museum.

The surrounding settlements were inhabited by peasants of the lordships, partly by German and Croatian nationalities. The physiognomy of the villages – except of Fertőrákos and Balf, both mostly German speaking – was largely similar, the only survived fragment can be found in Fertőszéplak, in the form of a protected village museum.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? Yes.

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland: Today, the fishery and the reed management of the lake is controlled by the National Park Directorate. Local fishermen use traditional methods and devices for catching fish on a small scale basis. The reed is harvested on designated areas by one company. The surrounding areas are grasslands, owned and managed by the National Park Directorate.
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

- a) within the Ramsar site: Fertő-Hanság National Park Directorate 3,379 ha, local government 3.5 ha, forestry 10 ha, water management directorate 4,817 ha, cooperatives 224 ha
- b) in the surrounding area: cooperative farms or privately owned

25. Current land (including water) use:

- a) within the Ramsar site: Limited fishery and reed harvesting are permitted on the base of purposes of nature conservation. Grasslands are managed by the NP Directorate. No hunting activities are permitted on the Ramsar Site.
- b) in the surroundings/catchment: forestry, plough lands, hay production, other agricultural activities

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

- a) within the Ramsar site: the lake is in an advanced stage of eutrophication and sedimentation. The tourism had some pressure on the wetland, but now a recently developed nature trail and new watchtowers concentrate tourists in less sensitive parts of the area.
- b) in the surrounding area: Intensive agricultural activities may have adverse impact on the wetland in the future.

27. Conservation measures taken:

- a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

The area has been designated as a Ramsar Site since 1979 and as a core area of Fertő-Hanság NP since 1992. It has been a biosphere reserve (Lake Fertő Biosphere Reserve) since 1979. It received cultural world heritage status (Fertő-táj World Heritage) in the cultural landscape category in 2001.

- b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

- c) Does an officially approved management plan exist; and is it being implemented?: A detailed management plan has been in 1996, but it is not yet officially approved according to recent legislative requirements.

d) Describe any other current management practices: Grasslands and reedbeds are managed in harmony with purposes of nature conservation. Traditional grazing has been used for 5 years on most of the grasslands.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

Planned management measures: restoration of previous water regime of the Lake Fertő.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Universities of Sopron, Mosonmagyaróvár, Budapest and Keszthely along with Hungarian Academy of Sciences have carried out various research programmes. Hydrobiological and environmental institutes are located in settlements around the lake.

Vegetation mapping and zoological monitoring of reedbeds as well as that of the invertebrate fauna are under way. The site is also a sample site of the Hungarian National Biodiversity Monitoring Project.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

A nature conservation study centre is managed by the Fertő-Hanság National Park Directorate within the centre of the Directorate. The creation of a further education centre in Fertőújlak, on the margin of the site is in progress. In total approximately 4.000 students participate in the study programme that are organised by the Directorate.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Annually an estimated number of 150.000 tourists visit mainly the cultural, historical sightings of the site and its closer surroundings. Tourists are only allowed to visit the buffer zones, their number is nearly 30.000 annually. Core areas may be visited only with the permission of the National Park.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

The Észak-dunántúli Authority for Environmental Protection, Nature Conservation and Water Management is the first instant authority of the Ministry for Environment and Water.

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Fertő-Hanság National Park Directorate

9435 Sarród, Rév-Kócsagvár, Hungary.

Tel.:+36 99 537 620, fax: +36 99 537 621

Ambrus@fhnp.kvvm.hu

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Aujeszky,L., Schilling,F. & Somogyi,S.(1974)(eds.): Természeti adottságok. A Fertő-táj geoszférája. A Fertő-táj Monográfiáját előkészítő adatgyűjtemény. Vol. 1. Fertő-táj Bizottság, Bp. 254 pages.

Aujeszky,L., Schilling,F. & Somogyi,S.(1976): Alkalmazott kutatások: a Fertő-táj bioszféra-készleteinek hasznosítása. A Fertő-táj monográfiáját előkészítő adatgyűjtemény. Vol. 4. Fertő-táj Bizottság, Bp. 175 pages.

Faragó,S.(1992): A Fertő-Hanság-Szigetköz vízrendszer vadlúdjainak ökológiai vizsgálata. Kutatási jelentés, :44 p.

Faragó,S.(1993b): Vadlúd állományvizsgálatok 10 éves eredményei a Fertő-tó magyar területrészen: 1983-1993. Áll.Közl., 79:37-47.

- Hadarics, T. & Pellingner, A.**(1993): A Fertő-táj hazai részén előforduló madarak névjegyzéke (1971-1992). Szélkiáltó, 10:3-16.
- Jánoska, F.**(1992): Fertő-Hanság-Szigetköz térségében kisméltós-faunisztikai és ökológiai vizsgálatok. Kutatási jelentés, :14 p.
- Kárpáti L.**(1983): A Fertő-táj madárvilágának ökológiai vizsgálata. Erd.Faip.Tud.Közl.1982.1:111-203.
- Kárpáti, L.**(1993): Élőhely-rekonstrukció a Fertő-menti szikéséken. Mad.Táj., 1993:11-15.
- Kenessey B.**(1933): A Fertő-tó. Vízügyi Közlemények, 15.2:242-256.
- Keresztessy, K.**(1992): Halfaunisztikai kutatások a Fertő-tó és a Hanság körzetében. Halászat, :58-60.
- Kováts Z.-Kozmáné Tóth E.**(szerk.)(1982):A Fertő-tó természeti adottságai.OMSZ-ÉDUVIZIG
- Márkus, I.**(1993): A távérzékelés alkalmazása a vegetáció vizsgálatában és térképezésében. Kandidátusi értekezés, EFE Sopron. 114 pages.
- Márkus, I.**(1995): Fertő-tavi Nemzeti Park Biotóp Térkép. EFE Sopron. 1:12500. Map 19. Scale 1:12500.
- Rakonczay Z.**(1996): Szigetköztől az Őrségig. A Nyugat-Dunántúl védett természeti értékei. Mezőgazda Kiadó Bp.
- Seregélyes T.**(1997): A Fertő-Hanság Nemzeti Park kezelési terve. Kézirat.

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org