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:

Zoltán Hegyi Ph.D. (zoological supervisor)
Péter Csonka (ranger of Gerecse Landscape Protection Area)
Duna-Ipoly National Park Directorate
H-1021 Budapest, Hűvösvölgyi út 52., Hungary
Post address: 1525 Budapest, Pf.: 86.
Phone: (36-1) 200-4033, 200-4066
Fax: (36-1) 200-1168
Email: DINPI@DINPI.HU

FOR OFFICE USE ONLY.

DD MM YY | Designation date | Site Reference Number

---

2. Date this sheet was completed/updated:
September, 2006 .

---

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.

Lakes by Tata (Old Lake of Tata+enlargement)

---

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 X❑

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: ❑

or

If the site boundary has changed:

i) the boundary has been delineated more accurately ❑; or

i) the boundary has been extended X; 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 X; 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:

There were no changes to the ecological character of the original Ramsar site, since the previous RIS for the site. With the extension of the area, remnants of the former extensive fen areas, water courses, wet forests and fishponds were included into the Ramsar Site.

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): ❑;

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 boundary of site follows roads and shoreline of waterbodies (streams, river and lakes)

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.

Approximate Center of the wetland (at Northern part of Tata):

47° 3**0**’ 31”N -- 18° 17’ 47”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.
Northern Hungary, within the geographical region Transdanubia, in the administrative region of Komárom-Esztergom county, by the town of Tata. The city is 70 kilometers away from the capital Budapest. The enlargement area is stretching towards the North of the town (Tata).

---

10. Elevation: (in metres: average and/or maximum & minimum)
130 m above sea level

11. Area: (in hectares)
1633.38 hectares
(extension of the area from 269 of 1364,38 hectares)

---

12. General overview of the site:
Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Old Lake is the largest lake of Komárom-Esztergom county situated in the inner city of Tata. It is an artificial storage lake formed in the Middle Age with swelling up a steam called Által-ér. It is a unique incident in all over the world that migrating birds rest at an inner city lake. Sometimes 25-30 thousands of waterfowls spend the night there.
Regarding the land use, in the area of the delta of Által-ér a mosaic of habitats is formed (meadows, pastures, spring bogs, remainings of fen and bog areas, reedbeds, ploughlands, fishponds, streams). This area is wedged between urbanized and industrial regions from the North and South as well as clearly bordered by the town of Almásfüzitő and the agglomeration area of Tata town.
The area of the delta of Által-ér is still varied and rich in natural values. It conserves numerous remnants of the former extensive fen areas. The outstanding mammal, bird, amphibian, reptile fauna and botanical values as well as the role of fish ponds in undertaking the task of the Old Lake of Tata (which is striken by negative environmental effects).

---

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
❑	X	X	☑	X	☑	❑	❑	❑

---

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).

Criterion 2. The site holds the following internationally designated species with maximum numbers given.
All birds are listed in Annex I of the Birds Directive. Migrant numbers are given per individuals.
Pygmy Cormorant *(Phalacrocorax pygmaeus*), max 16 inv. Global Red List: NT
Little Egret (*Egretta garzetta*), 3 pairs, max. 128 inv.
Little Bittern (*Ixobrychus minutus*), 15 pairs
Bittern (*Botaurus stellaris*), 5 pairs
Night Heron (*Nycticorax nycticorax*), 310 inv.
Black Stork (*Ciconia nigra*), 1 pair, max. 118 inv.
White Stork (*Ciconia ciconia*), 2 pairs, max. 269 inv.

Spoonbill (*Platalea leucorodia*), max. 62 inv.
Lesser White-fronted Goose *(Anser erythropus*), max. 3 inv. European Red List: EN, Global Red List: VU
Ferruginous Duck (*Aythya nyroca*), 2-5 pairs European Red List: VU, Global Red List: NT
White-tailed Eagle (*Haliaetus albicilla*), 1 pair, max. 21 inv. Global Red List: NT
Saker Falcon (*Falco cherrug*), 1 pair European Red List: EN, Global Red List: EN
Avocet (*Recurvirostra avosetta*), 6 pairs, max. 108 inv.
Black Tern (*Chlidonias niger*), max. 650 inv.

Lutra lutra EU Cites A(I), Bern Convention Appendix II, Habitats Directive Annexes II and IV
Emys orbicularis Bern Convention Appendix II, Habitats Directive Annexes II and IV
Umbra krameri Bern Convention Appendix II, Habitats Directive Annex II
Ophrys sphecodes EU Cites B(II),
Orchis coriophora EU Cites B(II),
Gymnadenia conopsea EU Cites B(II),
Orchis laxiflora subsp. palustris EU CITES B (II)
Orchis laxiflora subsp. elegans EU CITES B (II)
Orchis militaris EU CITES B (II)
Orchis morio EU CITES B (II)
Dactylothiza sambucina EU CITES B (II)

Criterion 3.
The Old Lake has a special value in maintaining ecological diversity of this region, this role is outstandingly unique within a city. The extended site is one of the few major stopover sites for migratory birds in Transdanubia (Hungary west of the River Danube). Thereby, it is essential to maintain these migrants in the region. It is the only other site apart from lake Fertő where the endangered Lesser White-fronted Goose annually occurs. For list of all internationally designated bird species, see Criterion 2. It is also one of the three sites in Hungary where *Senecio umbrosus* occurs, and the only site in northern Transdanubia for *Ludwigia palustris*.

Criterion 4. Lakes by Tata is a key staging site for large numbers of waterfowl (especially *Anser fabalis*, *Anser albifrons*), in a critical period during migration, particularly in autumn. The site is necessary for their survival as there are only a few other sites in the region (Northern Transdanubia) which are suitable for migrant goose populations. The site also holds representative populations of numerous rare species of fauna (see Section 22.).

Criterion 5.
Lakes by Tata are valuable habitats for migratory birds, especially for waterfowls during the autumn and spring time. Regularly more than 25 000 waterfowl spend their night on the Old lake in November – early December (this is the peak time of *Anser* species and *Anas platyrhynchos*, as well as *Larus ridibundus*). These migratory birds roost and feed here.

Bean Goose (*Anser fabalis*), max. 11600
Greylag Goose (*Anser anser*), max. 2650
White-fronted Goose (*Anser albifrons*), max. 650
Mallard (*Anas platyrhyncos*), max. 8500
Teal (*Anas crecca*), max. 1750
Pochard (*Aythya ferina*), max. 2250
Tufted Duck (*Aythya fuligula*), max. 3350
Smew (*Mergus albellus*), max. 262

Black-headed Gull (*Larus ridibundus*), max. 4850
Caspian Gull (*Larus cachinnans*), max. 2100
Common Gull (*Larus canus*), max. 2200

Criterion 6.
Bean Goose (*Anser fabalis*), max. 11600 (Central & SW Europe population: 1% = 6.000)
White-fronted Goose (*Anser albifrons*), max. 650 (Central Europe population, Pannonic ssp.: 1% = 250)

---

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:
Pannonian

b) biogeographic regionalisation scheme (include reference citation):
EU Council Directive 43/93/ECC/ Habitat Directive and Bern Convention

---

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.

Under the area of the delta, the complete order of Mesozoic layers can be found according to the geological drilling samples. Parallel to the sinking of the area in the Eocene, to the basins of the Hills and their edges, sea invaded (the brown coal mass near the settlements of Tatabánya and Oroszlány is originated from these marshes). Due to the frequent change of the sea level, various sediments developed: delta gravel, freshwater and sea limestone, marl and clay. The area sank and eroded in Oligocene. In Miocene, the area sank again and sea entered the area. The sediments (clay, marl and gravel) of the Pannonic Inner Sea deposited only in this area and at the edges of the Hills. In Pleistocene, the rivers and streams occupied their present position and deposited gravel and sand along their bed. The wind cumulated sand and loess during the dry and cold climate period. The thick limestone layers, deposited from hot springs welled up by the edge of the Gerecse Hills, covered the terraces of Által-ér and River Duna. Some of the surface-forming processes of Holocene still can be experienced. Unfortunately, most of them result in such a landscape alteration (karst formation, erosion, manners of land use), whose effects are unknown and unpredictable. By the water regulation and draining of the surrounding marshland an artificial lake system was created. The water of the lake is strongly degraded by the rapidly increasing water plants.

---

17. Physical features of the catchment area:
Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The largest area of the eastern part of the plain of Kisalföld is hilly and made up of sand and loess. Between its moderate steeps, more streams flow towards River Duna in the Southeast-Northwest direction. Along these streams, numerous fishponds were created making the basin of Tatai-medence rich in artificial water supplies. Most of the surface standing water of Komárom-Esztergom county is concentrated within the circle of a 10 km radius (Öreg-tó 220 ha, Boldogasszony-tó 73.4 ha, Grébicsi-tavak 51.0 ha, Asszony-tó 39.0 ha, Mocsai-tó 32.6 ha, Derítő-tó 27.0 ha, Cseke-tó 18.0 ha, Halasi-tó 11.9 ha, Billegi-tó 10.4 ha, Mária-tó 7.2 ha, Városi-tó 17.0 ha).

The valley of Által-ér is at lower elevations and the shape of the delta is not stretched or confined to a narrow valley.
The Gerecse Hills emerge from the site approximately within a 1 km distance. From the peaks of Les-hely and Kőpite an excellent view is provided and the land use of the Tatai-medence can be interpreted.
The area of the delta of the Által-ér is bordered by the Duna from the North, by the town of Tata from the South, Highway No. 1. from the East and by the road to Tata-Naszály-Almásfüzitő from the West.

---

18. Hydrological values:
Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stableization, etc.

The discussion of the hydrography of the region begins with the stream of Bársonyos, the region of Vértesalja, Gerecse Hills and Vértes Hills.
Most of the precipitation fallen on the areas of Vértes and Gerecse filters into the Triassic limestone and dolomite rocks. For this reason, surface streams are scarce. The mass of karstic water was consumed by the wells of the brims of Hills, ditches and basins. This led to the serious decrease of the karstic water level (70-100 meters) which resulted in the drying up of the wells or the reduction of their water output. Parallel to the regression in mining, water lifting decreased to a great extent and the filling up of the karstic water reservoir started again. The Fényes-források, which are the wells at the lowest elevations have already revived in 2001, although the complete recovery of the region will take decades. The water output of the Fényes - források is presently 2 m^3/min, but at the top its operation it was 120 000 m^3/sec (1.4 m^3 /sec).The output of the wells will reach the original grade by 2050, however, they will not regain their complete original state.
We have to notice, that the output of the Által-ér is not significanty effected in spite of the wells abounding with water as water is canalized to the streams of Fényes-patak and Mikovinyi-csatorna. These flow together near Dunaalmás and flow individually to Duna, consequently they cannot meat with Által-ér. In the Tercier –Quartener layer of the stream of Bársonyos, significant ground-water and layer-water supplies are present.
Studying the geographical and hydrological maps of the region, a reticulated net of streams along the geological faults is observable.
The main stream of the region is Által-ér. It springs from the Kopasz-hegy between the settlements of Pusztavám and Császár from more wells and flows into the Duna by Szelíd-dombok near Dunaalmás. Its length is 50. 4 km, its catchment area is 521 km^2. Its water input is increased by approximately 30 permanent or temporary streams with a total length of 150 km. Its catchment area is divided into 2 parts: one is from Pusztavám to Tatabánya; another is from the hilly area of Bársonyos. The streams collecting the water of the northeastern part of Vértes are of 3-4 km length.
After the estuary of the largest tributary, Galla Stream, Által-ér flows towards the South-West direction from the Old Lake and from the Southeast-Northwest direction by the western edge of Gerecse till the estuary. In this area, the tributaries are missing on the left side. From the edge of the Gerecse, only 2-3 streams flow into Által-ér.
For the XV. century, the inhabitants of this area have had the intention to keep the water of these streams in the region for a longer period. The permanent water supply for fish farming and for the operation of water-mills was provided by damming the streams. After the Turkish occupation of the area, the lakes were restored and new ones were developed. The water management operations of the XVIII. century were tied to Sámuel Mikoviny. The marshlands between Tata, Almás and Füzitő were drained and a channel was constructed from the Old Lake

to Duna according to his plans. The Réti and Ferencmajori fishponds and the present structure of the delta area of the Által-ér started to develop.

---

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.

O, 1, M, Ts, Tp, 9, Xf, Y

---

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.

Által-ér is a stream which flows through Tata, and it gains up the water coming down from the surrounding Hills. It is the water-collector of several creeks and sources so that it creates a large habitat-system for societies living requiring water.

There is a very valuable bog area (namely: Tófarok) which is mostly wet throughout the whole year. Dominant plant communities are fen forests, (e.g. Alnus glutinosa, Salix alba, Salix fragilis, Salix cinerea). In a small spot there is a reedbed as well. This part of the area is quite a diverse habitat of the site.
"Által-ér" is a little stream which had been dammed up in the 15th century in order to create a water stocking pond. It was also used for extensive fish breeding. The stream has remained the basic supplier of the "Old-lake" even for today. The size of the lake is 219 hectares. On the shore the dominant plant communities are pine-trees and different species of ferns (For example: *Dryopteris filix- mas* and *Dryopteris assimilis*).

---

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.*
From the viewpoint of botany, Fényes-források and Ferencmajori-rét have outstanding importance.

Biogeographically important communities are willow bogs (*Calamagrostio - Salicetum cinereae*),flooded meadows, freshwater swamp forests, reeds and several species of rear water macrophytes. These plant communities are very vulnerable and endangered throughout Hungary.

Endangered, biogeografically important or rare species are the following ones:
(*Ophrys sphecodes*) – varying number of stocks EU CITES B (II)

(*Orchis coriophora*) – 1000 flowering stocks EU CITES B (II)
(*Orchis laxiflora subsp. palustris*) – 50-100 stocks EU CITES B (II)
(*Orchis laxiflora subsp. elegans*) – 50 stocks EU CITES B (II)
(*Orchis militaris*) – 300-350 stocks EU CITES B (II)
(*Orchis morio*) – 4-5 stocks EU CITES B (II)
(*Dactylothiza sambucina*) 1-5 stocks EU CITES B (II)
(*Gymnadenia conopsea*) EU CITES B (II)
(*Allium suaveolens*) – 1150-1200 flowering stocks
(*Leucojum vernum*)
(*Veratrum album*)
(*Chlorocyperus longus*)
(*Centaurea sadlerana*)
(*Senecio umbrosus*) – 2200-3500 stocks
(Stipa joannis)
(*Nymphaea alba*)
(*Ludwigia palustris*)
(*Hydrocharis morsus-ranae*)
(*Azolla caroliana*)
(*Allium angulosum*)
(*Eucladium nasturtiifolium*)
(*Salix repens ssp. rosmarinifolia*)
(*Statiotes aloides*)
(*Vincetoxicum hirundinaria*).

---

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.*

Mammalia:
(*Sorex araneus*) Widespread, stable population Bern Convention Appendix III
(*Crocidura suaveolens*) Scattered spread, stable population. Bern Convention Appendix III
(*Neomys fodiens*) Scattered spread, stable population. Bern Convention Appendix III
(*Crocidura leucodon*) Widespread, stable population . Bern Convention Appendix III
(*Neomys anomalus*) Scattered spread. Bern Convention Appendix III
(*Sorex minutus*) Widespread, stable population . Bern Convention Appendix III
(*Erinaceus concolor*) Widespread, stable population .
(*Talpa europaea*) Widespread, stable population
(*Muscardinus avellanarius*) Scattered, stable population. Bern Convention Appendix III, Habitats Directive Annex IV
(*Glis glis*) Scattered spread, stable population. Bern Convention Appendix III
(*Sciurus vulgaris*) Widespread, stable population Bern Convention Appendix III
(Mustela erminea) Scattered spread. Bern Convention Appendix III
(*Lutra lutra*) stable population. EU Cites A(I), Bern Convention Appendix II, Habitats Directive Annexes II and IV

Mammalia, Chiroptera :
(*Myotis daubentoni*) Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Myotis myotis*) Constantly occurrence Constantly occurrence, Bern Convention Appendix II, Bonn

Convention Appendix II, Habitats Directive Annexes II and IV
(*Eptesicus serotinus*) Stable population. Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Nyctalus noctula*) Stable population. Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Nyctalus leisleri*) One occurence in the region Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Pipistrellus nathusii*) Two occurences in the county of Komárom-Esztergom. Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Pipistrellus pipistrellus*) Stable population. Constantly occurrence, Bern Convention Appendix III, Bonn Convention Appendix II, Habitats Directive Annex IV
(*Plecotus austriacus*) Occasional visitor Constantly occurrence, Bern Convention Appendix II, Bonn Convention Appendix II, Habitats Directive Annex IV

Aves (for international designations in birds, see 14).
Breeding pairs:
(Podiceps cristatus) – 15 pairs
(Tachybaptus ruficollis) – 7 pairs
***(Botaurus stellaris) – 4** pairs*
***(Ixobrychus minutus) – 9** pairs*
***(Ciconia ciconia) – 1** pair*
***(Egretta garzetta) – 3** pairs*
(Cygnus olor) – 3 pairs
***(Anser anser) – 26** pairs*
(Anas platyrhychos)- 39 pairs
(Aythya ferina) – 19 pairs
***(Aythya nyroca)- 2** pairs*
(Fulica atra) – 34 pairs
(Netta rufina) – 4 pairs
(Aythya fuligula) – 1 pair
(Circus aeruginosus) – 5 pairs
(Buteo buteo) – 6 pairs
(Falco tinnunculus) – 1 pair
(Falco subbuteo) – 1 pair
(Falco cherrug) – 1 pair
(Perdix perdix) – 4 pairs
(Coturnix coturnix) – ~25 pairs
(Gallinula cloropus) – 2 pairs
(Porzana porzana) – 5 pairs
(Porzana parva) – 2 pairs
(Rallus aquaticus) – ~15-25 pairs
***(Recurvirostra avosetta) – 6** pairs*
(Charadrius dubius) – 3 pairs
(Vanellus vanellus) – 7 pairs
***(Tringa totanus) – 2** pairs*
(Alcedo atthis) – 5 pairs
(Acrocephalus arundinaceus) – 35 pairs
(Locustella naevia) – 7 pairs
(Acrocephalus melanopogon) – 1 pair
(Acrocephalus palustris) – 24 pairs

(Remiz pendulinus) – 11 pairs
(Luscinia svecica) – 4 pairs

Migrating species: (2003/2004 maximums)
(Egretta garzetta) 161 specimens.
(Egretta alba) 197 specimens.
(Ciconia Ciconia) 310 specimens.
(Ciconia nigra) 98 specimens.
(Platalea leucorodia) 61 specimens.
(Nycticorax nycticorax) 278 specimens.
(Ardeola ralloides) 2 specimens.
(Cygnus olor) 245 specimens.
(Anser anser) 1980 specimens.
(Anser albifrons) 690 specimens.
(Anser fabalis) 7150 specimens.
(Anas platyrhychos) 5980 specimens.
(Anas acuta) 129 specimens.
(Anas strepera) 144 specimens.
(Anas clypeata) 312 specimens.
(Aythya fuligula) 3100 specimens.
(Aythya nyroca) 17 specimens.
(Anas crecca) 335 specimens.
(Anas querquedula) 154 specimens.
(Aythya ferina) 1715 specimens.
(Fulica atra) 2600 specimens.
(Vanellus vanellus) 650 specimens.
(Philomachus pugnax) 840 specimens.
(Tringa totanus) 415 specimens.
(Gallinago gallinago) 310 specimens.
(Limosa limosa) 36 specimens.
(Numenius arquata) 52 specimens.
(Larus cachinnans) 1100 specimens.
(Larus ridibundus) 3500 specimens.
(Sterna hirundo) 235 specimens.
(Chlidonias niger) 850 specimens.
(Chlidonias hybrida) 55 specimens.
(Chlidonias leucopterus) 26 specimens.

Reptilia:
(*Emys orbicularis*) Endangered. 50-100 individuals.
(*Lacerta viridis*) Stable population.
(*Lacerta agilis*) biogeographically important.
(*Elaphe longissima*) Stable population.
(*Coronella austriaca*) Stable population.
(*Natrix natrix*) Stable population. Widespread.
(*Natrix tessellata*) Stable population. Widespread.

Amphibia :
(*Triturus cristatus*) Stable population. Bern Convention Appendix II, Habitats Directive Annexes II and IV

(*Triturus vulgaris*) Stable population. Bern Convention Appendix III
(*Bombina bombina*) Widespread, stable population. Bern Convention Appendix II, Habitats Directive Annexes II and IV
(*Pelobates fuscus*) Scattered spread, stable population. Bern Convention Appendix II, Habitats Directive Annex IV
(*Bufo bufo*) Widespread, stable population. Bern Convention Appendix III
(*Bufo viridis*) Widespread, stable population. Bern Convention Appendix II, Habitats Directive Annex IV
(*Hyla arborea*) Widespread. Bern Convention Appendix II, Habitats Directive Annex IV
(*Rana arvalis wolterstroffi*) Rare. Bern Convention Appendix II, Habitats Directive Annex IV
(*Rana dalmatina*) Widespread, stable population. Bern Convention Appendix II, Habitats Directive Annex IV
(*Rana ridibunda*) Widespread, stable population. Bern Convention Appendix III, Habitats Directive Annex V
(*Rana lessonae*) Common. Bern Convention Appendix III, Habitats Directive Annex IV
(*Rana esculenta*) Common. Bern Convention Appendix III, Habitats Directive Annex V

Pisces:
(*Leucaspius delineatus*) Scattered spread. Bern Convention Appendix III
(*Gobio gobio*) Widespread.
(*Barbatula barbatula*) Rare.
(*Misgurnus fossilis*) Rare Bern Convention Appendix III, Habitats Directive Annex II
(*Cobitis taenia*) Widespread. Bern Convention Appendix III, Habitats Directive Annex II
(*Umbra krameri*) Unique and biogeographically important. Bern Convention Appendix II, Habitats Directive Annex II
(*Proterorhinus marmoratus*) Rare. Bern Convention Appendix III

Lepidoptera:
(*Maculinea teleius*) Rare. Bern Convention Appendix II, Habitats Directive Annex II
(*Maculinea alcon*) Very rare.

---

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:

Most of the buildings standing on the northern part of the area are architectural monuments. The most important building in Tata is the Old Castle, standing on the shore of the Old Lake. This Gothic fortress with its square ground-plan and four corner towers was seriously damaged during the Turkish wars, and in the Independence war of Rákóczi Ferenc. At the end of the last century its remaining sections were rebuilt in the Romantic style. A museum named after Domonkos Kuny, a master of faience, has been established in its halls. Besides the archaeological and local historical collection, the exhibition of old Tata pottery and ceramic art is also worthy of attention. Beside the fortress stands the Eszterházy Castle which is another wonderful decoration as it is kept in a very good condition.
Around the northern part of the lake there are water-mills built mostly in baroque style. Here you can see the most watermills in Hungary, 14 in total. Some quite old ones are in especially good condition. Good examples are Jakab Fellner's Miklós Mill, and Nepomuceus Mill.

The majority of these date from the 1700s, from the time of the Eszterházy family, but the oldest, the Cifra Mill, which stands by the dam of the Old Lake, was in operation almost 500 years ago. So many mills were built in Tata because of the virtually limitless amount of water energy supplied by the daily 250 million litres of spring water.

Most of these nationally protected monuments are today used for a variety of purposes, including a hotel, a museum, a wine bar, a restaurant, offices and private homes, though unfortunately some of them lie empty.

The city of Tata has one of the richest collections of monuments and natural treasures in Hungary. Its natural riches, some of which are of international, as well as national and regional importance, make the area one of the strongholds of nature conservation in Hungary, and by virtue of its impressive architectural wealth, Tata can rightly be considered one of Hungary's finest cities. There are 71 nationally-protected monuments and buildings in Tata, and a further 277 buildings which form part of the city's regional heritage.

The enlargement area does not include traditional settlements that why it doesn't conserve significant values in this respect.

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?

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:

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:, b) in the surrounding area:

The Old lake is mostly owned by the State.
In the northern part of the surrounding area there are built-in sites and public areas. Some of them are owned by individuals and authorities.
As the conditions of the enlargement area and its surroundings are the same, these are described together:
The composition of the owners of the land is: 45 items are the local government's, 119 state-owned, 67 agricultural cooperative's, 393 private-owned. More land items can belong to one

owner and one certain land item can have 30-40 owners, so the list above does not reflect the exact number of the land items.
From the conservational point of view, this status is favourable as the majority of land items are owned by the local government, state or agricultural cooperative so it is easier to make the approaches of conservation accepted. The state ownership of the reedbeds and fish ponds are to be supported together with the withdrawn land use of the Fényes-források.

---

25. Current land (including water) use:
a) within the Ramsar site:

The total area of the site is 1 364.352 ha. The dominant land use manners are ploughlands and fishponds. In the case of ploughlands monocultures, while in fishponds intensive fishery are characteristic, in the case of withdrawn land use built-in area is important. The extension of the marshes, ditches and roads is considerably large, conserving values. The proportion of the grasslands, forests and reedbed is less but with great conservational significance. The reedbed is situated at the edge of the landuse area. The area of the grasslands is to be extended by ploughland-grassland conversion. The tree stands are made up of non-indigenous species. It is unfavourable respecting the aims of conservation but these are still to be maintained using nature-friendly methods.

b) in the surroundings/catchment:

In the wider surroundings of the Ramsar site, mainly agricultural land and tree plantations are found. From the South, the area is touched by the agglomeration of the town Tata, from the North, by the former factory buildings and Duna Valley, from the West, by small plots of agricultural land and the settlement of Naszály, from the East, by former floodplain of Duna and Által-ér meeting with the ranges of Gerecse with various land use.

---

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, b) in the surrounding area:

The main threat to natural conditions is the expanding land ownership of individuals who use their sites for recreation purposes. The more sites are given into public property, the more pollution (chemicals, noise, moving) threats the wildlife. One of the main tasks of nature conservation and the public interests is to find the balance between the assuring nature's harmony and giving recreation opportunities to visitors.
Another problem was the permanent pollution of streams and creeks that flow into the Old lake.
Because its small area, the effects on the proposed area and its surroundings are to be described together.
The area of the delta of Által-ér was a formerly extensive, vivid marsh region. With the occupation of agricultural land, the increase of the inhabited area and the effect of mining to the water basis resulted in present use and conservational values connected to this. The most important running water sources became very unstable. 250 million liter water used to flow down the Által-ér delta per day until 1960s, when the implementation of Sámuel Mikoviny's drainage plan completely altered the area.
The former fen areas remained only in small patches, and in the lower holes and former drainage ditches water is still present. In the neighbouring area, Réti fish ponds were created in the 1890s, Ferencmajori fish ponds were developed in 1962. The implementation of fish ponds were the first, but not deliberate step towards the rehabilitation of the former wetlands.

Another positive effect on the region is that the formerly dried upwells started to work again with a continuously increasing water output.
On the fish pond systems there are extensive fishery programs proceeding according to the agri-environmental programs of EU.
As for our present knowledge, an overall infrastructural development is not planned in this region, but the areas by Fényes-forrás and Réti-halastavak are potential subjects for building-in. The maintenance of the streams can lead to conservational problems. The communal waste water and illegal waste deposits have significant effects. In certain years, the drought causes also devastative ecological effects because of the reduced water output of the streams flowing into. In these cases, the water level of fish ponds is lower, which can be critical in the breeding period.
In the field of conservation of the natural habitats, the presence of aggressive non-indigenous plant species threaten the natural vegetation.

---

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 Old lake is a municipally designated nature conservation area. It means that the site is managed by the Municipality of Tata. The sensitive parts of the territory are fenced round, visiting them is allowed with permission of the Municipality. Hunting is not allowed in the territory. Nature conservation guards regularly watch the area. The forests are managed by the Municipality and the State Forestry.
Local settlements by the side of Által-ér stream created a public foundation in order to save the Old Lake The members of the foundation worked out a complex project for making the state of the lake better. These works are in current agenda.

1/3 part of the enlargement site is a protected site of local significance. Ferencmajori fish ponds I. and IV. are parts of a special hunting area, so on these ponds hunting is prohibited the whole year. In other parts of the area, no management plans are implemented but local restrictions help to preserve natural values.

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 management plan was not developed yet, but first elaboration activities are undertaken.

d) Describe any other current management practices:
Nature conservation management in the agricultural practice

The Tatai Agricultural Rt, which has ownership and fishing rights on the Ferencmajor fishing lakes, wanted to take part in the system of Natura 2000 SPA sites and undertook such forward agricultural practices which are unique in the field of nature conservation and protection.
The manager of the area decided to unify ponds XI. and XII. for creating a larger water surface.
Ponds I., IV., V. have been special hunting areas since 2001 (without bird scaring or hunting).
Strict control of hunting has been continuous since 1997.
The largest nature protection NGO in Hungary (MME) started to develop the infrastructure nearby the lakes. They put nature trails and bird observation towers and information sings on the

area. The Directorate of Duna-Ipoly National Park applied for changing the 13. 4 km long common electricity system for underground cable, and they started to compile a documentary of a management plan with the managers of fish ponds.

28. Conservation measures proposed but not yet implemented:
e.g. management plan in preparation; official proposal as a legally protected area, etc.

The territory enjoys local protection at the moment, which is showed by information panels around the area. Works on habitat reconstruction are in progress and realization. The invader tree species are changed to ones originally living in the habitats. Referring to the international significance, it is planned to raise the area to national protection. This would mean further opportunities towards a more effective conservation.
The proposed Natura 2000 site is nearly 600 ha. The management plans to preserve natural values is in process for the whole Ferencmajori fish ponds.

29. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

The Municipality manages constant monitoring of waterfowls. The Komárom-Esztergom County's local group of the Hungarian Ornithological Association organizes bird observation regularly. The data are sent to the center of the association, and written up to a central statistic collection.

First of all the botanical and the ornithological values are known in details for the Fényes-források region.
Botanical: Kossuth Lajos Tudomány Egyetem (Dr. Matus Gábor)
Nyugat-Magyarországi Egyetem (Riezing Norbert)
Zoology: BirdLife Hungary Komárom-Esztergom County Group

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.

The Old lake is not used for multi-programmed educational purposes.
In the eastern part of the lake there is an information centre, which introduces the ecological values of the Old Lake. Local schools and bird-watchers visit the area. The Hungarian Ornithological Association organizes several excursions around the lake every year. Birdwatching is helped by the birdwatching-tower at the eastern side of the lake.

The Municipality organizes waste collecting actions which give opportunity to local patriots to make their environment cleaner and nicer, and in the meantime they are informed about the significance of ecosystems.
By the shore of the Old Lake of Tata stands the "Information Centre for Conservation and Ecotourism', whose construction is completed regarding its structure and will serve as an excellent conservational centre for the region. Old Lake and Ferencmajori fish ponds home two study trails with birdwatching towers as well as information sheets and boards.
In the area of the Ferencmajori fish ponds a conservational camp is organized each year (for 14 years) with the main aim of environmental education of the youth.
BirdLife Hungary and Duna-Ipoly National Park Directorate provide professional guidance by the lakes for interested visitor groups.

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

The present situation of tourism is not showing tendencies towards connecting to nature conservation. In the spring and the autumn the lake is visited mostly by people making simple excursions and they only have a walk. In summer the lake is besieged by bathers and trainers of water sports. These facts are real problems which are to be solved in the future. The Old lake is a favored fishing place, which has significant tradition here as the pond was used for fish breeding in the middle age. In the quiet places of the southern part of the area, anglers find recreation without disturbing significantly the habitat.

The enlargement area has not been explored by tourism yet. A cycle route, an ecotourism centre and a museum are planned in the area of Ferencmajori fish ponds.
Approximately 30-50 foreign twitchers visit and Hungarian twitchers regularly wander in the site every year. 200 students get information on the values of life in water with the help of professional guides. The development of the study trail will continue in the following years and new visual tools will serve the visitors (new information boards and viewplaces).

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

State:
Ministry of Interior
Ministry of Environment Protection and Water Management
Ministry of Agriculture and Rural Development
Ministry of Transport and Telecommunication
Regional:
Észak-Dunántúli Water Management Directorate, Győr
Észak-Dunántúli Environmental, Nature Conservation and Water Management Authority, Győr (this is the regional authority for nature conservation)
Local:
Town Office at Tata

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.

Duna-Ipoly National Park Directorate
H-1021 Budapest, Hűvösvölgyi u. 52., Hungary
Post address: 1525 Budapest, Pf. 86.
Phone: (36-1) 200-4033, 200-4066, 200-4101
Fax: (36-1) 200-1168
Email: DINPI@DINPI.HU

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

- Almády, Z. (1992): Tata karszt-hidrogeológiai viszonyai, barlangjai, forrásai és egyéb karsztjelenségei. LIMES - Komárom-Esztergom megyei Tudományos Szemle 1992/2. p. 97-127.
- Ángyán, J., Menyhért, J. (1999): Az EU-konform mezőgazdasági stratégiaváltás legfontosabb területei és feladatai a növénytermesztésben, in: Kerekes, S.: Környezetbarát mezőgazdálkodás. MTA, Budapest
- Ángyán, J., (1999): Alapozó vizsgálatok Magyarország földhasználati zónarendszerének

kialakításához. In: Kerekes, S.: Természetvédelem és mezőgazdaság. MTA, Budapest, p. 7-30
- Ángyán, J., Podmaniczky, L., Szabó, M., Vajnáné Madarassy, A. (2001): Az Érzékeny Természeti Területek (ÉTT) rendszere. KÖM–TVH, Budapest
- Bartha, D. (2001): Veszélyeztetett erdőtársulások Magyarországon. WWF–Füzetek 18., Budapest
- Bél, M. (1989): Komárom vármegye leírása. József Attila Megyei Könyvtár, Tatabánya.
- Benya, L. & Kugli, J. (1973): Tata madárvilága. In: A tatai Herman Ottó Kör Munkái 1973-3.
- Benya, L. - Kugli, J. (1973): Tata madárvilága. In: A tatai Herman Ottó Kör munkái 1973/3. p. 1-21.
- Bergh, L.M.J. van den & Philippona, J. (1986): The occurence of geese (mainly bean geese) at Tata in the West of Hungary. Aquila 92. p. 65-80.
- Bihari, Z. (1996): Denevérhatározó és denevérvédelem. MME Könyvtára, Budapest
- Bíró, E. (szerk. 1979): Tata története I. Tata Városi Tanács Kiadványa, Tata
- Bíró, E. (1968): Malomépítés Tatán 1587-ben. In: Komárom Megyei Múzeumi Közlemények I. p. 311-327.
- Borhidi, A. & Sánta, A. (1999): Vörös Könyv Magyarország növénytársulásairól I.–II.. KÖM Természetvédelmi Hivatalának Tanulmánykötetei 6.
- Bőhm, A., Füleky, Cs., Végh, M. (szerk. 1997): A Ramsari Egyezmény kézikönyve. - Környezetvédelmi Minisztérium Természetvédelmi Hivatal, Budapest
- Fülöp, Gy. & Szilvacsku, Zs. (2000): Természetkímélő módszerek a mezőgazdaságban. MME Könyvtára
- Csonka, P. (2001): A lápi hangyaboglárkáról (Maculinea alcon) és Komárom-Esztergom megyei előfordulásáról. Soproni Egyetem (Házi dolgozat)
- Csonka, P. (2002): A Fényes-források természetvédelmi jelentősége. Soproni Egyetem (Házi dolgozat)
- Danszky, I. (szerk., 1963): Magyarország erdőgazdasági tájainak erdőfelújítási, erdőtelepítési irányelvei és eljárásai – IV. Dunántúli Középhegység Erdőgazdasági Tájcsoport. Országos Erdészeti Főigazgatóság
- Dornyay, B. (1914): A gödények tömeges megjelenése a tatai tavakon 1767-ben. Természettudományi Közlöny 46. p. 354-355.
- Észak-Dunántúli Vízügyi Igazgatóság (2002): Vízgyűjtő-gazdálkodási tervezés a Duna jobbparti vízgyűjtője Gönyű és Dömös között. ÉDUVIZIG, Győr
- Faragó, S. & Kovács, G. & Sterbetz, I. (1991): Goose populations staging and wintering in Hungary 1984 - 1988. In: Fox-Madsen-van Rhijn (eds): Western palearctic geese. IWRB Special Publication No. 14. p. 161-163.
- Faragó, S. (1995): Geese in Hungary 1986-1991. IWRB Publication 36., p. 97.
- Faragó, S. (1996a): A Duna Gönyű-Szob közti szakasza (1791-1708 fkm) vízimadár állományának 10 éves (1982-1992) vizsgálata. In: Faragó (szerk.): Magyar Vízivad közlemények No.1.
- Faragó, S. (1996b): A Magyar Vadlúd Adatbázis 1984 - 1995.: Egy tartamos monitoring. Data base of geese in Hungary 1984 - 1995: A long-term monitoring. In: Faragó (szerk): Magyar Vízivad Közlemények No.2. Sopron, p. 3-168.
- Faragó, S. (1997): Élőhelyfejlesztés az apróvadgazdálkodásban, Mezőgazda Kiadó
- Faragó dr., T. (1995): Vadon élő állatfajok fennmaradásának lehetőségei mezőgazdasági környezetben Magyarországon. WWF-Füzetek 4., Budapest
- Fekete, G. & Molnár, Zs. & Horváth, F. (szerk., 1997) MTA Ökológiai és Botanikai Kutatóintézet: Nemzeti Biodiverzitás-Monitorozó Rendszer II. A magyarországi élőhelyek leírása, határozója és a Nemzeti Élőhely-osztályozási Rendszer. Magyar Természettudományi Múzeum
- Fidlóczky, J. (1995): Az erdőgazdálkodás helyzete és annak természetvédelmi vonatkozásai. WWF–Füzetek 7., Budapest
- Frank, F. (1870): Tata vidéke Flórájának rövid ismertetése. A kegyestanitórend kis-gimnáziumának Értesitvénye az 1869/70 tanévre. Esztergom, p. 3-6.

- Frank, T. (szerk. 2000): Természet–Erdő–Gazdálkodás. MME Könyvtára
- Frisnyák, S. (1999): Magyarország történeti földrajza. Nemzeti Tankönyvkiadó
- Fürst, Á. (2000): Tata város forrásvidékének keletkezése múltja, jelene, jövője (8 oldalas kézirat)
- FVM SAPARD Hivatal (2002): A vidéki infrastruktúra fejlesztésének és javításának támogatása. FVM, Budapest
- Haraszthy, L. (1999): Biológiai sokféleség megőrzésének lehetőségei Magyarországon. WWF–Füzetek 8., Budapest
- Haraszthy, L. (1999): Magyarország madarai. Mezőgazda Kiadó
- Haraszthy, L. (1999): Természeti értékeink megőrzésének lehetőségei az Európai Unióban. WWF–Füzetek 14., Budapest
- Harka, Á. (1997): Halaink. Természet- és Környezetvédő Tanárok Egyesülete, Budapest
- Havasházi, L. & Bereznai, Cs. (2000): Által-ér – a forrástól a torkolatig. United Way – Vértes Vidéke Alapítvány, Tatabánya
- Hawke, C.J. & José, P.V. (magya szerk, Szabó, B. 2002): A nádasok kezelése gazdasági és természetvédelmi szempontok szerint. MME Könyvtára
- Jáki, R. (1994): A bányászati változások alapján bekövetkezett karsztvízszint-változások a Gerecse-hegységben. LIMES - Komárom-Esztergom megyei Tudományos Szemle, Tatabánya, p. 81-87.
- Jánossy, D. (1979): Plio-Pleistocene Bird Remains from the Carpathian Basin. Aquila, 85. p. 11-39.
- Kopasz, M. (szerk, 1978): Védett természeti értékeink. Mezőgazdasági Kiadó, p. 395.
- Körmendi, G. (1988): A tatai vízimalmok. HNF Tata, p. 58.
- Kugli, J. (1973): Tata halai. In: Árendás - Skoflek (szerk): A tatai Herman Ottó Kör Munkái 1973/3., p. 22-43.
- Lambrecht, K. (1913): Magyarország fosszilis madárfaunájának gyarapodása.Aquila, p. 423-433.
- Lebret, T. (1982): Goose observations in the Pannonic region in October-December 1980 and in March 1981. Aquila 89., p. 187-191.
- Matus, G., Jeney, Z., Barina, Z. (1998): A tatai Fényes-fürdő és környékének botanikai-természetvédelmi vizsgálata. Tata Város Önkormányzata, Tata
- Márkus, F. (1992): Az intenzív mezőgazdaság és földhasználat hatása a természeti értékekre Magyarországon. WWF–Füzetek 1., Budapest
- Márkus, F. (1993): Extenzív mezőgazdaság és természetvédelmi jelentősége Magyarországon. WWF–Füzetek 6., Budapest
- Márkus, F., Nagy, Sz. (1995): A mezőgazdasági és természetvédelmi politika összehangolásának lehetőségei Magyarországon – Különös tekintettel a Környezetileg Érzékeny Területek rendszerének hazai bevezetésére. WWF–Füzetek 10., Budapest
- Márkus, F., Nagy, Sz. (1997): A fenntartható mezőgazdaság módszereinek környezetvédelmi kérdései és bevezethetősége – Az extenzív gazdálkodási módok megőrzése, a jó mezőgazdasági gyakorlat, a Környezetileg Érzékeny Területek rendszere. Fenntartható Fejlődés Bizottság, Budapest
- Health, M.F., Borggreve, C. & Peet, N. (2000): European Bird Populations Estimates and Trends (BirdLife Conservation Series No. 10.). BirdLife International, Oxford
- Musicz, L. (1992): A Ferencmajori-halastavak ökológiai jelentősége a Komárom-Esztergomi-síkság madárvilágában. Pályázati kézirat, KTM.
- Musicz, L. (1994): Beszámoló az Által-ér Vízgyűjtő Helyreállítási Programról. Komárom--Esztergom Megyei Közgyűlés Környezetvédelmi Bizottsága. Tatabánya, 1994. március 1.
- Musicz, L. (1994): Tata város feladatai az Öreg-tó és környezetének helyreállításában. "Az Által-ér vízgyűjtő területének környezetvédelmi problémái" MTESZ-Szimpózium. Tatabánya, 1994. november 17.
- Musicz, L. (1990): Vadlúdmozgalmak vizsgálata a tatai Öreg-tavon az 1984-1989 közötti idõszakban. Wild goose movements on the Tata Öreg Lake 1984- 1989. Aquila 1996-97. Budapest, p. 19-35.

- Musicz, L. (1992): A tatai Öreg-tó vadlúdforgalmának antropogén hatásvizsgálata. LIMES - Komárom-Esztergom Megyei Tudományos Szemle 1992/2. Tatabánya, p. 29-40.
- Musicz, L. (1996): Komárom-Esztergom megye helyi védettségű természeti értékei. In: Tardy (szerk): Magyarországi települések védett természeti értékei. Mezőgazda Kiadó, Budapest, p. 309-333.
- Musicz, L. (1997): A tavak, víztározók ökológiai-természetvédelmi szerepe a Tatai-medence madárvilágában. LIMES - Komárom-Esztergom megyei Tudományos Szemle 97/1. Tatabánya, p. 95-116.
- Musicz, L. (in press): A vadlúdtelelés ökológiai-természetvédelmi vonatkozásai a tatai Öreg-tavon. Partimadár 1997/6.
- Musicz, L. (szerk 1998): A tatai Öreg-tó természetvédelmi rehabilitációs és kezelési terve. Által-ér Szövetség, Tatabánya
- Musicz, L. (szerk 1999): Komárom-Esztergom megye zöldturizmus-fejlesztési koncepciója és középtávú stratégiai programja. MTESZ Komárom-Esztergom megyei Szervezete, Tatabánya
- Nagy, Sz. (szerk. 1996): Fontos Madárélőhelyek Magyarországon. MME Könyvtár
- Nagy, Sz., Márkus, F., (1996): Az agrártámogatások természetvédelmi hatásai. WWF–Füzetek 11., Budapest
- Nagy, Sz., Márkus, F., (1995): A mezőgazdasági és a természetvédelmi politika összehangolásának lehetőségei az Európai Unióban. WWF–Füzetek 9., Budapest
- Nagy, Sz. (szerk. 1998): Vörös Lista Magyarország fészkelő madarainak védelmi helyzete. MME Könyvtára, Budapest
- Papp, V.G. (1992): Egyes magyarországi területek természetvédelmi értékelése. Diplomaterv – ELTE, Humánökológus Szak
- Petrikné Molnár, E. (1995): Helyi jelentőségű természetvédelmi területek Komárom-Esztergom megyében. Kézirat, p. 17.
- Péchy, T., Haraszthy, L. (1997): Magyarország kétéltűi és hüllői. MME Könyvtára, Budapest
- Pécsi, M. (1988): Magyarország tájföldrajza. A Dunántúli-középhegység, B) – Regionális tájföldrajz. Akadémia Kiadó, Budapest
- Rados, J. (1964): Tata. Budapest
- Rakonczay, Z. (1992): Sas-hegytől a Kálvária-dombig. Észak-Dunántúl természeti értékei. Mezőgazda Kiadó, p. 367.
- Riezing, N. (1999): Az Által-ér és mellékvizeinek halfaunája. Puszta 1999, p. 142-155.
- R- iezing, N. (1999): A Ferencmajori-rét, valamint a Pusztavámi-láprét és égerláp természeti értékei „Nem védett természeti területek" KTM pályázat, Budapest.
- Riezing, N. (2002): Adatok a Dunántúl északi részének flórájához – Kitaibelia **7**(2), p. 163-167.
- Roznai, I. (1975): Mikoviny Sámuel a XVIII. század egyik legkitűnőbb mérnöke és polyhistora. Tatabánya
- Scheuer Gy. & Schweitzer F. (1988): A Gerecse- és a Budai-hegység édesvízi mészkőösszletei. Földrajzi Tanulmányok 20, p. 53-54. Akadémiai Kiadó, Budapest.
- Seregélyes, T. (1986): The establishment of ferns in planted pine forests in the vicinity of Tata, Hungary. Abstracta Botanica 10, p. 117-130.
- Skoflek, I. (1970): Tata páfrányai. A Tatai Herman Ottó Természettudományi Stúdió Munkái 1, p. 37-42. Komárom megyei Művelődési Központ.
- Sterbetz, I. (1984): Megfigyelések a tatai Öreg-tó környékén 1983. december 26-30. időközéből. Madártani Tájékoztató 1984/2., p. 96-97.
- Szilágyi, F. (1992): A tatai Öreg-tó vízminőségszabályozása. LIMES - Komárom-Esztergom Megyei Tudományos Szemle 1992/2., p. 5 - 28. Tatabánya.
- Tardy, J. (szerk, 1994): Természetvédelem '94. KTM OTvH Budapest,
- Vajnáné, M. A., Vajna, T. (1999): Az EU-csatlakozás várható hatásai a védett természeti területek mezőgazdálkodására. In: Kerekes, S.: Természetvédelem és mezőgazdálkodás. MTA, Budapest,

- Tata Város Önkormányzata (1999. szeptember): A tatai források visszatérésével kapcsolatos vizsgálatok és cselekvési program. Készítő: Hydrosys Kft, Monumentum Kft, Equilibrium Bt., Tata
- Tata Város Önkormányzata (2000): A tatai karsztforrások visszatéréséből adódó beruházási feladatok áttekintése. A tatai képviselőtestület által 2000. október 25-én elfogadott I-208 /2000. számú határozat
- Tóth, M. (1998): Tata eredeti „viziváros" jellege, az érintetlen karsztvízháztartás valamint a tatabányai vízelvonó bányászati tevékenység (33 oldalas kézirat)
- Tucker, G.M. & Health, M.F. (1995): Birds in Europe Their Conservation Status (BirdLife Conservation Series No. 3.). BirdLife International
- Tucker, G.M. & Evans, M.I. (1997): Habitats for Birds in Europe (BirdLife Conservation Series No. 6.). BirdLife International
- Újhelyi, P. (1994): A magyarországi vadonélő emlősállatok határozója. MME Könyvtára, Budapest
- Vehner, T. (szerk, 1981): Komárom megye természeti értékei. Tatabánya, p.77.
- Vinczeffy, I. (szerk. 1993): Legelő- és gyepgazdálkodás. Mezőgazda Kiadó, Budapest
- Waliczky, Z. (1992): Európai Jelentőségű Madárélőhelyek Magyarországon. MME, Budapest, p. 121.

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**