



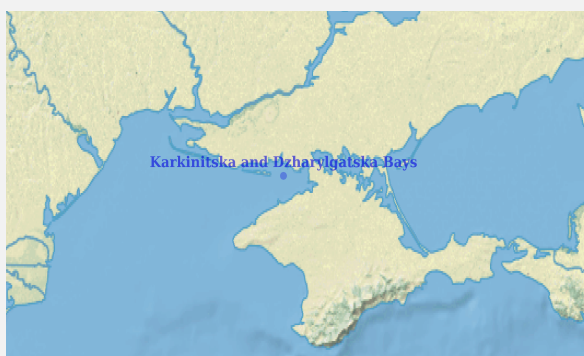
Ramsar Information Sheet

Published on 9 August 2022

Update version, previously published on : 1 January 1998

Ukraine

Karkinitska and Dzharylgatska Bays



Designation date	11 October 1976
Site number	114
Coordinates	46°00'46"N 33°15'03"E
Area	147 556,66 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 represents the coastal landscape of the northern part of the Black Sea region, includes marine shallow bays with a well-developed system of spits and islands of alluvial and continental origin. One of the largest and most important natural areas of South Ukraine. A high number of rare and endemic species have formed valuable genetic and ecosystem resources.

It is one of the key migratory and wintering areas for waterbirds, also crucial for the conservation and reproduction of their populations. The Site supports high congregations of migratory (up to 150,000 ind.) and wintering birds (100,000-130,000 ind.). During migrations, the Site supports more than 20,000 ind. of *Anser albifrons*, a small number (up to 100 ind.) of *Anser erythropus*, 2 stork species (*Ciconia ciconia*, *C. nigra*), 1,000 ind. of pelicans (*Pelecanus onocrotalus*, *P. crispus*) and cranes (*Grus grus*, *Anthropoides virgo*). Large number of migrating birds of prey are also recorded. The Site is a moulting area for 9-10,000 of *Cygnus olor*, *Anas platyrhynchos*, and *Fulica atra*. A large number of bird species from other taxonomic groups migrate across the Site. The Site also provides a possibility for seasonal migrations of 3 species of marine mammals (dolphins).

The Site includes one of the largest uninhabited islands in Europe - Dzharylgach (5,605 ha). Contains unique fragments of the Black Sea sandy steppe (on Dzharylgach Island) and coastal halophytic ecosystems. Vegetation of the coastal zone is a western Black Sea variant of wormwood-gramineous steppes. Due to the specificity and diversity of environmental conditions, the flora and fauna of the Site are rich. The Site, in terms of conservation, reproduction and sustainable use of marine biological resources, is a vital refuge for genetic resources of the coastal, island and aquatic systems. The Site contains a number of protected areas: ornithological game reserve of national importance "Karkinitzka Bay", part of the Crimean Nature Reserve "Lebedyni Islands", and the territory of Dzharylgatskyi National Natural Park, which encompass a botanical reserve of national importance "Dzharylgatskyi".

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Dzharylgachskyi National Nature Park P
Postal address	3 Oleksandrivska St., Skadovsk, Kherson Region, Ukraine, 75700

National Ramsar Administrative Authority

Institution/agency	Ministry of Environmental Protection and Natural Resources of Ukraine
Postal address	12/3 Oleksandra Arkhynpenka vul. apt. 140

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

From year	<input type="text" value="2012"/>
To year	<input type="text" value="2018"/>

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Karkinitzka and Dzharlygatska Bays
Unofficial name (optional)	Formerly 'Kerkinit Bay, Karkinit Bay', originally designated by the Soviet Union in 1976

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 <input type="radio"/> No <input checked="" type="radio"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	<input checked="" type="checkbox"/>
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input type="checkbox"/>
(Update) For secretariat only: This update is an extension	<input type="checkbox"/>

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?	Not evaluated
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<2 file(s) uploaded>

Former maps	<input type="text" value="0"/>
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Boundaries description

One of the largest Ramsar sites in the south of Ukraine. It consists of two Black Sea bays, called Karkinitzka and Dzharylhatska Bays. Karkinitzka Bay is located between the mainland and the north-western coast of the Crimean Peninsula. Its length exceeds 118 km. Dzharylgatska Bay lies between the bedrock coast in the north and Dzharylgach Island in the south. The length is 70 km. The Site is situated within the southern part of Kherson Region in Skadovsk and Kalanchak districts and in the north of the Autonomous Republic of Crimea (Rozdolne and Krasnoperekopski districts). The village of Lazurne (46.04.07N 32.32.21E) is located on the eastern border of the site. The northernmost point is in Kalanchak District, 3 km from the village of Darovka (46.12.32N 33.13.12E). The easternmost point of the Site is near the city of Krasnoperekopsk - 45.56.30N 33.45.20E (Crimea). The southernmost point is along the north-western coast of the Crimean Peninsula near the village Sterehushchee, Rozdolne District (45.45.05N 33.14.00E). The Site has an elongated shape. The width ranges from 2.1 km (near Lazurne) to 52.8 km along the line Darovka Village - Krasnoperekopsk City. At the Crimean coast, the area of the Site is delineated by shallow waters, and its boundaries sharply change at Bakalska Spit from west to the east, deep into Karkinitzka Bay. Limited by the point in the bay with coordinates 45.58.55N 33.19.38E, 9 km from Stavky Village in Kherson Region (46.09.26N 33.35.23E). Within Kherson Region, Dzharylgatska Bay with secondary bays and the islands of Dzharylgach, Karzhinski, Kalanchak, Ustrichni and others covers about 49,742 ha. 37,258 ha of the site lies within the Autonomous Republic of Crimea. In Kherson Region, the site is partly included in Dzharylgatskyi National Nature Park (10,000 hectares), which in turn includes the botanical reserve of national significance "Dzharylgatskyi" (300 ha), founded in 1974. The Site also encompasses the ornithological reserve of national importance "Karkinitzka Bay" (27,646 hectares), founded in 1957, and a part of the Crimean Nature Reserve - the department "Lebedyni Islands" (9,612 hectares). 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?
- b) What is the nearest town or population centre?

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):

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

2.2.5 - Biogeography

Biogeographic regions

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

Other biogeographic regionalisation scheme

According to the physical-geographic zoning of Ukraine (National Atlas of Ukraine, 2008), the Site is located within the Azov–Black Sea Dry Steppe Region of the Steppe Zone. According to the geo-botanical zoning (Didukh, Sheliag-Sosonko, 2003), the Site is located within the Lower Dnieper District of sandy steppes, sands and wetlands (reedbeds) and the Syvash District of wormwood-gramineous steppes, solonetz and alkaline soils of the Pontic Steppe Province of the Steppe Zone. According to the zoogeographical zoning, it is the Syvash–Azov Sub-group of the Azov–Black Sea Region of the Pontic District of the Steppe Province of the Mediterranean-Central Asian Sub-region of Palearctic 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

The Site has peculiar characteristics of its spatial structure, dynamic and hydrological regimes, which makes it a unique aquatic landscape, different from other parts of the Black Sea. Geophysical features determine the uniqueness of natural conditions - shallowness and the presence of river runoff. The leading factors, forming the spatial structure of the Site, are the morphology of its bottom and the nature of interactions among various water masses. The combination of these characteristics has resulted in a high level of biological diversity. The determining factor of the hydrological regime of the Site is the water dynamics, formed under the influence of winds and a large volume of river runoff. The most significant elements of the water dynamics, affecting the functioning of aquatic communities of the bays are wind currents, waves, wind-driven and compensatory currents. The most significant movements of water masses occur in the bay in the process of wind-driven phenomena. In this case, there are two hydrodynamic trends - linear and circulating. Their ratio is determined by the nature of the water dynamics. The Black Sea has no tides in the traditional sense because there are practically no fluctuations of the water level associated with tidal phenomena (1-2 cm, sometimes up to 8 cm). Fluctuations in the sea level are periodical, associated with the inflow of river floods and rainwater, and irregular, depending on the speed and direction of the winds causing wind-driven changes in the water level. The hydrochemical regime in the Dzharylgachsky Bays in the absence of technical infrastructure is determined by the regime of hydraulic communication with Karkinitzka Bay. In the presence of water breakthroughs in the western part, this connection increases. Under such conditions, the water exchange between the bays is more intensive and the difference in the saltwater composition is minimal, especially after wind-driven phenomena that arise during a prolonged impact of the strong southern winds. The maximum difference of the hydrochemical regime of Dzharylgatska Bay from Karkinitzka is observed in summer, especially when the channel is closed. At this time, in more shallow Dzharylgatska Bay the hydrodynamic situation is calmer, the water is heated up to 27-29 degrees C, and mineralization increases due to evaporation (Kotovskiy, 2013). Along the entire shoreline, freshwater deposits are found. The Site supports the hydrological regime, affects the soil, sediments, and preservation of nutrients, and the local climate regulation. Dzharylgach Island stabilizes the coastline, protects it from storms and water erosion.

Other ecosystem services provided

The Site is important in terms of providing sustenance for people (fish, mollusks, corn), drinking water for humans and animals.
The Site preserves the genetic material of plants and animals having certain endemic indices.
The Site plays an important role as a recreation area.

Criterion 2 : Rare species and threatened ecological communities

The Site supports over 77 rare species of flora and fauna, 21 of them listed in the Red Data Book of Ukraine; 6 – protected under the Bern Convention, 7 – IUCN, 6 – CITES.

It is a refuge of endemic species. Thus, Dzharylgach Island supports 10.82 % endemic species out of the entire island flora (Dubina et al., 2011). In Karkinitzka Bay, a rare endemic seaweed with a narrow local range is found - *Chaetomorpha zernovii*.

22 insect species, found in the area, have protection statuses. IUCN – 3 species, European Red List – 7, Bern Convention (II) – 5, Red Data Book of Ukraine – 15, Red List of Kherson Region – 20 species (Project, 2016).

17 species are protected. Of them, the Red Data Book of Ukraine (2009) includes 9 species, Bern Convention – 8 species, IUCN Red List – 8. An endemic Black Sea species, *Salmo trutta labrax*, is regularly recorded in the Ramsar Site.

Aquatic areas of Dzharylgatska and Karkinitzka Bays support 3 protected species of marine mammals. They include an endemic species *Phocoena phocoena relicta* Abel, 1905. Among other mammals, 22 species are included in Annexes of the Bern Convention. 2 species are endangered (*Nictalus lasiopterus* and *Mustela eversmannii*).

The Site plays a crucial role in the conservation of 70 rare birds, entered in the Red Data Book of Ukraine (2009). Of them, 16-25 species are breeding, almost all of them are migrating across the site, 20-23 species are wintering. Over 230 bird species, recorded in the site, have international protection statuses. Of them, 61 species (44.8%) breed in the site. Annually breeding species include *Charadrius alexandrinus* L., *Haematopus ostralegus* L., *Sterna albifrons* Pall., *Sterna caspia*, *Larus ichthyaetus*, *Anas strepera* L., *Somateria mollissima* L., *Mergus serrator* L., and species found both on islands and inland areas - *Himantopus himantopus* L., *Glareola pratincola* L., *Recurvirostra avosetta* L. During the migration season 135 (99.3%) bird species are recorded, 69 (50.7%) are wintering. The Site is an important area of autumn migration for *Rufibrenta ruficollis* and *Haliaeetus albicilla*. In recent years, there are changes in the numbers of migratory species. Thus, the numbers of *Pelecanus onocrotalus* L., *Pelecanus crispus* Bruch., *Plegadis falcinellus* L., *Platalea leucorodia* L., *Rufibrenta ruficollis* have increased (Rudenko, 2013; Project ...,2016).

Optional text box to provide further information

Criterion 3 : Biological diversity

The diversity of natural habitats leads to the abundance of wildlife. The natural complex of the bays is important for the protection of migratory and resident species of birds, commercial fish, and biodiversity conservation of the entire geosystem of South Ukraine. Karkinitzka Bay has the Small Phyllophora Field (SFF) with an area of 300-400 km². It is located in a shallow part of the bay to the east of Bakalska Spit. According to recent data, 20 species of algae from bottom phytocoenoses have been registered in the SFF (Aleksandrov et al., 2018). In floristic terms, the shallow waters of the lagoon complex contain over 3 million tons of vegetation mass that make up 50% of all macrophyte resources in the Black Sea. The aquatic plant species are common on the seabed of the bay, with the prevalence of *Zostera*. *Zostera nana* is widespread as well.

Only on Dzharylgach Island there are 582 species of terrestrial plants and mushrooms, among them Fungi - 52; Lichenes- 26; Bryophyta - 5; Vasculares - 499. Zoobenthos of shallow bays of the Dnieper-Karkinitzka coastal area includes about 160 species of Invertebrata and Tunicata, not including different subspecies and varieties. The bottom communities of the Site are represented by 83 species of invertebrates (Protozoa - 1; Coelenterata - 4; Ctenofora - 3; Annelides - 2; Molluska - 16; Chaetonatha - 2; Artropoda - 56). According to preliminary data, insects (Insecta) are represented by 1,800 species. The Site supports 4 species of amphibians and 7 species of reptiles (Project ..., 2016). According to the current data, during the wintering, migrating and breeding seasons the Site supports 250-255 bird species from 18 orders. Of them, about 80 species are breeding, more than 200 species are found during migrations and movements. The Site provides habitats for numerous representatives of Charadriidae and Anatidae, which are indicators of the value, productivity and biodiversity of the Site. (Rudenko, 2013).

Justification

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

Optional text box to provide further information

The Site supports a high number of waterbirds during migrations (up to 150,000 ind.) and wintering (100-130,000 individuals) (Results ..., 2011; Kostyushin et al., 2011, Rudenko and et al, in press). Provides migratory stopovers for the endangered bird species, including *Rufibrenta ruficollis*, high numbers of migratory Charadriiformes and Anseriformes, populations of large migratory birds such as swans, including *Cygnus bewickii*. More than 40,000 ind. of *Anas platyrhynchos*, a small number of *Anser erythropus*, 2 species of storks (*Ciconia ciconia*, *C. nigra*), pelicans (*Pelecanus onocrotalus*, *P. crispus*) and cranes (*Grus grus*, *Anthropoides virgo*) are found annually during migrations. Large migratory birds of prey are also registered here. It is a moulting area for 9,000-10,000 of *Cygnus olor* and *Anas platyrhynchos*. The international environmental value both of the aquatic and terrestrial area of the site is determined by a high number of breeding birds supported. The islands support the annual nesting of more than 20 bird species with a total abundance of about 20,000-23,000 pairs. The Site has a large colony of *Hydroprogne caspia* (up to 1,000 pairs), populations of *Phalacrocorax carbo*, *Gelochelidon nilotica*, *Larus ichthyaetus*, *Larus genei*, *Thalassius sandvicensis*. Annually, over 80,000-100,000 birds form breeding concentrations near the islands (Kostyushin et al, 2011; ROM Bulletin, 2015).

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

150000

Start year

2012

End year

2018

Source of data:

Rudenko A.G., 2014

Optional text box to provide further information

The international environmental value both of the aquatic and terrestrial area of the Site is determined by a high number of breeding birds supported. The islands support nesting of more than 20 bird species with a total abundance of about 20,000-23,000 thousand pairs. The Site has a large colony of *Hydroprogne caspia* (up to 1,000 pairs), populations of *Phalacrocorax carbo*, *Gelochelidon nilotica*, *Larus ichthyaetus*, *Larus genei*, *Thalassius sandvicensis*. Annually, over 80,000-100,000 birds form breeding concentrations near the islands (Kostyushin et al, 2011, ROM Bulletin, 2015). The territory is important for migratory birds at the national level: it supports 100,000 – 150,000 ind. of waterbirds in autumn and 100,000 - in spring. It is a moulting area of *Cygnus olor*. During the migration period, up to 75,000 of other species of Anseriformes can be found in the area. The vast majority of migratory birds form concentrations in open water areas, coastal shallows, islands and salt marshes. The most common and numerous species in migratory gatherings are *Anas penelope* – 1,500 ind., *A. platyrhynchos* – 17,000-43,000 ind., *Anser albifrons* – 5,000-6,000 ind., *Rufibrenta ruficollis*, *Aythya ferina* – 2,600-5,500 ind., *Cygnus cygnus* - 700-1000 ind., *Cygnus olor* – 5,200-11,000 ind., *Fulica atra* – 32,500-37,500 ind., *Larus cachinnans* – 6,000 ind. and *L. ridibundus* – 25,000 ind., *Pelecanus onocrotalus* - 600-1,000 ind., *Phalacrocorax carbo* - up to 8,500 ind., etc. In winter, more than 20,000 ducks can be found, and hundreds of thousands of *Philomachus pugnax* are recorded in the migration season along the shores of the bays (ROM Bulletin, 2015).

Criterion 6 : >1% waterbird population

Optional text box to provide further information

Anas platyrhynchos, Eastern Europe/Black Sea & East Mediterranean - 2.86 %.
Anser albifrons, Western Siberia/Black Sea & Turkey - 2.33 %.
Cygnus cygnus, N Europe & W Siberia/Black Sea & E Mediterranean - 21.42 %.
Cygnus olor, Black Sea - 8.64 %.
Egretta garzetta, Central & E Europe, Black Sea, E Mediterranean - 2.66 %.
Fulica atra, Black Sea & Mediterranean (win) - 1.48 %.
Gelocheilidon nilotica , nilotica, Black Sea & East Mediterranean/Eastern Africa -2.6 %
Grus grus, Eastern Europe/Turkey, Middle East & NE Africa - 5 %.
Larus melanocephalus W Europe, Mediterranean & NW Africa – 13.75 %
Thalassius sandvicensis, sandvicensis, Black Sea & Mediterranean (bre) - 9.1 %

Criterion 7 : Significant and representative fish

Justification

The Site supports the existence of 60 species and subspecies of the Black Sea fish during all periods of their life cycle (Movhcan, 2000, 2011). Of these, there are 8 species of so-called Boreal-Atlantic relics that are the remains of the glacial fauna: Squalis acanthias, Raja clavata, Sprattus sprattus phalericus, Platichthys flesus luscus, Merlangius merlangus, Gasterosteus aculeatus, Salmon trutta, Anguilla anguilla. Among the permanent inhabitants of the bays, the largest variety of species is in the Gobiidae (14 species and subspecies), 4 species of fish from the family Labridae, 5 species of sturgeons (Huso huso, Acipenser stellatus, A. guldenstedtii colchicus, A. sturio, etc.), one of which, Acipenser nudiventis, is considered to be extinct. The Site supports 9 species of Gobiidae, 7 species of Syngnathidae or 28% out of total number of fish species. 3 indigenous species of mullet (Mugilidae) are recorded. Some of these species in the Black Sea have formed special subspecies that differentiate from the Mediterranean species by some morphological features and in sizes (Zuev, 2011). 8 fish species are listed in the IUCN Red List.

Criterion 8 : Fish spawning grounds, etc.

Justification

The bays are an important source of fish foraging, spawning grounds, fattening areas of many commercial, vulnerable and rare fish species. In summer, the shallow bays of the Dnieper-Karkinitzka coastal area provide important fattening and spawning sites for commercial fish species such as Gobiidae, Mugilidae, and herrings of the genus Alosa.
Species composition of fish in Karkinitzka Bay is specific. During summer, the water temperature in the bay reaches 23-26 °C, salinity - 18-19%. As a result, some fish of the marine warmwater complex (from the families Sparidae, Labridae, Centracanthidae, Gobiiesocidae and some others) which usually do not spread north, penetrate into Karkinitzka Bay. Chromis chromis, Arnoglossus kessleri, D. pastinaca, etc. are more common here. The water areas of the Site provide habitats for some migratory fish species, including 4 sturgeon species which have a special protection status: Acipenser guldenstaedtii, A. stellatus, A. sturio, Huso huso.

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ LILIOPSIDA	<i>Agropyron dasyanthum</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EN	<input type="checkbox"/>		
TRACHEOPHYTA/ LILIOPSIDA	<i>Anacamptis coriophora</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Anacamptis laxiflora</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Anacamptis morio picta</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Anacamptis palustris</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Apocynum cannabinum</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Asparagus pallasii</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine – VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Astrodaucus littoralis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Chrysopogon gryllus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Cladium mariscus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Crambe maritima</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Dianthus bessarabicus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - CR	
TRACHEOPHYTA/ LILIOPSIDA	<i>Epipactis palustris</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Glaucium flavum</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Goniolimon graminifolium</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine – VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Lepidium cartilagineum</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Medicago marina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Stipa pennata sabulosa</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	<i>Zostera marina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Annex I of the Bern Convention	

Flora includes about 500 species of higher cryptogamic and vascular plants belonging to 252 genera and 72 families (Dubina et al., 2011). According to the studies of island flora of Dzharylgach carried out by Profesor I.I. Moisienko (2011,) higher vascular plants consists of 491 species, including 43 species of sozophytes. The Red Data Book of Ukraine includes 21 species of the area; Red List of Kherson Region - 10; Bern Convention - 6; CITES - 6 (Moisienko, 2011; Red Data Book, 2009). Endemic and subendemic species make up 10.82% of the flora. Especially valuable species are distributed within the site are populations of *Cladium mariscus* (Dzharylgach Island), a number of subendemic species of the Lower Dnieper region: *Tragopogon borysthenicus*, *Trifolium borysthenicum*, *Onobrychis borysthena*, *Otites borysthena*, *Centaurea breviceps*, etc. Mycobiota of Dzharylgach include 57 species of fungi, belonging to 7 orders. The dominants are Uridinales, Dithideales and Erisiphales that is typical for coastal coenoses. Lichens has 26 species, belonging to 14 genera and 6 families. Bryophytes of the island are represented by 5 species. Among mosses, *Tortella inclinata* R. Hedw. Limpr., is characterized by a narrowly localized range. 21 species of vascular plants are included in the Red Data Book of Ukraine (2009): *Stipa borysthena*, *Cladium mariscus*, *Chrysopogon gryllus*, *Trachomitum rusanovii*, 6 rare species of orchids (*Anacamptis* spp.), etc. (Shaposhnikova, 2016). The rare endemic seaweed with a narrow local range is found - *Chaetomorpha zernovii*.

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/MAMMALIA	<i>Allactaga major</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - LC	
CHORDATA/MAMMALIA	<i>Dama dama</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Delphinus delphis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	listed in the Red Data Book of Ukraine - NE	
CHORDATA/REPTILIA	<i>Emys orbicularis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	annex II of the Bern Convention	
CHORDATA/MAMMALIA	<i>Lepus europaeus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Microtus socialis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Mus spicilegus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Mustela eversmanii</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - EN	
CHORDATA/MAMMALIA	<i>Mustela nivalis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Nyctalus lasiopterus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Phocoena phocoena</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	Area of residence, migrations, feeding habitat
CHORDATA/MAMMALIA	<i>Tursiops truncatus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Ukraine - LC	Area of residence, migrations, feeding habitat
CHORDATA/REPTILIA	<i>Vipera renardi</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
CHORDATA/MAMMALIA	<i>Vulpes vulpes</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
Fish, Mollusc and Crustacea																	
CHORDATA/ACTINOPTERYGII	<i>Acipenser gueldenstaedtii</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				CR	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	Important habitat, place of feeding fry.
CHORDATA/ACTINOPTERYGII	<i>Acipenser stellatus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				CR	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	Important habitat, place of feeding fry.
CHORDATA/ACTINOPTERYGII	<i>Acipenser sturio</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				CR	<input type="checkbox"/>	<input type="checkbox"/>		

RIS for Site no. 114, Karkinitzka and Dzharylgatska Bays, Ukraine

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/ACTINOPTERYGII	<i>Callionymus risso</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - LC	
CHORDATA/ACTINOPTERYGII	<i>Hippocampus guttulatus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	Important habitat
CHORDATA/ACTINOPTERYGII	<i>Huso huso</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				CR	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - CR	Important habitat, place of feeding fry.
CHORDATA/ACTINOPTERYGII	<i>Salmo labrax</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - CR	
Birds																	
CHORDATA/AVES	<i>Anas penelope</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1500	2012-2018			<input type="checkbox"/>	<input type="checkbox"/>		Migratory and wintering concentrations
CHORDATA/AVES	<i>Anas platyrhynchos</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43000	2012-2018	2.86	LC	<input type="checkbox"/>	<input type="checkbox"/>		Migratory and wintering concentrations
CHORDATA/AVES	<i>Anas strepera</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		breeding
CHORDATA/AVES	<i>Anser albifrons</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5840	2012-2018	2.33	LC	<input type="checkbox"/>	<input type="checkbox"/>		up to 20,000 during migrations
CHORDATA/AVES	<i>Anser erythropus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>		migraton
CHORDATA/AVES	<i>Ardea alba</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1400	2012-2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Breeding and migratory area.
CHORDATA/AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4000	2012-2018		VU	<input type="checkbox"/>	<input type="checkbox"/>		Migratory concentrations
CHORDATA/AVES	<i>Aythya nyroca</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	800	2012-2018		NT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Ukraine - VU	Migratory concentrations
CHORDATA/AVES	<i>Branta ruficollis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	600	2012-2018		VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Ukraine - VU	Place of residence, migrations, feeding habitat
CHORDATA/AVES	<i>Charadrius alexandrinus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	2014-2015		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	Breeding area.
CHORDATA/AVES	<i>Chroicocephalus ridibundus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25000				<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Ciconia ciconia</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Ciconia nigra</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Cygnus cygnus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3000	2012-2018	21.42	LC	<input type="checkbox"/>	<input type="checkbox"/>	annex II of the Bern Convention	Migratory concentrations
CHORDATA/AVES	<i>Cygnus olor</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5100	2012-2018	8.64	LC	<input type="checkbox"/>	<input type="checkbox"/>		Moulting. Concentrations during migrations and wintering.
CHORDATA/AVES	<i>Egretta garzetta</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1940	2012-2018	2.66	LC	<input type="checkbox"/>	<input type="checkbox"/>	annex II of the Bern Convention	Breeding. Concentrations during migratorions
CHORDATA/AVES	<i>Fulica atra</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37500	2012-2018	1.48	LC	<input type="checkbox"/>	<input type="checkbox"/>		Migratory concentrations
CHORDATA/AVES	<i>Gelochelidon nilotica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	800	2011-2018	2.6	LC	<input type="checkbox"/>	<input type="checkbox"/>		Breeding area nilotica, Black Sea & East Mediterranean/Eastern Africa
CHORDATA/AVES	<i>Grus grus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5000	2012-2018	5	LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - LC	Migratory stopovers
CHORDATA/AVES	<i>Haematopus ostralegus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200	2012-2018		NT	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	Breeding area
CHORDATA/AVES	<i>Haliaeetus albicilla</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	2012-2018		LC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	listed in the Red Data Book of Ukraine - LC	Migrations and wintering
CHORDATA/AVES	<i>Himantopus himantopus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200	2012-2018		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	Breeding area

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	<i>Hydroprogne caspia</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1000	2012-2018		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	Migrations and wintering
CHORDATA/AVES	<i>Ichthyaetus ichthyaetus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1300	2012-2018			<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - EN	Breeding area
CHORDATA/AVES	<i>Ichthyaetus melanocephalus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33000	2000-2017	13.75		<input type="checkbox"/>	<input type="checkbox"/>		nests here I МІГРУЄ W Europe, Mediterranean & NW Africa
CHORDATA/AVES	<i>Larus cachinnans</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11000	2000-2017		LC	<input type="checkbox"/>	<input type="checkbox"/>		nests here
CHORDATA/AVES	<i>Microcarbo pygmeus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	2000-2017			<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - CR	
CHORDATA/AVES	<i>Numenius arquata</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	2000-2017		NT	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - CR	
CHORDATA/AVES	<i>Oxyura leucocephala</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	2011-2017		EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red Data Book of Ukraine - CR	Migration and wintering near Crimea peninsula
CHORDATA/AVES	<i>Pelecanus crispus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	1995-2017		NT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	listed in the Red Data Book of Ukraine - CR	Forage habitat, places of rest
CHORDATA/AVES	<i>Pelecanus onocrotalus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1000	2000-2017		LC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	listed in the Red Data Book of Ukraine - CR	Forage habitat, places of rest
CHORDATA/AVES	<i>Phalacrocorax aristotelis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	300	2011-2017		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - CR	
CHORDATA/AVES	<i>Phalacrocorax carbo</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5200			LC	<input type="checkbox"/>	<input type="checkbox"/>		nests here
CHORDATA/AVES	<i>Philomachus pugnax</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20000	2011-2017			<input type="checkbox"/>	<input type="checkbox"/>		accumulates here during migration
CHORDATA/AVES	<i>Recurvirostra avosetta</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	250	2014-2015		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - LC	
CHORDATA/AVES	<i>Somateria mollissima</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	300	2011-2017		NT	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - VU	accumulates here during migration
CHORDATA/AVES	<i>Sterna hirundo</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4000	2011-2017		LC	<input type="checkbox"/>	<input type="checkbox"/>		nests here
CHORDATA/AVES	<i>Sternula albifrons</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	300	2000-2017		LC	<input type="checkbox"/>	<input type="checkbox"/>	Red Data Book of Ukraine - LC	
CHORDATA/AVES	<i>Thalasseus sandvicensis</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10000	2000-2017	9.1	LC	<input type="checkbox"/>	<input type="checkbox"/>		nests here sandvicensis, Black Sea & Mediterranean (bre)
CHORDATA/AVES	<i>Tringa totanus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	900			LC	<input type="checkbox"/>	<input type="checkbox"/>		nests here

1) Percentage of the total biogeographic population at the site

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
A2.2 : Littoral sand and muddy sand.	<input checked="" type="checkbox"/>	Littoral areas, formed by 0.063-1.0 mm fine-grained sand. Fraction of smaller particles does not exceed 30%. Vegetation is absent.	The community is included in Resolution 4 of the Bern Convention
A2.4: Littoral mixed sediments	<input checked="" type="checkbox"/>	Littoral areas, formed by mobile rocks with heterogenous sizes of particles. No vegetation with the dominance of angiosperms.	The community is included in Resolution 4 of the Bern Convention

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
A2.5 : Coastal saltmarshes and saline reedbeds	<input checked="" type="checkbox"/>	Communities of the classes Juncetea maritima, Salicornietea fruticosae, Thero-Salicornietea, Cakiletea maritima.	The community is included in Resolution 4 of the Bern Convention
(A1 and A2).Black Sea exposed marine and coastal halophitic communities	<input checked="" type="checkbox"/>	Vegetation beds dominated by species from the genus Zostera in the Black Sea	The community is included in Resolution 4 of the Bern Convention
A1.22 : Mussels and fucoids on moderately exposed shores	<input checked="" type="checkbox"/>	Communities of mussels and fucoids	The community is included in Resolution 4 of the Bern Convention
A2.61 : Seagrass beds on littoral sediments	<input checked="" type="checkbox"/>	Sublittoral communities of Zostera and Ruppia that contradicts with the criteria A2 and A2.6.	The community is included in Resolution 4 of the Bern Convention
A5 : Sublittoral sediment	<input checked="" type="checkbox"/>	Sublittoral sediment of mobile sedimentary rocks. Areas of inland shelf constantly flooded with marine water	The community is included in Resolution 4 of the Bern Convention
C3.1-C3.2 Communities of halophitic vascular plants	<input checked="" type="checkbox"/>	Beds of halophitic vascular plants, Pontic communities (communities Ruppia maritima: Ruppia maritima, Ruppia cirrhosa, Zannichellia pedicellata, Chara spp.)	The community is included in Resolution 4 of the Bern Convention
D6.2 : Inland saline or brackish species-poor helophite beds	<input checked="" type="checkbox"/>	Pontic-Sarmatian (formations Festuco-Puccinellietea (Puccinellio-Salicornietea): Festuco-Puccinellietalia, Crypsidetalia aculeatae p., Halostachyeta) Western Pontic formations with the dominance of species from the genera Artemisia and Festuca	The community is included in Resolution 4 of the Bern Convention
D6.1 : Inland saltmarshes	<input checked="" type="checkbox"/>	Formations of Thero-Salicornietea, Frankenieta pulverulenta, Sagineta maritima, Crypsietea aculeatae;Sarmatian formations with the dominance of Salicornia europea and Suaeda maritimaAlkaline with the dominance of Atriplex and Chenopodium	The community is included in Resolution 4 of the Bern Convention
B1 : Coastal dunes and sand beaches (B1.3 : Shifting coastal dunes and B.1.4: Coastal stable dune grassland (grey dunes)	<input checked="" type="checkbox"/>	Coastal areas formed mainly by sand (size of particles is 0.063–4 mm), often moved by wind. Reached by splashes of waves, some habitats are flooded with surf.	The community is included in Resolution 4 of the Bern Convention
B1.8 : Moist and wet dune slacks	<input checked="" type="checkbox"/>	Sand-formed depressions between dunes, often flooded.	The community is included in Resolution 4 of the Bern Convention
C1.5 : Permanent inland saline and brackish lakes, ponds and pools	<input checked="" type="checkbox"/>	Permanent saline and brackish bodies of water	The community is included in Resolution 4 of the Bern Convention
C1.6 : Temporary lakes, ponds and pools	<input checked="" type="checkbox"/>	Temporary freshwater and saline inland bodies of water and temporary drying areas of permanent water bodies	The community is included in Resolution 4 of the Bern Convention
C1.66 : Temporary inland saline and brackish waters	<input checked="" type="checkbox"/>	Temporary freshwater and saline inland bodies of water and temporary drying areas of permanent water bodies	The community is included in Resolution 4 of the Bern Convention

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
C3.2 : Water-fringing reedbeds and tall helophytes other than canes.	<input checked="" type="checkbox"/>	Communities of inland water bodies, including brackish ones, with the dominance of <i>Butomus umbellatus</i> , <i>Carex acuta</i> , <i>Carex elata</i> , <i>Carex riparia</i> , <i>Carex rostrata</i> , <i>Cladium mariscus</i> , <i>Eleocharis palustris</i> , <i>Equisetum fluviatile</i> , <i>Glyceria maxima</i> , <i>Phragmites a</i>	The community is included in Resolution 4 of the Bern Convention
D6.1 : Inland saltmarshes	<input checked="" type="checkbox"/>	Communities with the dominance of <i>Carex distans</i> , <i>Puccinellia distans</i> , <i>Spergularia maritima</i> , <i>Triglochin palustris</i> and inland (not connected with the sea) communities of perennial plants of the genera <i>Salicornia</i> , <i>Suaeda</i> , <i>Salsola</i> .	The community is included in Resolution 4 of the Bern Convention
E1.2 : Perennial calcareous grassland and basic steppes	<input checked="" type="checkbox"/>	Typical dominants: <i>Botriochloa ischaemum</i> , <i>Brachypodium pinnatum</i> , <i>Bromopsis cappadocica</i> , <i>Bromopsis riparia</i> , <i>Carex humilis</i> , <i>Elytrigia nodosa</i> , <i>Festuca beckeri</i> , <i>Festuca pallens</i> , <i>Festuca rupicola</i> , <i>Festuca valesiaca</i> s. l., <i>Galatella</i> spp., <i>Koeleria cristata</i>	The community is included in Resolution 4 of the Bern Convention
E6.2 : Continental inland salt steppes.	<input checked="" type="checkbox"/>	Vegetation belongs to the classes <i>Juncetea maritimi</i> , <i>Festuco-Puccinellietea</i> s. l., <i>Salicornietea fruticosae</i> . Typical dominants of communities: <i>Aeluropus litoralis</i> , <i>Artemisia taurica</i> , <i>Artemisia santonica</i> , <i>Aster tripolium</i> ,	The community is included in Resolution 4 of the Bern Convention
X02 : Saline coastal lagoons	<input checked="" type="checkbox"/>	Lagoons – significantly isolated marine areas connected with the sea by a narrow channel or completely isolated by a narrow strip of land which does not completely block the water exchange.	The community is included in Resolution 4 of the Bern Convention
X29: Salt lake islands	<input checked="" type="checkbox"/>	Land areas (existing permanently or during a major part of the year), surrounding by permanent or temporary salt lakes	The community is included in Resolution 4 of the Bern Convention

[Optional text box to provide further information](#)

Vegetation of Dzharylgach Island is represented by psamophytic-steppe, meadow, swamp, solonetz and alkaline plants, as well as higher aquatic plants. Significant areas are occupied by artificial plantations of trees and shrubs (Dubina et al., 2011). Dzharylgach Island, located within the site, supports rare plant communities listed in the Green Book of Ukraine (5 formations). They include formations of *Chrysopogoneta grullii*, *Stipeta capillatae*, *Cladieta mariscima*.

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

4.1 - Ecological character

Generally, the landscape of the Site is typical for the Black Sea region. It includes coastal biotopes with developed network of spits, shallow waters and islands.

The most significant elements of the dynamics of water affecting the functioning of aquatic barns are wind currents, wave fields, fracturing and compensatory currents. The most significant displacement of water masses occurs in the bay in the process of degradation phenomena. There are two hydrodynamic trends - linear and circulating. Their ratio is determined by the nature of the dynamics of water. The Black Sea is without tidal, because there are practically no fluctuations of the level associated with tidal and tidal phenomena (1-2 cm, sometimes up to 8 cm). Fluctuations in the sea level are periodic, associated with the flow of river flood and rainwater, and nonperiodic, depending on the speed and direction of the winds cause squad and water discharge.

Vegetation is typical for the coastal steppe zone. The following main biotopes are presented within the Site: dune meadows (*Cakile euxina*, *Crambe pontica*, *Leymus racemosus*), open waters (*Najas marina*, *Potamogeton pectinatus*, *Ruppia cirrhosa*, *Zannichellia palustris*, *Zostera marina*), halophyte complexes (*Artemisia pontica*, *A. santonica*, *A. scoparia*, *Calamagrostis epigeios*, *Elytrigia maeotica*, *E. elongata*, *Limonium meyeri*, *Puccinellia distans*, *Salicornia europaea*, *Suaeda prostrata*, *Triglochin maritimum*) and marginal phytocenosis (*Phragmites australis*). Vegetation of coastal areas and islands mainly consists of common reed and halophyte species. Large areas are occupied by aquatic plants (*Chara sp.* and *Zostera noltii*). Approximately a half of the Lebedyni Islands is covered with reed.

Diverse xerophytes vegetation is typical for elevated areas. *Artemisia sp.* and *Salsola sp.* grow here as well as *Crambe pontica*, *Calamagrostis epigeios*, *Elytrigia maeotica*, *Leymus sabulosus*, etc. Almost 15% of islands have not any vegetation. Shallow waters around islands are rich by submerged vegetation, primarily *Zostera noltii* and *Chara sp.* However, in recent years their area was decreased visibly. Trees and bushes grow only on the Dzharlygach Island. Only several species had settled down in these conditions: *Elaeagnus angustifolia*, *E. argentea*, *Tamarix ramosissima*, *Robinia pseudoacacia*, *Ulmus pumila*.

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	87000	Representative
D: Rocky marine shores		3		
E: Sand, shingle or pebble shores		2		

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
Saline, brackish or alkaline water > Marshes & pools >> Sp: Permanent saline/brackish/alkaline marshes/pools	Site "Pyndyky"	2	3000	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTALILIOPSIDA	<i>Agrostis gigantea maeotica</i>	Red list of Kherson region
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Ephedra distachya</i>	Red list of Kherson region
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Eryngium maritimum</i>	Red list of Kherson region
TRACHEOPHYTALILIOPSIDA	<i>Gagea dubia</i>	Red list of Kherson region
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Jacobaea borysthenica</i>	
TRACHEOPHYTALILIOPSIDA	<i>Melica thuringiaca</i>	Red list of Kherson region
TRACHEOPHYTALILIOPSIDA	<i>Molinia caerulea</i>	
TRACHEOPHYTALILIOPSIDA	<i>Puccinellia convoluta</i>	
TRACHEOPHYTALILIOPSIDA	<i>Schoenus nigricans</i>	Red list of Kherson region
TRACHEOPHYTALILIOPSIDA	<i>Stipa capillata</i>	
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Tragopogon borystenicus</i>	
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Viola lavrenkoana</i>	
TRACHEOPHYT/MAGNOLIOPSIDA	<i>Vitis flexuosa</i>	Red list of Kherson region

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ambrosia artemisiifolia</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Elaeagnus angustifolia</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Robinia pseudoacacia</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Xanthium albinum</i>	Actual (minor impacts)	No change

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/ACTINOPTERYGII	<i>Alosa immaculata</i>				
CHORDATA/AVES	<i>Bucephala clangula</i>	500	2000-2017		IUCN Red List - LC, CMS (II), Red Iata Book of Ukraine - LC
CHORDATA/AVES	<i>Chroicocephalus genei</i>	2000	2000-2017		IUCN Red List - LC, AEWA, CMS (II)
CHORDATA/AVES	<i>Circus cyaneus</i>	50	2000-2017		IUCN Red List - LC, CMS (II), CITES (II), Red data Book of Ukraine - LC
CHORDATA/AVES	<i>Circus pygargus</i>	30	2000-2017		IUCN Red List - LC, CITES (II), CMS (II), Red data Book of Ukraine - VU
CHORDATA/ACTINOPTERYGII	<i>Liza aurata</i>				
CHORDATA/ACTINOPTERYGII	<i>Mugil cephalus</i>				
CHORDATA/ACTINOPTERYGII	<i>Neogobius fluviatilis</i>				
CHORDATA/ACTINOPTERYGII	<i>Neogobius melanostomus</i>				
CHORDATA/AVES	<i>Platalea leucorodia</i>	300	2000-2017		IUCN Red List - LC, AEWA (II)c, CMS, Red data Book of Ukraine - VU
CHORDATA/AVES	<i>Plegadis falcinellus</i>	100	2000-2017		IUCN Red List - LC, AEWA (II)c, CMS, Red data Book of Ukraine - VU
CHORDATA/ACTINOPTERYGII	<i>Sprattus sprattus</i>				
CHORDATA/ACTINOPTERYGII	<i>Zosterisessor ophiocephalus</i>				

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	<i>Liza haematocheila</i>	Potential	unknown
CTENOPHORA/TENTACULATA	<i>Mnemiopsis leidyi</i>	Actual (major impacts)	unknown
MOLLUSCA/BIVALVIA	<i>Mya arenaria</i>	Actual (minor impacts)	unknown
MOLLUSCA/BIVALVIA	<i>Mytilus edulis</i>	Potential	unknown
CHORDATA/MAMMALIA	<i>Nyctereutes procyonoides</i>	Actual (major impacts)	No change
MOLLUSCA/GASTROPODA	<i>Rapana venosa</i>	Actual (major impacts)	unknown

Optional text box to provide further information

Data on monitoring of the species composition and impact on ecosystems of invasive species of fauna and flora is not enough. Although it is already known that at present, the non-typical fauna has a weak or moderate influence on the territory of the Park. Ways of spreading invasive species of fauna and their impact on aquatic and terrestrial ecosystems are known only for certain species. Recommendations for reducing the impact of actions: inventory works on the identification of invasive and "harmful" species of fauna, conducting special research on this topic, development of monitoring areas for these species, development of measures to prevent the penetration of these species and reduce their impact on aboriginal fauna. Inclusion of these activities in the Park's plans for future years. State financing of the subject.

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)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- 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.

Black Sea. The Karkinitzka Bay is a large bay of the Black Sea in the north-west of Crimea Peninsula. Its northern coast is formed by the Dzharylgach Island and Tendrivska spit. The Dzharylgatska Bay is located between the Black Sea coast in the north and the Dzharylgach Island in the south.

4.4.3 - Soil

Mineral

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

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

The islands height is generally less than 2 m above sea level. They have no topsoil, being composed of loose shell-sand, with deposited sand and silt.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Marine water	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

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

The level of groundwater in the north (Mainland) Dzharylgach coast of the Gulf of 0,8-4,5 m; Island Dzharylgach - 0,2-1,1 m. The island, along with synomineralizovanymy groundwater is insignificant layer of fresh perched dedicated to the highest areas. The dynamics Dzharylgach waters of the Gulf, because of its elongated shape, predominant linear component. The main factors are the dynamics of water flow of wind, wave field, and the effects of the surge accompanying compensation currents.

4.4.5 - Sediment regime

Sediment regime unknown

Please provide further information on sediment (optional):

The sedimentary regime is associated with alluvial and erosional effects of sea waves on the coast of the islands and the relief of the seabed. No significant fluctuations and phenomena are observed.

4.4.6 - Water pH

Unknown

Please provide further information on pH (optional):

Possible changes due to the intensification of agriculture, in particular, rice sowing.

4.4.7 - Water salinity

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

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

Euhaline/Eusaline (30-40 g/l)

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

Unknown

Please provide further information on salinity (optional):

The Karkinitzka and Dzharlygatska Bays are the most salty bays of the Black Sea (18–19‰).

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

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

Mesotrophic

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

Unknown

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

Possible changes due to the intensification of agriculture, in particular, rice sowing.

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)	Medium
Fresh water	Water for irrigated agriculture	
Genetic materials	Genes for tolerance to certain conditions (e.g., salinity)	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Recreational hunting and fishing	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium
Scientific and educational	Major scientific study site	Medium

Supporting Services

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

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

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

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

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
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

Within the Ramsar site:

The National natural park "Dzharylgatsky" particularly (in its territory) is responsible for nature conservation from 2009. Administration of the Crimean Natural Reserve is responsible for nature conservation within the reserved area; Land owners, land users and local authorities are responsible for the rest of area.

5.1.2 - Management authority

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

Crimean Nature Reserve
National natural park "Dzharylgatsky", st. Volodarskogo 3, city Skadovsk, 75700, Kherson region.

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

Irina Sabashenko, Director of NPP "Dzharylgatsky"

Postal address:

42 Partyzanska Str., Alushta, Autonomous Republic of Crimea, 98500, Ukraine;
st. Volodarskogo 3, city Skadovsk, 75700, Kherson region, Ukraine.

E-mail address:

nppd@ukr.net

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	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Commercial and industrial areas	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Tourism and recreation areas	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Water releases	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Water abstraction	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Canalisation and river regulation	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Salinisation	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Dredging	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Wood and pulp plantations	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Annual and perennial non-timber crops	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Livestock farming and ranching	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Marine and freshwater aquaculture	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Renewable energy	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Mining and quarrying	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Shipping lanes	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Aircraft flight paths	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Utility and service lines (e.g., pipelines)	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	High impact	Medium impact	<input type="checkbox"/>	decrease	<input checked="" type="checkbox"/>	No change
Gathering terrestrial plants	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Logging and wood harvesting	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Fishing and harvesting aquatic resources	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase
(Para)military activities	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Vegetation clearance/land conversion	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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
Problematic native species	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Invasive non-native/alien species	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Agricultural and forestry effluents	High impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Garbage and solid waste	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Industrial and military effluents	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Air-borne pollutants	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Earthquakes/tsunamis	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Temperature extremes	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Storms and flooding	Medium impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	UA0000108 Dzharylhatsky National Nature Park	https://emerald.eea.europa.eu/	partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
botanical reserve	Dzharylgatsky		partly
National natural park	"Dzharylgatsky"		partly
natural reserve	Karkinitzka Bay		partly
Nature Reserve	Crimean		partly
ornithological game reserve	Lebedyni Islands		partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Karkinitz'ka and Dzharylgats'ka bays UA067	http://datazone.birdlife.org/site/factsheet/karkinitzka-and-dzharylgatska-bays-iba-ukraine	whole

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

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Partially implemented
Regulation/management of recreational activities	Partially implemented
Research	Implemented
Harvest controls/poaching enforcement	Implemented
Fisheries management/regulation	Partially 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:

The staff of the National natural park "Dzharylgatsky" conducts systematic work on raising awareness and organizing excursions.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

Further information

Vegetation on the island needs to be restored for example by removing invasive alien species.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented
Plant species	Implemented

Scientific researches are carried out by the Institute of Hydrobiology, Institute of Zoology and Institute of Biology of Southern Seas (Sevastopol) of the National Academy of Sciences of Ukraine, Black Sea Biosphere Reserve, Crimean Nature Reserve, Tavriisky National University, Nikitsky Botanical Garden (the national centre of the Ukrainian Agrarian Academy of Sciences) and Azov-Black Sea Ornithological Station.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- Ardamatskaya T.B., Siokhin V.D., Poluda A.M. Dzharylgatska Bay / Numbers and Distribution of Breeding Warebirds in the Wetlands of Azov/Black Sea Region of Ukraine / Edited by Valeriy Siokhin. – Melitopol-Kiev: Branta, 2000. – P. 145-167. [In Russian]
- Ardamatskaya T.B. Dynamics of numbers of birds of wetland complex and its tendency on the islands of Dzharylgachsky Bay. // Branta. – Melitopol. - V. 12. – 2009. – C. 40–47. [In Russian]
- Bulletin ROM: Results of midwinter counts of waterbirds of 2005, 2007-2010 in the Azov-Black Sea region of Ukraine / Edited by Yu. A. Andryushchenko. – 2011. – Issue 7. – 64 p. [In English]
- Directory of Ukraine's Wetlands / Edited by G. Marushevsky, I. Zharuk. – Kyiv: Wetlands International Black Sea Programme, 2006. – P. 55-60. [In Ukrainian]
- Directory of Azov-Black Sea Coastal Wetlands: Revised and updated / Edited by Gennadiy Marushevsky. – Kyiv: Wetlands International, 2003. – P. 188-191. [In English]
- Kostiushyn V.A., Chernichko I.I., Poluda A.M., Chernichko R.N. Analysis of information sources on waterbird migration in the Azov–Black Sea region of Ukraine: bibliography, count results and ring recoveries. – Wetlands International Black Sea Programme.- 2011. – 90 pp.
- National Scheme of biogeographic regionalisation. National Atlas of Ukraine. – Kyiv: State scientific production enterprise 'Kartographia', 2007. – 440 p. [In Ukrainian]
- Rudenko A.G., Yaremchenko O.A., Moskalenko Yu.A. & Rudenko V.P. Long-term monitoring of the wintering geese in the Ramsar wetlands of the northern Black Sea coasts // Die Vogelwelt. - 2008. – N129. – Vol. 3. - P. 201-203.
- Rudenko A.G. Ramsar site "Karkinitzka and Dzharylgach Bays" / Monitoring of wetlands of international importance. Methods and Results (Materials of the Workshop "Organization and results of monitoring of wetlands of international importance in Ukraine", Odessa, March 4-6, 2014) // Under the general edition of O.Z. Petrovych - K.: DIA, 2014. - p.83-92. [In Ukrainian]
- Tarina N., Kostin S., Bagrikova N. Karkinitzka Bay / Numbers and Distribution of Breeding Warebirds in the Wetlands of Azov/Black Sea Region of Ukraine / Edited by Valeriy Siokhin. – Melitopol-Kiev: Branta, 2000. – P. 168-189. [In Russian]
- Stetsenko M., Parchuk G., Klestov M., Osipova M., Melnichuk G., Andrievska O. Wetlands of Ukraine. Informational materials / Edited by Stetsenko M. – Kyiv, 1999. [In Ukrainian]

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:



White Pelicans near the island Dzharylgach (Antonina Rudenko, 23-06-2015)



The wet chicken of Sandwich Tern on the island Dzharylgach (Antonina Rudenko, 15-06-2015)



Chicks of the Common Tern on the island Dzharylgach (Antonina Rudenko, 23-06-2015)



Breakfast of the chicken of Gray Herons on the Cakinitsky islands (Antonina Rudenko, 12-06-2012)



Young Yellow-legged Gull on the Cakinitsky islands (Antonina Rudenko, 13-06-2012)

6.1.4 - Designation letter and related data

Designation letter

<3 file(s) uploaded>

Date of Designation