



# Ramsar Information Sheet

Published on 11 November 2021

Update version, previously published on : 13 July 2017

## Hungary Pusztaszer



Designation date	11 April 1979
Site number	188
Coordinates	46°27'15"N 20°05'E
Area	5 086,00 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

The site is composed of 4 separate units within Pusztaszer Landscape Protection Area. They are (a) Szeged-Fehértó artificial fishponds; (b) Csaj Lake artificial fishponds, the pasture of Baks and permanently flooded marshlands of Pusztaszer-Büdösszék, and the seasonally flooded sodic pan Büdös-Szék; (c) Labodár flooded woodland on the west bank of the River Tisza; and (d) Sasér oxbow lake and flooded woodland, on the west bank of the Tisza. The fishponds were formed from natural sodic-alkaline pans, and are permanently filled with water gained from canal systems. The oxbow lakes of Labodár and Sasér are lined by gallery forests.

The site is a very important area for waterbirds during both breeding and migration season. The Pusztaszer-Büdösszék part of the site comprises natural characteristic shallow open water sodic-alkaline pan Büdös-szék, many other intermittent sodic-alkaline reedbeds, pools, marshlands and meadows, which give a good special example of continental sodic ecosystems and characteristic of the Pannonic biogeographic region. It hosts several noteworthy plant species and communities, including e.g. the regionally endemic *Aster tripolium* ssp. *pannonicum*. The River Tisza flooded area is also a good example of natural and seminatural permanent river habitat in Hungary.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Responsible compiler

Institution/agency	Kiskunsági Nemzeti Park Directorate
Postal address	H-6000 Kecskemét, Liszt F. u.19.

##### National Ramsar Administrative Authority

Institution/agency	Head of Natura 2000 Section, Ministry of Agriculture
Postal address	Kossuth Lajos tér 11 1055 Budapest Hungary

#### 2.1.2 - Period of collection of data and information used to compile the RIS

From year	2015
To year	2021

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Pusztaszer
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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  No

(Update) B. Changes to Site area No change to area

(Update) For secretariat only: This update is an extension

#### 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

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps	0
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#### Boundaries description

Within the Pusztaszeri Landscape Protection Area, the site consists of several disjunct patches: Lake Fehér fishponds at Szeged, the strictly protected flood plain of the river Tisza at Labodár and Sasér, Lake Csaj fishponds with the pasture of Baks, and the strictly protected area of the Búdösszék sodic-alkaline pan at Pusztaszer. The entirety of the Ramsar site (all of the disjunct patches) lies within the Alsó-Tisza-völgy Special Protection Area Natura 2000 site. In addition, the pasture of Baks and the strictly protected area of the Búdösszék sodic-alkaline pan at Pusztaszer also largely overlap with the Baksi-pusztaszer Special Area of Conservation Natura 2000 site, while the strictly protected oxbows and flood plains of the river Tisza at Labodár and at Sasér are fully covered by the Alsó-Tisza hullámtér Special Area of Conservation Natura 2000 site. All the disjunct patches described above have been part of the Ramsar site since its designation, but due to a mapping error the oxbow and flood plain at Sasér was incorrectly shown on Ramsar site maps as part of the Mártély Ramsar site. However, the Sasér oxbow and flood plain forms part of the Pusztaszer Ramsar site since the designation of the site.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	County Csongrád-Csanád
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b) What is the nearest town or population centre?	Szeged
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### 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes  No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

### 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

Other biogeographic regionalisation scheme

European Commission DG Environment webpage  
[http://ec.europa.eu/environment/nature/natura2000/sites\\_hab/biogeog\\_regions/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/sites_hab/biogeog_regions/index_en.htm)

### 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 reasons

The site contains a representative and unique example of natural sodic-alkaline type wetlands, permanent river, freshwater oxbow lakes, and tree dominated flooding types of wetlands within the Pannonic biogeographic region.

Six habitat types listed on Annex I of the Habitats Directive are present at the Site (see section 3.4 for more info).

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

It supports populations of plant and animal species important for maintaining the biological diversity of Pannonic biogeographic region.

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

- Criterion 5 : >20,000 waterbirds

Overall waterbird numbers 41300 waterbirds average

Start year 2018

Source of data:

Online waterbird database of the Hungarian Ornithological and Nature Conservation Society  
<http://vizimadaradatbazis.mme.hu/page/introduction>

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<b>Plantae</b>								
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Centaurea scabiosa sadleriana</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Cirsium brachycephalum</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	EU Habitats Directive Annex II	
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Lepidium cartilagineum</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Limonium hungaricum</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Plantago schwarzenbergiana</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important and protected in Hungary
TRACHEOPHYTA / LILIOPSIDA	<i>Puccinellia distans</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Suaeda pannonica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Pannonic endemic, biogeographically important
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Tripolium pannonicum</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Pannonic subendemic

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

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
<b>Others</b>																	
CHORDATA / AMPHIBIA	<i>Bombina bombina</i>	<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"/>	EU Habitats Directive Annex II	Criterion 4: Spawning site of the amphibian species.
CHORDATA / AMPHIBIA	<i>Bufo bufo</i>	<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"/>		Criterion 4: Spawning site of the amphibian species.
CHORDATA / REPTILIA	<i>Emys orbicularis</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"/>	EU Habitats Directive Annex II	
CHORDATA / AMPHIBIA	<i>Hyla arborea</i>	<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"/>	EU Habitats Directive Annex IV	Criterion 4: Spawning site of the amphibian species.
CHORDATA / MAMMALIA	<i>Lutra lutra</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"/>				NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EU Habitats Directive Annex II	
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"/>	EU Habitats Directive Annex II	
CHORDATA / MAMMALIA	<i>Mustela eversmanii</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"/>	EU Habitats Directive Annex II	
CHORDATA / AMPHIBIA	<i>Pelobates fuscus</i>	<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"/>	EU Habitats Directive Annex IV	Criterion 4: Spawning site of the amphibian species.
CHORDATA / AMPHIBIA	<i>Pelophylax lessonae</i>	<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"/>		Criterion 4: Spawning site of the amphibian species.
CHORDATA / AMPHIBIA	<i>Pelophylax ridibundus</i>	<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"/>		Criterion 4: Spawning site of the amphibian species.
CHORDATA / AMPHIBIA	<i>Pseudepidealea viridis</i>	<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"/>					<input type="checkbox"/>	<input type="checkbox"/>	EU Habitats Directive Annex IV	Criterion 4: Spawning site of the amphibian species.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / MAMMALIA	<i>Spermophilus citellus</i>	<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"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Appendix II Bern Convention + Annex II and IV Habitats Directive	Criterion 3: This site supports this species important for maintaining the biological diversity of Pannonic biogeographic region.
CHORDATA / AMPHIBIA	<i>Triturus dobrogicus</i>	<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"/>	EU Habitats Directive Annex II	Criterion 4: Spawning site of the amphibian species.
<b>Fish, Mollusc and Crustacea</b>																	
CHORDATA / ACTINOPTERYGII	<i>Cobitis taenia</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"/>	EU Habitats Directive Annex II	
CHORDATA / ACTINOPTERYGII	<i>Misgurnus fossilis</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"/>	EU Habitats Directive Annex II	
<b>Birds</b>																	
CHORDATA / AVES	<i>Acrocephalus melanopogon</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Alcedo atthis</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Anser erythropus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Anthus campestris</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ardea alba</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ardea purpurea</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ardeola ralloides</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Asio flammeus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Aythya nyroca</i>	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Botaurus stellaris</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Branta ruficollis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Burhinus oedicnemus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Caprimulgus europaeus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Charadrius alexandrinus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Chlidonias hybrida</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Chlidonias niger</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ciconia ciconia</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ciconia nigra</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Circus aeruginosus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Circus cyaneus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Circus pygargus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Coracias garrulus</i>	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Crex crex</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Dendrocopos syriacus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Dryocopus martius</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Egretta garzetta</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Falco cherrug</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 3: This site supports this species important for maintaining the biological diversity of Pannonic biogeographic region. Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Falco columbarius</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Falco peregrinus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Falco vespertinus</i>	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Grus grus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Haliaeetus albicilla</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.



Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Himantopus himantopus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Hydrocoloeus minutus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Hydroprogne caspia</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ichthyaelus melanocephalus</i>	<input checked="" type="checkbox"/>	<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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Ixobrychus minutus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Lanius collurio</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Lanius minor</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Luscinia svecica</i>	<input checked="" type="checkbox"/>	<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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Mergellus albellus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Microcarbo pygmeus</i>	<input checked="" type="checkbox"/>	<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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Milvus migrans</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Nycticorax nycticorax</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Pandion haliaetus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Pernis apivorus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Phalaropus lobatus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Philomachus pugnax</i>	<input checked="" type="checkbox"/>	<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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Platalea leucorodia</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Plegadis falcinellus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Pluvialis apricaria</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Porzana parva</i>	<input checked="" type="checkbox"/>	<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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Porzana porzana</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Recurvirostra avosetta</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Sterna hirundo</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.
CHORDATA / AVES	<i>Tringa glareola</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	EU Birds Directive Annex I	Criterion 4: Notable breeding, migrating, wintering and resident birds including this species are detected on the site.

1) Percentage of the total biogeographic population at the site

Criterion 4: Pusztaszer is a spawning site for the amphibian species.

Criterion 5: See additional material for further information on number of waterbirds.

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition type	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I
3270 Rivers with muddy banks with Chenopodium rubri p.p. and Bidention p. p.	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I
91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I
1530 Pannonic salt steppes and salt marshes	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I
6250 Pannonic loess steppic grasslands	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I
6440 Alluvial meadows of river valleys of the Cnidion dubii	<input checked="" type="checkbox"/>		EU Habitats Directive Annex I

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

### 4.1 - Ecological character

One of the main natural ecological parts of the site is sodic-alkaline affected wetland around Pusztaszer region. The prevalence of different sodic alkaline wetland habitat structures depends on water levels and seasonal fluctuation, which may be very variable year to year.

See additional material for further information

### 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		0		Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		0	10	Representative
Saline, brackish or alkaline water > Lakes >> R: Seasonal/ intermittent saline/ brackish/ alkaline lakes and flats		2		Representative
Saline, brackish or alkaline water > Marshes & pools >> Ss: Seasonal/ intermittent saline/ brackish/ alkaline marshes/ pools	Ss & R	1	1716	Unique
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		4	224	Unique

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
1: Aquaculture ponds		1	2450
4: Seasonally flooded agricultural land		3	600
9: Canals and drainage channels or ditches			

### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

<no data available>

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm summer)

See additional material for further information.

#### 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

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.

The site belongs to River Tisza catchment area. The living Tisza-valley has a huge catchment area (157.000 km<sup>2</sup>) which also comprises Carpathian mountain region and the major part of Great Hungarian Plain. The outside of embankment is the local catchment area of the site on the former ancient floodplain. The local wetland catchment area has two main parts, on the eastern part is the lowland River Tisza basin, and on the western part is the plain sandy ridge plateau.

#### 4.4.3 - Soil

No available information

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

#### 4.4.4 - Water regime

Water permanence

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

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from groundwater	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
To downstream catchment	No change

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

We may declare that the balance of precipitation and evaporation is negative in the region. The wetlands that have developed and exist can thank their subsistence to supplementary water influences (e.g. ground water).

High floods, water- and groundwater level changing with high amplitude, create competitive drawbacks for autochthonous tree and shrub species fit for the original habitat.

The site belongs to River Tisza catchment area. The living Tisza-valley has a huge catchment area (157.000 km<sup>2</sup>) which also comprises Carpathian mountain region and the major part of Great Hungarian Plain. The outside of embankment is the local catchment area of the site on the former ancient floodplain. The local wetland catchment area has two main parts, on the eastern part is the lowland River Tisza basin, and on the western part is the plain sandy ridge plateau.

#### 4.4.5 - Sediment regime

Sediment regime is highly variable, either seasonally or inter-annually

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Sediment regime unknown

Please provide further information on sediment (optional):

The susceptibility to re-suspension of sediments is different for each lake as it depends on the sediment type and on the shape and depth profile of a lake. Hypothetically, wave re-suspension occurs depending on the critical fetch (Fcrit) at which the wavelength exceeds twice the depth, relative to the total length of the lake measured in the direction of the wind. It causes that generally at lower wind velocity there can be found a lower turbidity less re-suspended belt (Fcrit) around the shoreline below a critical water depth. The lowest turbidity can be found every time among emergent marshland vegetation. The non-turbid transparent sodic-alkaline waters have brown colour.

#### 4.4.6 - Water pH

Alkaline (pH>7.4)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

#### 4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Euhaline/Eusaline (30-40 g/l)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

Please provide further information on salinity (optional):

The sodic-alkaline pan is a special type of continental salt waters, which is a typical Pannonic wetland type in Hungary. These pans have primarily groundwater and rainfall supplied water bodies. These are seasonal intermittent shallow waters (max. depth = 0.4-0.5 m), because there is notable seasonal water level fluctuation and frequently dries out entirely to middle of summer or autumn. The salinity varies between hypo- (3-20 g.l-1) mesosaline (20-50 g.l-1) ranges corresponding with water level. The total dissolved solids is dominated in sodium (Na+), calcium (Ca2+), carbonate (CO32-) ions, and high grey-brown coloured holomictic turbidity being permanently suspended by colloidal suspended ion complex. The very high turbidity is in opened pans attributed to the daily re-suspension of the sediments by the winds coupled with its shallowness.

#### 4.4.8 - Dissolved or suspended nutrients in water

Unknown

#### 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:

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The Ramsar site consists of disjunct patches of remaining near-natural habitats, while the surrounding area consists of typical lowland farmlands with villages and farmsteads.

### 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

##### Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Wetland non-food products	Livestock fodder	Medium

##### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Hazard reduction	Flood control, flood storage	Medium

##### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Low
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Spiritual and inspirational	Spiritual and religious values	Medium
Scientific and educational	Long-term monitoring site	Medium
Scientific and educational	Major scientific study site	Medium

Other ecosystem service(s) not included above:

The site has an important role in the retention and storage of inland water and regulation of the groundwater level of the surrounding area as well.

Traditional fisheries production can be found around the floodplain of River Tisza. Certain religious importance, ancient burial-ground, and archaeological sites are also found around the wetlands, but not inside the Ramsar site. Social relations with existing wetlands can be understood by traditional Hungarian extensive farmland lifestyle especially with regard to domestic semi-nomadic animals grazing.

extensive grassland, agriculture, forestry and fishpond use.

General Hungarian biodiversity and bird monitoring program is run on the site. Other bird research programmes (colour ringing, bird ringing summer camp) are also running especially on fishponds.

Generally negligible, only a little ecotourism and bird watching tourism are involved.

Outside the site: 100

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

- i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) 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

<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"/>

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:

52 % of the site is state owned and managed by Kiskunság National Park Directorate, the rest is privately owned.

b) in the surrounding area: mostly privately owned.

#### 5.1.2 - Management authority

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

Kiskunság National Park Directorate

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

Zoltan VAJDA

Postal address:

H-6000 Kecskemét, Liszt F. u.19.

E-mail address:

vajdaz@knp.hu

## 5.2 - Ecological character threats and responses (Management)

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

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Wood and pulp plantations			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Marine and freshwater aquaculture			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Hunting and collecting terrestrial animals	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Logging and wood harvesting	Medium impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Fishing and harvesting aquatic resources	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
Fire and fire suppression	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Dams and water management/use	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" 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	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	High impact	High impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Industrial and military effluents	High impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Please describe any other threats (optional):

Within the Ramsar site: groundwater decreasing, water and river regulation, extensive agricultural pollution and disturbing factors, water pollution disaster, intensive fishpond management, drying out, eutrophication, low grazing pressure, invasion by alien species (e.g. *Eleagnus angustifolia*), waterfowl hunting, increasing of natural mammalian (fox, wild-boar) and avian (corvid) predators.  
 In the surrounding area: groundwater decreasing, water and river regulation, intensive agricultural pollution and disturbing factors, artificial forest planting, drying out, eutrophication, low or high grazing pressure, invasion by an alien species (e.g. *Eleagnus angustifolia*), waterfowl hunting, increasing of natural mammalian (fox, wild-boar) and avian (crows) predators, burning of reedbeds in order to renew them.

### 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	Alsó-Tisza hullámtér SAC	<a href="https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN20031">https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN20031</a>	partly
EU Natura 2000	Alsó-Tisza-völgy SPA	<a href="https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN10007&amp;release=10">https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN10007&amp;release=10</a>	whole
EU Natura 2000	Baksi-pusztá SAC	<a href="https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN20019">https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=HUKN20019</a>	partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
landscape protection area	Pusztaszer	<a href="https://www.knp.hu/en/pusztaszer-landscape-protection-area">https://www.knp.hu/en/pusztaszer-landscape-protection-area</a>	whole
Site of Community Importance (pSCI)			partly

### 5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

### 5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Proposed

Other:

Site specific management plan is needed to be improved and implemented. There are more habitat restoration programmes planned.

The technical management plan is in place and is implemented, although legally it has not been approved according to most recent legislation.

The Natura 2000 management plan has been approved

### 5.2.5 - Management planning



Is there a site-specific management plan for the site? Yes

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:

Local visitor centre with special guide, observation hides, nature educational trails, information tables, booklets, summer environmental educational camp for local schools are available on the site.

### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

A few small-scale habitat restoration programmes were also carried out on the site.

### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal community	Implemented
Plant community	Implemented

General Hungarian biodiversity and bird monitoring program is run on the site. Other bird research programmes (colour ringing, bird ringing summer camp) are also running especially on fishponds.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Bankovics A.: Data on the comparative ecology of the scrub Warbler *Hippolais pallida elaeica* (LINDL. ) and its spreading along the Tisza is the Tears 1973 to 1974. Tiscia, 1974. 10. köt. 81-83. p.

Bankovics A.: Spreading and habits of *Hippolais pallida elaeica* (LINDL.) along the Tisza. Tiscia, 1974. 9. köt. 105-113. p.

Boros, E. (1999): A magyarországi szikes tavak és vizek ökológiai értékelése. With English summary: Ecological state of sodic water bodies in Hungary. Acta Biol. Debr. Oecol. Hung. 9: p13-80 1999.

Boros, E1. & Biró, CS.2 (1999): A Duna-Tisza közti szikes tavak ökológiai állapotváltozásai a XVIII-XX. századok időszakában. With English summary: Ecological change of sodic water bodies in the plain between Danube and Tisza from 18th to 20th centuries. Acta Biol. Debr. Oecol. Hung. 9: 81-105, 1999.

Faragó, S. (1995): Geese in Hungary 1986-1991. IWRB Publication 36, 1995.

Faragó, S. (1996): A magyar vadlúd adatbázis 1984-1995: egy tartamos monitoring – Data base of gees in Hungary 1984-1995: A long-term monitoring. Magyar Vízivad Közlemények – Hungarian Waterfowl Publications No. 2. p3-222.

Forró, L. & Boros, E. (1997): Microcrustacean zooplankton as potential food of *Recurvirostra avosetta* in sodic waters of the Hungarian Plain. Lymnology and Waterfowl monitoring, modelling and management. Hungarian Waterfowl Publications No.3. (Ed. S. Faragó and J. Kerekes) Sarród-Sopron, 21-23. nov. 1994. 239-250p.

Gallé, S. & Körmöczi, L (eds.). 2000. Ecology of River Valleys. Published by Department of Ecology, University of Szeged, Tiscia monograph series 2000.

Sterbetz, I. 1981. Protected wetlands of international importance in Hungary. IWRB XVII. International Conference in Debrecen 1981.

Boros, E., Ecsedi, Z., Oláh, J.(2013): Ecology and management of soda pans in the Carpathian Basin. Hortobágy Environmental Association, Balmazújváros

#### 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

<1 file(s) uploaded>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Gull colony on Korom Island  
at Lake Fehér ( *Gábor*  
*Bakacsi, 00-00-2015* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation