RIS for Site no. 422, Bodrogzug, Hungary



**Ramsar Information Sheet** 

Update version, previously published on 1 January 2007

# Hungary Bodrogzug



Designation date Site number

17 March 1989 422 Coordinates 48°10'52"N 21°24'53"E Area 4 220,00 ha

https://rsis.ramsar.org/ris/422 Created by RSIS V.1.6 on - 3 April 2017

# 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 area is the common floodplain of river Tisza and Bodrog, regulary flooded twice a year, at the end of winter and leafing /green flood. Lowland with oxbow lakes and marshes, at higher places remnants of oak-ash-elm forests and poplar plantations.

# 2 - Data & location

## 2.1 - Formal data

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

## Compiler 1

Name	Attila Huber & Tamás Zsólyomi,
Institution/agency	Aggtelek National Park Directorate
Postal address	H-3758, Jósvafő Tengerszem oldal 1.
E-mail	info.anp@t-online.hu
Phone	+36 48506000

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

From year	2015
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or	Podrogajo
Spanish)	bullogzug

#### 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 $oldsymbol{O}$ No $oldsymbol{O}$	
<sup>(Update)</sup> The boundary has been delineated more accurately 🗹	
<sup>(Update)</sup> The boundary has been extended	
$^{(Update)}$ The boundary has been restricted $\Box$	
(Update) B. Changes to Site area No change to area	

## 2.1.5 - Changes to the ecological character of the Site

<sup>(Update)</sup> 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	/es (likely)
<sup>(Update)</sup> Are the changes P	Positive O Negative  Positive & Negative O
<sup>(Update)</sup> No information available	2
<sup>(Update)</sup> Changes resulting from causes operating within the existing boundaries?	2
<sup>(Update)</sup> Changes resulting from causes operating beyond the site's boundaries?	2
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?	
(Update) Changes consequent upon site boundary increase alone (e.g.,	

(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.

The area has a more and more boggy character, as the old riverbeds and channels are silting up. The ratio of the forested area is increasing because of expansion of the invasive Amorpha fruticosa. As a consequence, the number of several waterbirds (e.g. duck species, black stork) staging in the area decreased in the last years affecting, among others, Criterion 5 which no longer applies. For more information see Additional information - iv. relevant Article 3.2 reports.

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

(Update) Has an Article 3.2 report been submitted to the Secretariat? Yes (

## 2.2 - Site location

#### 2.2.1 - Defining the Site boundaries

**b) Digital map/image** <1 file(s) uploaded> RIS for Site no. 422, Bodrogzug, Hungary

Former maps 0

#### Boundaries description

The boundary is the same as an existing protected area (Tokaj-Bodrogzug Landscape Protection Area)

## 2.2.2 - General location

a) In which large administrative region does the site lie?	Borsod-Abaúj-Zemplén County							
b) What is the nearest town or population centre?	Surrounded by Bodrogkeresztúr, Szegi, Olaszliszka, Tokaj, Zalkod villages. The closest large towns are Nyíregyháza in Szabolcs-Szatmár-Bereg County (approx. 35 km) and Miskolc in Borsod-Abaúj-Zemplén County, 55 kilometres to the west from the Site.							
2.2.3 - For wetlands on national bound	daries only							
a) Does the wetland extend onto the territory of one or more other countries? Yes O No (1)								

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

#### 2.2.4 - Area of the Site

Official area, in hectares (ha):	4220
Area, in hectares (ha) as calculated from GIS boundaries	4219.3

## 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

Hydrological services provided	The site is one of the best-preserved open flood plain riparian area in the country due to the regular floods of river Tisza and Bodrog, a wetland of international significance.
Other ecosystem services provided	It is an outstandingly important bird migration stopover site, being a major wetland along the River Tisza, which is a flyway followed by large numbers of waterbirds (e.g. storks, geese, ducks, cranes etc.). Hardly any riparian wetland remained in a close-to-natural state along the River Tisza. It is also important as a feeding site for large birds, especially raptors and Black Storks breeding in the Zemplén Hills. The site also has unique importance for the fish fauna of the Tisza River as a spawning ground. It is regularly flooded in the spring, and the flooded meadows connected to the rivers provide ideal opportunities for spawning.

#### Criterion 2 : Rare species and threatened ecological communities

#### Criterion 3 : Biological diversity

	The site supports hygrophilous communities important for maintaining the biological diversity within the
	Pannonian biogeographic region. Dynamic and continuous mosaic-patterned vegetation is characteristic.
Justification	For a list of the most important hygrophilous communities (according to the Habitats Directive), please
	refer to Section 3.4 Ecological communities whose presence relates to the international importance of the
	Site.

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

#### Criterion 8 : Fish spawning grounds, etc.

Justification The site also has unique importance for the fish fauna of the Tisza River as a spawning ground. It is regularly flooded in the spring, and the flooded meadows connected to the rivers provide ideal opportunities for spawning.

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

supports rare/endangered species

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

Phylum	Scientific name	Common name	Species qualifies under criterion2469	Species contributes under criterion 3 5 7 8	Pop. Size Period of pop. Est.	% occurrence 1)	IUCN Red / List	CITES Appendix I	CMS Appendiz I	c Other Status	Justification
Birds											
CHORDATA/ AVES	Acrocephalus melanopogon	Moustached Warbler	gooo							Annex I of the EU Birds Directive	

Phylum	Scientific name	Common name	Sp qua ui crit 2 4	ecie alifie nder terio	es es on 9 (	Spe contr un crite 3 5	cies ibutes der erion 7 8	Pop	Period of pop. Est	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	c Other Status	Justification
CHORDATA/ AVES	Alcedo atthis	Common Kingfisher	ØC											Annex I of the EU Birds Directive	
CHORDATA/ AVES	Anas clypeata	Northern Shoveler						]						Annex II of the EU Birds Directive	
CHORDATA/ AVES	Anas crecca	Eurasian Teal; Green-winged Teal						250	D		LC			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anas platyrhynchos 🌄 💁 💫	Mallard						750	D		LC			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anas querquedula 🌄 🛄 💫	Garganey						300	D		LC Str			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anas strepera	Gadwall									LC Strain			Annex II of the EU Birds Directive	
CHORDATA/ AVES	Anser albifrons 🙀 🌉	Greater White- fronted Goose						200	D		LC String			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anser anser	Greylag Goose						200	0		LC			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anser fabalis 📲 🤐 💫	Bean Goose						כ						Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Anthus campestris	Tawny Pipit	ØC								LC Str			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Aquila heliaca	Asian Imperial Eagle; Eastern Imperial Eagle	DB	0				כ				ø	V		Raptors breeding in the area - some of them use the area as a feeding place, such as the Imperial Eagle.
CHORDATA/ AVES	Aquila pomarina	Lesser Spotted Eagle						כ			LC				Raptors breeding in the area - some of them use the area as a feeding place, such as the Lesser Spotted Eagle.
CHORDATA/ AVES	Ardea alba	Great White Egret		0				כ			LC Star			Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Great White Egret.
CHORDATA/ AVES	Ardea purpurea ڇ 🔍 💫	Purple Heron		80							LC Str			Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Purple Heron.
CHORDATA/ AVES	Ardeola ralloides	Squacco Heron	Ø								LC Str			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Asio flammeus	Short-eared Owl	Ø											Annex I of the EU Birds Directive	
CHORDATA/ AVES	Aythya ferina	Common Pochard						200	D		VU •** •**			Annex II of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Aythya fuligula ڇ 🤐 🔌	Tufted Duck												Annex II of the EU Birds Directive	
CHORDATA/ AVES	Aythya nyroca 🛃 🖳 🔎	Ferruginous Duck	Z	80							NT Str		V	Annex I of the EU Birds Directive	The site is a stronghold of numerous breeding bird species, including several internationally protected ones, such as Aythya nyroca (Ferruginous Duck). The site is important nesting place for waterbirds such as the Ferruginous Duck.

Phylum	Scientific name	Common name	Species qualifies under criterion 2 4 6	Species contributes under criterion93578	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Botaurus stellaris	Eurasian Bittern						LC Strift Strift			Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Bittern.
CHORDATA/ AVES	Bucephala clangula	Common Goldeneye						LC Strift Strift			Annex II of the EU Birds Directive	
CHORDATA/ AVES	Chlidonias hybrida 📲 💁 🔌	Whiskered Tern	VV (		1000			LC Str Str			Annex I of the EU Birds Directive	Criterion 4. The site is important nesting place for waterbirds such as the Whiskered Tern. (the figures are estimates based on data from the Agglelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Chlidonias niger	Black Tern						LC Str			Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Balck Tern.
CHORDATA/ AVES	Ciconia ciconia ڇ 🔍 🂫	White Stork									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Ciconia nigra 🛃 💁 🄌	Black Stork						LC Strainer Strainer			Annex I of the EU Birds Directive	In addition to typical waterbirds, the site is an important feeding place for raptors as well as Black Storks that visit the site during their breeding season and on migration.
CHORDATA/ AVES	Circaetus gallicus	Short-toed Snake Eagle										Raptors breeding in the area - some of them use the area as a feeding place, such as the Short-toed Eagle.
CHORDATA/ AVES	Circus aeruginosus	Western Marsh Harrier	220					LC Star			Annex I of the EU Birds Directive	Raptors breeding in the area.
CHORDATA/ AVES	Circus cyaneus	Hen Harrier									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Crex crex	Corn Crake									Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Corncrake.
CHORDATA/ AVES	Dendrocopos medius	Mddle Spotted Woodpecker	200					LC			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Dendrocopos syriacus	Syrian Woodpecker									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Dryocopus martius	Black Woodpecke	r 🗷 🗆 🗆 (					LC Str			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Egretta garzetta 📲 💁 🔌	Little Egret						LC Strift			Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Little Egret.
CHORDATA/ AVES	Gallinago gallinago	Common Snipe						LC Strip			Annex II of the EU Birds Directive	
CHORDATA/ AVES	Grus grus	Common Crane			2500			LC Str			Annex I of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Haliaeetus albicilla	White-tailed Eagle						LC Str Str	<b>1</b>	ø	Annex I of the EU Birds Directive	Raptors breeding in the area.
CHORDATA/ AVES	Ixobrychus minutus	Little Bittern	220								Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Little Bittern.

Phylum	Scientific name	Common name	Species qualifies under criterior 2 4 6	s co n 93	Speci ontrib unde criter 5	es utes er ion 7 8	Pop. Size Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Lanius collurio	Red-backed Shrike	ØOO						LC			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Lanius minor	Lesser Grey Shrike	ØOO									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Luscinia svecica	Bluethroat	ØOO						LC ©SW			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Mergellus albellus ڇ 🔍 💫	Smew	ØOO									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Microcarbo pygmeus	Pygmy Cormorant	ØOO									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Milvus migrans	Black Kite	220									Annex I of the EU Birds Directive	Raptors breeding in the area.
CHORDATA/ AVES	Numenius arquata 💕	Eurasian Curlew	ØOO									Annex II of the EU Birds Directive	
CHORDATA/ AVES	Nycticorax nycticorax	Black-crowned Night Heron; Black-crowned Night-Heron	ØØ.						LC Str Str			Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Night Heron.
CHORDATA/ AVES	Pandion haliaetus	Osprey, Western Osprey	200									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Pernis apivorus	European Honey Buzzard							LC				Raptors breeding in the area - some of them use the area as a feeding place, such as the Honey Buzzard.
CHORDATA/ AVES	Philomachus pugnax	Ruff	ØOO				2250					Annex I of the EU Birds Directive	(the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Picus canus	Grey-headed Woodpecker	200						LC			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Platalea leucorodia	Eurasian Spoonbill	220						LC			Annex I of the EU Birds Directive	The site is a suitable feeding place for birds such as the Spoonbill.
CHORDATA/ AVES	Podiceps grisegena	Red-necked Grebe	220									Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Red-necked Grebe.
CHORDATA/ AVES	Podiceps nigricollis	Black-necked Grebe; Eared Grebe	220									Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Black-necked Grebe.
CHORDATA/ AVES	Porzana parva 🛃 🛄 💫	Little Crake										Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Little Crake
CHORDATA/ AVES	Porzana porzana 🛃 🛄 💫	Spotted Crake	220						LC			Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Spotted Crake.
CHORDATA/ AVES	Rallus aquaticus	Water Rail										Annex II of the EU Birds Directive	
CHORDATA/ AVES	Remiz pendulinus	Eurasian Penduline Tit	ØOO									Annex I of the EU Birds Directive	
CHORDATA/ AVES	Sylvia nisoria	Barred Warbler	ØOO						LC			Annex I of the EU Birds Directive	

Phylum	Scientific name	Common name	Species qualifies under criterion 2 4 6	s co n 93	Spec ontrik und criter 5	ies outes er fion 7 8	Pop. Size Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Tachybaptus ruficollis 🕌 🕰 🔊	Little Grebe					1000		LC Strain Strain			Annex I of the EU Birds Directive	The site is important nesting place for waterbirds such as the Little Grebe. (the figures are estimates based on data from the Aggtelek National Park Directorate's database of ranger surveys)
CHORDATA/ AVES	Tringa glareola 🕌 🛄 💫	Wood Sandpiper	ØOO						LC			Annex I of the EU Birds Directive	
CHORDATA/ AVES	Tringa totanus 🏭 🛄 🔌	Common Redshank							LC Strained			Annex II of the EU Birds Directive	
Fish, Mollusc a	and Crustacea												
MOLLUSCA/ GASTROPODA	Anisus vorticulus	Ramshorn snail							LC Other			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Cobitis taenia	Spined loach	ØOO						LC ●聞			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Gymnocephalus baloni	Balon's ruffe	200						LC			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Gymnocephalus schraetser	Striped ruffe	200						LC other			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Leuciscus aspius		200									Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Misgumus anguillicaudatus	Eurasian Weather Loach	200						LC			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Pelecus cultratus	Knife	ØOO						LC Sw			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Rhodeus amarus	Bitterling	ØOO						LC			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Romanogobio albipinnatus	White-finned Gudgeon	800						LC			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Romanogobio kesslerii	Kessler's gudgeon	800						LC			Annex II of the EU Habitats Directive	
CHORDATA/ ACTINOPTERYGII	Sabanejewia aurata	Golden spined loach	ØOO						LC			Annex II of the EU Habitats Directive	
MOLLUSCA/ BIVALVIA	Uhio crassus	Thick-shelled river mussel	ØOO						EN Strain			Annex II of the EU Habitats Directive	
Others													
CHORDATA/ AMPHIBIA	Bombina bombina	European Fire- bellied Toad	ØOO						LC			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Castor fiber	Eurasian Beaver	ØOO						LC Strained			Annex II of the EU Habitats Directive	
ARTHROPODA/ ARACHNIDA	Dolomedes plantarius	Great raft spider	Roo						\U ●\$} ©\$}				
CHORDATA/ REPTILIA	Emys orbicularis	European Pond Terrapin							NT			Annex II of the EU Habitats Directive	
ARTHROPODA/ INSECTA	Graphoderus bilineatus	Water beetle	200						VU Signal Signal			Annex II of the EU Habitats Directive	

Phylum	Scientific name	Common name	S q c 2	ipec uali und rite	ies fies er rion 6 9	S cor c 3	Speci ntrib unde riter 5	ies utes er ion 7 8	Pop. Size Period of pop. Est	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
ARTHROPODA/ INSECTA	Lucanus cervus	Stag beetle	20								LC ●課			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Lutra lutra	European Otter	Ø								NT Straight Straight	×		Annex II of the EU Habitats Directive	The site plays important role for the protection of the otter – Lutra lutra.
ARTHROPODA/ INSECTA	Lycaena dispar	Large Copper	Ø								NT			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Myotis blythii	lesser mouse- eared bat; Lesser Mouse-eared Myotis	Ø								LC ●\$ ◎\$			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Myotis dasycneme	Pond Myotis; pond bat	Ø								NT ©S#			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Myotis emarginatus	Geoffroy's bat; Geoffroy's Myotis	Ø								LC Strip			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Myotis myotis	Mouse-eared Myotis; mouse- eared bat	Ø								LC Star			Annex II of the EU Habitats Directive	
ARTHROPODA/ INSECTA	Ophiogomphus cecilia	Green Snaketail	2								LC Straine Straine			Annex II of the EU Habitats Directive	
CHORDATA/ MAMMALIA	Rhinolophus ferrumequinum	greater horseshoe bat; Greater Horseshoe Bat	Ø								LC Stiff			Annex II of the EU Habitats Directive	
CHORDATA/ AMPHIBIA	Triturus dobrogicus	Danube crested newt	Ø											Annex II of the EU Habitats Directive	

1) Percentage of the total biogeographic population at the site

#### Criterion 4.

The site supports more than 250 bird species in their nesting, migration and wintering season. The site is a stronghold of numerous breeding bird species, including several internationally protected ones, such as Aythya nyroca. In addition to typical waterbirds, the site is an important feeding place for raptors as well as Black Storks that visit the site during their breeding season and on migration.

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

## RIS for Site no. 422, Bodrogzug, Hungary

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Natural euthrophic lakes with Magnopotamion or Hydrocharition-type vegetation			
Natural dystrophic lakes and ponds			
Rivers with muddy banks with Chenopodion rubri p. p. and Bidention p. p.			
Alluvial meadows of river valleys of the Cnidion dubii			
Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			
Alluvial forests with Anus glutinosa and Fraxinus excelsior (Ano-Padion, Alnion incanae, Salicion albae)			
Riparian mixed forests with Quercus robur, Ulmus laevis and Ulmus minor Fraxinus excelsior		or Fraxinus angustifolia along the great rivers (Ulmenion minoris)	
Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae		and/or of the Isoëto-Nanojunc	

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

## 4.1 - Ecological character

The most important non-forested wetland habitats are the following: (1). Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation (e.g. Salvinio-Spirodeletum, Hydrochari-Stratiotetum, Nymphaeetum albo-luteae, Trapetum natantis, Nymphoidetum peltatae); (2). reedbed and marsh habitats (Scirpo-Phragmitetum, Typhaetum latifoliae, T. angustifoliae, Schoenoplectetum lacustris, Glycerietum maximae, Caricetum gracilis, C. ripariae, C. acutiformis); (3). wet meadow communities (Agrostetum albae, Alopecuretum pratensis, Cirisio cani-Festucetum pratensis). The most valuable and vulnerable forest habitats are the following: (1). Riverine willow-poplar woodlands (mostly Leucojo-Salicetum albae); (2). willow-bush (Calamagrostio-Salicetum cinereae); (3). Riverine oak-elm-ash woodlands (Querco-Ulmetum).

## 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 > Lakes and pools >> O: Permanent freshwater lakes		4	133	Unique					
Fresh water > Lakes and pools >> P: Seasonal/ intermittent freshwater lakes		2	221	Unique					
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		1	2652	Unique					
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands		2	221						
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	44						

#### 4.3 - Biological components

#### 4.3.1 - Plant species

#### Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Acorus calamus	Sweet Flag	Protected or strictly protected at the national level
Armoracia macrocarpa		Protected or strictly protected at the national level
Epipactis tallosii		Protected or strictly protected at the national level ; EU CITES B (II)
Gentiana linearis	Marsh Gentian	Protected or strictly protected at the national level
Iris sibirica	Siberian Iris	Protected or strictly protected at the national level ; Annex V Habitats Directive
Jacobaea paludosa	Fen Ragwort	Protected or strictly protected at the national level
Lathyrus palustris	Marsh Pea;Marsh Vetchling	Protected or strictly protected at the national level
Leucanthemella serotina	Hungarian Daisy	Protected or strictly protected at the national level
Leucojum aestivum	Summer Snowflake	Protected or strictly protected at the national level
Marsilea mutica		Annex II of the EU Habitats Directive
Nymphaea alba	White Lotus	Protected or strictly protected at the national level
Nymphoides peltata	Yellow Floating Heart	Protected or strictly protected at the national level
Salvinia auriculata	Floating fern	Protected or strictly protected at the national level ; Annex I Bern Convention
Trapa bicornis bispinosa	Water Chestnut	Protected or strictly protected at the national level ; Appendix I Bern Convention

## 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
CHORDATAAVES	Actitis hypoleucos	Common Sandpiper				
CHORDATAAVES	Ardea cinerea	Gray Heron;Grey Heron				The site is a suitable feeding place for birds such as the Grey Heron.
CHORDATAAVES	Falco subbuteo	Eurasian Hobby,Northern Hobby				Raptors breeding in the area.
CHORDATAAVES	Podiceps cristatus	Great Crested Grebe				The site is important nesting place for waterbirds such as the Great Crested Grebe.
CHORDATAACTINOPTERYGII	Cobitis elongatoides					Annex II of the EU Habitats Directive
ARTHROPODA/INSECTA	Boloria selene					
ARTHROPODAINSECTA	Brenthis ino					
CHORDATAAMPHIBIA	Bufo bufo	European Toad				
CHORDATAAMPHIBIA	Hyla arborea					
CHORDATAAMPHIBIA	Lissotriton vulgaris					
CHORDATA/REPTILIA	Natrix natrix					
CHORDATA/REPTILIA	Natrix tessellata					
ARTHROPODA/INSECTA	Palingenia longicauda					
CHORDATA/AMPHIBIA	Pelophylaxlessonae					
CHORDATA/AMPHIBIA	Pseudepidalea viridis					
CHORDATA/AMPHIBIA	Rana arvalis					
CHORDATA/AMPHIBIA	Rana dalmatina					
ARTHROPODA/INSECTA	Stylurus flavipes					

## 4.4 - Physical components

#### 4.4.1 - Climate

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

The climate of the area is moderately warm, moderately dry, with typical continental features. The climate of the catchment area varies from continental to mountainous.

#### 4.4.2 - Geomorphic setting



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.

Bodrogzug is the southernmost and lowest alluvial plain of the region Bodrogköz, which is surrounded by the river Tisza from the south and the river Bodrog from the west. The landscape is densely dissected by oxbow- and floodplain lakes with abandoned riverbeds (Nagy-Nádas Lake, Nádas Lake, Nyárjas Lake, Kapitány Lake, Szada Lake, Bogdány Lake, Nagy Lake, Kerek Lake, Nagy Kovács Lake, Tökös Lake, Sáros Lake, Füzes Lake, Fekete Lake, Longi-ér, etc.).

The Bodrog river is originated from the confluence of Ondava, Latorca (Latorica), Laborc (Laborec), Ung and Tapoly rivers. These rivers spring from volcanic mountains in Slovakia and Ukraine (North-East Carpathians, Beskids, Low-Beskids).

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 O No ()

#### Please provide further information on the soil (optional)

The brooks of Zemplén Mountains played an important role in the development of the present surface. On the surface of the alluvial fan, which is made of sandy sediments originated from the mountains, fluvial sand dunes have developed. The spectrum of the soil types is variable: mixture of Holocene fluvial sediments such as floodplain mud and meadow soils and partly fluvial sand.

#### 4.4.4 - Water regime

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

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

The hydrological features of the site are determined by the Bodrog and Tisza rivers. Due to the floods, generally all the area is under water for 40-50 days per year (or in wet years 100-150 days per year!). The channels of the area help to carry away the floods. The settlements are saved by secondary summer-dikes mostly built after the last huge flood in 1999. From hydro-geological point of view the present mouth of Bodrog river at Tokaj is fairly young. It changed a lot in the pleistocenic - holocenic periods due to the situation of infilling and subsidence. Both rivers follow structural tectonic line, deeply incised meander, with typical middle-course features. The high groundwater level results from the effect of the dam at Tiszalök.

The site holds a large amount of water during floods and thereby saves human settlements downstream from flooding.

4.4.5 - Sediment regime							
Sediment regime unknown							
<no available="" data=""></no>							
4.4.6 - Water pH							
Unknown 🗹							
4.4.7 - Water salinity							
Fresh (<0.5 g/l) 🗹							
<sup>(Update)</sup> Changes at RIS update No ch	ange						
Unknown 🗖							
4.4.8 - Dissolved or suspended nutrients in water							
Unknown 🗹							
4.4.9 - Features of the surrounding area which may affect the Sit	te						
Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broa site itself:	adly similar O ii) significantly different 🖲						
Surrounding area has greater urbanisation or development $\Box$							
Surrounding area has higher human population density $\Box$							
Surrounding area has more intensive agricultural use $\Box$							
Surrounding area has significantly different land cover or habitat types $\Box$							
Please describe other ways in which the surrounding area is different:							
No precise data available. Due to the drier conditions the amor management.	unt of arable land is bigger, playing more significant role in the landscape						

#### 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Climate regulation	Local climate regulation/buffering of change	Medium
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium

Other ecosystem service(s) not included above:

The ruins of the Rákóczi Castle are situated at the mouth of the river Bodrog. It was built at the same place where a former castle stood, which was destroyed by the Tartars in 1241. In the Middle Ages it played an important role in the Hungarian history, especially guarding the important trade-routes for the famous Tokaj wine to the east.

The wetland also probably has an important role in providing a special mesoclimate for the Tokaj wine-growing region, which became a World Heritage site (in the cultural landscape category) in 2002. The wetland helps maintain the climate necessary for the growth of a special fungus (Botrytis) that is the basis of the production of the internationally renowned Tokaji wine.

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O 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 Duse that maintain the ecological character of the wetland

- ii) the site has exceptional cultural traditions or records of former  $\hfill\square$  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	Ø	Ø

#### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)	×	
Other types of private/individual owner(s)	×	Ø

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

a) within the Ramsar site:

State property – 90% Co-operative and unmanaged property – 5% Private property – 5%

In the Ramsar site, belonging to the Tokaj-Bodrogzug Landscape Protection Area, most of the co-operative lands were bought by the state for nature conservation purpose and the manager is the Aggtelek National Park Directorate (80%). Approx. 10% of the site – also in state property – belongs to the water management bodies.

#### b) in the surrounding area:

No precise data available. The proportion of state property is much smaller due to the lack of protected area. Dominance of private property is evident.

## 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	Aggtelek National Park Directorate
Provide the name and title of the person or people with responsibility for the wetland:	Responsible for nature conservation management of the Ramsar site: Mr. Balázs Veress, director
Postal address:	3758 Jósvafő, Tengerszem oldal 1. 3758 Jósvafő Pf. 6. Phone: +36-48-506-000, Fax: +36-48-506-001
E-mail address:	info.anp@t-online.hu

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

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified development		Medium impact		No change	×.	No change

#### Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact		×	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	High impact		×	No change		No change

#### Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Industrial and military effluents	High impact		×	decrease		No change

#### Please describe any other threats (optional):

#### a) within the Ramsar site:

Tourism incurs some problems, e.g. littering, disturbing of nesting birds, etc.

Amorpha fruticosa is one of the most dangerous invasive shrub species which occurs on meadows and hayfields. In forest communities the role of Fraxinus pennsylvanica and Acer negundo is similar to Amorpha fruticosa.

The cyanide pollution of the rivers Szamos and Tisza took place in January 2000 (The 2000 Baia Mare cyanide spill was a leak of cyanide from a gold mine near Baia Mare, Romania, into the Someş/Szamos River). The passage of the polluted water plume has caused serious ecological damage, both in the Szamos River and in the Tisza River, which cannot be determined with exactitude. The ecological auto-recovery from the protected Bodrogzug area was quite quick and effective. Significant damage occurred in the fish stock.

#### b) in the surrounding area:

Plans for "opening" of this closed area also appeared (e.g. with reconstruction of former destroyed bridge through the Bodrog river).

#### 5.2.2 - Legal conservation status

#### Regional (international) legal designations

Designation type	Name of area	Online information url	<b>Overlap with Ramsar Site</b>
EU Natura 2000	BodrogzugKopasz- hegyTaktaköz		whole

#### National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
landscape protection area	Tokaj-Bodrogzug Landscape Protection Area	id. number 183/TK/86	whole

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

- la Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
  - Il 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
- VProtected 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

#### Human Activities

Status
Implemented

#### Other:

The management of the protected areas are realized by contract with the farmers and agricultural companies (mostly with farm leasing for 5years period).

The draft version of the management plan of the Landscape Protection Area (including the Ramsar site) was elaborated, but not approved yet. Enlargement of the Ramsar site was suggested by scientists from the University of Debrecen, but it has not been realized yet.

The tourism in the site is coordinated by the Aggtelek National Park Directorate. The importance of water tourism is increasing in the Bodrog and Tisza river as well. The regulation of tourism is solved, the national park directorate operates a water-tourism registration system.

#### 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?

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

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

Due to the special conditions of the site the national park directorate does not plan a visitor centre within the site. The introduction to the natural assets takes place at the Tokaji Ferenc Secondary Grammar School.

## 5.2.6 - Planning for restoration

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

#### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant species	Implemented

Several botanical surveys of the Bodrogzug have been completed. The vegetation map of the Landscape Protection Area was made by botanists from the University of Debrecen in 1993. Within the framework of the National Biodiversity-monitoring System the actual habitat map (25 square kilometres) was completed in 2002 and it was refreshed in 2013.

# 6 - Additional material

## 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Andó M. - BábaK. 1962: Malaco-coenological investigation a connected with microclimatological observations on the shores of the rivers Tisza, Bodrog and Kraszna. - Acta Biol. Hung. 12 Suppl.4.:1-27.

Bodrogközy Gy. 1962: Die Vegetation des Theiss-Wellenraumes. I. Zönologische und ökologische Untersuchungen in der Gegend von Tokaj. Acta Biol., Szeged 8: 3-44.

Dóka K. 1977: A Bodrog szabályozása. [The regulation of the river Bodrog.] - A Herman Ottó Múzeum Évkönyve XVI.: 105-131.

Harka Á. – Bânârescu, P.M. 1999: Fish fauna of the Upper Tisa. – Tiscia monographs, Szeged p. 439-454.

Harka Á. - Koščo, J. – Wilhelm S. 2000: A bodrog vízrendszerének halfaunisztikai vizsgálata. [Ichtyological survey of the river Bodrog catchment area]. – Halászat 93 (3): 130-134., (4): 182-184.

Harka Á. – Sallai Z. – Koščo, J. 2003: Az amúrgéb (Perccottus glenii) terjedése a Tisza vízrendszerében. [Spreading of Perccottus glenii in the Tisza river-system.] – Puszta 2001: 49-55.

Hoitsy Gy. 1995: A Bodrog és a Bodrogzug hal-ökofaunisztikai felmérése. [lchtyo-ecological survey of the river Bodrog and Bodrogzug Area.] – Halászat 88(3): 100-104.

Kalocsa B. - Tamás E. 2002: Status of black storck (Ciconia nigra) in Hungary in 2000. - Aquila 107-108.: 207-213.

Keve A. - Sage, B.L. 1967: Ornithological observations near the rivers Bodrog and Tisza. - Tiscia 3:91-92.

Kis G. - Tuba Z. 2000: Contributions to the Bryoflora of the Bodrogköz (NE Hungary). - Acta Bot. Hung. 42 (1-4): 193-203.

Lovászi P. (ed.) 2002: Javasolt különleges madárvédelmi területek Magyarországon. - Magyarország és Natura 2000 - II. MME, Bp.

Molnár A. - Sulyok J. - Vidéki R. 1993: A Tokaj-Bodrogzug TK vegetációja. [The vegetation of the Tokaj-Bodrogzug Landscape Protection Area.] - Manuscript

Nagy Szabolcs 1998: Fontos madárélőhelyek Magyarországon - MME Könyvtár, Bp.

Sőregi J. 1958: Adatok a Bodrogköz madárvilágához. [Data to the avifauna of the Bodrogzug.] - Aquila pp. 320-321.

Szegedi Zs. - Frank T. 2002: Fekete gólyák fészkelése a Zempléni-hegységben és a Bodrogközben. - Aquila 107-108.: 233-240.

Szemere L. 1919: A kócsag hajdani fészkelése és tenyésztése a Bodrogközben. [The former breeding of Little Egret and its domestication]. -Aquila pp.105-106.

Tardy, J. (ed.) (2007): A magyarországi vadvizek világa. Pécsi Direkt Kft. Alexandra Kiadója, 2007. 416 p.

Waliczky Z. (ed.) 1991: Európai jelentőségű madárélőhelyek Magyarországon. - MME Könyvtár, Bp.

#### 6.1.2 - Additional reports and documents

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

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

iv. relevant Article 3.2 reports

v. site management plan

vi. other published literature

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

Please provide at least one photograph of the site:



White Water-lilies and Blackheaded Gulls on the Bodrogzug Ramsar Site. ( *Mr. Tarás Zsólyoni, 09-10-*2008)

## 6.1.4 - Designation letter and related data

#### Designation letter <1 file(s) uploaded>

Date of Designation 1989-03-17