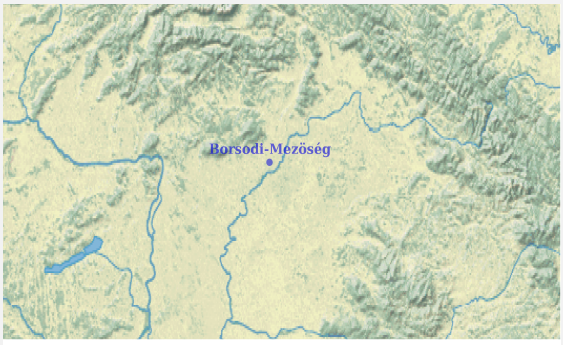
Ramsar Information Sheet

Published on 25 November 2015
Update version, previously published on 20 February 2008

Hungary

Borsodi-Mezöség



Designation date	20 February 2008
Site number	1745
Coordinates	47°46'1"N 20°49'8"E
Area	18 470,90 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 main feature of the site is a secondary grassland ("puszta"), nearly similar to the neighbouring well-known Hortobágy (national park, Ramsar Site, World Heritage Site, Biosphere Reserve) with a smaller extent. The main wetland types are the permanent and intermittent marshes, hayfields and alkaline wet meadows which form a special mozaic vegetation pattern with the arid vegetation habitats (such as steppe grasslands on loess and sandy soil.). The extensive wetland habitats and their size is expected to grow, as a result of restoration projects run by the national park directorate. The nearness of the Bükk Mts. affected the distribution of the flora and the fauna due to the small rivers which run down from the hills (river corridors).

Beside the flora and fauna which belong to the wetland habitats the site has an outstanding significance for the preservation of the endangered species of Eurasian steppes (Saker, Imperial Eagle, Red-footed Falcon, Roller and Lesser Grey Srike).

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	András Schmotzer
Institution/agency	Bükk National Park Directorate
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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)	Borsodi-Mezöség

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) The boundary has been delineated more accurately	☑
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	☑
(Update) The Site has been delineated more accurately	☑

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?	Yes (actual)
(Update) Are the changes	Positive ◉ Negative ○ Positive & Negative ○
(Update) No information available	☑
(Update) Changes resulting from causes operating within the existing boundaries?	☑

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

There has been a major wetland restoration on the site since the last update of the RIS.

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change)	Yes ○

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Boundaries description (optional)

The boundary of the Ramsar site is the same as the designated Borsodi Mezőség Protected Landscape Area (established 1989).

2.2.2 - General location

a) In which large administrative region does the site lie?	Borsod-Abaúj-Zemplén County and North-Hungary NUTS Region.

b) What is the nearest town or population centre? Tiszaújváros (approx. 14-25 kilometres distance; 17.000 inhabitants)

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): 18470.9

Area, in hectares (ha) as calculated from GIS boundaries: 18471

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 reasons	The Borsodi Mezőség is the largest alkalic – marshland complex on the right bank of the river Tisza. The valuable complex of the wetland – grassland habitats is regarded as the second biggest grassland territory in the Tisza region, after the Hortobágy. A large proportion of its habitats have been preserved in good, natural condition, particularly the marshes that have been least affected by anthropogenic impacts. The nearness of the mountains enriches the ecological – hydrological values. It contains a representative, rare example of a natural or near-natural wetland type found within the Pannonic biogeographic region, such as the habitats listed on the Annex I. of the Habitats Directive (according to the Natura 2000 database for sites: HUBN10002 Borsodi-sík; HUBN20034 Borsodi Mezőség; HUBN20032 Tiszakeszi morotva). Please refer to Section 3.4 Ecological Communities for the habitat types present on the this Site and listed under Annex I of the Habitats Directive.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification	Alkaline inland marshes only occur in the Carpathian Basin and adjacent territories (from S-Moravia to the salt marshes of Transylvania (Rumania) eastward). The natural habitats (see Criterion 1) as well as many of the species are important to maintain the biological diversity of the Pannonic Biogeographic region. Flora and fauna are rich in endemics, sub-endemics, and specialists with continental distribution, mainly the Puccinellia grasslands, the Artemisia steppes, the alkali mud communities and the forest-steppe meadows. Species: In the Pannonian belt alkalic vegetation is characterised by a few endemic and several Pontic and Southern Eurasian species, like Aster tripolium subsp. pannonicus, A. sedifolius, Cirsium brachycephalum, Limonium gmelini subsp. hungaricum, Pholiurus pannonicus, Plantago schwarzenbergiana, P. tenuiflora, Ranunculus lateriflorus, R. polyphyllus, Trifolium angulatum, T. retusum. On the forest-steppe meadows on its host plant (Peucedanum officinale) lives the Fisher's Estuarine Moth. The undisturbed grasslands signify the only known actual habitat of the Southern Birch Mouse in Hungary. Some eastern-distributed raptors (such as Saker, Imperial Eagle, Red-footed Falcon) have significant role in the territory.

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

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
Cirsium brachycephalum	Small-flowered Thistle	☑	☑	☐	LC	☐	Annex II of the EU Habitats Directive	Over 1 000 000 individuals. The flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern.
Galatella sedifolia		☐	☑	☐		☐		
Lindernia procumbens	Prostrate False Pimpernell	☑	☐	☐	LC	☐	Annex IV of the EU Habitats Directive	
Pholiurus pannonicus		☐	☑	☐		☐		The flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern
Plantago schwarzenbergiana		☐	☑	☐		☐		The flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern
Plantago tenuiflora		☐	☑	☐		☐		
Ranunculus lateriflorus		☐	☑	☐	LC	☐		
Ranunculus polyphyllus		☐	☑	☐		☐		The flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern
Trifolium angulatum		☐	☑	☐		☐		
Trifolium retusum		☐	☑	☐		☐		
Tripolium pannonicum		☐	☑	☐		☐		The flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern

Criterion 3: In the Pannonian belt alkalic vegetation is characterised by a few endemic and several Pontic and Southern Eurasian species.

Species which are not yet listed in the Catalogue of Life:
- Limonium gmelini subsp. hungaricum (the flora of the alkalic parts is not so affluent, very specialized salt-tolerant species grow which have mostly eastern distribution (Eurasian, Pontic, Pontic-Pannonian, Eastern-Mediterrian) pattern)

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/ AVES	*Anser erythropus*	Lesser White-fronted Goose	☑	☑	☐	☐	☐	☐	☐	☐				VU	☐	☑		0-3 indiv. (wintering) Criterion 4: potential feeding territories for the geese species (White-fronted Goose, Greylag Goose, Bean Goose, Red-breasted Goose).
CHORDATA/ AVES	*Anthus campestris*	Tawny Pipit	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	<30 pairs (breeding)
CHORDATA/ AVES	*Aquila heliaca*	Asian Imperial Eagle;Eastern Imperial Eagle	☑	☑	☐	☐	☐	☐	☐	☐				VU	☑	☑	Annex I of the EU Birds Directive	5-6 pairs; 25-30 individuals (staging)
CHORDATA/ AVES	*Ardea alba*	Great Egret	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	250-1000 individuals (staging) The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.)
CHORDATA/ AVES	*Ardea purpurea*	Purple Heron	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	2-4 pairs (breeding) ; 20-30 individuals (staging)
CHORDATA/ AVES	*Ardeola ralloides*	Squacco Heron	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	less than 30 individuals (staging)
CHORDATA/ AVES	*Asio flammeus*	Short-eared Owl	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	0-5 pair (breeding), 20-40 (wintering)
CHORDATA/ AVES	*Aythya nyroca*	Ferruginous Duck	☑	☑	☐	☐	☐	☐	☐	☐				NT	☐	☑	Annex I of the EU Birds Directive	25-60 pairs (staging), 100-150 migrant
CHORDATA/ AMPHIBIA	*Bombina bombina*	Fire-bellied Toad	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II of the EU Habitats Directive	over 2% of the Hungarian population
CHORDATA/ AVES	*Botaurus stellaris*	Eurasian Bittern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	15-25 pair (breeding)
CHORDATA/ AVES	*Branta leucopsis*	Barnacle Goose	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	2-8 (wintering)
CHORDATA/ AVES	*Branta ruficollis*	Red-breasted Goose	☑	☑	☐	☐	☐	☐	☐	☐				EN	☐	☑	Annex I of the EU Birds Directive	5-30 (wintering) Criterion 4: potential feeding territories for the geese species (White-fronted Goose, Greylag Goose, Bean Goose, Red-breasted Goose).
CHORDATA/ MAMMALIA	*Castor fiber*	Eurasian Beaver	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II and IV of the EU Habitats Directive	1-3 indiv.
CHORDATA/ AVES	*Chlidonias hybrida*	Whiskered Tern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	200-400 pairs (breeding); 400-600 (staging)
CHORDATA/ AVES	*Chlidonias niger*	Black Tern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	0 pair (breeding) 50-100 pairs (staging)
CHORDATA/ AVES	*Ciconia ciconia*	White Stork	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	10-12 (50-55 in villages) pairs (breeding); 350-500 individuals (staging The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.)
CHORDATA/ AVES	*Ciconia nigra*	Black Stork	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	autumn peaks of 150-200 migrant individuals in the Ramsar site The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.
CHORDATA/ AVES	*Circaetus gallicus*	Short-toed Snake Eagle	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	10-20 (migrant) indiv.
CHORDATA/ AVES	*Circus aeruginosus*	Western Marsh Harrier	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	30-50 pairs (breeding)
CHORDATA/ AVES	*Circus cyaneus*	Northern Harrier	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	100-150 individuals (wintering)

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/ AVES	*Circus macrourus*	Pallid Harrier	☑	☑	☐	☐	☐	☐	☐	☐				NT	☐	☐	Annex I of the EU Birds Directive	2-5 (migrant) indiv.
CHORDATA/ AVES	*Circus pygargus*	Montagu's Harrier	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	3-5 pairs (breeding)
CHORDATA/ ACTINOPTERYGII	*Cobitis taenia*	Spined Loach	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II of the EU Habitats Directive	
CHORDATA/ AVES	*Coracias garrulus*	European Roller	☑	☑	☐	☐	☐	☐	☐	☐				NT	☐	☐	Annex I of the EU Birds Directive	80-120 pairs (breeding)
CHORDATA/ AVES	*Crex crex*	Corn Crake	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	5-100 pairs (breeding and staging)
CHORDATA/ AVES	*Cygnus cygnus*	Whooper Swan	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	0-7 (wintering)
CHORDATA/ AVES	*Egretta garzetta*	Little Egret	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	50-100 individuals (staging) The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.
CHORDATA/ AVES	*Falco cherrug*	Saker Falcon	☑	☑	☐	☐	☐	☐	☐	☐				EN	☐	☑	Annex I of the EU Birds Directive	8-15 pairs (staging)
CHORDATA/ AVES	*Falco vespertinus*	Red-footed Falcon	☑	☑	☐	☐	☐	☐	☐	☐				NT	☐	☑	Annex I of the EU Birds Directive	80 pairs (breeding)
ARTHROPODA/ INSECTA	*Gortyna borelii lunata*	Fisher's Estuarine Moth	☑	☐	☐	☐	☑	☐	☐	☐	1000				☐	☐	Annex II of the EU Habitats Directive	On the forest-steppe meadows on its host plant (Peucedanum officinale) lives the Fisher's Estuarine Moth.
CHORDATA/ AVES	*Grus grus*	Common Crane	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	200-300 individuals (staging); 15000 (migrant) individuals Criterion 4: Refuge to several non-breeding birds in the migration period. The amount of Common Crane has grown in the last decade (5000 indiv. in autumn).
CHORDATA/ AVES	*Haliaeetus albicilla*	White-tailed Eagle	☑	☑	☐	☐	☐	☐	☐	☐				LC	☑	☑	Annex I of the EU Birds Directive	1 pair breeding, 10-25 overwintering individuals
CHORDATA/ AVES	*Himantopus himantopus*	Black-winged Stilt	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	5-10 pair (breeding), 15-25 (migrant)
CHORDATA/ AVES	*Ixobrychus minutus*	Little Bittern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	50 pairs (breeding)
CHORDATA/ AVES	*Luscinia svecica*	Bluethroat	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	15-20 pairs (breeding)
CHORDATA/ MAMMALIA	*Lutra lutra*	European Otter	☑	☐	☐	☐	☐	☐	☐	☐				NT	☑	☐	Annex II and IV of the EU Habitats Directive	25 indiv. The proper habitats for the Otter is situated along the River Tisza and the main drainage canals.
ARTHROPODA/ INSECTA	*Lycaena dispar*	Large Copper	☑	☐	☐	☐	☐	☐	☐	☐	1000				☐	☐	Annex II of the EU Habitats Directive	The Large Copper is a typical element of the wetland habitats where rich population of Rumex sp. grows.
CHORDATA/ AVES	*Mergellus albellus*	Smew	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	5-10 individuals (winter)
CHORDATA/ AVES	*Microcarbo pygmeus*	Pygmy Cormorant	☑	☑	☐	☐	☐	☐	☐	☐					☐	☐	Annex I of the EU Birds Directive	50-100 (migrant) The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.
CHORDATA/ AVES	*Milvus migrans*	Black Kite	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	0-1 pairs (staging); 5-8 individuals (staging)
CHORDATA/ ACTINOPTERYGII	*Misgurnus fossilis*	Weather Loach	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II of the EU Habitats Directive	

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			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	*Nycticorax nycticorax*	Night Heron	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	50-250 individuals (staging); 5-10 (breeding) The nearness of the River Tisza and Kisköre Reservoir prove the optimal feeding places on the site.
CHORDATA/ AVES	*Otis tarda*	Great Bustard	☑	☑	☐	☐	☐	☐	☐	☐				VU	☐	☑	Annex I of the EU Birds Directive	10 indiv. (breeding); >30 indiv. (staging, wintering)
CHORDATA/ AVES	*Pandion haliaetus*	Osprey;Western Osprey	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	1-3 (migrant)
CHORDATA/ AVES	*Philomachus pugnax*	Ruff	☑	☑	☐	☐	☐	☐	☐	☐					☐	☐	Annex I of the EU Birds Directive	5000-8000 (migrant) individuals
CHORDATA/ AVES	*Platalea leucorodia*	Eurasian Spoonbill	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	150-250 individuals (migrant) (staging)
CHORDATA/ AVES	*Plegadis falcinellus*	Glossy Ibis	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	less than 10 individuals (staging)
CHORDATA/ AVES	*Pluvialis apricaria*	Golden Plover	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	400-500 (migrant) individuals
CHORDATA/ AVES	*Porzana parva*	Little Crake	☑	☑	☐	☐	☐	☐	☐	☐					☐	☐	Annex I of the EU Birds Directive	25-30 pairs (breeding)
CHORDATA/ AVES	*Porzana porzana*	Spotted Crake	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	30-40 pairs (breeding)
CHORDATA/ AVES	*Recurvirostra avosetta*	Pied Avocet	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	5-25 pair (breeding), 25-50 (migrant)
CHORDATA/ ACTINOPTERYGII	*Rhodeus amarus*	European Bitterling	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	*Romanogobio albipinnatus*	White-finned Gudgeon	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	*Sicista subtilis*	Southern Birch Mouse	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Annex II and IV of the EU Habitats Directive	Total known Hungarian population. The Southern Birch Mouse is this most remarkable value on the site, because the first living individuals were trapped only in 2006, before this Eastern steppe mouse were only detected from owl-pellets.
CHORDATA/ MAMMALIA	*Spermophilus citellus*	European Souslik	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐	Annex II and IV of the EU Habitats Directive	<500 The European Souslik population decreased in the last decades, because the smaller extent of the extensive animal husbandry. Nowadays the populations are growing and are considered stable.
CHORDATA/ AVES	*Sterna hirundo*	Common Tern	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of the EU Birds Directive	0 pair ; 10-20 pairs (staging) The vast wetland territories can maintain growing populations of the Common, Whiskered and Black Terns.
CHORDATA/ AVES	*Tringa glareola*	Wood Sandpiper	☑	☑	☐	☐	☐	☐	☐	☐	450			LC	☐	☐	Annex I of the EU Birds Directive	450 (migrant) individuals
CHORDATA/ AMPHIBIA	*Triturus dobrogicus*	Crested Newt	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☐	Annex II of the EU Habitats Directive	over 2% of the Hungarian population
CHORDATA/ ACTINOPTERYGII	*Umbra krameri*	Mudminnow	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐	Annex II of the EU Habitats Directive	The Mudminnow recolonized after the water reconstruction quite rapidly.

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			2	4	6	9	3	5	7	8								
ARTHROPODA / INSECTA	*Zerynthia polyxena*	Southern Festoon	☑	☐	☐	☐	☐	☐	☐	☐	1000				☐	☐	Annex IV of the EU Habitats Directive	

Criterion 4: The site has significant role for migratory birds providing key staging habitats and waterbodies. The most noteworthy examples include the breeding populations of species listed under Criterion 2, but it is important to mention that the Borsodi Mezőség also provides refuge to several non-breeding birds in the migration period. The amount of the Common Crane has grown in the last decade (5000 indiv. in autumn). The nearness of the Tisza river and Kisköre Reservoir ("Tisza Lake") ensures the potential feeding territories for the geese species (White-fronted Goose, Greylag Goose, Bean Goose, Red-breasted Goose) altogether more than 20-30.000 individuals.

Thanks to the water-rehabilitation projects managed by the Bükk National Park Directorate the amount of the nesting waterfowl has grown significantly.

Naturally, the site is also important for many other species than birds (as listed under Criterion 2), but most of the other taxa are resident, and are thus present throughout the year, and not just in a certain period of their lifecycle. The size of the populations are very variable from year-to-year due to the variability in rainfall patterns.

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
Pannonic salt steppes and salt marshes	☑	representativity: good; conservation status: good; global assessment: good.	Annex I of the EU Habitats Directive
Natural eutrophic lakes with Magnopotamion or Hydrocharition type vegetation	☑	representativity: good; conservation status: good; global assessment: good.	Annex I of the EU Habitats Directive
Alluvial meadows of river valleys of the Cnidion dubii	☑	representativity: significant; conservation status: average; global assessment: significant.	Annex I of the EU Habitats Directive
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	☑		Annex I of the EU Habitats Directive
Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojunc	☑		Annex I of the EU Habitats Directive
Pannonic loess steppic grasslands	☑	representativity: good; conservation status: good; global assessment: good.	Annex I of the EU Habitats Directive

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

4.1 - Ecological character

The most important natural wetlands of the Borsodi Mezőség are the permanent and the temporarily inundated marshes, wet meadows and alkaline wetlands (such as reedbeds, Typha-, Glyceria-, Schoenoplectus-, Sparganium-beds, tall-sedge communities, wet hayfield). These treeless habitats form a special mixture of habitats with loessy and alkalic dry grasslands (such as Artemisia grasslands, steppe-meadows).

A sanctuary oxbow lake of the River Tisza is situated at Tiszakeszi village. The free-floating and rooted submerged vegetation with Hydrocharition type are the characteristic habitats on this subunit. The line of the River Tisza is much more forested, although the forest plantations (poplar and American Ash) have greater extent than the natural forest habitats (riparian willow galleries). Threats of alien species have increased dramatically all along the River Tisza, such as Desert False Indigo (Amorpha fruticosa) and Boxelder (Acer negundo). Unfortunately, the slow colonization of these plants has been started along the canals and ditches in the “puszta” subunit. Though, the invasive pressure on natural wetland and grassland habitats is still not remarkable.

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 >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks		2		
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		3		Representative
Saline, brackish or alkaline water > Marshes & pools >> Ss: Seasonal/ intermittent saline/ brackish/ alkaline marshes/ pools		1		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		4		

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
Adonis vernalis		rich steppe flora is in blossom on the loessy ridges and old anthropogenous formations.
Anacamptis morio	Green-winged Orchid	Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Anacamptis palustris elegans	Lax-flowered orchid	Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Artemisia santonicum		specialized salt-tolerant species grow in the alkalic parts
Beckmannia eruciformis		specialized salt-tolerant species grow in the alkalic parts
Clematis integrifolia		Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Gentiana pneumonanthe		Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Inula germanica		rich steppe flora is in blossom on the loessy ridges and old anthropogenous formations
Iris spuria		Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Nuphar luteum		The pondweed communities are in expansion in the region due to the water restoration
Nymphaea alba		The pondweed communities are in expansion in the region due to the water restoration
Nymphoides peltata		The pondweed communities are in expansion in the region due to the water restoration
Peucedanum officinale		Remnant and characteristic elements of the non-alkalic hayfields along the floodplain of the River Tisza
Phlomoides tuberosa		rich steppe flora is in blossom on the loessy ridges and old anthropogenous formations.
Trapa natans	Water Chestnut	
Utricularia australis		The pondweed communities are in expansion in the region due to the water restoration

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
Acer negundo	Boxelder	Potentially	No change
Amorpha fruticosa	Desert False Indigo	Potentially	No change

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/AVES	Anas clypeata	Northern Shoveler				10-20 pairs (breeding); 200-300 indiv. (staging)
CHORDATA/AVES	Anas crecca	Eurasian Teal;Green-winged Teal				500-1000 (wintering)
CHORDATA/AVES	Anas platyrhynchos	Mallard				400-600 pair breeding, 5000-20000 (migrant), (wintering)
CHORDATA/AVES	Anas querquedula	Garganey				<100 pairs (breeding); <1000 individuals
CHORDATA/AVES	Anas strepera	Gadwall				10-20 pair breeding, 100-200 (wintering)
CHORDATA/AVES	Anser albifrons	Greater White-fronted Goose				20000-25000 indiv. (staging, wintering)
CHORDATA/AVES	Anser anser	Greylag Goose				150-200 pairs (breeding); <5000 indiv. (staging, wintering)
CHORDATA/AVES	Anser fabalis	Bean Goose				50-100 (migrant), (wintering)
CHORDATA/AVES	Aythya ferina	Common Pochard				10-40 pair (breeding), 100-200 (migrant)
CHORDATA/AVES	Aythya fuligula	Tufted Duck				1-3 pair (breeding) 50-100 (wintering)
CHORDATA/AVES	Aythya marila	Greater Scaup				0-3 (wintering)
CHORDATA/AVES	Branta bernicla	Brant;Brant Goose;Brent Goose				0-1 (wintering)
CHORDATA/AVES	Chlidonias leucopterus	White-winged Tern				100-300 pairs (breeding); 300-500 (staging)
CHORDATA/AVES	Gallinago gallinago	Common Snipe				20-25 pair (breeding), 100-200 (migrant)
CHORDATA/AVES	Limosa limosa	Black-tailed Godwit				10-25 pair (breeding), 10-100 (migrant)
CHORDATA/AVES	Numenius arquata	Eurasian Curlew				100-200 (migrant), (wintering)
CHORDATA/AVES	Numenius phaeopus	Whimbrel				0-15 (migrant)
CHORDATA/AVES	Panurus biarmicus	Bearded Reedling				25-50 pairs breeding, 150-250 (migrant)
CHORDATA/AVES	Podiceps grisegena	Red-necked Grebe				0-4 pair (breeding)
CHORDATA/AVES	Podiceps nigricollis	Black-necked Grebe;Eared Grebe				20-30 pair (breeding)
CHORDATA/AVES	Rallus aquaticus	Water Rail				20-100 pair breeding, 100-300 (migrant), (wintering)
CHORDATA/AVES	Remiz pendulinus	Eurasian Penduline Tit				15-25 pair (breeding), 100-150 (migrant)
CHORDATA/AVES	Tachybaptus ruficollis	Little Grebe				50-70 pair (breeding)
CHORDATA/AVES	Tadorna tadorna	Common Shelduck				0-1 breeding, 2-10 (migrant)
CHORDATA/AVES	Tringa totanus	Common Redshank				20-50 pair (breeding), 50-150 (migrant)

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	Perccottus glenii	Amur Sleeper	Potentially	No change

4.4 - Physical components

4.4.1 - Climate

The climate is semi-arid, semi-humid forest steppe. For more information on the climate, please refer to Section 6.1.2 Additional material> vi. other published literature.

The water quantity differs from year to year due to the variable factors, such as flood, inland water, precipitation, etc. In dry, arid years the nesting pair numbers are much lower for the waterfowl.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 86

a) Maximum elevation above sea level (in metres): 93

Middle part of river basin ☑

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 total catchment area of the Tisza River covers approximately the half of the Carpathian Basin (157 200 km²), from which Hungary has 47 000 km².

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 ◉

Please provide further information on the soil (optional)

The soil-types are very variable within the site. Along the river Tisza the alluvial meadow soil is the dominant type, but in the “Puszta” unit the soiltypes varied due to the scale of the alkalization within a small area from the fertile black earth on the loess ridges to the alkaline soil (mostly solonetz) which contain high accumulation of Na-salts (NaHCO3, Na2SO4, NaCl, Na2CO3) due to leaching (in periods of precipitation) and capillary rise of groundwater and salts (in dry periods).

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 surface water	☐	No change

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 water was the key element of the site in the former geological era. The river Tisza occupied its depression 10.000 years before. The former abandoned riverbeds form the main wetland habitats of the present era. The streams which originated from the Bükk Mts. formerly spread away on the plain and – in dry periods – had not reached the river Tisza forming extensive wetland habitats (in more than 20.000 hectares extent). The last section of the river Tisza was regulated in the Borsodi Mezőség between 1936-39. The effect of this work was negative from the viewpoint of the extent of the wetland habitats, especially which are closer to the line of the river Tisza. The water supply of the streams from the mountains is still continuous and noteworthy. The second negative effect was caused by the canalization program when the main canals were built (Tiszavalki-main canal, Sulymos main canal, etc.).

Please refer to Section 6.1.2 Additional Material > vi. other published literature.

4.4.5 - Sediment regime

<no data available>

4.4.6 - Water pH

Alkaline (pH>7.4) ☑

Unknown ☑

Please provide further information on pH (optional):

No precise data is available about the pH conditions of the water on the site. On alkaline locations due to the NA-salts accumulation the pH level is more basic in the water surface than in the waterbodies derive from the streams from the Bukk Mts.

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

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

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 site itself: i) broadly similar ○ ii) significantly different ◉

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

Current land (including water) use in the surroundings/catchment: Ploughlands, water reservoir, hay- and reed harvesting, grazing of cattle, sheep and horse, fishing /intensive & traditional/, hunting, small-scale forestry, highway utility.

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
Fresh water	Drinking water for humans and/or livestock	
Wetland non-food products	Reeds and fibre	Medium

Regulating Services

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

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	Medium

Other ecosystem service(s) not included above:

Grazing of cattle, sheep and horse, ploughlands (small inclusions), small-scale forestry

Very sparse human population can be found in the site (only farmer cottages). Ten municipalities are associated with the Ramsar site, all situated on the boundary of the protected area (<30 000 inhabitants alltogether)

According to the archeological findings the territory was inhabited by humans in the Neolithic forming a chain along a higher ridge from the current villages between Négyes and Ároktő. The vestige of the later Avarian and Roman times was also studied by archeologists. The pastoral life dates back to early years. The most important cultural value of the Borsodi Mezőség (such as the neighbouring Hortobágy region) is the survival of ancient, traditional pastoral life. Extensive animal husbandry has been practised here for thousands of years, along with the preserved pastoral traditions, tools and lifestyle. Cumanian mounds and mottes have also been found in the area.

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

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☑

Description if applicable

Traditional tools, methods and lifestyle of pastoral communities (herdsmen) have been maintained here in superb quality and provide a good example for the harmonious co-existence of man and nature. The spatially and temporally diverse grazing regimes prove the sustainability of the wetland – grassland complexes.

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 ☑

Description if applicable

The Cumanian mounds and mottes had very important role in the ancient times, due to their complex functions (e.g. sanctuary places, watchposts, former settlements). Every goods derived from the neighbouring wetlands (e.g. fishery, gathering foods).

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	☑	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☑	☑

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

a) within the Ramsar site:
Owned by the Hungarian State and managed by BNPD (75%). According to the Act XCIII.-1995 former co-operative lands (altogether 600 hectares) will be obtained to the BNPD in the nearby future. These agricultural lands are managed by farmers in the framework of land tenancy, contracts with the national park administration. The private land ownership is not significant.

b) in the surrounding area:
In the surrounding area the portion of the private land is more significant.

5.1.2 - Management authority

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

Provide the name and title of the person or people with responsibility for the wetland: Szilárd Grédics, director ; András Schmotzer, research adviser & officer for Ramsar issues

Postal address: Hungary, Eger 3304 Sanc u. 6.

fax: 36-36-412-791

E-mail address: schmotzera@bnpi.hu

5.2 - Ecological character threats and responses (Management)

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

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water abstraction			☐		☑	
Canalisation and river regulation	Medium impact		☑	No change	☐	No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Utility and service lines (e.g., pipelines)	Medium impact		☐	No change	☑	No change

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		☐	No change	☑	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		☐	No change	☑	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	☑	increase	☑	No change

Please describe any other threats (optional):

Within the Ramsar Site:

The water reconstruction on the site ensures the potential regeneration of the wetlands. The adequate ownership structure (with the water management and hunting management rights) is the key factor on the proper usage of the site.

Threats of alien species have increased dramatically all along the River Tisza, such as Desert False Indigo (Amorpha fruticosa) and Boxelder (Acer negundo). Unfortunately, the slow colonization of these plants has started along the canals and ditches in the “puszta” subunit. However, the invasive pressure on natural wetland and grassland habitats is still not remarkable.

In the Surrounding area:

On non-protected wetland areas subsistence of conditions is not yet ensured. The decrease of grasslands, wetlands and extensive forms of cultivation deteriorates the area. Water regulation, forestation and grazing have similar effects. Specific threatening factors in the area are hunting, spontaneous fires and arsons, and electric cable networks.

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	Borsodi-sík (SPA), Borsodi Mezőség (SAC), Tiszakeszi morotva (SAC), Hortobágy (SPA), Tisza-tó (SAC)		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Protection Landscape Area	Borsodi Mezőség		whole

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:

The Agro-environmental schemes are significant in the area (Borsodi-sík ESA, established 2002). The “flagship” element is the Great Bustard and its protection. One portion of the subsidies is for nature conservation goals.

EU Life Nature projects on the site have been the following:
• Integrated (Multi-level inundation) water management system solving flood-protection, nature conservation (LIFE03 ENV/H/000291)
• Conservation of Aquila heliaca in the Carpathian basin (LIFE02 NAT/H/008627)
• Conservation of Falco cherrug in the Carpathian basin (LIFE06 NAT/H/000096)
• Conservation of Falco vespertinus in the Pannonian Region (LIFE05 NAT/H/000122)
• Conservation of Otis tarda in Hungary (LIFE04 NAT/HU/000109)
• Conservation of imperial eagles by managing human-eagle conflicts in Hungary (LIFE10 NAT/HU/000019)

After a completed EU Life Project (LIFE ENV 03/H/00291), the framework of water conduction has been established (restoration of wetlands by (1) utilizing the natural streams from the Bükk; (2) retaining of inland waters; (3) relieving the floods of the River Tisza (water conduction using by flood gates).

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

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:

The PLA has not got particular visitors' centre. At Ároktő village a small informational point can be found, where visitors may receive information on the natural values and sights of interests. The main tourism is concentrated to the line of River Tisza and the Kisköre Reservoir where the facilities are managed by the Hortobágy National Park Directorate. Booklet interpreting the Borsodi Mezőség PLA was published by the BNPD from INTERREG IIIA fund.

In part of the current water restoration programme from the Environment and Energy Operational Programme (EEOP) scheme new study trail and information boards were implemented.

Public tourism is very weak within the site and will not be enlarged due to the management plan. Regular training courses are organised for locals, together with the Hortobágy NPD. Some ecotourism development activities are planned on the short term.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal species (please specify)	Implemented
Birds	Implemented

Sample areas of the Hungarian Biodiversity Monitoring System (run by the Ministry of Rural Developement) were chosen for different taxa within the site (e.g. fish-, Fisher's Estuarine Moth monitoring). Standard habitat mapping was carried out in 2006 (25 sqkm of the territory in 10 years repetition time). The habitat selection and management issues of the Sicista subtilis are a continuous task.

The research activities in the present and past are very diverse in different taxonomic groups. The birds are the most investigated group. They indicate sensitively and quite rapidly the changes of the landuse and the water supply of the habitats. The first success of the water restoration was indicated by the remarkable population growth of waterfowl (ducks, geese, grebes, herons and spoonbills).

The invertebrate fauna is poorly investigated with a focus mostly on species with EU nature protection importance. The proper management of the meadows rich in this umbellifer is one of the key issues nowadays on the site. Some taxons (dragonflies, carabids, snails, etc.) which might be important in the monitoring research of the water restoration is still under-investigated.

The fish and amphibian monitoring (in the framework of the National Biodiversity Monitoring System) has started recently. Some preliminary results show positive significance between the extension of wetland habitats and the increasing populations of the fish and amphibians.The Mudminnow (Umbra krameri) recolonized after the water reconstruction quite rapidly, although, the invasive Amur Sleeper (Perccotus glenii) is also showing a growing tendency in the artificial canals.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

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Varga Z. 1983: Kutatási beszámoló a Kishortobágy rovarfaunájának 1983. évi vizsgálatáról. - Kézirat.

Végh K. 1903: Ároktő és vidékének története. - Egri Egyházmegyei közlöny.

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:

Crane migration at 'Nagy-szék-lápa' marsh (*Mr. Tamás Szitta, 12-10-2014*)

6.1.4 - Designation letter and related data

Designation letter

<no file available>

Date of Designation	2008-02-20