



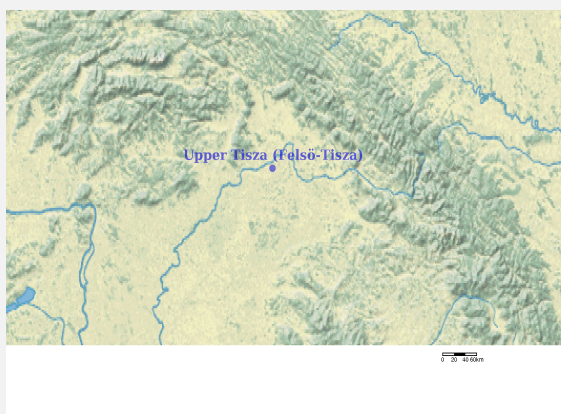
Ramsar Information Sheet

Published on 8 November 2016

Update version, previously published on 1 January 2012

Hungary

Upper Tisza (Felső-Tisza)



Designation date	4 December 2004
Site number	1410
Coordinates	48°10'42"N 21°56'14"E
Area	26 871,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Felső-Tisza is a typical flood plain between dikes constructed during the end of the 19th and in first half of the 20th centuries. The highly natural and near-natural habitats consist of large patches of softwood riverside forests (*Salicetum albae-fragilis*) and hardwood riverside forests (*Querco-Ulmetum*), oxbow lakes, filled in meanders with rich natural flora and fauna, extensively managed or abandoned orchards and ploughlands. This Ramsar Site has been designated as a Transboundary Ramsar Site together with "Tisa River" in Slovakia in 2003.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Csaba Bereczki
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2.1.2 - Period of collection of data and information used to compile the RIS

From year	2013
To year	2015

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Upper Tisza (Felső-Tisza)
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2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No <input type="radio"/>
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Boundaries description (optional)

Felső-Tisza is a typical flood plain area between the dikes of River Tisza, the Ramsar site was outlined following the dikes of these floodplain areas from the Hungarian - Ukrainian border (744.8 km of river) till the village of Tiszadada in Szabolcs-Szatmár-Bereg County.

2.2.2 - General location

a) In which large administrative region does the site lie?	Szabolcs-Szatmár-Bereg County
b) What is the nearest town or population centre?	Nyíregyháza. Other important towns are Tokaj, Mátészalka, Fehérgyarmat and Vásárosnamény.

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?	Yes <input checked="" type="radio"/> No <input type="radio"/>
b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?	Yes <input checked="" type="radio"/> No <input type="radio"/>
idem	No <input type="radio"/>
d) Transboundary Ramsar Site name:	Upper Tisza Valley

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Pannonic

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other ecosystem services provided

Felső-Tisza is a representative example of a natural or near-natural middle-reach river type found within the Pannonian biogeographic region. The wetland is natural, without significant disturbance by human activities and it has an important ecological role in the movement and migration of many plant and animal species in the region. Felső-Tisza supports vulnerable, endangered and critically endangered species and threatened ecological communities.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

Felső-Tisza supports populations of plant and animal species important for maintaining the biological diversity of the biogeographic region such as: Dragonfly species: Eurasian Baskettail *Epiptera bimaeculata*, Norfolk Hawker Dragonfly *Anasclia isosceles*, Willow Emerald Damselfly *Chacolestes viridis* Endemic fish species: The Carpathian brook lamprey, Carpathian brook lamprey *Eudontomyzon danfordi* is an endemic fish species to catchment of Tisza river. A subspecies of Mediterranean barbel *Barbus meridionalis*, the Southern Barbel (*B. meridionalis petényi*) is an endemic subspecies to Pannonic biogeographic region. It also occasionally supports Danube salmon, Huchen *Hucho hucho* (EN) which is endemic to the Danube river system. Amphibians: Fire-bellied Toad, *Bombina orientalis* (Bern Convention, EU Habitats Directive). Danube Crested Newt, *Triturus cristatus* (listed under EU Habitats Directive). Reptiles: European Pond Tortoise *Emys orbicularis* (Bern Convention), Grass Snake *Natrix natrix* (Bern Convention, EU Habitats Directive).

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

- Criterion 7 : Significant and representative fish

Justification




Felső-Tisza supports a significant proportion of indigenous fish subspecies, species and populations that are representative of wetland benefits and thereby contributes to global biological diversity. All Gudgeon species *Gobio* spp. are found in this wetland site, namely Gudgeon (*G. gobio*), Danubian Gudgeon (*G. uranoscopus*), Kessler's Gudgeon (*G. kesslerii*), and White-finned Gudgeon (*G. albipinnatus*). Furthermore Riffle Minnow (*Alburnoides bipunctatus*), Zingel (*Zingel zingel*), Danube Streber (*Z. streber*), Bullhead (*Cottus gobio*) Belica (*Leucaspis delineatus*) should be mentioned.

- Criterion 8 : Fish spawning grounds, etc.

Justification

Felső-Tisza is an important source of food for fishes, spawning ground, nursery and migration path on which fish stocks, either within the wetland or elsewhere, depend. The most important species in this regard include Nase (*Chondrostoma nasus*), Barbel (*Barbus barbus*) and Sterlet (*Acipenser ruthenus*).

3.2 - Plant species whose presence relates to the international importance of the site






























Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Salvinia natans</i> 	Floating Fern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Annex I of the Bern Convention	
<i>Trapa natans</i> 	Water Chestnut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Annex I of the Bern Convention	









































Other noteworthy plan species:





































- 57 different Orchidaceae spp. (CITES Convention //l. annex) including the Pannon endemic *Epipactis tallosii* that was discovered in the late nineties

Criterion 4: Felső-Tisza supports plant and animal species at a critical stage in their life cycles and provides refuge during adverse conditions. Being a large, continuous natural area, Felső-Tisza is breeding area for numerous invertebrate and vertebrate species. The river also plays an important role as a migration route for several species (invertebrates, birds, bats, etc.). Along the whole length of Tisza in Hungary there are 116 oxbows (larger than 4 hectares), among these 31 are located in Felső-Tisza. They perform extremely important ecological functions (spawning, rearing, feeding, resting and staging, aquifer recharge, aquatic species "banks", and habitat connectivity).

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	 <i>Acipenser gueldenstaedtii</i>	Russian sturgeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ACTINOPTERYGII	 <i>Acipenser nudiiventris</i>	Bastard Sturgeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ACTINOPTERYGII	 <i>Acipenser ruthenus</i>	Sterlet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				WJ 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ACTINOPTERYGII	 <i>Alburnoides bipunctatus</i>	Riffle Minnow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	 <i>Alcedo atthis</i>	Common Kingfisher	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	80-150 pairs
CHORDATA/ AVES	 <i>Ardea cinerea</i>	Gray Heron; Grey Heron	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ AVES	 <i>Ardeola rallioides</i>	Squacco Heron	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ AVES	 <i>Aythya nyroca</i>	Ferruginous Duck	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Annex I of the Birds Directive	50-60 pairs
CHORDATA/ ACTINOPTERYGII	 <i>Barbus barbus</i>	Barbel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ACTINOPTERYGII	 <i>Barbus meridionalis</i>	Mediterranean Barbel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive ; Annex III of the Bern Convention	
CHORDATA/ ACTINOPTERYGII	 <i>Barbus petenyi</i>	Southern Barbel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		A subspecies of Mediterranean barbel <i>Barbus meridionalis</i> , the Southern Barbel (<i>B. meridionalis petényi</i>) is an endemic subspecies to Pannonic biogeographic region.
CHORDATA/ AMPHIBIA	 <i>Bombina bombina</i>	Fire-bellied Toad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the Bern Convention, Annex II of the EU Habitats Directive	
CHORDATA/ AVES	 <i>Botaurus stellaris</i>	Eurasian Bittern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	
ARTHROPODA/ INSECTA	 <i>Cerambyx cerdo</i>	Great capricorn beetle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				WJ 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
CHORDATA/ AVES	 <i>Chlidonias hybrida</i>	Whiskered Tern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	<i>Chondrostoma nasus</i> 	Nase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Ciconia nigra</i> 	Black Stork	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	10-15 pairs Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ ACTINOPTERYGII	<i>Cobitis taenia</i> 	Spined Loach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	
CHORDATA/ AVES	<i>Coracias garrulus</i> 	European Roller	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive ; Annex II of the Bern Convention	4-5 pairs
CHORDATA/ ACTINOPTERYGII	<i>Cottus gobio</i> 	Bullhead	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	
CHORDATA/ AVES	<i>Crex crex</i> 	Corn Crane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	80-100 pairs breeding in the grassland habitats
CHORDATA/ AVES	<i>Dendrocopos syriacus</i> 	Syrian Woodpecker	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	
CHORDATA/ AVES	<i>Dryocopus martius</i> 	Black Woodpecker	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	100-140 pairs Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ AVES	<i>Egretta garzetta</i> 	Little Egret	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ REPTILIA	<i>Emys orbicularis</i> 	European Pond Tortoise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive ; Annex II of the Bern Convention	
ARTHROPODA/ INSECTA	<i>Epitheca bimaculata</i> 	Eurasian Baskettail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ CEPHALASPIDOMORPHI	<i>Eudontomyzon danfordi</i> 	Carpathian brook lamprey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		endemic fish species to catchment of Tisza river
CHORDATA/ MAMMALIA	<i>Felis silvestris</i> 	Wildcat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex IV of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	<i>Gobio gobio</i> 	Gudgeon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
ARTHROPODA/ INSECTA	<i>Graphoderus bilineatus</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				WU 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	<i>Gymnocephalus baloni</i> 	Balon's Ruffe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	<i>Gymnocephalus schraetser</i> 	Striped Ruffe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive (Annex V of the EU Habitats Directive)	
CHORDATA/ AVES	<i>Haliaeetus albicilla</i> 	White-tailed Eagle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Annex I of the Birds Directive	2-3 pairs Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ ACTINOPTERYGII	<i>Hucho hucho</i> 	Huchen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive (Annex V of the EU Habitats Directive)	The Site occasionally supports Danube salmon, Huchen Hucho hucho (EN) which is endemic to the Danube river system.
CHORDATA/ AVES	<i>Ixobrychus minutus</i> 	Little Bittern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	
CHORDATA/ AVES	<i>Lanius collurio</i> 	Red-backed Shrike	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	500-800 pairs

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	 <i>Leucaspilus delineatus</i>	Belica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ ACTINOPTERYGII	 <i>Leuciscus aspius</i>	Asp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive (Annex V of the EU Habitats Directive)	
ARTHROPODA/ INSECTA	 <i>Lucanus cervus</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	
CHORDATA/ AVES	 <i>Luscinia luscinia</i>	Thrush Nightingale	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ MAMMALIA	 <i>Lutra lutra</i>	European Otter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
ARTHROPODA/ INSECTA	 <i>Lycaena dispar</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Annex II ; IV of the EU Habitats Directive	
CHORDATA/ AVES	 <i>Mivus migrans</i>	Black Kite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	4-6 pairs Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
CHORDATA/ ACTINOPTERYGII	 <i>Misgurnus fossilis</i>	Weatherfish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive ; Annex III of the Bern Convention	
CHORDATA/ MAMMALIA	 <i>Myotis dasycneme</i>	Pond Myotis; pond bat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
CHORDATA/ REPTILIA	 <i>Natrix natrix</i>	Grass Snake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	
CHORDATA/ AVES	 <i>Nycticorax nycticorax</i>	Black-crowned Night Heron; Black-crowned Night-Heron	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	Breeding in the softwood riparian forest (<i>Salicetum albae-fragilis</i>).
ARTHROPODA/ INSECTA	 <i>Ophiogomphus cecilia</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive	
ARTHROPODA/ INSECTA	 <i>Osmoderma eremita</i>	Hermit Beetle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	 <i>Pelecus cultratus</i>	Sichel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II (and V) of the EU Habitats Directive ; Annex III of the Bern Convention	
CHORDATA/ AMPHIBIA	 <i>Pelobates fuscus</i>	European Spadefoot Toad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive ; Annex II of the Bern Convention	
CHORDATA/ AVES	 <i>Pernis apivorus</i>	European Honey Buzzard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	2-5 pairs
CHORDATA/ ACTINOPTERYGII	 <i>Proterorhinus marmoratus</i>	Tubenose Goby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex III of the Bern Convention	
CHORDATA/ AMPHIBIA	 <i>Pseudepidalea viridis</i>	European green toad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex IV of the EU Habitats Directive ; Annex II of the Bern Convention	
CHORDATA/ ACTINOPTERYGII	 <i>Rhodeus amarus</i>	European Bitterling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive ; Annex III of the Bern Convention	
CHORDATA/ ACTINOPTERYGII	 <i>Romanogobio albipinnatus</i>	White-finned Gudgeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	<i>Romanogobio kesslerii</i>	Kessler's Gudgeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive		
CHORDATA/ ACTINOPTERYGII	<i>Romanogobio uranoscopus</i>	Danube Gudgeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive		
CHORDATA/ ACTINOPTERYGII	<i>Rutilus pigus</i>	Danube Roach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive (Annex V of the EU Habitats Directive) : Annex III of the Bern Convention		
CHORDATA/ ACTINOPTERYGII	<i>Sabanejewia aurata</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive		
CHORDATA/ MAMMALIA	<i>Spermophilus citellus</i>	European Ground Squirrel;European Souslik	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			WJ 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive		
CHORDATA/ AVES	<i>Sylvia nisoria</i>	Barred Warbler	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I of the Birds Directive	300-450 pairs	
CHORDATA/ AMPHIBIA	<i>Triturus cristatus</i>	Northern Crested Newt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive ; Annex II of the Bern Convention		
CHORDATA/ AMPHIBIA	<i>Triturus dobrogicus</i>	Danube Crested Newt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive		
CHORDATA/ ACTINOPTERYGII	<i>Umbra krameri</i>	European Mudminnow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			VJ 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitats Directive ; Annex II of the Bern Convention	Endemic to the Danubian river system – listed by Hungarian Red Book	
MOLLUSCA/ BIVALVIA	<i>Unio crassus</i>	Thick shelled river mussel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			EN 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II , IV of the EU Habitats Directive		
CHORDATA/ ACTINOPTERYGII	<i>Zingel streber</i>	Danube Streber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>			
CHORDATA/ ACTINOPTERYGII	<i>Zingel zingel</i>	Zingel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>			

Criterion 2 - Species which are not included in the Catalogue of Life:

- Carabus hampei (Annex II, IV of the EU Habitats Directive)
- Chilostoma banaticum (Annex II, IV of the EU Habitats Directive)
- Vertigo moulinsiana, Desmoulin's whorl snail (Annex II of the EU Habitats Directive)

Criterion 3 - Species which are not included in the Catalogue of Life:

- Anasciaceschna isosceles, Norfolk Hawker Dragonfly
- Chacolestes viridis, Willow Emerald Damselfly

Noteworthy species which are not included in the Catalogue of Life:

- Euphydryas maturna, Scarce Fritillary

Criterion 4: Felső-Tisza supports plant and animal species at a critical stage in their life cycles and provides refuge during adverse conditions. Being a large, continuous natural area, Felső-Tisza is breeding area for numerous invertebrate and vertebrate species. The river also plays an important role as a migration route for several species (invertebrates, birds, bats, etc.). Along the whole length of Tisza in Hungary there are 116 oxbows (larger than 4 hectares), among these 31 are located in Felső-Tisza. They perform extremely important ecological functions (spawning, rearing, feeding, resting and staging, aquifer recharge, aquatic species "banks", and habitat connectivity).

3.4 - Ecological communities whose presence relates to the international importance of the site

RIS for Site no. 1410, Upper Tisza (Felső-Tisza), Hungary

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Softwood riparian forest (<i>Salicetum albae-fragilis</i>)	<input type="checkbox"/>	Consists of the species <i>Salix alba</i> , <i>Salix fragilis</i> , <i>Populus alba</i> , and <i>P. nigra</i> . This habitat is common in this wetland and the number, size and distribution of this habitat has an important role in the general ecological function of the wetland.	
Willow bushes (<i>Salicetum triandrae</i>)	<input type="checkbox"/>	consists of <i>Salix triandra</i> , <i>S. purpurea</i> , <i>S. fragilis</i> , <i>S. viminalis</i> .	
Hardwood riverside forests (<i>Quercus-Ulmetum</i>)	<input type="checkbox"/>	Hardwood riverside forests (<i>Quercus-Ulmetum</i>), oxbow lakes, filled in meanders with rich natural flora and fauna, extensively managed or abandoned orchards.	

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Types of habitats and vegetation are closely related to the typical riparian ecosystems. Because of the regulation of the river, the size and distribution of these habitats have decreased significantly during the last hundred years. However, in the present situation the remaining fragments of these habitats are able to hold their basic features.

These habitats are listed under Section 3.4 > Ecological communities whose presence relates to the international importance of the Site.

Hydrology:

Frequency and intensity of floods have an important impact on the condition of oxbows in the floodplain. During the past few decades there have been dry periods when the water level has been lower than the average, the "washing out" function of the flood has not worked properly in the oxbows and the eutrophication became more intense.

Along the whole length of Tisza in Hungary there are 116 oxbows (larger than 4 hectares), among these 31 are located in Felső-Tisza. They perform extremely important ecological functions (spawning, rearing, feeding, resting and staging, aquifer recharge, aquatic species "banks", and habitat connectivity). The ecological quality of the oxbows varies from those that are still relatively undisturbed to some that have been heavily modified, have high production of algae and are likely to take substantial time to regenerate. Oxbows can be as long as 8–10 km, their average length is 1.3 km.

Hydrological values:

During the river-controls the flood basin of Tisza with the opportunity of natural river bed development was reduced and constrained into barriers, dams. The current floodplain is only 5% of the original one, while the water district became extremist. In the drying landscape even the narrow floodplain has outstanding role. During floods the alluvium spreads under and settles here. Since the time of river control the water of constrained riverbed supports the water and wetland communities, the relatively sufficient soilwater and the air humidity.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		2		Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		0		
Fresh water > Lakes and pools >> P: Seasonal/ intermittent freshwater lakes		0		
Saline, brackish or alkaline water > Lakes >> R: Seasonal/ intermittent saline/ brackish/ alkaline lakes and flats		4		
Saline, brackish or alkaline water > Marshes & pools >> Ss: Seasonal/ intermittent saline/ brackish/ alkaline marshes/ pools				
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		1		
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		3		
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		0		
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands				

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
9: Canals and drainage channels or ditches				

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Acer negundo</i>	Manitoba Maple	Non-native species
<i>Adonis vernalis</i>	Spring Adonis	
<i>Amorpha fruticosa</i>	Indigobush Amorpha;Bastard Indigo;False Indigo	Non-native species
<i>Cirsium brachycephalum</i>		
<i>Epipactis latlosii</i>		Pannon endemic
<i>Fraxinus pennsylvanica</i>	Green ash	Non-native species
<i>Galanthus nivalis</i>	Common Snowdrop	
<i>Helianthus tuberosus</i>	Jerusalem artichoke	Non-native species
<i>Heracleum mantegazzianum</i>	Giant hogweed	Non-native species
<i>Iris pseudacorus</i>	Yellow Flag	
<i>Leucanthemella serotina</i>		
<i>Leucojum aestivum</i>	Spring Snowflake	
<i>Nymphaea alba</i>	European White Waterlily	
<i>Reynoutria japonica</i>	Japanese knotweed	Non-native species
<i>Salix elaeagnos</i>	Olive Willow	
<i>Sternbergia colchiciflora</i>		
<i>Vitis riparia</i>	River Bank Grape	Non-native species

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AMPHIBIA	Bufo bufo	Common Toad				
CHORDATA/AVES	Corvus corax	Common Raven;Northern Raven				Breeding population: 10-20 pairs
CHORDATA/MAMMALIA	Mustela erminea	Stoat				
CHORDATA/MAMMALIA	Mustela nivalis	Least Weasel				
CHORDATA/MAMMALIA	Myotis daubentonii	Daubenton's Bat				
ARTHROPODA/INSECTA	Palingenia longicauda	Long-tailed Mayfly				
ARTHROPODA/INSECTA	Protaetia lugubris	Marbled Rose Chafer				
CHORDATA/AVES	Riparia riparia	Bank Swallow;Sand Martin				Breeding population: 9000-12000 pairs
ARTHROPODA/INSECTA	Saperda carcharias					
ARTHROPODA/INSECTA	Saperda octopunctata					
ARTHROPODA/INSECTA	Saperda scalaris					

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfa: Humid continental (Humid with severe winter, no dry season, hot summer)

Climate is moderately warm continental with insufficient precipitation in the growing season. Winters are moderately dry and cold. Average hours of sunlight are 1920-1940 hours/year, the average temperature is 9.5-10 °C, and the average yearly rainfall is 550-580 mm.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

Middle part of river basin

RIS for Site no. 1410, Upper Tisza (Felső-Tisza), Hungary

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

River Tisza. Floodplain of Tisza is a basin of recent subsidence, a fluvial plain.

The catchment area is fairly varied: from high mountains to hilly areas. General land uses include forestry, mining and to a lower extent agriculture. The total area of the catchment of Felső-Tisza is estimated at 157.186 km². The largest part of the catchment is shared between Romania and Ukraine. Hungary has 27% of it covering 42.286 km² while Slovakia has a smaller part.

4.4.3 - Soil

Mineral

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

The soil types are the mixes of Holocene fluvial sediments as fluvial sand, gravel, flood plain mud, freshwater lime mud.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	
Usually seasonal, ephemeral or intermittent water present	

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The wetland site covers the entire active floodplain of the river. The region is the richest part of the country in watercourses. Until now the network of watercourses has been dynamic and permanently formed. Tisza has typical characters of a lowland river and has three types of floods. The first occurs mainly in April, following the snow melt in the catchment area. Heavy floods may happen frequently caused by intensive precipitation in June and July, sometimes in late autumn. Difference between high and low water level is 485 cm with 930 cm at maximum. For flood prevention purposes, the river was regulated during the 19th and 20th centuries.

4.4.5 - Sediment regime

Please provide further information on sediment (optional):

The river carries small gravel with sand in section between settlements of Tiszabecs and Tivadar. The river has a strong meandering and incision characteristic with a large number of undercut steep banks.

4.4.6 - Water pH

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

Mesotrophic

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Water for irrigated agriculture	Medium
Wetland non-food products	Timber	Medium
Wetland non-food products	Livestock fodder	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium

Other ecosystem service(s) not included above:

Oxbow ecosystems scattered along Tisza provide numerous social and economic goods and services, including irrigation for agricultural lands, small-scale fisheries, recreation and flood control or mitigation.

The fish fauna is rich, providing opportunity for traditional fishery. Because of the natural conditions, the area provides a unique opportunity to study both the structure and function of a riverside ecosystem and the ecological and behavioral characteristics of both the populations and the community of animal and plant species in an undisturbed condition.

The area has great importance for environmental education. Because of the large and diverse habitats, there are many options for hands-on presentation of the structure and function of the ecosystems both to the students and others, without causing significant damage, by utilizing proper methodology.

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

a) within the Ramsar site:
 State owned – roughly 40%
 Local government – 30%
 Private – 30%

b) in the surrounding area:
 Mainly private

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

(1) Primary contact: Hortobágy National Park Directorate (responsible for protected areas)
 (2) Environmental permitting authority: Upper-Tisza Regional Environment and Water Directorate (Felső-Tisza-Vidéki Környezetvédelmi és Vízügyi Igazgatóság)

Provide the name and title of the person or people with responsibility for the wetland:

Ms. Szilvia Göri, desk officer for Ramsar issues

Postal address:

(1) H-4024 Debrecen, Sumen u. 2.
 Phone: + 36/ 52 529-922
 Fax: + 36/ 52 529-940
 E-mail: hnp@hnp.hu or szilvi@hnp.hu

(2) H-4400 Nyíregyháza, Széchenyi u. 19.
 +36 42/502-200
 felsotiszavideki@zoldhatosag.hu

E-mail address:

hnp@hnp.hu

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Commercial and industrial areas		Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Tourism and recreation areas	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Wood and pulp plantations	Medium impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Shipping lanes		Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Unspecified		Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Gathering terrestrial plants			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Fishing and harvesting aquatic resources			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Vegetation clearance/land conversion	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/alien species	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water		Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Garbage and solid waste	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Please describe any other threats (optional):

Tourism related to water and countryside village is increasing that may have a potential for threatening the riverside ecosystem.

a) within the Ramsar site:

- intensive and unfortunately uncontrolled canoe tourism during the summer period
- uncontrolled mass tourism in Tivadar, Vásárosnamény and increasing tourism in various villages
- intensity of forestry has increased since 1990. As a result, the fragmentation of the riverside forest habitats is getting close to the dangerous level for the species living in that habitat.
- increasing volume of treated sewage water and the nutrients it carries poses a potential risk for the river, streams and oxbows
- uncontrolled fishing activities in the oxbows, introduction of non-native fish species, overloading, littering and disturbance by anglers
- growing and uncontrolled tourism along the river and on the beaches produce significant littering and disturbance
- potential threatening factor: intensifying of shipping with vehicles of high engine power (tourism, industrial).

b) in the surrounding area:

- intensive forestry
- plans for large-scale developments (industry, traffic, etc.).

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Felső-Tisza SAC (HUHN 20001), Felső-Tisza SPA (HUHN 10008) and Szatmár-Bereg SPA (HUHN 10001)		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Landscape Protection Area	Szatmár-Bereg Landscape Protection Area		partly
Protected Area	Tiszatelek-Tiszabercel Protected Area and Tiszadob Floodplain Protected Area		partly

5.2.3 - IUCN protected areas categories (2008)

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation

5.2.4 - Key conservation measures

Habitat

Measures	Status
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Other:

Management plan: Nature conservation management plan of Szatmár-Bereg Landscape Protection Area and other smaller protected areas, which partly overlap with the Ramsar site. It is actively implemented during nature conservation actions, but these are not legally accepted, but used during active nature conservation actions.

Other current management practices:

- Species with national programme of species protection (like otter and beaver) are handled according to the prescriptions.
- Lot of monitoring activities are implemented on e.g. white and black stork, white-tailed eagle nestings. Restrictions and prescriptions for providing safe nesting places for sand martin European Bee-eater are implemented year by year.
- Water management activities are implemented continuously providing larger water-capacity.
- During authority processes the nature conservation management restrictions and prescriptions are provided by the Directorate.

Conservation measures proposed but not yet implemented:

The "Alföld" program of the Hungarian Government has implemented a special sub-program for Tisza. This comes from recognition of the essential role of the river in the structure and function of the Hungarian Lowland and from an understanding of the high ecological values of the river and habitats along it. This program has identified the most important sites along the river with the aim to control further developments.

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

Szabolcs-Szatmár-Bereg County plays a leading role in nature protection education in Hungary. However, in this part of the county there are no significant activities on environmental education. The Szatmár-Bereg Landscape Protection Area has a visitor centre in Fehérgyarmat.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal species (please specify)	Implemented
Birds	Implemented

A pilot project area of the Hungarian Biodiversity Monitoring Program is found at village Gávavencsellő within the wetland site where selected methods and techniques of biodiversity monitoring are carried out (e.g. habitat mapping, monitoring of several taxa etc.)

Moreover there are specific scientific investigations in progress for example "Environmental changes and evolutionary responses of the migrating birds". Other studies include surveys and researches on dragonflies conducted by NGOs (Debrecen University, Debrecen).

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

For the full bibliography, please refer to Section 6.1.2 Additional reports and documents > vi. other published literature.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<2 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Upstream character of the Upper Tisza near the state border, with gravel shores and softwood gallery forest. (Mr. Béla Hébarics (Hortobágy NP Directorate), 2009)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Transboundary Designation letter

<1 file(s) uploaded>

Date of Designation 2004-12-04