Ramsar Information Sheet

Published on 9 August 2022
Update version, previously published on : 1 January 1998

Ukraine

Kartal Lake

Designation date	28 February 1997
Site number	761
Coordinates	45°18'28"N 28°30'51"E
Area	2 141,20 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 Ramsar site "Kartal Lake" encompasses three interconnected water bodies: Kartal, Dervent and Hradeshka. The latter ones are very small in size. In dry years, Dervent and Hradeshka are overgrown by hydrophyte vegetation at the points where they are connected with Kartal. In its north-western part Kartal joins to the Danube by means of a narrow but deep Orlivskyi Canal. This canal supports the connection of Kartal not only with the Danube but with Lake Kagul as well.
Typical communities of the Site are thickets of Saliceta albae, formations of Trapa natans and Salvinia natans.
Territories and water areas of Lake Kartal and adjacent shallow water bodies are extremely important for a great number of hydrophilic species of birds. The Site supports over 200 species of birds, more than 30 of which are included in the Red Data Book of Ukraine and the European List of rare bird species.
Lake Kartal is vital for migrating and wintering Pygmy Cormorants (Phalacrocorax pygmeus). Wintering Dalmatian and White Pelicans (Pelecanus crispus, P. onocrotalus) are recorded in smaller numbers. The White-eyed Pochard (Aythya nyroca) breeds almost exclusively in Kartal habitats.
Pygmy Cormorant (Phalacrocorax pygmaeus), Spoonbill (Platalea leucorodia) and Red-breasted Goose (Rufibrenta ruficollis) are recorded here regularly.
The waterbird congregations exceeding 20,000 ind. are recorded during wintering and migratory seasons. Eight species of mammals are listed in the Red Data Book of Ukraine found habitats here.
The Site is a traditional fishery area for local people.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	I.I.Mechnikov Odesa National University
Postal address	Department of Zoology, Biological Faculty, 2 Shampanskyi Provulok, Odesa, Ukraine, 65058

National Ramsar Administrative Authority

Institution/agency	Ministry of Environmental Protection and Natural Resources of Ukraine
Postal address	35, Vasilya Lipkivs'kogo Street

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

From year	2012
To year	2018

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Kartal Lake

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) The boundary has been extended	☑
(Update) The boundary has been restricted	☐
(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	☑
(Update) The Site area has increased because of a boundary extension	☑
(Update) The Site area has decreased because of a boundary restriction	☐
(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?	Yes (actual)
(Update) Are the changes	Positive ◉ Negative ○ Positive & Negative ○
(Update) Positive %	50
(Update) No information available	☐

(Update) Optional text box to provide further information

Part of the Prorva Channel was dredged, and 100 ha of the wetland was restored (meadow habitats). Hydrological facilities were reconstructed to support the connection between Lake Kartal and Lake Kugurlui and to maintain the water exchange similar to the natural one.

(Update) Changes resulting from causes operating within the existing boundaries?	☑
(Update) Changes resulting from causes operating beyond the site's boundaries?	☐
(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., the inclusion of different wetland types in the site)?	☐

(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.

Hydrological facilities were reconstructed to support the connection between Lake Kartal and Lake Kugurlui and to maintain the water exchange similar to the natural one.

(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
<2 file(s) uploaded>

Former maps: 0

Boundaries description

The Site is located in the territory of Odesa region, in the steppe zone of Ukraine, in the downstream of the Danube River. The Site encompasses three interconnected water bodies: Kartal, Dervent and Hradeshka. The Site borders correspond to the boundaries of Lake Kartal, Dervent and Hradeshka. In the west, the Site borders on the village of Orlivka, in the north-east – on Novosilske, in the south – on the Danube River.
The boundary overlaps with the Emerald Network Site Systema Dunaiskykh Ozer (UA0000142).
In 2021 the Site was extended and the boundaries delineated more accurately. The area was calculated based on the Land Cadastral Map of Ukraine using GIS tools.

2.2.2 - General location

a) In which large administrative region does the site lie? Reni District of Odesa Region

b) What is the nearest town or population centre? Novosilske and Orlivka villages

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): 2141.2

Area, in hectares (ha) as calculated from GIS boundaries: 2141.557

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Steppic

Other biogeographic regionalisation scheme

According to geobotanical zoning, the site is located within Reni-Kiliia region of the Danube-Dniester district of gramineous and wormwood-gramineous steppes and reedbeds of the Black Sea-Azov steppe sub-province of the Pontic steppe province of the Steppe-subregion (zone) of Eurasian steppe region (National Atlas of Ukraine, 2009).
According to zoogeographical zoning of Ukraine, the site belongs to the Danube-Dniester sub-area of the Azov-Black Sea area of the Azov-Black Sea region of the Pontic district of the steppe province of the Mediterranean-Central Asian sub-region of Palearctic region (National Atlas of Ukraine, 2009).

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	Owing to its marsh vegetation, the object plays an important ecological role in the filtration of water. It is a source of processed water for the local population and is also used as a drinking area for domestic animals. In its north-western part, Kartal is connected with the Danube via canals Prorva and Orlivskyi. The latter supports the connection of Kartal not only with the Danube but with Lake Kagul as well. Lake Kartal is connected with a lake system of Kuhurlui-Yalpug via Tobachello Channel. When the water level in the Danube is high, it fills up the cup of Kartal together with fishponds.
Other ecosystem services provided	Lake Kartal provides habitats for game species of animals. The southern part of the Site is converted into a system of fishponds. The Site mitigates climate of the region during the arid summer period.
Other reasons	The Site is representative of the floodplain areas of large rivers. The Site supports valuable wetland vegetation and provides habitats for animals, especially birds, during important periods of their life cycles. Due to its biological and landscape diversity, the Site is traditionally used for research, and as an area to implement international scientific projects on the conservation and sustainable use of natural resources of the region, as well as for educational and environmental awareness activities.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	During different periods of their life cycles, the Site supports 8 species of plants, 13 species of invertebrates, 3 species of fish, 1 species of reptiles, 23 species of birds, 8 species of mammals having different conservation statuses. Communities of Saliceta albae (EU Habitats Directive, Annex 1). The Site is important for the conservation of such species as Pelecanus crispus, Phalacrocorax pygmaeus, Aythya nyroca. It is also a habitat of Lutra lutra.

☑ Criterion 3 : Biological diversity

Justification	The Site is a crucial area of concentration and conservation of abundant biodiversity. 44 species of fish, 240 species of birds, 11 species of amphibians, 5 species of reptiles are found in the territory. The most typical and numerous species of birds are representatives of Podicepediformes (Podiceps cristatus, P. grisegena), Anseriformes (Anser albifrons - in some years up to 20,000 ind.); Gruiformes (Fulica atra); Charadriiformes (Chlidonias hybrida).

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

Optional text box to provide further information	The wetland plays an important role as a breeding, moulting and wintering area of birds. Among birds, recorded in the site, 112 species are breeding, about 50 species are wintering; more than 100 species are registered during the migration season. The highest number of breeding birds is found in reed beds, alternating with open water areas. These are, primarily, numerous colonial and non-colonial birds from the families Ardeidae, Laridae, Anatidae.

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	24,000

Start year: 2012

End year: 2018

Source of data: Unpublished original data

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further information: The Site supports:
Anser albifrons (Greater White-fronted Goose) - albifrons, Western Siberia/Black Sea & Turkey – 1.2%;
Cygnus olor (Mute Swan) - Black Sea – 1.7%.

☑ Criterion 7 : Significant and representative fish

Justification: Lake Kartal supports 34 species of fish, among which euciscus idus, Carassius carassius schraetser are listed in the Red Data Book of Ukraineb, and 10 species are protected according to the Bern Convention (Alosa immaculate, Aspius aspius, Pelecus cultratus, Rhodeus sericeus, Vimba vimba, etc.)

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 / MAGNOLIOPSIDA	*Aldrovanda vesiculosa*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - EN	
TRACHEOPHYTA / LILIOPSIDA	*Anacamptis palustris*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Cladium mariscus*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Epipactis palustris*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Leucojum aestivum*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / POLYPODIOPSIDA	*Marsilea quadrifolia*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Nymphoides peltata*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / POLYPODIOPSIDA	*Salvinia natans*	☐	☑	☐		☐	listed in the Red Data Book of Ukraine - NE	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Trapa natans*	☐	☑	☐		☐	listed in the Red Data Book of Ukraine - NE	

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																	
ARTHROPODA / INSECTA	*Acherontia atropos*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Aromia moschata*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	

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								
ARTHROPODA / INSECTA	*Bombus argillaceus*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	*Bombus muscorum*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Calosoma sycophanta*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - EN	
ARTHROPODA / INSECTA	*Discoelius zonalis*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - LC	
CHORDATA / MAMMALIA	*Felis silvestris*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	*Hipparchia statilinus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Iphiclides podalirius*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☑	☐	☐	☐				NT	☑	☐	listed in the Red Data Book of Ukraine - NT	
CHORDATA / MAMMALIA	*Mustela lutreola*	☑	☐	☐	☐	☑	☐	☐	☐				CR	☐	☐	listed in the Red Data Book of Ukraine - EN	
ARTHROPODA / INSECTA	*Palingenia longicauda*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - EN	
ARTHROPODA / INSECTA	*Papilio machaon*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	*Proserpinus proserpina*	☐	☐	☐	☐	☑	☐	☐	☐				DD	☐	☐	listed in the Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Saturnia pyri*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	*Stizoides tridentatus*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - LC	
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Alosa immaculata*	☑	☐	☐	☐	☑	☐	☑	☐				VU	☐	☐	Bern - II	
CHORDATA / ACTINOPTERYGII	*Carassius carassius*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / ACTINOPTERYGII	*Leuciscus aspius*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	Bern - II	
CHORDATA / ACTINOPTERYGII	*Leuciscus idus*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / ACTINOPTERYGII	*Pelecus cultratus*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	Bern - II	
CHORDATA / ACTINOPTERYGII	*Vimba vimba*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	Bern - II	
Birds																	
CHORDATA / AVES	*Anas platyrhynchos*	☐	☑	☐	☐	☑	☐	☐	☐	2000	2012-2018		LC	☐	☐		The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Anas strepera*	☐	☐	☐	☐	☑	☐	☐	☐	50	2012-2018			☐	☐	listed in the Red Data Book of Ukraine - LC	
CHORDATA / AVES	*Anser albifrons*	☐	☑	☑	☐	☑	☐	☐	☐	3000	2012-2018	1.2	LC	☐	☐		The Site supports species during migratory periods.
CHORDATA / AVES	*Anser anser*	☐	☑	☐	☐	☑	☐	☐	☐	200	2012-2018		LC	☐	☐		The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Ardea alba*	☐	☑	☐	☐	☑	☐	☐	☐	150	2012-2018		LC	☐	☐		The Site supports species during migratory periods.

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	*Ardeola ralloides*	☑	☑	☐	☐	☑	☐	☐	☐	40	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - LC, Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Aythya nyroca*	☑	☑	☐	☐	☑	☐	☐	☐	50	2012-2018		NT	☐	☑	listed in the Red Data Book of Ukraine - VU	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Botaurus stellaris*	☑	☑	☐	☐	☑	☐	☐	☐	20	2012-2018		LC	☐	☐	Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Branta ruficollis*	☑	☑	☐	☐	☑	☐	☐	☐	50	2012-2018		VU	☐	☑	listed in the Red Data Book of Ukraine - VU	The Site supports species during migratory periods.
CHORDATA / AVES	*Chlidonias hybrida*	☑	☑	☐	☐	☑	☐	☐	☐	1000	2012-2018		LC	☐	☐	Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Chlidonias leucopterus*	☑	☑	☐	☐	☑	☐	☐	☐	200	2012-2018		LC	☐	☐	Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Chlidonias niger*	☑	☑	☐	☐	☑	☐	☐	☐	200	2012-2018		LC	☐	☐	Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Circus aeruginosus*	☑	☑	☐	☐	☑	☐	☐	☐	20	2012-2018		LC	☐	☐	Bern - II	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Cygnus columbianus bewickii*	☑	☐	☐	☐	☑	☐	☐	☐	5	2012-2018			☐	☐	Bern - II	
CHORDATA / AVES	*Cygnus cygnus*	☑	☐	☐	☐	☑	☐	☐	☐	50	2012-2018		LC	☐	☐	Bern - II	
CHORDATA / AVES	*Cygnus olor*	☐	☑	☑	☐	☑	☐	☐	☐	1000	2012-2018	1.7	LC	☐	☐		The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Fulica atra*	☐	☑	☐	☐	☑	☐	☐	☐	1000	2012-2018		LC	☐	☐		The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Himantopus himantopus*	☑	☑	☐	☐	☑	☐	☐	☐	10	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Ichthyaetus ichthyaetus*	☑	☐	☐	☐	☑	☐	☐	☐	15	2012-2018			☐	☐	listed in the Red Data Book of Ukraine - EN	
CHORDATA / AVES	*Ixobrychus minutus*	☑	☐	☐	☐	☑	☐	☐	☐	20	2012-2018		LC	☐	☐	Bern - II	
CHORDATA / AVES	*Microcarbo pygmeus*	☑	☐	☐	☐	☑	☐	☐	☐	50	2012-2018			☐	☐	listed in the Red Data Book of Ukraine - EN, Bern - II	
CHORDATA / AVES	*Netta rufina*	☐	☑	☐	☐	☑	☐	☐	☐	150	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - LC	The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Pelecanus crispus*	☑	☑	☐	☐	☑	☐	☐	☐	10	2012-2018		NT	☑	☑	listed in the Red Data Book of Ukraine - EN	Summer foraging movements
CHORDATA / AVES	*Pelecanus onocrotalus*	☑	☑	☐	☐	☑	☐	☐	☐	150	2012-2018		LC	☐	☑	listed in the Red Data Book of Ukraine - EN	Summer foraging movements
CHORDATA / AVES	*Phalacrocorax carbo*	☐	☑	☐	☐	☑	☐	☐	☐	3000	2012-2018		LC	☐	☐		Summer foraging movements
CHORDATA / AVES	*Platalea leucorodia*	☑	☑	☐	☐	☑	☐	☐	☐	5	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	Several pairs of birds nest here.
CHORDATA / AVES	*Plegadis falcinellus*	☑	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	Several pairs of birds nest here.

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	*Podiceps cristatus*	☐	☑	☐	☐	☑	☐	☐	☐	150	2012-2018		LC	☐	☐		The Site supports species during breeding and migratory periods.
CHORDATA / AVES	*Podiceps grisegena*	☑	☐	☐	☐	☑	☐	☐	☐	10	2012-2018		LC	☐	☐	Bern - II	
CHORDATA / AVES	*Podiceps nigricollis*	☑	☐	☐	☐	☑	☐	☐	☐	20	2012-2018		LC	☐	☐	Bern - II	
CHORDATA / AVES	*Porzana parva*	☑	☑	☐	☐	☑	☐	☐	☐	20	2012-2018			☐	☐	Bern - II	Several pairs of birds nest here.
CHORDATA / AVES	*Porzana porzana*	☑	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐	Bern - II	Several pairs of birds nest here.
CHORDATA / AVES	*Rallus aquaticus*	☐	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐		Several pairs of birds nest here.
CHORDATA / AVES	*Tadorna ferruginea*	☑	☐	☐	☐	☑	☐	☐	☐	5	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / AVES	*Vanellus vanellus*	☐	☐	☐	☐	☑	☐	☐	☐	20	2012-2018		NT	☐	☐		

1) Percentage of the total biogeographic population at the site

The diversity and taxonomical composition of Lake Kartal are determined by a combination of open water areas and vast thickets of reed and other wetland plants, which provide breeding and foraging habitats as well as give shelter to waterbirds during all stages of their life cycles. The Danube region is actively used for wintering by a great number of northern species such as Anser albifrons, Rufibrenta ruficollis, etc. which actively move among water bodies of Ukraine, Bulgaria and Romania depending on the weather conditions. And Lake Kartal is a water body where more than 20,00 ind. (in some years up to 40,000 ind.) are recorded. The availability of emergent and submerged vegetation contributes to the formation of concentrations of several species of grebes (Podiceps sp.) and terns (Chlidonias sp.).
The lake is breeding area for some rare in the region species of Anseriformes, Gruiformes, Pelecaniformes (e.g. Anas strepera, Aythya nyroca, Platalea leucorodia, Plegadis falcinellus, Phalacrocorax pygmaeus). It is also a potential breeding area of Pelecanus sp., and Glareola sp. which previously bred there or made breeding attempts.
The site provides conditions for the reproduction and development of rare insects: Hymenoptera, Lepidotera, Coleoptera, etc. Unfortunately, a group of Arthropoda is poor studied, that is why the data is rather fragmentary.

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
C1.2. Permanent mesotrophic lakes, ponds and pools	☑	Community of Salvinia natans Community of Aldrovanda vesiculosa Community of Charophyta algae	Resolution 4 of the Bern Convention
C1.222 - Floating Hydrocharis morsus-ranae rafts	☑	Free-floating surface communities of Palaearctic waters rich in Hydrocharis morsus-ranae.	Resolution 4 of the Bern Convention habitat type
C1.223 - Floating Stratiotes aloides rafts	☑	Free-floating communities of Palaearctic waters dominated by Stratiotes aloides.	Resolution 4 of the Bern Convention habitat type
C1.226 - Floating Aldrovanda vesiculosa communities	☑	Rare aquatic formations of Central and Eastern Europe, dispersed from southern Brandenburg and Lake Constance east to the Ukraine, with a former outpost in eastern Lithuania, harbouring the carnivorous, free-floating Droseraceae Aldrovanda vesiculos	Resolution 4 of the Bern Convention habitat type
C1.25 - Charophyte submerged carpets in mesotrophic waterbodies	☑	Charophyte (genera Chara, Nitella, Tolypella, Nitellopsis, Lamprothamnium, Lychnothamnus) algal carpets of the bottom of unpolluted, oligotrophic to mesotrophic lakes and pools of the Palaearctic region.	Resolution 4 of the Bern Convention habitat type
E5.4 - Moist or wet tall-herb and fern fringes and meadows	☑	Tall-herb and fern vegetation of the nemoral and boreal zones, including stands of tall herbs on hills and mountains below the montane level. Tall herbs are often dominant along watercourses, in wet meadows and in shade at the edge of woodlands.	Resolution 4 of the Bern Convention habitat type
F9.1 - Riverine scrub	☑	Scrub of broad-leaved willows, e.g. Salix aurita, Salix cinerea, Salix pentandra, beside rivers. Scrub of Alnus spp. and narrow-leaved willows, e.g. Salix elaeagnos, where these are less than 5 m tall. Riverside scrub of Hippophae rhamnoides and Myri	Resolution 4 of the Bern Convention habitat type

Optional text box to provide further information

Main habitats: reedbeds (Phragmites australis) with areas of boggy, floodplain, open-water and halophytic communities of such species as Agrostis gigantea, A. stolonifera, Alopecurus pratensis, Azolla caroliniana , A. filiculoides, Carex acuta, C. acutiformis and C. pseudocyperus, Elytrigia maeotica and E. repens, Limonium hypanicumi and L. meyeri, Nymphaea alba, Nymphoides peltata, Nuphar lutea, Phragmites australis, Potamogeton pectinatus and P. perfoliatus, Puccinellia distans, Salix alba and S. cinerea, Schoenoplectus lacustris, Typha angustifolia and T. Latifolia, Trapa natans s.l. Lake shores are located in the Danube floodplain. A fourth of its area is occupied by beds of higher aquatic vegetation (consisting of Phragmites australis, Typha angustifolia, Schoenoplectus lacustris, Butomus umbellatus, etc.). Submerged vegetation (primarily Potamogeton pectinatus and P. crispus) covers over 10%, while emergent plants (Trapa natans, Nuphar lutea) – up to 20% of the water surface.

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

4.1 - Ecological character

The Site is represented by lakes Kartal, Dervent and Hradeshka with surrounding reed-cattail thickets, meadows and fishponds adjacent to Kartal system.
Before its regulation in the 1970s, the hydrological regime of Lake Kartal was mostly determined by the fluctuation of the Danube water levels. After the regulation by a system of artificial canals with sluices, the hydrological regime of the lake started to be determined by economical requirements, aims of commercial fishery, etc. In 2016-17, the hydrotechnical facilities of Lake Kartal had been reconstructed that contributed to revival of the ecosystem and made the regime closer to the natural state.
The area of Kartal and that of connected to it water bodies varies in wide limits. Primarily, it is due to the small depths that usually do not exceed 1 m. In especially dry years the depth does not exceed 0.4-0.5 m. In its north-western part Kartal is connected with the Danube via canals Prorva and Orlivskyi. The latter supports the connection of Kartal not only with the Danube but with lakes Kagul and Kugurlui. When the water level in the Danube is high, it fills up the cup of Kartal together with fishponds.
Lake Kagul via the Ruska Channel (then divided into the channels of Zarza and Luzarsa) is connected with Lake Kartal, which joins to Yalpug and Kugurlui by means of Tobachello Channel. In turn, Yalpug and Kugurlui are connected with the Danube by Repida Channel. Thus, the lakes Kagul, Kartal, Yalpug and Kugurlyi form a single hydraulically connected system – the Western Group of the Danube Lakes.
Lake Kartal currently operates as a water reservoir, which level is determined by relevant fish-breeding agencies. Due to the frequently recurring dry years, Lake Kartal cannot impact on natural water exchange processes on its own.
Fluctuations of the water level regime of the lake often lead to the changes in the ecological capacity and quality of habitats, actively used by hydrophilic organisms, primarily waterbirds.
The climate is moderate continental with short, mild winters and long, hot summers. The annual precipitation is 350-400 mm, annual evaporation is 800-900 mm. In some years, the lake occasionally freezes, but not longer than for 1 month.
The most typical habitats, adjacent to Kartal, are meadow-boggy and boggy areas as well as salt marshes. The soils are mostly loamy. The lake bottom is covered by a high amount of silt, easily forming a suspension in the water column, even by weak movements of adjacent waters.

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

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
K: Coastal freshwater lagoons		1		Representative

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	900	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		1	900	Representative

(ECD) Habitat connectivity	The Lake Kartal belongs to the western complex of Danube lakes with lakes Kahul, Yalpug and Kugurlui and artificial channels (Vekita, Orlovsky, Skunda, Repida and others). It is hydrologically linked to the Danube River, Lakes Kahul and Kugurlui.

4.3 - Biological components

4.3.1 - Plant species

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	*Ambrosia polystachya*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Amorpha fruticosa*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Centaurea diffusa*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Elaeagnus angustifolia*	Actual (minor impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Grindelia squarrosa*	Actual (major impacts)	increase

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	*Lepomis auritus*	Actual (minor impacts)	No change
CHORDATA/MAMMALIA	*Nyctereutes procyonoides*	Actual (minor impacts)	No change

4.4 - Physical components

4.4.1 - Climate

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

Climate is temperate and continental with short warm winter and long hot summer. Annual precipitations are 350-400 mm while evaporation is 800-900 mm. In some winters, the lake can freeze up, but no longer than during one month.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 1

a) Maximum elevation above sea level (in metres): 2

- 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 Danube River Basin, the sub-basin of the Danube detla.

4.4.3 - Soil

- Organic ☑
- (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)

The most typical soils, occurring in the area of Kartal wetland are meadow-boggy, boggy and alkaline soils.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

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 inputs from groundwater	☐	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:

In 2016-2017, the hydrotechnical facilities were partly reconstructed, that has improved the water exchange with neighbouring water bodies and made the amplitude of fluctuations close to the natural regime.

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site ☑

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

Sediment regime unknown ☐

Please provide further information on sediment (optional):

Bottom sediments are formed as black silt.

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4) ☑

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

Unknown ☐

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

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

Unknown ☐

Please provide further information on salinity (optional):

Mineral composition of water varies from hydro-carbonate to chloride-sodium and mineralization level varies from 450 to 3390 mg/l.

4.4.8 - Dissolved or suspended nutrients in water

Mesotrophic ☑

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

Unknown ☐

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

The content of phosphorus in the bottom deposits varies within 426-725 mg/kg, the content of total nitrogen - 34.8-50.2 mg/kg. The concentration of organic substances in the bottom sediments is 47.5-49.3 mg/kg.

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

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	Medium
Fresh water	Water for irrigated agriculture	Low
Wetland non-food products	Livestock fodder	Low
Wetland non-food products	Reeds and fibre	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	Medium
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Climate regulation	Local climate regulation/buffering of change	Medium
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Long-term monitoring site	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	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	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Optional text box to provide further information

The lake is used by the local people for fish breeding and fish catching. The water is used for irrigation of agricultural fields and private land plots. The scrub harvested on Kartal shores is used both for local needs and for export.

Within the site: 1,000

Outside the site: 10,000

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 ☑

Description if applicable

The Site is the main part of an ecological park “Kartal”, created for the rehabilitation of the ecological system, the development of energetic plantations, the revival of traditional practices (in particular, fishing), and for green tourism promotion. In October 2016, an experimental herd of water buffaloes of the Carpathian type was brought to the park. The water buffaloes are natural ameliorators; they support water channels by eating aquatic vegetation and clearing muddy areas.

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 ☐

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	☑	☐
Local authority, municipality, (sub)district, etc.	☑	☑

Private ownership

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

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Department Of Ecology And Natural Resources Of The Odessa Regional State Administration

Provide the name and/or title of the person or people with responsibility for the wetland: Bulanovich Pavlo, head of the Department Of Ecology And Natural Resources Of The Odessa Regional State Administration

Postal address: 83, Kanatna Str., Odesa, 65, 107, Ukraine

E-mail address: ecolog@odessa.gov.ua

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
Housing and urban areas	Medium impact	High impact	☐	No change	☑	No change
Tourism and recreation areas	Low impact	Low impact	☑	No change	☑	No change

Water regulation

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

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	Low impact	Medium impact	☑	increase	☑	increase
Livestock farming and ranching	Low impact	Low 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
Roads and railroads	Low impact	Medium impact	☐	No change	☑	No change
Utility and service lines (e.g., pipelines)	Low impact	Low 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	Medium impact	☑	No change	☑	No change
Gathering terrestrial plants	Low impact	Medium impact	☑	No change	☑	No change
Fishing and harvesting aquatic resources	High impact	High 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	Low impact	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	Low impact	Medium impact	☑	No change	☑	No change
Dams and water management/use	High impact	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	Low impact	Medium impact	☑	increase	☑	increase

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Low impact	Medium impact	☑	No change	☑	No change
Garbage and solid waste	Low impact	Medium impact	☑	No change	☑	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Temperature extremes	Low impact	Medium impact	☑	No change	☑	No change
Storms and flooding	Low impact	Medium impact	☑	No change	☑	No change
Habitat shifting and alteration	Low impact	Medium impact	☐	No change	☑	No change

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other international designation	Emerald Network Site Systema Dunaiskykh Ozer (SiteCode: UA0000142	https://emerald.eea.europa.eu/?query=Adopted%20sites,SITECODE,UA0000142	partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
landscape reserve of national importance	Kartal Lake	https://mepr.gov.ua/documents/2769.html	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Kugurluj and Kartal lakes	http://datazone.birdlife.org/site/factsheet/kugurluj-and-kartal- lakes-iba-ukraine	partly

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

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

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☑

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Other:

It is planned to include the wetland into the Danube Biosphere Reserve.

5.2.5 - Management planning

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

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

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

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
Water regime monitoring	Implemented
Birds	Proposed
Animal species (please specify)	Proposed

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. Vasylieva T.V. Landscapes of Bessarabia: 3. Flora of the Danube Lakes // Bulletin of Odesa National University. - 2002. - Vol. 7, Iss. 1. - P. 32-40. [in Ukrainian]
2. Vasylieva T.V. Invasive active adventive plant species of southern Bessarabia // Bulletin of Odesa National University. - 2005. - Vol. 10, Iss. 5. - P. 73-82. [in Ukrainian]
3. Denga Yu.M., Medinets V.I. Hydrochemical regime and water quality of the Danube lakes // Bulletin of Odesa National University. - 2002. - Vol. 7, Iss. 2. - P. 17-25. [in Russian]
4. Kovtun O.A., Tkachenko F.P. Biodiversity of macrophytes of the Danube lakes Yalpug and Kugurlui // Bulletin of Odesa National University. - 2002. - Vol. 7, Iss. 2. - P. 70-80. [in Russian]
5. Protopopova V.V., Shever M.V., Mosyakin S. L., Solomakha V.A., Solomakha T. D., Vasilyeva T. V., Petryk S. P. Species-transformers in the flora of the northern part of the Black Sea region // // Ukrainian Botanical Journal. - 2009. - Vol. 66, Iss. 6. - P. 770-782. [in Ukrainian]
6. Stoilovsky V.P. White-whiskered Tern of lakes Kartal and Kugurlui (Odesa Region) // Branta: Transactions of the Azov-Black Sea Ornithological Station. - 2015. - Issue 18. - P. 110-117. [in Russian]
7. Stoilovskyi V.P., Maikov Ye.V. The current state of ichthyofauna of the Danube lakes Kartal and Kugurlui, prospects of their protection and use // Bulletin of Odesa National University. - 2000. - Vol. 5, Iss. 1. - P. 177-183. [in Ukrainian]
8. Striuk T.Yu. Lake Kartal in a system of the western group of the Danube water bodies and its characteristics // Bulletin of Odesa State Ecological University. - 2011 - Issue 11. - P. 56-61. [in Russian]

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
<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

Kartal Lake (*Maxim Yakovlev, 04-06-2014*)

Mute Swan, Squacco Heron, and Coot in beds of Nymphaea alba at Lake Kartal (*D.A.Kivhanov, 23-06-2015*)

Lake Kartal at the point of its connection with Lake Kugurlui (*D.A.Kivhanov, 24-06-2015*)

Aquatic vegetation of Lake Kartal (*D.A.Kivhanov, 24-06-2015*)

6.1.4 - Designation letter and related data

Designation letter
<2 file(s) uploaded>

Date of Designation: 1997-02-28