Ramsar Information Sheet

Published on 1 July 2025
Update version, previously published on : 8 March 2017

Hungary

Lake Balaton

Designation date	17 March 1989
Site number	421
Coordinates	46°51'34"N 17°45'10"E
Area	59 800,00 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

Lake Balaton is the largest freshwater lake in Central Europe. It is characteristic of freshwater lakes in Central/Eastern Europe. The site hosts large numbers of ducks, geese and coots during migration season, including over 1% of their European wintering populations of some species. There are different habitat types of reedbed vegetation. Outside wintering and migration seasons, the large reedbeds bordering the shoreline of the lake are important for reed-dwelling bird species.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Balaton-felvidéki National Park Directorate (BfNPD)
Postal address	8229 Csopak, Kossuth L. u. 16, Hungary

National Ramsar Administrative Authority

Institution/agency	Ministry of Agriculture
Postal address	Kossuth Lajos tér 11.

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

From year	2007
To year	2025

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Lake Balaton
Unofficial name (optional)	Balaton

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

Boundaries description

The boundary follows the legally defined shoreline of the lake.

2.2.2 - General location

a) In which large administrative region does the site lie?	Zala,Somogy,Veszprém
b) What is the nearest town or population centre?	Keszthely, Balatonfüred, Siófok and Fonyód

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): 59800

Area, in hectares (ha) as calculated from GIS boundaries: 59489.4

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Pannonic

Other biogeographic regionalisation scheme

European Environmental Agency (2012)
http://www.eea.europa.eu/data-and-maps/figures/biogeographical-regions-in-europe-1

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 Balaton is unique within the biogeographic region by being the largest permanent freshwater lake in Central Europe, with reedbeds and marshy meadows that are still in close-to-natural state. Most of the vegetation is water-logged for most of the vegetative season. The area of different types of reedbed vegetation is over 2000 ha. The other plant communities that exist in the site make it a representative site of near-natural wetland habitats in the biogeographic region.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification	The Lake Balaton supports important populations of plants and animal species important for maintaining the biological diversity within the Pannonian biogeographic region. Over 1400 species or variants of algae have been identified by scientists. The invertebrate fauna of the lake is rich in species. Macroplea mutica balatonica (Székessy, 1941) is an endemic Hungarian Red Listed species of Chrysomelidae living in the lake. There are stable populations of Pelecus cultratus (Knife) and Aspius aspius (Asp). Bombina bombina (European Fire-bellied Toad), Emys orbicularis (European Pond Terrapin), Natrix natrix (Grass Snake), Natrix tesselata (Dice Snake) are common species of the site.The number of migrant and wintering waterbirds is between 30,000 and 60,000 individuals. The Lutra lutra (European Otter) has dense population on the site.

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

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	30000-60000
Start year	2018
End year	2025
Source of data:	Balaton NP Directorate database

☑ Criterion 6 : >1% waterbird population

☑ Criterion 8 : Fish spawning grounds, etc.

Justification	Lake Balaton is an important spawning and nursery ground for the populations of Knife Pelecus cultratus and Asp Aspius aspius prominently important in Central European region. The population of Knife Pelecus cultratus of the lake is the largest one in this area. Both species are listed on Annexes II and V of the Habitats Directive.

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
Plantae								
TRACHEOPHYTA / LILIOPSIDA	*Anacamptis palustris*	☑	☐	☐	LC	☐	EU CITES B (II)	Lake Balaton holds this species with international designations.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Cirsium brachycephalum*	☑	☐	☐	LC	☐	Habitats Directive Annexes II and IV	Lake Balaton holds this species with international designations.
TRACHEOPHYTA / LILIOPSIDA	*Dactylorhiza incarnata*	☑	☐	☐		☐	EU CITES B (II)	Lake Balaton holds this species with international designations.
TRACHEOPHYTA / LILIOPSIDA	*Epipactis palustris*	☑	☐	☐	LC	☐	EU CITES B (II)	Lake Balaton holds this species with international designations.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Trapa natans*	☑	☐	☐	LC	☐	Bern Convention Appendix I	Lake Balaton holds this species with international designations.

Criterion 2: The area of different types of threatened reedbed vegetation is over 2000 ha. The reedbeds covering the bays at the northern part of the lake are mostly in natural status with zonations.

Species listed under "Noteworthy flora" which is not yet included in the Catalogue of Life:
Allium sphaerocephalon: an endemic species illustrative of the botanic values of the lake.

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								
Others																	
CHORDATA / AMPHIBIA	*Bombina bombina*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Criterion 3: This species is common on the site. This species is one of the most protected species of the site and is listed on HD Annex II.
CHORDATA / REPTILIA	*Emys orbicularis*	☑	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐	Bern Convention Appendix II, Habitats Directive Annexes II and IV	Lake Balaton holds this species with international designations. This species is one of the most protected species of the site. Criterion 3: This species is common on the site.
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☑	☐	☐	☐				NT	☑	☐	Bern Convention Appendix II, Habitats Directive Annexes II and IV	Lake Balaton holds this species with international designations. Criterion 3: The site has a dense population of this species.
CHORDATA / REPTILIA	*Natrix natrix*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Criterion 3: This species is common on the site. This species is one of the most protected species of the site.
CHORDATA / REPTILIA	*Natrix tessellata*	☐	☐	☐	☐	☑	☐	☐	☐	1		1	LC	☐	☐		Criterion 3: This species is common on the site. This species is one of the most protected species of the site.
Fish, Mollusc and Crustacea																	

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 / ACTINOPTERYGII	*Leuciscus aspius*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐		Criterion 3: The site hosts stable populations of this species. This species is used for designating the site into the Natura 2000 network. Criterion 8: the site is a stronghold for this species. The hard lakebed surfaces provide spawning sites for this species, and the strong population of Alburnus alburnus is the main prey of this predatory fish. See literature attached in the bibliography (Acta Biologica Debrecina).
CHORDATA / ACTINOPTERYGII	*Pelecus cultratus*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐		Criterion 3: The site hosts stable populations of this species. This species is used for designating the site into the Natura 2000 network. Criterion 8: The species is originally a migrant, returning to the sea in winter, but this site holds a resident population. The strong zooplankton mass of the lake provides food for fry of this fish. See literature attached in the bibliography (Acta Biologica Debrecina).
Birds																	
CHORDATA / AVES	*Anas platyrhynchos*	☐	☐	☐	☐	☐	☑	☐	☐	4000	2018-2025		LC	☐	☐		4000-10000 individuals in winter.
CHORDATA / AVES	*Anser albifrons*	☐	☑	☑	☐	☐	☑	☐	☐	10000	2018-2025	5	LC	☐	☐		Criterion 4 & 5: The site supports more than 30000 waterbirds including this species in its migration and wintering season. (Mean of 1225 individuals between 2003 and 2007) Criterion 6: About 10000 individuals were detected in 2005 during the winter.
CHORDATA / AVES	*Anser anser*	☐	☑	☑	☐	☐	☑	☐	☐	5000	2018-2025	4	LC	☐	☐		Criterion 4 & 5: The site supports more than 30000 waterbirds including this species in its migration and wintering season. (Mean of 1221 individuals between 2003 and 2007)
CHORDATA / AVES	*Anser erythropus*	☑	☐	☑	☐	☐	☐	☐	☐	1	2018-2025	1	VU	☐	☑		Criterion 6: 1-3 individuals. Biogeographic region: Siberian population
CHORDATA / AVES	*Aythya ferina*	☐	☑	☐	☐	☐	☑	☐	☐	2500	2018-2025		VU	☐	☐		2500-5000 individuals depending on year. The site supports important populations in the winter, when the lake does not freeze over.
CHORDATA / AVES	*Aythya fuligula*	☐	☑	☐	☐	☐	☑	☐	☐	2000	2018-2025		LC	☐	☐		2000-4000 individuals depending on year, 2540 individuals in December 2024. The site supports important populations in the winter, when the lake does not freeze over.
CHORDATA / AVES	*Aythya marila*	☐	☑	☐	☐	☐	☑	☐	☐	150	2018-2024		LC	☐	☐		This site is used by this species during winter. Criterion 5: Around 150 individuals each year.
CHORDATA / AVES	*Aythya nyroca*	☑	☑	☐	☐	☐	☑	☐	☐	10	2018-2024		NT	☐	☑		This site is a breeding area for this species. Criterion 4: The lake supports more than 70 waterbird species including this species in their migration and wintering season. This species breeds here in 10-20 pairs.
CHORDATA / AVES	*Bucephala clangula*	☐	☑	☐	☐	☐	☑	☐	☐	3000	2018-2024		LC	☐	☐		Criterion 5: 3000-6000 individuals in winter.
CHORDATA / AVES	*Chlidonias niger*	☐	☑	☐	☐	☐	☑	☐	☐	20	2018-2024		LC	☐	☐		Criterion 5: In the migration season, this species forms groups with some tens of individuals at the feeding and roosting sites. (Mean of 15 between 2003 and 2007)
CHORDATA / AVES	*Chroicocephalus ridibundus*	☐	☑	☐	☐	☐	☑	☐	☐	2000	2018-2024			☐	☐		Criterion 5: 2000-4000 in the migration season.
CHORDATA / AVES	*Clangula hyemalis*	☐	☑	☐	☐	☐	☐	☐	☐	3	2018-2024		VU	☐	☐		Criterion 4: This migrating species is regularly found in small numbers of individuals.

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	*Gavia arctica*	☐	☑	☐	☐	☐	☑	☐	☐	10	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in small numbers of individuals (10-20).
CHORDATA / AVES	*Gavia stellata*	☐	☑	☐	☐	☐	☑	☐	☐	5	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in small numbers of individuals (5-10).
CHORDATA / AVES	*Hydrocoloeus minutus*	☐	☑	☐	☐	☐	☑	☐	☐	20	2018-2024		LC	☐	☐		Criterion 5: In the migration season, this species forms groups with some tens (20-50) of individuals at the feeding and roosting sites.
CHORDATA / AVES	*Larus cachinnans*	☐	☑	☐	☐	☐	☑	☐	☐	1000	2018-2024		LC	☐	☐		Criterion 5: In the migration season, this species forms groups with some hundreds of individuals at the feeding and roosting sites.
CHORDATA / AVES	*Melanitta fusca*	☐	☑	☐	☐	☐	☑	☐	☐	20	2018-2024		VU	☐	☐		Criterion 5: This migrating species is regularly found in small numbers of individuals (20-30).
CHORDATA / AVES	*Mergellus albellus*	☐	☑	☐	☐	☐	☑	☐	☐	20	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in small numbers of individuals (20-30).
CHORDATA / AVES	*Mergus merganser*	☐	☑	☐	☐	☐	☑	☐	☐	150	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in fewer numbers of individuals. 150-300.
CHORDATA / AVES	*Mergus serrator*	☐	☑	☐	☐	☐	☑	☐	☐	4	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in fewer numbers of individuals.
CHORDATA / AVES	*Netta rufina*	☐	☑	☐	☐	☐	☑	☐	☐	200	2018-2024		LC	☐	☐		Criterion 5: This migrating species is regularly found in small numbers of individuals. (200-400
CHORDATA / AVES	*Phalacrocorax carbo sinensis*	☐	☐	☐	☐	☐	☑	☐	☐	4000	2018-2024	1.4		☐	☐		Criterion 5: About 4000-4500 individuals.
CHORDATA / AVES	*Podiceps cristatus*	☐	☐	☐	☐	☐	☑	☐	☐	1500	2018-2025		LC	☐	☐		1500-2500 individuals in winter.
CHORDATA / AVES	*Sterna hirundo*	☐	☑	☐	☐	☐	☑	☐	☐	300	2018-2024		LC	☐	☐		Criterion 5: In the migration season, this species forms groups with some hundreds of individuals at the feeding and roosting sites (300-400)

1) Percentage of the total biogeographic population at the site

Species listed under Criterion 3 which are not yet included in the Catalogue of Life:
Macroplea mutica balatonica, aquatic leaf beetle - Justification of Criterion 9 (application of criterion awaiting STRP guidance): An endemic Hungarian Red Listed species of Chrysomelidae living in the lake. Lake Balaton supports at least 1% of the populations of the following non-avian species: aquatic leaf beetle Macroplea mutica (Coleoptera: Chrysomelidae). The lake supports the only Hungarian occurrence and is the only South-East European refuge of this species. (Mende et al 2010; Székessy 1941; Lőkkös et al 2010).

Other invertebrate taxa endemic to Lake Balaton:
Collotheca balatonica, Varga
Brachionus sessilis, Varga
Chironomus balatonicus, Diptera
Eunapius balatonensis

Criterion 5: The lake is an important staging area for waterbirds during migration and wintering seasons. The maximum amount of individuals of waterbirds was 30000-60000. Exceeding of designation limit sometimes depends on the amount of wintering geese. Apart from geese, the lake is the most important wintering site in Hungary for diving duck species.
The ratio of wintering diving and dabbling ducks seems to be determined by the water level of lake Balaton. At lower water level, new type of feeding sites can be formed along the lenitic area ensuring appropriate food for larger masses of dabbling ducks.

"Noteworthy fauna", additional information: Gulls and terns represent the main groups of summer visitor birds.

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

<no data available>

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

4.1 - Ecological character

The rate of eutrophication of the lake was very high, mainly because of a high phosphorus load, Eutrophication of the lake was the result of the growing use of fertilisers and inputs of phosphorus from sewage discharges, from lakeside towns and tourist developments. Recently the main source of it has been the Zala River. During the last twenty years the rate of eutrophication has sigificantly declined.

Approximately 2,000 species of algae have been identified in the lake. Two-thirds of them inhabit the littoral and benthic zones. Important species are Cladophora glomerata (green algae) and Bangia atropurpurea (Bangia).

The site supports many waterbirds, especially during migration. Ducks Anas platyrhynchos (Mallard), A. clypeata (Northern Shoveler), A. penelope (Eurasian wigeon) , Aythya ferina (Common Pochard) , A. marila (Scoup Duck), A. fuligula (Tufted Duck), Bucephala clangula (Common Goldeneye), Melanitta fusca (Velvet Scoter) and Mergus albellus (Smew), geese Anser anser (Greylag Goose) and Anser albifrons (Greater White-fronted Goose), Mute Swan Cygnus olor, coot Fulica atra, and diver Gavia arctica use the site as a staging area. Nesting waterbird species are restricted to Cygnus olor (Mute Swan) and Anas platyrhynchos (Mallard).

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		1		Unique
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4		Unique

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	*Allium sphaerocephalon*	This endemic species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/MAGNOLIOPSIDA	*Hydrocotyle vulgaris*	This species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/LILIOPSIDA	*Orchis spitzelii cazorlensis*	This species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pedicularis palustris*	This species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/MAGNOLIOPSIDA	*Ranunculus lingua*	This species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/POLYPODIOPSIDA	*Thelypteris palustris*	This species is illustrative of the botanic values of the lake.
TRACHEOPHYTA/MAGNOLIOPSIDA	*Urtica kioviensis*	This species is illustrative of the botanic values of the lake.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
ROTIFERA/EUROTATORIA	*Brachionus sessilis*				This species is endemic to Lake Balaton.
ARTHROPODA/INSECTA	*Chironomus balatonicus*				This species is endemic to Lake Balaton.
ROTIFERA/EUROTATORIA	*Collotheca balatonica*				This species is endemic to Lake Balaton.
CHORDATA/AVES	*Ardea alba*	150	2018-2024		During the breeding season the role of the reedbed becomes more accentuated with regard to bird species composition. The lake is an important feeding site for some hundreds of this species.
CHORDATA/AVES	*Circus aeruginosus*				8-10 pairs of this species nest in reedbeds.
CHORDATA/AVES	*Egretta garzetta*				During the breeding season the role of the reedbed becomes more accentuated with regard to bird species composition. The lake is an important feeding site for some hundreds of this species.
CHORDATA/AVES	*Haliaeetus albicilla*				
CHORDATA/AVES	*Ixobrychus minutus*				The species nests in the reedbeds.
CHORDATA/AVES	*Locustella luscinioides*				The species nests in the reedbeds.
CHORDATA/AVES	*Nycticorax nycticorax*				During the breeding season the role of the reedbed becomes more accentuated with regard to bird species composition. The lake is an important feeding site for some hundreds of this species.

4.4 - Physical components

4.4.1 - Climate

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

In the Lake Balaton region the normal mean air temperature is 10.7 ºC, the coldest month being January, the warmest July with –1 and 21 ºC mean temperatures, respectively.

The normal duration of the winter ice cover was two months, the average cover thickness being 20-25 cm but as thick as 75 cm was also been observed. However, due to climate change, the lake did not freeze over since 2018.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 103

a) Maximum elevation above sea level (in metres): 106

- 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 main inflow comes from the River Zala, and there are many brooks and rivulets running towards Lake Balaton.
To regulate the water level, the excess is released into Sió canal flowing to Danube river.

4.4.3 - Soil

Mineral ☑

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

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)

Limestone and dolomite rocks predominate in the catchment area, therefore the waters discharged into the lake carry Ca2+, Mg2+ and HCO3- in high concentrations.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from precipitation	☐	No change
Water inputs from surface water	☑	No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	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 lake itself is divided into four basins (Keszthely, Szigliget, Szemes and Siófok basins). The lake surface at medium water level is 594 km2, its water volume is 2 billion m3, the average depth is around 3 m and the maximum depth is 11 m. In earlier ages, natural changes in water level were more significant but recently it has been controlled artificially at 120 cm. The sluice at Siófok is designated for standard “0” point to determine water level actually. To regulate the water level between this interval the excess is released into Sió canal flowing to Danube river.
The catchment area of the lake (together with the lake) is 5,775 km2. 51 water courses join the lake of which less than 20 have permanent water discharge. Zala is the most significant of them, possessing 45 % of the catchment area. The long-term average values of precipitation and evaporation are 626 and 914 mm respectively.

4.4.5 - Sediment regime

Sediment regime unknown ☐

Please provide further information on sediment (optional):

The average annual growth of the thickness of the lake sediment is 0.4 mm. However, it depends on the mud-moving effect of underwater streams, the depth of the lake, the extent of the lake-surface, the climate and the offshore vegetation cover.
The sediment in Lake Balaton is composed of the sediments discharged by the Zala river and the other tributaries, the lime and other substances precipitating in the lake, the soil eroded from the shores and the airborne dust settling into the lake. The Zala river alone discharges suspended sediment at the rate of 10000 tonnes per year into the lake. The lime precipitation in the lake is estimated 118000 tonnes annually. From the results of pollen analysis an average silting rate of 0.7 mm per year has been estimated. In the Keszthely Basin the silting rate is several times higher.

4.4.6 - Water pH

Alkaline (pH>7.4) ☑

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

Unknown ☐

Please provide further information on pH (optional):

The high degree of the lake’s instability can be explained by the fact that certain characteristics of the lake can be easily and quickly altered by hydrometeorological effects. The water rich in calcium-magnesium hydrocarbonate and oxygen gains the temperature of the air quickly due to its shallow depth. The pH value of the water of the lake is 7.8-8.8. The central part of the lake reaches drinking water standards. 75% of the reedbed vegetation is located alongside the northern shore.

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

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

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☑

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

Mesotrophic ☑

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

Oligotrophic ☑

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

Unknown ☐

Please provide further information on dissolved or suspended nutrients (optional):

Anthropogenic eutrophication of Lake Balaton became well recognized in the early 1960's, and serious algae blooms were recorded in the next 3 decades. Serious control measures targeting the radical reduction of phosphorus (and nitrogen) load first helped to avoid further (potentially disastrous) deterioration of water quality, and then resulted in improvement since the middle of the 1990s. However, reduced water levels and the lack of outflow for many of the last 12 years have rose concerns of the effects of climate change on water quality.

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 ◉

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 ☐

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Recreational hunting and fishing	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Scientific and educational	Major scientific study site	Medium

Other ecosystem service(s) not included above:

within the Ramsar site:
Main activities at the site are tourism and related business, fishing, reed harvesting.

Lake Balaton and its surrounding area have played an important part in history. Many places at the site are of historic and archaeological value. Several hundreds of thousand tourists visit the region annually.

See additional material for further information.

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	☑	☐

Other

Category	Within the Ramsar Site	In the surrounding area
Unspecified mixed ownership	☐	☑

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

within the Ramsar site:

Lake Balaton is completely state-owned.

in the surrounding area:

Mainly privately owned, partly state and local government owned.

5.1.2 - Management authority

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

1. Veszprém County Government Office (authority)
2. Balaton-felvidéki National Park Directorate (BfNPD)

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

Péter Szinai zoological – ecological officer

Postal address:

8229 Csopak, Kossuth L. u. 16, Hungary or H-8229 Csopak, Kossuth L. u. 16.
Email: szinaipeter@bfnp.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	High impact	High impact	☑	No change	☐	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dredging	Low impact	High 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
Unspecified	Medium impact	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	Medium impact	☑	No change	☑	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Medium impact	Medium impact	☑	No change	☑	No change
Agricultural and forestry effluents	Medium impact	Medium impact	☐	No change	☑	No change

Please describe any other threats (optional):

a) within the Ramsar site:
Past: fisheries activity, construction of sailing ports and stages for anglers, illegal embankments and uprooting of reed, very high rate of eutrophication of the lake mainly because of a high phosphorus load.
Present and potential: construction of sailing ports and stages for anglers; sailing ports operate round the year, not only seasonally; increasing motor sports activity on water, illegal embankments and uprooting of reed

b) in the surrounding area:
Past: intensive use of artificial fertilizers in agriculture; introducing outlet water into live streams; increasing load of phosphorous transported by inflows; increasing tourism
Present and potential: activities related to tourism, overload of water purification plants; real estate developments around the lake;

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	Lake Balaton		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Park	Balaton-felvidéki		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 ☐

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented

Other:

The “Balaton Catchment Area Water Management Plan” was completed during year 2010 under the guidelines of The Water Framework Directive (60/2000/EC). It contains the sustainable development of the future, conciliating the protection and development of habitats with the social demand of the region. The plan was prepared by the organs of water management and nature conservation. The Management Plant of Balaton Natura 2000 Site has been completed.

The maintenance of the proper management in accordance with the ecological status is ensured by decrees and acts. Some reedbeds along the shoreline are protected as a part of the National Park. Reed cutting and management is regulated by municipal regulations.

Fishing activity is under regulation of scientific results and fishing harvest. The fishing company is supervised by the minister of agriculture.

Water level is controlled by Sió canal.

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:

There are 12 information centres managed by BfNPD and more than 20 nature trails around the lake. A great number of information booklets are published and distributed not only by BFNPD but also by local information centres and other organizations. There are facilities for school visits in the villages and towns. There are two universities and the Institute of Limnology next to the lake.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan?	No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented

Monitoring has been developed for counting waterbird species on the whole lake and linking wetlands, first of all on Kis-Balaton (Ramsar site). Changes in use of feeding and staging sites have been analysed.

There is permanent Bird Ringing Station next to the lake (Fenékpuszta) managed by Birdlife Hungary.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

https://journal.uni-sopron.hu/index.php/mvvk/issue/view/magyar-vizivad-kozlemenyek-2022-37

• 259-264 | Kovács Gyula: A 2018. novemberi vízimadár-felmérés eredményei a Balatonon és a környező vizesélőhelyeken
• 265-270 | Kovács Gyula: A 2018. novemberi vízimadár-felmérés eredményei a Balatonon és a környező vizesélőhelyeken
• 271-276 | Kovács Gyula: A 2020. januári vízimadár-felmérés eredményei a Balatonon és a környező vizesélőhelyeken
• 277-282 | Kovács Gyula: A 2020. novemberi vízimadár-felmérés eredményei a Balatonon és a környező vizesélőhelyeken
• 283-288 | Kovács Gyula

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<1 file(s) uploaded>

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
<3 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

Lake Balaton holds large numbers of wintering waterfowl (*Mr. József Vers, 01-01-2012*)

Waterbirds on the ice of Lake Balaton. (*Ms. Erzsébet Sitku, 14-01-2024*)

Lake Balaton with the volcanic hills in the background. (*Ms. Erzsébet Sitku, 26-12-2023*)

Lake Balaton from the Tihany Peninsula (*Ms. Erzsébet Sitku, 21-03-2023*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 1989-03-17