Ramsar Information Sheet

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

Ukraine

Kyliiske Mouth

Designation date	11 October 1976
Site number	113
Coordinates	45°23'25"N 29°40'33"E
Area	44 904,26 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Site is situated in the Danube river delta, along the Black Sea near the Romanian border. It comprises numerous channels, alluvial islands, swamp areas, floodplain forests, freshwater lakes and sandy spits, enclosing numerous bays. Vegetation includes hydrophilic communities, reed and sedge marshes and dune communities. The Site supports numerous rare, relict and endemic plant species.
Higher vascular plants include 135 rare and endangered species. More than 40 plant communities of the Site are rare and require special protection, especially Salvinio-Spirodeletum, Spirodelo-Aldrovandetum, Aldrovandetum vesiculosae, etc. The wetland supports 21 species, endangered at the national level (Red Data Book of Ukraine), Europe and even globally (Red List IUCN). The territory is especially important for Pelecanus onocrotalus, Pelecanus crispus, Phalacrocorax pygmaeus, Platalea leucorodia, Plegadis falcinellus, Branta ruficollis, Aythya nyroca, Haliaetus albicilla, Haematopus ostralegus, Charadrius alexandrinus, Himantopus himantopus, Numenius arquata, Limosa limosa, Larus ichthyaetus, Hydroprogne caspia. These species are rather regularly recorded within the Site in different seasons of the year. The Site is used as a stopover and area of migratory concentrations of birds. For example, the maximum number of simultaneously recorded migratory birds during 2012-2018 constituted 58,200 individuals. The water area of the Site supports 24 fish species, included in the Red Data Book of Ukraine. The most important are Acipenser ruthenus, Hucho hucho, Salmo labrax, Acipenser sturio, Umbra krameri, Gymnocephalus schraetser, Huso huso.
Kiliiske Mouth is located within the Azov-Black Sea coastal corridor and lies at the crossroads of several important flyways connecting breeding grounds of birds in Eurasia with their wintering areas in Africa and the Near East. The World Wildlife Fund included the Danube Delta in the list of the 200 most valuable and endangered ecoregions of the world.
The whole Site is included in the structure of the Danube Biosphere Reserve.
Human activities include fishing, livestock grazing, horticulture, haymaking, and recreation.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Danube Biosphere Reserve
Postal address	132-a Tatarbunarskogo Povstannia Str., Vilkove town, Kiliiskyi Rayon, Odeska Oblast, 68355, Ukraine

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)	Kyliiske Mouth
Unofficial name (optional)	Dunai Plavni and Tendrov/Yagorlitz Bays

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 (likely)
(Update) Are the changes	Positive ◉ Negative ○ Positive & Negative ○
(Update) Positive %	22
(Update) No information available	☐

(Update) Optional text box to provide further information

Since 2009, large-scale works were carried out (removal of dykes and dredging of channels) in Stentsivsko-Zhebrianski Plavni and on Ermakiv Island. They covered a total area of 9,592 ha.

(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.

The antropogenically transformed Ermakiv Island, located within Kiliiske Mouth, was embanked and drained in the 1950s. Being actively used for agriculture, it was not important for birds, did not meet the wetland criteria and was not included in the wetland “Kiliiske Mouth”. However, in 2009-2010, in the framework of the programme on the renaturalisation of Ermakiv Island and with financial support of the World Wildlife Fund (WWF), several breaches were done in key places of the peripheral dam of the islands, and inner channels were dredged that has contributed to the penetration of water into the island. Removal of dams on Ermakiv Island has led to complete inundation of all lower part of the island. Only dams around the island and accumulation maps remained untouched (about 10-15% of the area). The island ecosystem started its renewal already in the first days after flooding. Positive changes in avifauna were recorded. Nowadays, the island plays a key role for the avifauna of Kiliiske Mouth. After the renaturalization, about 220 bird species were recorded on Ermakiv Island that comprises more than 52% of bird species known in Ukrainian fauna. 105 species are breeding (Yakovlev, 2014) including the Pygmy Cormorant Microcarbo pygmeus, which number in 2012 constituted over 1,000 pairs (Yakovlev, Haidash) thus comprising 2.1-0.7% of the global species population (Wetlands International, 2016).

(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 situated in the north-western part of the Black Sea region within Kiliiskyi Rayon of Odeska Oblast (Kiliia District, Odesa Region) of Ukraine. The southern and south-western part of the Site borders on Romania (a Romanian part of the bilateral reserve “The Danube Delta”). The eastern part also includes a strip of the shelf zone of the Black Sea coast (1 km wide). In the north, the Site borders on lands of Prymorska, Desantska, Myrnivska, Shevkenchivska, in the west – with Liskovska village councils of Kiliiskyi Rayon of Odeska Oblast, Ukraine.

The Site was originally designated in 1976 by the Soviet Union as part of the Site “Danube Delta and Tendrov/Yagorlitz Bays”. In 1995, after accession of Ukraine, that Site was split into three: Yagorlytska Bay (Ramsar Site no. 116), Tendrivska Bay (Ramsar Site no. 768), and Kyliiske Mouth (113). In 2021 the boundary of Kyliiske Mouth was extended and delineated more accurately, increasing the total area 12,100 hectares.

2.2.2 - General location

a) In which large administrative region does the site lie? Odeska Oblast

b) What is the nearest town or population centre? Vilkove town

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): 44904.26

Area, in hectares (ha) as calculated from GIS boundaries: 44904.264

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Black Sea
EU biogeographic regionalization	Black Sea

Other biogeographic regionalisation scheme

According to physiographic zoning of Ukraine, the site is located within the Trans-Dniestrian–Black Sea (Zadniestrovsko–Prychornomorsky) lowland of the Black Sea (Prychornomorsky) Middle Steppe Region of the Steppe Zone.
According to geo-botanical zoning, the wetland is located within the Danube–Dniester district of grass and wormwood-grass steppes and wetlands (‘plavni’) of the Pontic Steppe Province of the Steppe Zone.
According to zoogeographical zoning, it is the West Steppe sub-area of the Azov–Black Sea Rayon of the Pontic District of the Steppe Province of the Mediterranean–Central Asian Sub-Region of Palaearctic Region.

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	Riverine ridges are formed along arms and 'yeryks' (narrow straits). Sand spits play an important role in the formation of desalinated bays, separating a part of coastal shallows from the influence of sea water. Embankment of some areas has a significant impact on the processes of the delta formation. It prevents water penetration to the floodplain, transforms slopes, rate and regime of sediment transportation, especially during floods and periods of active formation of the riverbed. A coastal part of the delta, the least disturbed by human activity, is composed under the influence of large-scale interaction of river flows and marine circulations. This interaction determines not only the regime of seawater but, to some extent, the water regime of the inner upper and lower Kiliia parts of the Danube Delta. The water is used for irrigation of rice paddies, aquaculture and household needs by the town of Vilkove. A deep-water shipping route "The Danube-Black Sea", which crosses the area of Kiliiske Mouth, has a certain value for the Danube navigation.
Other ecosystem services provided	Sustainable use of nature resources is introduced within the Site. Local people practice traditional commercial fishery and winter reed harvesting in accordance with limits established by the Ministry of Environment and Natural Resources of Ukraine. In some areas within the site the local communities are involved in livestock grazing and horticulture. Ecological tourism is actively developing in the wetland. Excursion routes are annually visited by 18,000 tourists.
Other reasons	The Kiliiske Mouth of the Danube Delta encompasses representative and unique areas: floodplain forests, channels, alluvial islands, freshwater lakes, sand ridges, and in the marine part – low sand spits that separate bays from the sea. There are several continental islands, most of which lie between Ochakivskyi and Starostambulskyi arms. The Kiliia Delta is the youngest part of the Danube Delta. Age of its coastal strip does not exceed 100-150 years. Some islands and spits were formed during past decades. A process of the delta formation still continues, but less intensively. Kiliiske Mouth is located within the Azov-Black Sea coastal natural corridor and provides valuable feeding areas and wintering grounds for tens of thousands of waterbirds migrating through Afro-Eurasian flyways, following the route along the north-western shelf of the Black Sea.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

Among higher vascular plants of the Site 135 species are rare and threatened. Above 40 vegetation associations are rare and require special attention, in particular Salvinio-Spirodeletum, Spirodelo-Aldrovandetum, Aldrovandetum vesiculosae, Aldrovando-Utricularietum minoris, Hottonietum palustris, Nymphoidetum peltatae, Ceratophylletum submersi, Thelypteridi-Phragmitetum, Stipetum borysthenicae, Dauco-Chrysopogonetum grillis, Cladietum marisci, etc.
12 species of macrozoobenthos, recorded in the Site, are included in the IUCN Red List, 10 – in the Bern Convention, 31 – in the Red Data Book of Ukraine.
Rare species also include 1 species of water beetles Dytiscus latissimus, 11 species of butterflies, mayfly Palingenia longicauda, 3 species of bivalves, 11 species of crustaceans, 3 species of leeches, 2 species of hydroids (Red Data Book of Ukraine).
The waters of the Site provide habitats for 24 species of fish, included in the Red Data Book of Ukraine. The most valuable are Acipenser ruthenus, Hucho hucho, Salmo labrax, Acipenser sturio, Umbra krameri, Gymnocephalus schraetser, Huso huso.
The Site supports 21 species of birds listed in Red Data Book of Ukraine and IUCN Red List. The territory is especially valuable for Pelecanus onocrotalus, Pelecanus crispus, Phalacrocorax pygmaeus, Platalea leucorodia, Plegadis falcinellus, Branta ruficollis, Aythya nyroca, Haliaetus albicilla, Haematopus ostralegus, Charadrius alexandrinus, Himantopus himantopus, Numenius arquata, Limosa limosa, Larus ichthyaetus, Hydroprogne caspia. These species are quite regularly recorded within the Site in different seasons of the year.
The Site is a habitat for 15 species of mammals included in the Red Data Book of Ukraine, the European mink (Mustela lutreola) and the Marbled Polecat (Vormela peregusna) are categorized as endangered under ICUN.

☑ Criterion 3 : Biological diversity

Justification

The flora of the Danube Delta consists of 1,592 species. A significant part is represented by higher vascular plants – 967 species. Aquatic and marshy communities cover about 80% of the delta area. Communities of the classes Phragmiti-Magnocaricetea, Potametea and Lemnetea (circa 70% of the area) are the most common and concentrate on lowered medium- and long-term waterlogged areas. A total of 56 communities are found in aquatic vegetation of the reserve (Dubyna et al., 2003).
In spring and summer, shallow lagoons and shallow waters of flooded islands are well warmed up and have high productivity of plankton, nekton and benthos (mainly crustaceans, molluscs and insect larvae), which provides rich nutrient base for vertebrates. Also species of so-called Pontic-Caspian complex are well represented. A total of 2,000 species of insects are recorded.
The waters of the reserve support 107 species of fish. During the spawning period (from March to July), the most numerous species is Alosa pontica, which migratory route lies through arms of Kiliiske Mouth of the Danube.
Amphibians include 2 species of Caudata and 9 species of Anura. Fauna of reptiles consists of 6 species. Most species of amphibians and reptiles are numerous and common in the wetland.
299 species of birds are registered in the site, including 148 nesting species. The group of migratory birds (244 species) is the most numerous. There is a large number of wintering birds (166 species).
A total of 46 species of mammals are found in the Site. A significant part of the fauna of mammals is composed of widespread species. Mainly, they are represented by the following families: Muridae, Arvicolidae, Soricidae, Canidae, Suida. In particar, numeorus specis are Microtus arvalis, Mustela putorius, Neomys anomalus, Nyctereutes procyonoides, Ondatra zibethicus, Sus scrofa, Talpa europaea and Vulpes vulpes.

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

Optional text box to provide further information

The Site is an important breeding area for the following species: Phalacrocorax pygmaeus (up to 1,000 pairs); Platalea leucorodia (up to 34 pairs); Plegadis falcinellus (up to 350 pairs); Aythya nyroca (up to 50 pairs), breedings numbers tend to decrease; Haliaetus albicilla (up to 8 pairs); Haematopus ostralegus (up to 8 pairs); Charadrius alexandrinus (up to 5 pairs); Himantopus himantopus (up to 20 pairs); Larus ichthyaetus (up to 225 pairs), breeding numbers tend to increase. The Site is also important for Pelecanus onocrotalus and Pelecanus crispus. They nest in the adjacent wetland “Danube Delta” in Romania, but during movements use Kiliiske Mouth as well. In the wintering and migration periods the Site is important for rest and feeding for Branta ruficollis.

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	120000
Start year	2012
End year	2018
Source of data:	Zhmud, 1999; Zhmud, Yakovlev, 2014.

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further information

The Site supports 8 species of birds (original observations), which numbers comprise > 1% of the global population (BirdLife International, 2018):
Pelecanus onocrotalus – 1.7-1.8%. Occurs in the period of migrations and movements.
Pelecanus crispus – 0.7-1%. Occurs in the period of migrations, movements and wintering;
Phalacrocorax pygmaeus – 1.8-5.2%. Breeds, occurs in the period of migrations, movements and wintering;
Branta ruficollis – 1.8-2.3%. Occurs in the period of migrations and wintering;
Ciconia nigra – 1%. Occurs in the period of migrations and movements;
Aythya ferina – 0.8-1%. Breeds in small numbers, occurs in the period of migrations, movements and wintering;
Chlidonias hybrida – 0.2-1%. Breeds, occurs in the period of migrations and movements;
Thalasseus sandvicensis – 1.7-2.4%. Breeds, occurs in the period of migrations and movements.

За результатами перевірки в http://wpe.wetlands.org/
Anas platyrhynchos (Mallard) - platyrhynchos, Eastern Europe/Black Sea & East Mediterranean – 1.3 %;
Anser anser (Greylag Goose) - rubrirostris, Black Sea & Turkey – 17.1 %;
http://wpe.wetlands.org/search?form[species]=Anser%20anser
Aythya ferina (Common Pochard) - Central & NE Europe/Black Sea & Mediterranean – 1/7 %;
Bucephala clangula (Common Goldeneye) - clangula, Western Siberia & North-east Europe/Black Sea – 2.7 %;
Chlidonias hybrida (Whiskered Tern) - hybrida, Black Sea & East Mediterranean (bre) – 1.5 %;
Cygnus olor (Mute Swan) - Black Sea – 4.9 %;
Larus cachinnans (Caspian Gull) - Black Sea & Western Asia/SW Asia, NE Africa – 1.5 %;
Netta rufina (Red-crested Pochard) - Black Sea & East Mediterranean – 1.5 %;
Pelecanus crispus (Dalmatian Pelican) - Black Sea & Mediterranean (win) – 1.1 %;
Pelecanus onocrotalus (Great White Pelican) - Europe & Western Asia (bre) – 13.5 %;
Phalacrocorax carbo (Great Cormorant) - sinensis, Black Sea & Mediterranean – 1.6 %;
Plegadis falcinellus (Glossy Ibis) - Black Sea & Mediterranean/West Africa – 1.5 %.

☑ Criterion 7 : Significant and representative fish

Justification	A great variety of habitats (fresh, brackish, marine) with different hydrological regime (from stagnant to fast-flowing), densely overgrown and completely deprived of vegetation along with their considerable sizes have determined a high biological diversity and high density of ichtyofauna. The dominants are representatives of the family Cyprinidae, according to the reproduction type lythophilous fish species dominate, and according to the diet – benthophagous fish species. The most common species of the site are Carassius auratus gibelio, Abramis brama, Hipophthalmichtis molitrix, Lucioperca lucioperca, Cyprinus carpio, Silurus glanis, Aspius aspius, Perca fluviatilis, Blicca bjoerkna, Rutilus rulilus, Scardinius erythrophthalmus, Esox lucius. In the spawning season (from March to June) the most numeous species is Alosa pontica, which migrates through arms of Kiliiske Mouth of the Danube Delta. Rare and threatened species, included in the Red Data Book of Ukraine, are Huso huso ponticus, Acipenser nudiventris, A. sturio, A. ruthenus, Rutilus frisii, Chalcalburnus chalcoides, Umbra crameri, Salmo trutta labrax, Hucho hucho, Hippocampus ramulosus, Trigla lucerna, Gymnocephalus schraetser, Zingel zingel, Z. streber, Umbrina cirrosa, Neogobius eurycephalus. Such species as Gymnocephalus schraetser, Zingel zingel, Z. streber and Hucho hucho are endemics of the Danube River.

☑ Criterion 8 : Fish spawning grounds, etc.

Justification	The wetland is important as a spawning area for many freshwater fish species. Part of them are of commercial importance, and among them the most important are Abramis brama, Aspius aspius, Blicca bjoerkna, Carassius carassius, Cyprinus carpio, Esox lucius, Leuciscus idus, Perca fluviatilis, Rutilus rutilus, Scardinius erythrophthalmus, Silurus glanis, Tinca tinca, etc. Main factor that directly influences the spawning in the lower part of the river is the regime of water level (terms, height and duration of floods). The most productive spawning areas concentrated in freshwater bays (kuts) of Kiliiske Mouth.

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*	☑	☑	☐	EN	☐	listed in the Red Data Book of Ukraine - NT	
TRACHEOPHYTA / LILIOPSIDA	*Anacamptis palustris*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Astragalus onobrychis*	☐	☑	☐		☐	listed in the Red Data Book of Ukraine - LC	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Astrodaucus littoralis*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Chrysopogon gryllus*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Cladium mariscus*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Crambe tataria*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Dactylorhiza majalis*	☐	☑	☐		☐	listed in the Red Data Book of Ukraine - LC	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Dianthus bessarabicus*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - CR	
TRACHEOPHYTA / LILIOPSIDA	*Epipactis helleborine*	☐	☑	☐		☐	listed in the Red Data Book of Ukraine - NE	
TRACHEOPHYTA / LILIOPSIDA	*Epipactis palustris*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Euphorbia paralias*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Leucanthemella serotina*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - CR	
TRACHEOPHYTA / LILIOPSIDA	*Leucojum aestivum*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / POLYPODIOPSIDA	*Marsilea mutica*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine – EN	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Nymphoides peltata*	☑	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Poacynum sarmatiense*	☑	☑	☐		☐	Red Data Book of Ukraine - VU	
TRACHEOPHYTA / LILIOPSIDA	*Sagittaria latifolia*	☐	☑	☐	LC	☐		
TRACHEOPHYTA / POLYPODIOPSIDA	*Salvinia natans*	☐	☑	☐	LC	☐	listed in the Red Data Book of Ukraine - NE	
TRACHEOPHYTA / LILIOPSIDA	*Stipa capillata*	☐	☑	☐		☐	Red Data Book of Ukraine - NE	
TRACHEOPHYTA / LILIOPSIDA	*Stipa pennata sabulosa*	☑	☑	☐		☐	Red Data Book of Ukraine - VU	
TRACHEOPHYTA / MAGNOLIOPSIDA	*Trapa natans*	☐	☑	☐	LC	☐	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																	
CHORDATA / AMPHIBIA	*Bombina bombina*	☐	☑	☐	☐	☑	☐	☐	☑				LC	☐	☐		wetland is important for spawning and nursery

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 / AMPHIBIA	*Bufo bufo*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐		wetland is important for spawning and nursery
ARTHROPODA / INSECTA	*Calosoma sycophanta*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / MAMMALIA	*Delphinus delphis*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☑	listed in the Red Data Book of Ukraine - NE	
ARTHROPODA / INSECTA	*Dytiscus latissimus*	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐	Bern Convention Annex II	
CHORDATA / MAMMALIA	*Felis silvestris*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / AMPHIBIA	*Hyla arborea*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
ARTHROPODA / INSECTA	*Leucorrhinia albifrons*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - EN	
ARTHROPODA / INSECTA	*Leucorrhinia caudalis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
ARTHROPODA / INSECTA	*Leucorrhinia pectoralis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
CHORDATA / AMPHIBIA	*Lissotriton vulgaris*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☑	☐	☐	☐				NT	☑	☐	listed in the Red Data Book of Ukraine - NE	
ARTHROPODA / INSECTA	*Mantispa styriaca*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - rare	
CHORDATA / MAMMALIA	*Meles meles*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
CHORDATA / MAMMALIA	*Mustela erminea*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
CHORDATA / MAMMALIA	*Mustela eversmanii*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - EN	
CHORDATA / MAMMALIA	*Mustela lutreola*	☑	☐	☐	☐	☑	☐	☐	☐				CR	☐	☐	listed in the Red Data Book of Ukraine - EN	
CHORDATA / MAMMALIA	*Nannospalax leucodon*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - NE	
CHORDATA / REPTILIA	*Natrix tessellata*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
CHORDATA / MAMMALIA	*Neomys anomalus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Palingenia longicauda*	☐	☐	☐	☐	☐	☐	☐	☐					☐	☐	Bern Convention Annex II	
CHORDATA / AMPHIBIA	*Pelobates fuscus*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐		wetland is important for spawning and nursery
CHORDATA / AMPHIBIA	*Pelophylax lessonae*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐		wetland is important for spawning and nursery
CHORDATA / MAMMALIA	*Phocoena phocoena relicta*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / MAMMALIA	*Plecotus austriacus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - LC	
CHORDATA / REPTILIA	*Podarcis tauricus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		
ARTHROPODA / INSECTA	*Proserpinus proserpina*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	listed in the Red Data Book of Ukraine - LC	
CHORDATA / AMPHIBIA	*Rana arvalis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		

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	*Saga pedo*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	listed in the Red Data Book of Ukraine - LC	
CHORDATA / AMPHIBIA	*Triturus dobrogicus*	☑	☐	☐	☐	☑	☐	☐	☑				NT	☐	☐	listed in the Red Data Book of Ukraine - VU	wetland is important for spawning and nursery
CHORDATA / MAMMALIA	*Tursiops truncatus ponticus*	☑	☐	☐	☐	☑	☐	☐	☐					☐	☑	listed in the Red Data Book of Ukraine - LC	
CHORDATA / MAMMALIA	*Vormela peregusna*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	listed in the Red Data Book of Ukraine - LC	
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Acipenser gueldenstaedtii*	☑	☐	☐	☐	☑	☐	☑	☐				CR	☐	☐	Red Data Book of Ukraine - VU	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Acipenser nudiventris*	☑	☑	☐	☐	☑	☐	☑	☑				CR	☐	☐	listed in the Red Data Book of Ukraine - EX	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Acipenser ruthenus*	☑	☑	☐	☐	☑	☐	☑	☑				VU	☐	☐	listed in the Red Data Book of Ukraine - EN	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Acipenser stellatus*	☑	☐	☐	☐	☑	☐	☑	☐				CR	☐	☐	Red Data Book of Ukraine - EN	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Acipenser sturio*	☑	☑	☐	☐	☑	☐	☑	☑				CR	☑	☑	listed in the Red Data Book of Ukraine - EX	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Chelidonichthys lucerna*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐	listed in the Red Data Book of Ukraine - LC	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Gymnocephalus schraetser*	☑	☐	☐	☐	☑	☐	☑	☐				LC	☐	☐	listed in the Red Data Book of Ukraine - VU	
CHORDATA / ACTINOPTERYGII	*Hippocampus guttulatus*	☑	☐	☐	☐	☑	☐	☐	☑					☐	☐	listed in the Red Data Book of Ukraine - VU	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Hucho hucho*	☑	☐	☐	☐	☑	☐	☐	☑				EN	☐	☐	listed in the Red Data Book of Ukraine - EN	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Huso huso*	☑	☐	☐	☐	☑	☐	☑	☐				CR	☐	☐	listed in the Red Data Book of Ukraine - EN	wetland is important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Ponticola eurycephalus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Rutilus frisii*	☑	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐	listed in the Red Data Book of Ukraine - EN	important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Salmo labrax*	☐	☐	☐	☐	☑	☐	☐	☑				LC	☐	☐		important for spawning and nursery
CHORDATA / ACTINOPTERYGII	*Umbra krameri*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐		
Birds																	
CHORDATA / AVES	*Anas platyrhynchos*	☐	☑	☐	☐	☑	☑	☐	☐	20000	2012-2018	1.3	LC	☐	☐		during migration the number of birds is up to 23000, during wintering is up to 15000, during the nesting period population size is 300-500 pairs. Eastern Europe/Black Sea & East Mediterranean
CHORDATA / AVES	*Anas querquedula*	☐	☐	☐	☐	☑	☑	☐	☐	11500	2012-2018			☐	☐		
CHORDATA / AVES	*Anas strepera*	☐	☑	☐	☐	☑	☑	☐	☐	3000	2012- 2018			☐	☐	Red Data Book of Ukraine – NT	Up to 3,000 ind, are found in the period of seasonal concentrations. Single pairs breed within the site.
CHORDATA / AVES	*Anser anser*	☐	☑	☐	☐	☑	☐	☐	☐	6000	2007-2015	17.1	LC	☐	☐		during migration the number of birds is up to 6000, during the nesting period population size is up to 100 pairs. Central & NE Europe/Black Sea & Mediterranean

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*	☑	☑	☐	☐	☑	☐	☐	☐	300	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - NT, Appendix II of Bern convention	The Species nests within the territory of wetland, breeding population is up to 50 pairs.
CHORDATA / AVES	*Aythya ferina*	☑	☑	☐	☐	☑	☑	☐	☐	10000	2012-2018	1.7	VU	☐	☐		Mainly concentrate at the seacoast in the winter period
CHORDATA / AVES	*Aythya fuligula*	☐	☐	☐	☐	☑	☑	☐	☐	3000	2012-2018		LC	☐	☐		Concentrate mainly at the seacoast in the winter period.
CHORDATA / AVES	*Aythya nyroca*	☑	☑	☐	☐	☑	☐	☐	☐	240	2012-2018		NT	☐	☑	listed in the Red Data Book of Ukraine - VU	Aver. -240 ind, max. – 350 ind. in the migration period. 50-100 breeding pairs. The number of breeding birds tends to decrease.
CHORDATA / AVES	*Branta ruficollis*	☑	☑	☐	☐	☑	☐	☐	☐	100	2012-2018		VU	☐	☑	listed in the Red Data Book of Ukraine - VU	Predominantly 50-100 ind. are recorded, but during the spring migration near 1,000 ind. were recorded simultaneously at the coastline of the Site.
CHORDATA / AVES	*Bucephala clangula*	☐	☑	☑	☐	☑	☑	☐	☐	800	2012- 2018	2.7	LC	☐	☐	Red Data Book of Ukraine – NT.	Average number – 800 ind. max. – 2,000 ind. in the winter period. The number of wintering birds tends to grow. Central & NE Europe/Black Sea & Mediterranean
CHORDATA / AVES	*Charadrius alexandrinus*	☑	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	Up to 30 ind. in the migration period. Single pairs breed in the site.
CHORDATA / AVES	*Charadrius hiaticula*	☐	☐	☐	☐	☑	☐	☐	☐	50	2012- 2018		LC	☐	☐	listed in the Red Data Book of Ukraine – NT, Appendix II of Bern convention	
CHORDATA / AVES	*Chlidonias hybrida*	☐	☐	☑	☐	☑	☑	☐	☐	3000	2012-2018	1.5	LC	☐	☐		Up to 1,000 pairs breed within the Site. Central & NE Europe/Black Sea & Mediterranean
CHORDATA / AVES	*Ciconia nigra*	☑	☑	☐	☐	☑	☑	☐	☐	250	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine – NT, Appendix II of Bern convention	During autumn migrations feed in the vicinities of the site on rice paddies – up to 250 ind., have night roosts within the site.
CHORDATA / AVES	*Cygnus columbianus bewickii*	☑	☑	☐	☐	☑	☐	☐	☐	100	2012- 2018			☐	☐	listed in the Red Data Book of Ukraine – NT, Appendix II of Bern convention	In the winter period the site is used by up to 100 ind.
CHORDATA / AVES	*Cygnus olor*	☐	☑	☐	☐	☑	☑	☐	☐	2900	2012-2018	4.9	LC	☐	☐		In the migration period the number of birds reaches 2,900 ind. Breeding population reaches 50-90 pairs. Black Sea
CHORDATA / AVES	*Egretta garzetta*	☐	☑	☐	☐	☑	☐	☐	☐	400	2007-2015		LC	☐	☐		during migration the number of birds is up to 400, breeding population size is 100 pairs.
CHORDATA / AVES	*Fulica atra*	☐	☑	☐	☐	☑	☑	☐	☐	10000	2012-2018		LC	☐	☐		The Site supports species during migration - the number of birds is up to 10000. Breeding population size is 200-300 pairs.
CHORDATA / AVES	*Glareola pratincola*	☐	☑	☐	☐	☑	☐	☐	☐	80	2007-2015		LC	☐	☐	listed in the Red Data Book of Ukraine - rare	40 pairs nest within the territory of wetland
CHORDATA / AVES	*Grus grus*	☐	☐	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine – NT, Appendix II of Bern convention	Small numbers are recorded during the migration period. Usually crosses the site as a transit species.
CHORDATA / AVES	*Haematopus ostralegus*	☑	☑	☐	☐	☑	☐	☐	☐	60	2012-2018		NT	☐	☐	listed in the Red Data Book of Ukraine - VU	during migration the number of birds is up to 60 ind., during wintering is up to 8 pairs
CHORDATA / AVES	*Haliaeetus albicilla*	☑	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☑	☑	listed in the Red Data Book of Ukraine - NT	Aver. – 30 ind., max. – 100 ind. in the migration and wintering periods. Up to 8 breeding pairs.
CHORDATA / AVES	*Himantopus himantopus*	☑	☑	☐	☐	☑	☐	☐	☐	50	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	Aver. – 50 ind., max. 130 ind. in the migration period, about 10-20 breeding pairs

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	*Hydroprogne caspia*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Bern Convention Annex II	
CHORDATA / AVES	*Ichthyaetus ichthyaetus*	☑	☑	☐	☐	☑	☑	☐	☐	800	2012-2018			☐	☐	listed in the Red Data Book of Ukraine - EN	The number of breeding birds tends to grow with maximum of 225 pairs (2018) and approximately 800 ind.
CHORDATA / AVES	*Larus cachinnans*	☐	☑	☑	☐	☑	☑	☐	☐	4840	2012-2018	1.5	LC	☐	☐		Black Sea & Western Asia/SW Asia, NE Africa
CHORDATA / AVES	*Limosa limosa*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☐	Bern Convention Annex III	
CHORDATA / AVES	*Mergus serrator*	☑	☐	☐	☐	☑	☐	☐	☐	10	2012-2018		LC	☐	☐	Red Data Book of Ukraine- VU	
CHORDATA / AVES	*Microcarbo pygmeus*	☑	☑	☑	☐	☑	☐	☐	☐	2500	2012-2018	2.7		☐	☐	listed in the Red Data Book of Ukraine - EN	Maximum number during the breeding period was about 1,000 pairs that made up 2,500 ind. BLACK SEA & MEDITERRANEAN
CHORDATA / AVES	*Netta rufina*	☐	☑	☑	☐	☑	☐	☐	☐	500	2012-2018	1.5	LC	☐	☐	listed in the Red Data Book of Ukraine - NT	Up to 50 pairs nests within the territory of wetland. during migration the number of birds is up to 500. Black Sea & East Mediterranean
CHORDATA / AVES	*Numenius arquata*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☐	Bern Convention Annex III	
CHORDATA / AVES	*Nycticorax nycticorax*	☐	☐	☐	☐	☑	☐	☐	☐	980	2012-2018		LC	☐	☐		
CHORDATA / AVES	*Pelecanus crispus*	☑	☐	☑	☐	☑	☐	☐	☐	100	2012-2018	1.1	NT	☑	☑	listed in the Red Data Book of Ukraine - EN	Maximum number in the period of seasonal movements is about 100 ind. BLACK SEA & MEDITERRANEAN
CHORDATA / AVES	*Pelecanus onocrotalus*	☑	☑	☑	☐	☑	☐	☐	☐	5000	2012-2018	13.5	LC	☐	☑	listed in the Red Data Book of Ukraine - EN	A large percentage of the population of species present within the territory during the breeding season, but the species does not nest within the territory of wetlands EUROPE & WESTERN ASIA
CHORDATA / AVES	*Phalacrocorax carbo*	☐	☐	☑	☐	☑	☐	☐	☐	8000	2012-2018	1.6	LC	☐	☐		sinensis, Black Sea & Mediterranean
CHORDATA / AVES	*Platalea leucorodia*	☑	☑	☐	☐	☑	☐	☐	☐	130	2012-2018		LC	☐	☐	listed in the Red Data Book of Ukraine - VU	Maximum 34 breeding pairs were recorded (2017). Up to 130 ind. are recorded in the migration period.
CHORDATA / AVES	*Plegadis falcinellus*	☑	☑	☑	☐	☑	☐	☐	☐	1200	2012-2018	1.5	LC	☐	☐	listed in the Red Data Book of Ukraine - VU	The Site supports up to 350 nesting pairs. During migration up to 1200 birds occur here. Black Sea & Mediterranean/West Africa
CHORDATA / AVES	*Recurvirostra avosetta*	☐	☑	☐	☐	☑	☐	☐	☐	300	2012-2018			☐	☐	listed in the Red Data Book of Ukraine - NT	Up to 16 pairs nests within the territory of wetland. during migration the number of birds is up to 300.
CHORDATA / AVES	*Sterna hirundo*	☑	☑	☐	☐	☑	☑	☐	☐	10000	2012-2018		LC	☐	☐	Appendix II of Bern convention	Up to 3,600 pairs breed within the site.
CHORDATA / AVES	*Sternula albifrons*	☐	☑	☐	☐	☑	☐	☐	☐	150	2007-2015		LC	☐	☐	listed in the Red Data Book of Ukraine - rare	up to 30 pairs nests within the territory of wetland. during migration the number of birds is up to 150.
CHORDATA / AVES	*Thalasseus sandvicensis*	☐	☑	☑	☐	☑	☑	☐	☐	12000	2012-2018	10.9	LC	☐	☐		Up to 4,700 pairs breed within the Site SANDVICENSIS, BLACK SEA & MEDITERRANEAN (BRE)

1) Percentage of the total biogeographic population at the site

Kiliiske Mouth is an important area for breeding and seasonal concentrations of birds, spawning area for fish and amphibians. A total of 299 species of birds are recorded on the Site, including 148 nesting and 166 wintering species. The group of migratory birds (244 species) is the most numerous. There is a large number of wintering birds (148 species). The total number of breeding waterbirds is up to 2, 000 pairs. They prefer to make nests in reedbeds, floodplain forests, on small spits and islands. The total number of migrants, annually crossing this area, is about 2-3 million birds. In winter, up to 35,000 birds are registered. Over the period 2012-2018, up to 50,000 ind. of waterbirds were simultaneously recorded in the Site during counts. Given that some areas of the wetland were not covered because of hard access, it should be supposed that the Site may simultaneously support up to 120,000 individuals of waterbirds. The most important ornithological areas of the Site are the sea part of the delta, Ermakiv Island and Stentsivsko-Zhebrianski Plavni. 68 species (out of 299 bird species registered in the Site) are listed in the Red Data Book of Ukraine.

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
Salvinieta natantis	☑		listed in the Green Book of Ukraine
Aldrovandeta vesiculosae	☑		listed in the Green Book of Ukraine
Trapeta natantis	☑		listed in the Green Book of Ukraine
Nymphoideta peltatae	☑		listed in the Green Book of Ukraine
Nymphaeeta albae	☑		listed in the Green Book of Ukraine
Cladieta marisci	☑		listed in the Green Book of Ukraine
Glycerieta arundinaceae	☑		listed in the Green Book of Ukraine
Scirpeta litoralis	☑		listed in the Green Book of Ukraine
Nuphareta luteae	☑		listed in the Green Book of Ukraine
Sparganieta minimi	☑		listed in the Green Book of Ukraine
Potameta obtusifoliae	☑		listed in the Green Book of Ukraine
Ceratophylleta submersi	☑		listed in the Green Book of Ukraine
Batrachieta rionii	☑		listed in the Green Book of Ukraine
A2.5 Coastal saltmarshes and saline reedbeds	☑	Saltmarshes with participation of annuals of Salicornia, Suaeda та Salsola.	Resolution 4 of the Bern Convention
A2.6 : Littoral sediments dominated by aquatic angiosperms	☑	Littoral communities of Zostera noltii, Ruppia marina.	Resolution 4 of the Bern Convention
A5.5 : Sublittoral macrophyte-dominated sediment.	☑	Areas of the sublittoral sea bottom formed of mobile rocks of different granulometric structure with communities of marcrophyte algae or vascular plants (Zostera marina, Zostera noltii, Ruppia marina).	Resolution 4 of the Bern Convention

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
A5.6 : Sublittoral biogenic reefs.	☑	Areas of the sublittoral sea bottom formed of mobile rocks of different granulometric structure on which there are dense mussel communities (Mytilus galloprovincialis)	Resolution 4 of the Bern Convention
B1.2 : Sand beaches above the driftline	☑	Flat sand sea coasts, not flooded by waves. Vegetations of the the classes Ammophiletea i Cakiletea maritimae	Resolution 4 of the Bern Convention
B1.3 : Shifting coastal dunes.	☑	Elevated sand coastal areas with relatively steep slopes without vegetation of with sparse vegetation of the class Ammophiletea.	Resolution 4 of the Bern Convention
B1.6 Coastal dune scrub	☑	Coastlal areas with the dominance of scrub, mainly Hippophaë ramnoides. Communities of Tamarix spp. Elaeagnus angustifolia Elaeagnus argentea Artemisia scoparia Carex distans Lactuca tatarica Xanthium strumarium Petasites spurius Lycopus europaeus	Resolution 4 of the Bern Convention
B2.1 : Shingle beach driftlines	☑	Shell zone, flooded by surf, sometimes with vegetation of the class Cakiletea maritimae. Salicornia prostrata, Suaeda prostrata, Bassia hirsuta, S. salsa, Salsola soda, Bassias edoidis, B. hirsuta, Halimion epedunculata, H. verrucifera, Puccinellia,	Resolution 4 of the Bern Convention
C1.3 : Permanent eutrophic lakes, ponds and pools	☑	Stagnant waterbodies with eutrophic water. Communities of Batrachium	Resolution 4 of the Bern Convention
C1.6 : Temporary lakes, ponds and pools.	☑	Shallow temporary salt and brackish waterbodies with Najas minor, Potamogetonion	Resolution 4 of the Bern Convention
C2.3 : Permanent non-tidal, smooth-flowing watercourses	☑	Usually smooth-flowing watercourses, characterized by communities of the class Lemnetea. Nymphaeetum albo-luteae Novinski 1928, Nymphoidetum peltatae (All. 1922) Muller et Cors 1960, Trapetum natantis Th. Muller et Gors 1960.	Resolution 4 of the Bern Convention
C3.5 : Periodically inundated shores with pioneer and ephemeral vegetation.	☑	This type of habitats includes: communities of annual plants of low height: Eleocharis palustris, Eleocharis acicularis, Cyperus difformis, Cyperus fuscus, Cyperus michelianus, Elatine hungarica, Juncus bufonius, Juncus tenageia, Limosella aquatica,	Resolution 4 of the Bern Convention
G1.1 : Riparian and gallery woodland, with dominant Alnus, Betula, Populus or Salix).	☑	Typical species are Calystegia sepium, Galium aparine, Humulus lupulus, Lysimachia vulgaris, Rubus c aesius, Salix alba, S. viminalis, S. triandra, Scutellari ahastifolia, Solanum dulcamara, Urticadioica.	Resolution 4 of the Bern Convention

Optional text box to provide further information

More than 40 vegetation communities of Kiliiske Mouth require special protection as rare and threatened. Among them are Salvinio-Spirodeletum, Spirodelo-Aldrovandetum, Aldrovandetum vesiculosae, Aldrovando-Utricularietum minoris, Hottonietum palustris, Nymphoidetum peltatae, Ceratophylletum submersi, Thelypteridi-Phragmitetum, Stipetum borysthenicae, Dauco-Chrysopogonetum grillis, Cladietum marisci and others.

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

4.1 - Ecological character

The Kiliiske Mouth of the Danube Delta encompasses floodplain forests, channels, alluvial islands, freshwater lakes, sand ridges, and in the marine part – low sand spits that separate bays from the sea. The Site also has several continental islands, most of which lie between Ochakivskyi and Starostambulskyi arms. Together with numerous large and small arms, the Kiliia Delta has a network of freshwater inland and open coastal waters (Potapivskyi Kut, Lazarkin Kut, Anankin Kut, Deliukov Kut, Taraniv Kut, Solonyi Kut, Zhelanyi Kut, Gnylyi Kut and Bystryi Kut, Kurylski shallows and others). They are mostly shallow with a depth of 0.5–2 m. All delta waters are fresh, excluding shallow bays, connected with the marine area of the Black Sea. The Site also includes a stripe of the Black Sea coast (1 km wide) surrounding the delta from the east.
The Ukrainian part of Danube Delta is divided into two parts: an ancient river part and a young marine part. A boundary between them is Zhebrianska Ridge composed of marine shells and sand. Between Zhebrianska and Letya (Romania) ridges, the Kiliia Arm flows. Further, in the sea, its waters form a secondary delta of Kiliia Arm - the youngest part of the vast Danube Delta. Age of its coastal strip does not exceed 100-150 years. Some islands and spits were formed during past decades. A process of the delta formation still continues, but less intensively. Riverine ridges are formed along arms and 'yeryks' (narrow straits). Positive relief elements are also represented by coastal spits. They are a result of interaction between the Danube and the sea water. Sand spits play an important role in the formation of desalinated bays, isolating a part of coastal shallows from the influence of sea water.
Along with sediment accumulation in the delta, there are also processes of erosion of natural islands. In addition to natural elevations, the Kiliiske Mouth has artificial elevated areas – dams, banks, raised areas (due to dredging activities).
The formation of hydrochemical conditions of Kiliiske Mouth is determined by all processes occurring in river waters along its entire length and in its catchment area. Water quality is formed under natural and anthropogenic conditions where an important role is played by hydrotechnical constructions.

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
A: Permanent shallow marine waters		1	10850	Representative
E: Sand, shingle or pebble shores		4	340	Rare
F: Estuarine waters		3	1366	Representative
K: Coastal freshwater lagoons		3	1683	Unique

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		2	2040	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		4	384	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4	760	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils				
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands				

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
9: Canals and drainage channels or ditches		4	64

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Dams, gardens, countryside plots, farmsteads	200

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/EQUISETOPSIDA	*Equisetum telmateia*	regionally rare species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Periploca graeca*	regionally rare species

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	*Acer negundo*	Actual (minor impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Ailanthus altissima*	Actual (minor impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Amaranthus albus*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Amaranthus blitoides*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Amaranthus retroflexus*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Ambrosia artemisiifolia*	Actual (minor impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Amorpha fruticosa*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Artemisia abrotanum*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Artemisia absinthium*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Artemisia annua*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Asclepias syriaca*	Potential	No change
TRACHEOPHYTA/POLYPODIOPSIDA	*Azolla caroliniana*	Actual (minor impacts)	No change
TRACHEOPHYTA/POLYPODIOPSIDA	*Azolla filiculoides*	Actual (minor impacts)	No change
TRACHEOPHYTA/POLYPODIOPSIDA	*Azolla microphylla*	Potential	decrease
TRACHEOPHYTA/MAGNOLIOPSIDA	*Bidens frondosa*	Potential	decrease
TRACHEOPHYTA/MAGNOLIOPSIDA	*Cannabis sativa ruderalis*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Capsella bursa-pastoris*	- Please select a value -	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Carduus acanthoides*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Centaurea diffusa*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Centaurea solstitialis*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Conium maculatum*	Potential	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Cuscuta pentagona*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Descurainia sophia*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Diplotaxis tenuifolia*	Potential	No change
TRACHEOPHYTA/LILIOPSIDA	*Echinochloa crus-galli*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Echinocystis lobata*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Elaeagnus angustifolia*	Actual (minor impacts)	increase
TRACHEOPHYTA/LILIOPSIDA	*Elodea canadensis*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Galeopsis ladanum*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Galinsoga parviflora*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Gleditsia triacanthos*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Grindelia squarrosa*	Actual (minor impacts)	No change
TRACHEOPHYTA/LILIOPSIDA	*Hordeum murinum leporinum*	Actual (major impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Impatiens parviflora*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Iva xanthiifolia*	Actual (minor impacts)	increase

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lepidium draba*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lepidium ruderale*	Potential	No change
TRACHEOPHYTA/LILIOPSIDA	*Lolium multiflorum*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lycium barbarum*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Malva neglecta*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Papaver rhoeas*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Portulaca oleracea*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Raphanus raphanistrum*	Potential	No change
TRACHEOPHYTA/LILIOPSIDA	*Sagittaria latifolia*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Saponaria officinalis*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Senecio vulgaris*	Potential	No change
TRACHEOPHYTA/LILIOPSIDA	*Setaria helvola*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sinapis arvensis*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sisymbrium loeselii*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Solidago canadensis*	Actual (minor impacts)	increase
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sonchus arvensis*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sonchus asper*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Sonchus oleraceus*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Torilis arvensis*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Vicia villosa*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Xanthium albinum*	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Xanthium strumarium*	Actual (major impacts)	increase

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
ARTHROPODA/MAXILLOPODA	*Acartia tonsa*	Potential	unknown
MOLLUSCA/BIVALVIA	*Anadara inaequivalvis*	Potential	unknown
ARTHROPODA/MAXILLOPODA	*Balanus amphitrite*	Actual (minor impacts)	unknown
ARTHROPODA/MAXILLOPODA	*Balanus eburneus*	Actual (minor impacts)	unknown
ARTHROPODA/MAXILLOPODA	*Balanus improvisus*	Actual (minor impacts)	unknown
CTENOPHORA/NUDA	*Beroe cucumis*	Actual (major impacts)	No change
MOLLUSCA/GASTROPODA	*Biomphalaria glabrata*	Potential	unknown
ANNELIDA/CLITELLATA	*Branchiura sowerbyi*	Potential	unknown
CHORDATA/MAMMALIA	*Canis aureus*	Actual (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	*Carassius carassius*	Actual (minor impacts)	No change
MOLLUSCA/BIVALVIA	*Corbicula fluminea*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Ctenopharyngodon idella*	Potential	unknown
MOLLUSCA/BIVALVIA	*Dreissena polymorpha*	Potential	unknown

Phylum	Scientific name	Impacts	Changes at RIS update
MOLLUSCA/BIVALVIA	*Dreissena rostriformis*	Potential	unknown
ARTHROPODA/MALACOSTRACA	*Eriocheir sinensis*	Actual (minor impacts)	unknown
MOLLUSCA/GASTROPODA	*Ferrissia fragilis*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Hypophthalmichthys molitrix*	Actual (minor impacts)	unknown
CHORDATA/ACTINOPTERYGII	*Hypophthalmichthys nobilis*	Actual (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	*Liza haematocheila*	Actual (minor impacts)	No change
BRYOZOA/PHYLACTOLAEMATA	*Lophopodella carteri*	Potential	unknown
CTENOPHORA/TENTACULATA	*Mnemiopsis leidyi*	Actual (major impacts)	No change
MOLLUSCA/BIVALVIA	*Mya arenaria*	Potential	unknown
CHORDATA/MAMMALIA	*Myocastor coypus*	Actual (minor impacts)	No change
CHORDATA/MAMMALIA	*Neovison vison*	Actual (minor impacts)	No change
CHORDATA/MAMMALIA	*Nyctereutes procyonoides*	Actual (minor impacts)	No change
CHORDATA/MAMMALIA	*Ondatra zibethicus*	Actual (minor impacts)	No change
BRYOZOA/PHYLACTOLAEMATA	*Pectinatella magnifica*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Perccottus glenii*	Actual (minor impacts)	No change
MOLLUSCA/GASTROPODA	*Physella acuta*	Potential	unknown
MOLLUSCA/GASTROPODA	*Potamopyrgus antipodarum*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Pseudorasbora parva*	Actual (minor impacts)	No change
MOLLUSCA/GASTROPODA	*Rapana venosa*	Actual (major impacts)	No change
CHORDATA/MAMMALIA	*Rattus norvegicus*	Actual (minor impacts)	No change
ARTHROPODA/MALACOSTRACA	*Rhithropanopeus harrisii*	Actual (minor impacts)	unknown
CHORDATA/ACTINOPTERYGII	*Sarpa salpa*	Actual (minor impacts)	No change
MOLLUSCA/BIVALVIA	*Sinanodonta woodiana*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Sparus aurata*	Actual (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	*Symphodus roissali*	Actual (minor impacts)	No change
MOLLUSCA/BIVALVIA	*Teredo navalis*	Potential	unknown
CHORDATA/ACTINOPTERYGII	*Umbrina cirrosa*	Actual (minor impacts)	No change

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)

The climate of the territory is temperate continental with relatively short and warm winters and long, hot summer. The Black Sea area stands out among the flat areas for the warmest winters (average temperature in January is 2ºC). Warm period lasts 200 days, vegetation – 235-245 days, the sum of active temperatures is 3500-3600ºC. Annual precipitation varies from year to year greatly in the range of 300-700 mm and average precipitation is about 400 mm; evaporation is 800 mm/year. Relative humidity is the lowest in May, when the temperature rises rapidly (70%); the largest – in January (90%), when wet air becomes more soppy as a result of low temperatures. According to agro-climatic zoning of the territory of Ukraine, it is a very dry temperate hot zone with mild winters.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres) 0

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

4.4.3 - Soil

Mineral ☑

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

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)

Due to periodic filling of delta with water of different levels, its soil processes determines by heterogenety and poor development. They are formed by the peat-meadow process in strong and lasting moisture of the soil with groundwater and periodically by surface waters. There are soils in the delta that are formed under conditions of mineralized groundwater and parent material (the northern part of the delta). The following types of soil are currently dominated: meadow, marsh and swamp soils and solonchaks. For mechanical structure, they are heavy-loam and clay, although sometimes there are medium-loam and even light-loam. At sea coastal spits, soils are not developed and presented mainly by sandy-limestone deposits sometimes with additions of plant remnants.

4.4.4 - Water regime

Water permanence

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

Source of water that maintains character of the site

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

Water destination

Presence?	Changes at RIS update
Marine	decrease

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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

Water level regime of Kiliyske mouth of the Danube delta is characterized by dramatic fluctuations during the year: high level of spring-summer flood, autumn and winter flooding, and low summer and winter low water. Spring flooding is characterized by the highest levels in late March, which hold 2–3 weeks. At this time, nearly 95% of the delta is inundated with water. Floods are almost every year (from March to July) and runs in several waves that superimpose on each other. Summer-autumn low water (from July to November) is characterized by the lowest river levels. Runoff in July-August decreases and in September-October reaches a stable balance. The water level, especially in eastern coastal waters of the wetland depends on the direction and strength of wind during a day and can vary up to 90 cm. In the period from December to March, there are winter floods, which peaks in some years (1942, 1985) may exceed peaks of spring flooding.

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):

The progress in sedimentation processes depends on weather conditions in the Danube basin. Due to significant erosion and the impact of sludge from canals and sea the wetland is characterized by considerable mobility. Average silting of water is 174 g/m3.

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 ○

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

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

Unknown ☐

Please provide further information on salinity (optional):

Danube water is moderately hard with medium mineralization. Hydrochemical regime of water bodies located within the wetland is unstable. Temperature and salinity of water, especially in a sea part of the wetland, have significant fluctuations, which considerably depend on strong eastward winds. Thus, in the very mouth of the river, water salinity reaches 1.8‰.

4.4.8 - Dissolved or suspended nutrients in water

Mesotrophic ☑

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

Unknown ☐

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ○ ii) significantly different ◉

Surrounding area has greater urbanisation or development ☐

Surrounding area has higher human population density ☐

Surrounding area has more intensive agricultural use ☑

Surrounding area has significantly different land cover or habitat types ☑

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

In the north-western and western part, the Site is adjacent to agricultural lands with plantations of rice, winter wheat and other crops. A major area is covered by rice paddies. The rice paddies serve as valuable feeding areas for birds. In the migration period they support the largest concentrations of such rare species as Glossy Ibis Plegadis falcinellus and Black Stork Ciconia nigra. The crops of winter wheat are important for feeding of such rare species as Red-Breasted Goose Branta ruficollis.
The western part of the Site borders on the Romanian part of the delta which is part of the bilateral biosphere reserve “The Danube Delta”. The protection regime of this area has a positive impact on the functioning of the site “Kiliiske Mouth”.
The eastern part of the Site borders on a shelf zone of the Black Sea, 2-km strip of which is included in the protected area of the Danube Bioshere Reserve.

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	Water for irrigated agriculture	High
Fresh water	Drinking water for humans and/or livestock	High
Wetland non-food products	Livestock fodder	High
Wetland non-food products	Reeds and fibre	High

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	High
Pollution control and detoxification	Water purification/waste treatment or dilution	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Water sports and activities	Medium
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Picnics, outings, touring	High
Spiritual and inspirational	Inspiration	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Spiritual and inspirational	Spiritual and religious values	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Major scientific study site	High

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
Soil formation	Sediment retention	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	Medium
Pollination	Support for pollinators	High

Optional text box to provide further information

The wetland is important in terms of recreational capacities, environmental awareness and research. It supports an important local traditional practice - fishery. Water from the site is used to supply fish-farm basins and rice fields and for household needs of the town of Vilkove.

Within the site: 10000

Outside the site: 300000

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 town of Vilkove is an interesting historical and cultural site in the delta. It was found by Old Believers and Cossacks and the most part of the town is situated on islands. Number of canals and yericks (narrow straits) forms a very special look of Vilkove that is also called the Ukrainian Venice. The town is also one of the Old Believers centres; there remain and work two Old Believers temples.
Aesthetical value of natural landscapes of the Danube Delta has not only national, but European heritage importance. One of the most important ecological and aesthetical indexes of natural landscapes assessment is a low level of anthropogenic transformation. Combination of land and water bodies, diversity of flora within natural landscapes, and panoramic views define high aesthetic value of wetlands of the Kiliyske Mouth of the Danube Delta.
Among the most attractive places for tourists, there is so-called “0 km”, where the Danube River flows into the Black Sea, as well as huge colonies of Ciconiidae and Pelecaniformes, numerous accumulations of migrating birds and high diversity of plants.

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	☑	☑

Private ownership

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

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

a) within the Ramsar site: State and collective property. The Danube Biosphere Reserve, State Enterprise “Izmail Forestry”, port of Ust-Dunaysk, Kiliia Rayon State Administration.
b) in the surrounding area / catchment: state, collective and private property. Liski Village Council, Shevchenkivske Village Council, MyrnenskaVillage Council, Desantske Village Council, Prymorske Village Council and Vilkove Town Council of Kiliia Rayon of Odessa Oblast.

5.1.2 - Management authority

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

Provide the name and/or title of the person or people with responsibility for the wetland: Olexander Voloshkevich, director

Postal address: 132-a Tatarbunarskogo Povstannia Str., Vilkove town, Kiliiskyi Rayon, Odeska Oblast, 68355, Ukraine

E-mail address: reserve@it.odessa.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	Medium 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	Medium impact	Medium impact	☐	No change	☑	No change
Dredging	Medium impact	Medium impact	☑	No change	☑	No change
Salinisation	Medium 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	Low impact	☑	No change	☑	No change
Wood and pulp plantations	Low impact	Low impact	☑	No change	☑	No change
Livestock farming and ranching	Medium impact	Medium impact	☑	No change	☑	No change
Marine and freshwater aquaculture	Low impact	Low impact	☐	No change	☑	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Low impact	Medium impact	☐	No change	☑	No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	Low impact	Low impact	☐	No change	☑	No change
Shipping lanes	Medium impact	Medium impact	☑	increase	☑	increase
Aircraft flight paths	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
Fishing and harvesting aquatic resources	Medium impact	Medium impact	☑	No change	☑	No change
Gathering terrestrial plants	Medium impact	Medium impact	☑	No change	☑	No change
Hunting and collecting terrestrial animals	Medium impact	Medium impact	☐	No change	☑	No change
Logging and wood harvesting	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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use	Medium impact	High impact	☑	No change	☑	No change
Fire and fire suppression	Medium impact	High 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	High impact	☑	No change	☑	No change
Problematic native species	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
Garbage and solid waste	High impact	High impact	☑	No change	☑	No change
Air-borne pollutants	Low impact	Low impact	☑	No change	☑	No change
Excess heat, sound, light	Low impact	Low 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
Habitat shifting and alteration	High impact	High impact	☑	No change	☑	No change
Temperature extremes	Medium impact	Medium impact	☑	No change	☑	No change
Storms and flooding	High impact	High impact	☑	No change	☑	No change

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Dunabe Delta	http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=R OM-UKR+01&mode=all	whole

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other international designation	Emerald site UA0000018 Danube Biosphere Reserve	http://natura2000.eea.europa.eu/Emerald/SDF.aspx?site=UA0000018&release=2&form=Clean	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Biosphere Reserve	Danube	http://dbr.org.ua/en/page/about_ us	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Stentsivs'ko-Zhebriyanivs'ki plavni	http://datazone.birdlife.org/site/factsheet/2061	partly

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

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

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

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

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

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

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

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Partially implemented
Improvement of water quality	Partially implemented
Habitat manipulation/enhancement	Partially implemented
Hydrology management/restoration	Partially implemented
Faunal corridors/passage	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Proposed
Reintroductions	Proposed
Control of invasive alien plants	Implemented
Control of invasive alien animals	Implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Partially implemented
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

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:

Environmental awareness in the territory of Kiliiske Mouth is chiefly implemented by means of the Informational-Tourist Centre (ITC) of the Danube Biosphere Reserve, which experts, in addition to ecological awareness, are also involved in excursions and methodical activities. The Danube Biosphere Reserve has developed a network of 2 excursion routes called “0 km” and “Way to Birds”, which are annually visited by up to 20,000 tourists.

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
Plant community	Implemented
Water regime monitoring	Implemented
Plant species	Implemented
Animal species (please specify)	Implemented
Animal community	Implemented
Birds	Implemented
Water quality	Implemented

The main studies of the Danube Biosphere Reserve include annual works within “Chronicles of Nature”. Taking into account that most part of the territory is represented wetlands, considerable attention is paid to studies of flora and fauna (ornithological, ichthyological, hydrobiological, theriological and herpetological).

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Oleksandr Voloshkevych, Vasyl Fedorenko The Management of the Danube Delta Biosphere Reserve // Biodiversity Conservation and Protected Areas. The Italian and Ukrainian Legislation. – Rome, 2005. [In English]

Andrienko T.L., Bilyk H. I., Bradis E.M. et al. Geobotanical zoning of the Ukrainian SSR/ Academy of Sciences of the UkrSSR, M.H.Kholodnyi Institute of Botany; ed. by A. I. Barbarych. – Kyiv: Naukova Dumka, 1977. – 301 p. [in Ukrainian]

Biodiversity of the Danube Biosphere Reserve, conservation and management / Edited by Yu. Sheliag-Sosonko. – Kyiv: Naukova Dumka, 1999. – 704 p. [In Ukrainian]

Dubyna D., Sheliag-Sosonko Yu., Zhmud O., Zhmud M. et al. The Danube Biosphere Reserve. Plant kingdom. – Kyiv: Fotosociocenter, 2003. – 459 p. [In Ukrainian]

Hydrology of the Danube Delta / Edited by V. Mikhaylova. – Moscow: GEOS, 2004. – 448 p. [In Russian]

Voloshkevich A., Zhmud M., Titar V. Danube Biosphere Reserve Management Plan. – Kiev– Vilkove, 1999. – 62 p. [In Russian]

Kostyushin V.A., Andryushchenko Yu.A. International winter census of waterbirds (IWS) in Ukraine: brief outputs of 2011-2017 and some methodical aspects of work.// ROM Bulletin: Results of Regional Ornithological Monitoring. 2017. – Iss. 11. P. 5-7.

Kokhan O.V., Movchan Ya.I., Protsenko L.D., Kostyushin V.A., Siokhin V.D. An ecological network of the Black Sea nature corridor. Edited by L.D.Protsenko. Kyiv: Khimdzhest, 2012. [in Ukrainian]

National Scheme of biogeographic regionalisation. National Atlas of Ukraine. – Kyiv: State scientific production enterprise ‘Kartographia’, 2007. – 440 p. [in Ukrainian]

Yakovlev M.V., Haidash A.M. New data on colonies of Ciconiiformes and Pelecaniformes in the Ukranian Danube Region // Birds of the Azov-Black Sea region: proceedings of the 34th workshop of the Azov-Black Sea Ornithological Group. – Odessa-2015, p. 121-134. [in Russian]

Yakovlev M.V. Renaturalization of Ermakiv Island and its impact on the avifauna // Active conservation of flora and fauna, natural habitats. Proceedings of the scientific-practical workshop of employees of environmental organizations. Sumy – 2014, p. 192-199. [in Ukrainian]

Yakovlev M.V. New species in the annotated list of bird species of the Danube Biosphere Reserve // Berkut. Ukrainian Ornithological Journal. Berkut. 24 (1): 1-8. 2015. [in Ukrainian]

National Scheme of biogeographic regionalisation. National Atlas of Ukraine. – Kyiv: State scientific production enterprise ‘Kartographia’, 2007. – 440 p.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Kyliiske Mouth (*Maksim Yakovlev, 14-08-2012*)


Kyliiske Mouth (*Maksim Yakovlev, 14-08-2012*)


Kyliiske Mouth (*Maksim Yakovlev, 14-08-2012*)


Kyliiske Mouth (*Maksim Yakovlev, 14-08-2012*)


Kyliiske Mouth (*Maksim Yakovlev, 15-08-2015*)


Kyliiske Mouth (*Maksim Yakovlev, 16-06-2013*)


Kyliiske Mouth (*Maksim Yakovlev, 25-09-2015*)


Kyliiske Mouth (*Maksim Yakovlev, 05-07-2013*)


Kyliiske Mouth (*Maksim Yakovlev, 05-07-2013*)


Kyliiske Mouth (*Maksim Yakovlev, 03-07-2007*)


Kyliiske Mouth (*Maksim Yakovlev, 14-07-2013*)


Kyliiske Mouth (*Maksim Yakovlev, 09-06-2008*)

Kyliiske Mouth (*A. Matveev, 02-09-2004*)

6.1.4 - Designation letter and related data

Designation letter

<3 file(s) uploaded>

Date of Designation 1976-10-11