



Ministry of the Environment and Natural Resource of
Ukraine

Wetlands International — AEME



Wetlands of International Importance of Ukraine

designated under the

CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE
ESPECIALLY AS WATERFOWL HABITAT (Ramsar, 1971)

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Preface to the Ukrainian Edition

This report "Wetlands of International Importance of Ukraine" has been prepared based on information from the Ministry of the Environment and Natural Resource of Ukraine as well as various experts throughout Ukraine. The information on Ukrainian Ramsar sites was earlier published on the CD "A Directory of Wetlands of International Importance" prepared for the Seventh Meeting in 1999 of the Conference of the Contracting Parties of the Ramsar Convention (the Convention on Wetlands of International Importance especially as Waterfowl Habitat).

"Wetlands of International Importance of Ukraine" covers all 22 sites designated for the Ramsar "List of Wetlands of International Importance" up to the end of 1998.

The information provided in the next chapters of this report is a copy of the Introduction of the publication "A Directory of Wetlands of International Importance" as well as a copy of the texts of the 22 Ukrainian Ramsar sites. Scott Frazier reedited the language of the text on the Ukrainian Ramsar sites.



Fig. Wetlands of International Importance of Ukraine: 1 — Kugurlui Lake; 2 — Kartal Lake; 3 — Kyliiske Mouth; 4 — Sasyk Lake; 5 — Shagany-Albei-Burnas Lakes System; 6 — Dniester-Turunchuk Crossrivers Area; 7 — Northern Part of the Dniester Liman; 8 — Tyligulskyi Liman; 9 — Dnipro River Delta; 10 — Tendrivska Bay; 11 — Karkinitzka and Dzharlygatska Bays; 12 — Central Syvash; 13 — Eastern Syvash; 14 — Yagorlytska Bay; 15 — Molochnyi Liman; 16 — Obytochna Spit and Obytochna Bay; 17 — Berda River Mouth and Berdianska Spit and Berdianska Bay; 18 — Bilosaraiska Bay and Bilosaraiska Spit; 19 — Kryva Bay and Kryva Spit; 20 — Shatsk Lakes; 21 — Prypiat River Floodplains; 22 — Stokhid River Floodplains

EXCERPT FROM THE PUBLICATION "A DIRECTORY OF WETLANDS OF
INTERNATIONAL IMPORTANCE"

A Directory of Wetlands of International Importance

designated under the
CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE
ESPECIALLY AS WATERFOWL HABITAT (Ramsar, 1971)

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Compilation of United Kingdom Ramsar site accounts
was coordinated by the Joint Nature Conservation Committee
on behalf of the statutory nature conservation bodies
and territorial government departments in the UK

April 1999

Compiled by
Wetlands International
for the Seventh Meeting of the
Conference of Contracting Parties
to the Ramsar Convention
San José, Costa Rica,
May 1999

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Note: The designations of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of the Ramsar Convention Bureau or of Wetlands International concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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About the Ramsar Convention

The Convention on Wetlands (Ramsar, Iran, 1971) is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands. The Convention entered into force in 1975 and at March 1999 has 114 member countries.

The secretariat, or Ramsar Bureau, is located at Gland, Switzerland, sharing the headquarters building of IUCN — The World Conservation Union.

Because wetlands are very important for ecological processes as well as for their rich flora and fauna, the broad objectives of the Convention are to ensure their conservation and wise use. To meet these objectives, the Convention places general obligations on member countries relating to the conservation of wetlands throughout their territory, and special obligations pertaining to those wetlands which have been designated for the List of Wetlands of International Importance (the “Ramsar List”).

The selection of Ramsar sites should be based on “international significance in terms of ecology, botany, zoology, limnology or hydrology”. Specific criteria have been developed by the Convention to aid in the identification of these sites. Contracting Parties are further obliged to maintain the ecological character of listed sites and to cooperate for the management of shared wetlands and shared wetland species.

A key concept embodied in the Convention is that of “wise use” of wetlands, which has been defined as equivalent to “sustainable use”.

The Conference of Contracting Parties meets every three years to discuss national experiences, review the status of sites on the List, promote cooperative activities, and adopt technical and policy instruments to assist members countries to implement the treaty. This publication is being produced on the occasion of the 7th Meeting of the Conference, to be held in San José, Costa Rica, on 10–18 May 1999.

More details about the Convention can be found on its Web site:
<<http://ramsar.org/>>

Wetlands International

As the world's leading wetland conservation organisation, Wetlands International is unique in its focus on wetlands and the plant and animal species dependent upon them.

The global network of Wetlands International provides rapid access to specialists on wetland conservation throughout the world. These are supported by 13 regional and project offices on five continents, providing a unique force for supporting wetland conservation activities. Partnership is at the heart of Wetlands International, and strong links exist with other international conservation agencies such as IUCN, WWF and BirdLife International, and the secretariats of the Ramsar and Bonn Conventions. Global and regional programmes are supported by over 120 government agencies, NGOs, foundations, development agencies and private sector groups

Sound technical information is the basis for Wetlands International's work, which includes: coordinating conservation, management and assessment projects at international level; providing technical and fundraising support to national and local projects, and helping to build the capacity of relevant agencies. Wetlands International produces a wide range of publications and awareness materials, and organises numerous workshops, training courses and conferences each year.

For further information please contact the appropriate regional office.

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Scott Frazier
Wetlands International

Introduction

This edition of A Directory of Wetlands of International Importance has been prepared for the Seventh Meeting of the Conference of the Contracting Parties to the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the “Ramsar Convention”). This is the sixth successive meeting of the Conference at which such descriptions of listed sites have been made available. A Draft Directory was published for the Groningen conference (Netherlands) in 1984, and the first Directory of Wetlands of International Importance was published in 1987 for participants at the Regina conference (Canada). A revision of the 1987 Directory was prepared for the Montreux conference (Switzerland) in 1990. For the Kushiro conference (Japan), the Directory was produced in four separate volumes, covering Africa, Asia & Oceania, Europe, and Neotropics & North America. Then in 1996, an Update Directory was published covering only the sites designated between March 1993 and the end of 1995, for the Brisbane conference (Australia). This reflected a new decision to produce comprehensive Ramsar site directories only once every six years (instead of at every triennial Conference of the Parties – CoPs). Update directories would then be produced at the intervening CoPs, in alternating sequence with the production of the comprehensive Ramsar site directories.

By 1990, it was apparent that rapid growth in the number of Contracting Parties and listed sites necessitated a change in information management practices. In response, the Ramsar Bureau established the “Ramsar Database” in 1990 to facilitate storage and handling of information on designated Ramsar sites. This database is maintained by Wetlands International under contract to the Ramsar Convention Bureau, and has been used with its supporting data to produce both past and present editions of the Directory. The present comprehensive Directory marks the first time that site accounts have not been printed, but have been presented on electronic media: specifically on compact disc or CD.

The change to this medium is reflective of the ongoing information management revolution taking place across the globe. It is also a practical decision given that the current directory would be well over 1,000 printed pages!

This Directory is based on information submitted to the Ramsar Bureau by Contracting Parties to the Convention. Compilation of United Kingdom Ramsar site accounts was coordinated by the Joint Nature Conservation Committee on behalf of the statutory nature conservation bodies and territorial government departments in the UK. These particular accounts have been included without editing or formatting.

Many Contracting Parties have returned completed Ramsar Information Sheets (the Convention-approved site datasheet) on their Ramsar sites. Other sources of information which may have been used in the compilation of this directory include: other official site datasheets and site designation documents including maps; Ramsar COP National Reports submitted by Contracting Parties; Ramsar Bureau reports (e.g. Small Grants Fund, Montreux Record, Management Guidance Procedure, as well as various trip reports); and in the absence of sufficient other information, previously published Ramsar site Directory accounts. The date of the most recently available Ramsar Information Sheet (or substitute) is provided at the end of each site account, to give an indication of the age of the primary data source. The majority of entries have been reviewed and approved by the Ramsar Bureau, but not all entries have undergone this scrutiny, owing to the great amount of entries to compile and review immediately before CoP7. Therefore this directory must be viewed as a “consultation draft”. Any errata identified by Contracting Parties should be notified in writing to the Ramsar Convention Bureau, for forwarding to Wetlands International. The address follows:

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In the near future the Directory will be presented on the World Wide Web. This will afford the opportunity to rectify any incorrect information. Details on the debut of the Web version of the Directory will be announced on
<<http://ramsar.org/> and>
<<http://www.wetlands.agro.nl/>>

Compiled site entries were restricted to a two-page (A4) standard length. Shorter entries can generally be taken to reflect less information

available (in terms of the site account categories; see next section). Funding and time constraints mean that this Directory has been produced in the English language only, and that Contracting Party maps have not been included at this time.

Site Descriptions

This electronic edition of A Directory of Wetlands of International Importance covers all sites designated for the Ramsar “List of Wetlands of International Importance” through the end of 1998. This includes 966 Ramsar sites (see Annex 1. Ramsar Contracting Parties). The Directory utilizes a new structure compared to previous editions. Subjects included in the site accounts are also included or treated on the Convention-approved Ramsar Information Sheet (see http://www.ramsar.org/key_ris_index.htm). At this time, the electronic Directory is made available only in Microsoft Word 6.0/95 and simple text formats.

Information is provided under the following headings:

The site is referenced by Contracting Party name and the Ramsar Database site code. The site name is provided, followed by:

Date of Ramsar Designation: the date of inclusion of the site in the List.

Geographical Coordinates: the latitude and longitude of the site. These coordinates generally refer to a central point, even for very large sites. In the case of sites composed of two or more separate areas, additional sets of coordinates may be provided if available.

Elevation: in metres above sea level.

Area: the total area, in hectares, of the designated site. Separate areas may be given as well for sites that are composed of two or more units, when such information is readily available [Note: 1 square kilometre = 100 hectares].

Location: a descriptive text to help the reader locate the general position of the site in relation to one or more of the country's town or cities, administrative divisions and/or major landscape features.

Criteria: a list of the Ramsar criteria codes that have been used to identify the site as internationally important, and any accompanying text

which supports or clarifies this importance (see Annex 2. Ramsar Criteria). Codes appearing in brackets would appear to also be applicable to the site, based on the presentation of other descriptive information in official data.

Wetland Types: the codes representing wetland habitats from Ramsar's “Classification System for Wetland Types” which are represented within the site (see Annex 3. Ramsar Wetland Type). Codes appearing in brackets would appear to also be applicable to the site, based on the presentation of other descriptive information in official data.

Biological/Ecological notes: supplemental biodiversity information. Noteworthy species of plants and animals, communities, ecological features, etc, are listed under this heading if not part of the criteria discussion.

Hydrological/Physical notes: supplemental information on hydrology, landscape, climate, etc.

Human Uses: the land uses recorded both in and around the Ramsar site, including land tenure.

Conservation Measures: national and international designations or status, plans, programmes and actions aimed at conservation and wise use of the wetland, including remedial actions.

Adverse Factors: factors which might, have or are threatening the ecological character or ‘health’ of the site. These factors may be implied or explicit, and they may come from within or from outside the site.

Site: Kugurlui Lake	Designation date: 23/11/1995	
Coordinates: 45°17'N 028°40'E	Elevation: 0.5–2.5 m	Area: 6,500 ha
Location: Kugurlui Lake is situated on the Danube River, near Izmail City in Odeska Oblast, near the Romanian border. It is close to the Kartal Lake Ramsar site (3UA002).		
Criteria: 1a, 1c, 2c, 3a, 3b, 3c, (4b)		
<p>Kugurlui Lake is a typical floodplain lake with flora and fauna which is characteristic for the largest river deltas in Europe. The site contains several plant species from the Ukrainian Red Data Book (RDB), such as <i>Aldrovanda vesiculosa</i>, <i>Cladium mariscus</i>, <i>Epipactis palustris</i>, <i>Leucojum aestivum</i>, <i>Marsilea quadrifolia</i>, <i>Orchis palustris</i>, <i>Salvinia natans</i> (relic) and <i>Trapa natans</i> (relic). The wetland site is important for breeding birds (about 5,000 pairs). There are 57 bird species listed for the Ukrainian RDB, including 5 rare species for Europe, such as the cormorant <i>Phalacrocorax pygmeus</i> (about 80 breeding pairs, 1% of the European population), the spoonbill <i>Platalea leucorodia</i> (150 pairs, about 3% of the European population). Other important breeding birds are waterbirds <i>Aythya nyroca</i> and <i>Cygnus olor</i>, pelicans <i>Pelecanus crispus</i> and <i>P. onocrotalus</i>, herons <i>Ixobrychus minutus</i> and <i>Nycticorax nycticorax</i>, the coot <i>Fulica atra</i>, and the ibis <i>Plegadis falcinellus</i>. During migration and winter, the site contains a maximum of 30,000 birds, such as the stork <i>Ciconia ciconia</i>, geese and ducks <i>Anser albifrons</i>, <i>A. caerulescens</i>, <i>Anas platyrhynchos</i> and <i>Aythya ferina</i>, and the gull <i>Larus ridibundus</i>. It is also an important breeding and nursery place for fish and amphibians.</p>		
Wetland Types: O, (Ts, 1, 9)		
<p>Kugurlui Lake is a freshwater and shallow oxbow lake with low swampy shores and fishponds. The lake is connected with the lower part of the Danube floodplains by several canals. It is also connected with the Yalpug and Kartal Lakes by small ducts.</p>		
Biological/Ecological notes: Kugurlui Lake supports about 240 bird species. The emergent vegetation (mainly <i>Phragmites australis</i> , <i>Typha angustifolia</i> , <i>Scirpus lacustris</i> , <i>Butomus umbellatus</i>) occupies one-quarter of the lake's surface. The submergent plant communities include mainly <i>Potamogeton perfoliatus</i> , <i>P. pectinatus</i> , <i>Vallisneria spiralis</i> and <i>Chara sp.</i> The fish production of the lake is 120–480 tons per year. The warm water body promotes the development of plankton, which is the fodder base for fishes and waterbirds.		
Hydrological/Physical notes: The area of Kugurlui Lake fluctuates from 6,000 to 8,000 ha, with a water volume of about 72 million cubic m, and an average depth of about 1 m (max. about 3 m). Sediments are formed with black silt. The climate is temperate continental, with a short mild winter and a long hot summer. Annual precipitation is 350–400 mm, while annual evaporation is 800–900 mm. Sometimes the lake is covered with ice (no longer than one month). The water level in Kugurlui Lake depends upon the water level in the Danube (Donau) River. Up to 86% of inflow is Danube water, which carries sediments amounting to 40,000 tons per year.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. Kugurlui Lake is important for ecological education, recreation and scientific research. There is insignificant and unorganized tourism. Important ancient burial sites have been excavated by archaeologists. There is some limited and controlled hunting, fish breeding, traditional fishing, grazing of cattle and sheep and haymaking at the site. These activities occur in the surroundings, along with traditional farming, including wine making, cultivation of rice and cutting of reeds. Many scientific research projects on waterbirds and wetlands have been carried out by experts from the Dunaiskyi Biosphere Reserve, the Mechnikov State University of Odesa and research institutes of the National Academy of Sciences of Ukraine.		
Conservation Measures: The site is to be included in the Dunaiskyi (Danube) Biosphere Reserve.		
Adverse Factors: Siltation of the site has accelerated. The natural exchange of water with Danube and Yalpug Lake is limited. During floods on the Danube River, when the artificial connection with the river is restored, there is the intensive rise in suspension and deterioration of water quality. Disturbance of waterbirds by commercial fishing (fishing sites coincide with the main breeding, feeding and resting sites of birds) and recreation activities are the main unfavorable human influences. There is illegal fishing and night spotlight poaching of frogs. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , in this lake is unfavorable for native fish. Around the site, there is some pollution of drainage water with agricultural pesticides and fertilizers.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Kartal Lake	Designation date: 23/11/1995	
Coordinates: 45°18'N 028°31' E	Elevation: 1.5 m	Area: 500 ha
Location: Kartal Lake is situated on the Danube (Dunau) River, near Izmail City in Odeska Oblast, near the Romanian border, close to the Kugurlui Lake Ramsar site (3UA001).		
Criteria: 1a, 1c, 2c, 3a, 3b, 3c, (4b) Lake Kartal is a typical floodplain reservoir with flora and fauna, which is characteristic for the largest river deltas in Europe. The lake is important for breeding (about 25,000 pairs), moulting, migrating and wintering birds (max. 40,000 individuals). There are 32 bird species listed from the Ukrainian Red Data Book (RDB), such as the ibis <i>Plegadis falcinellus</i> , the egret <i>Ardeola ralloides</i> , the duck <i>Aythya nyroca</i> , the falcon <i>Falco cherrug</i> , and the wader <i>Himantopus himantopus</i> . Furthermore, the site supports 3 rare species for Europe: the cormorant <i>Phalacrocrax pygmeus</i> (70 pairs, about 1% of the European population), the spoonbill <i>Platalea leucorodia</i> (150 pairs, about 3% of the European population) and the goose <i>Branta ruficolis</i> . Plant species from the Ukrainian RDB include <i>Nymphoides peltata</i> , <i>Aldrovanda vesiculosa</i> , <i>Cladium mariscus</i> , <i>Epipactis palustris</i> , <i>Leucojum aestivum</i> , <i>Orchis palustris</i> , <i>Salvinia natans</i> (relic) and <i>Trapa natans</i> (relic). It is also important as breeding and nursery places for fish and amphibians.		
Wetland Types: K, Ts, (1, 9) Kartal Lake is a system of small, shallow, freshwater floodplain lakes (Kartal and Dervent and Dolgoe lakes) with low swampy shores and fishponds. The site is connected with the Danube River and other Danube water bodies (Kagul, Yalpug and Kugurlui) by shallow branches and artificial canals, such as Vekita, Orlovskiyi, Skunda and Repida.		
Biological/Ecological notes: The emergent vegetation, mainly <i>Phragmites australis</i> , <i>Typha angustifolia</i> , <i>Scirpus lacustris</i> and <i>Butomus umbellatus</i> , occupies one-third of the lake's surface. The submergent plant communities include mainly <i>Potamogeton pectinatus</i> and <i>P. crispus</i> , <i>Trapa natans</i> and <i>Nuphar lutea</i> . The warm water body promotes the development of plankton, which is the fodder base for fishes and waterbirds. At Lake Kartal, more than 140 bird species have been observed. The dominant breeding species are waterbirds <i>Fulica atra</i> , <i>Podiceps cristatus</i> , <i>Aythya ferina</i> and <i>Cygnus olor</i> . Fish production of the lake is between 28–70 tons per year.		
Hydrological/Physical notes: Kartal Lake is situated in the lower part of the Danube basin. The total area of the lake covers 1,400 ha, with an average depth of about 1 m (max. about 3 m). The climate is temperate continental, with a short, mild winter and a long, hot summer. Annual precipitation is 350–400 mm, while annual evaporation is 800–900 mm. Sometimes the lake is covered with ice (no longer than one month). The water level in the Kartal Lake depends upon the water level in the Danube River.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. Kartal Lake is important for ecological education, recreation and scientific research. There is insignificant and unorganized tourism. Important ancient burial sites have been excavated by archaeologists. There is some limited and controlled hunting, fish breeding, traditional fishing, grazing of cattle and sheep and haymaking at the site. These activities occur in the surrounding area, along with traditional farming, including wine making, cultivation of rice and cutting of reeds. Many scientific research projects on waterbirds and wetlands have been carried out by experts from the Dunaiskyi Biosphere Reserve, the Mechnikov State University of Odesa and research institutes of the National Academy of Sciences of Ukraine.		
Conservation Measures: The site is to be included in the Dunaiskyi (Danube) Biosphere Reserve.		
Adverse Factors: At the lake, recreation activities and disturbance of waterbirds by commercial fishing are the main unfavorable human influences. The fishing areas coincide with the main breeding, feeding and resting areas of birds, causing both disturbance and loss of waterbirds. There is also some illegal fishing within the wetland, and night spotlight poaching of frogs. As a result of all disturbances, the wetland hosts fewer waterbirds than its capacity allows. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , is unfavorable for native fish. Around the site, there is some pollution of drainage water with agricultural pesticides and fertilizers.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Kyliiske Mouth	Designation date: 23/11/1995		
Coordinates: 45°23'N 029°36'E	Elevation: 0–2 m	Area:	32,800 ha
Location: Kyliiske Mouth is a part of the Danube River delta and is situated near Vylkove Town along the Black Sea in Odeska Oblast. It is close to the Sasyk Lake Ramsar site (3UA004) and the Romanian Danube Delta Ramsar site (3RO001).			
Criteria: 1b, 2a, 2b, 2c, 2d, 3a, 3b, 3c, 4b			
<p>Kyliiske Mouth includes rare, relict and endemic plant species, such as <i>Trapa natans</i> (relic), <i>Salvinia natans</i> (relic), <i>Nymphaea alba</i>, <i>Nuhpar lutea</i>, <i>Nymphoides peltata</i>, <i>Caulinia minor</i>, <i>Lemna gibba</i>, <i>Wolffia arrhiza</i>, <i>Leymus sabulosus</i>, <i>Apera maritima</i> and <i>Polygonium patolum</i>. The site is important for breeding birds (max. 20,000 pairs), including threatened species such as pelicans <i>Pelecanus crispus</i> (1–12 pairs) and <i>P. onocrotalus</i>, the spoonbill <i>Platalea leucorodia</i> (60 pairs, about 1% of the European population), the duck <i>Aythya nyroca</i>, the cormorant <i>Phalacrocorax pigmeus</i> (> 1% of the European population), and the eagle <i>Haliaeetus albicilla</i>. The most numerous breeding birds are terns <i>Sterna hirundo</i> (max. 11,000 pairs), <i>S. sandvicensis</i> (2,000 pairs), and <i>S. albifrons</i>, the coot <i>Fulica atra</i> (6,000 pairs), ducks <i>Anas platyrhynchos</i>, <i>Aythya nyroca</i> and <i>Netta rufina</i> (about 1,000 pairs), herons <i>Nycticorax nycticorax</i>, <i>Ardea cinerea</i>, <i>Egretta garzetta</i>, <i>Casmerodius albus</i>, <i>Ardea purpurea</i>, <i>Ardeola ralloides</i>, and waders <i>Recurvirostra avosetta</i>, <i>Charadrius alexandrinus</i> and <i>Haematopus ostralegus</i>, and the ibis <i>Plegadis falcinellus</i>. The site is an important migration and wintering site for 2 to 3 million waterbirds, such as <i>Cygnus olor</i> (800 birds), <i>C. cygnus</i>, <i>Anser anser</i> (3,000), <i>A. albifrons</i> (10,000), <i>Branta ruficollis</i>, <i>Anas penelope</i>, <i>A. crecca</i>, <i>A. acuta</i>, <i>A. querquedula</i>, <i>Aythya ferina</i>, <i>A. fuligula</i> and <i>A. marila</i>, gulls <i>Larus ridibundus</i>, <i>L. argentatus</i>, <i>L. minutus</i> and <i>L. canus</i>, the tern <i>Sterna caspia</i>, the cormorant <i>Phalacrocorax carbo</i> and the waders <i>Numenius arquata</i>, <i>N. phaeopus</i>, <i>Philomachus pugnax</i>, <i>Limosa limosa</i>, <i>Tringa totanus</i>, <i>Recurvirostra avosetta</i> and <i>Himantopus himantopus</i>. Furthermore, the site supports the globally threatened wader <i>Numenius tenuirostris</i> and the threatened goose <i>Branta ruficollis</i>. The warmed shallow bays are important mass migration, spawning and nursery places of the fry of <i>Cyprinidae</i> and Danube herring, and breeding, wintering and nursery places for very large numbers of frogs.</p>			
Wetland Types: E, M, A, E, O, (9)			
(dominant types listed first) Kyliiske Mouth (Kyliiske Hyrlo) is the delta of Kyliiskyi Arm (Kyliiska Delta) of the Danube River, with a lot of river arms, channels, islands, swamp areas, floodplain forests, freshwater lakes and sandy spits, which enclose bays on the seaward side of the delta.			
Biological/Ecological notes: The Danube delta area is characterized by a high diversity of species.			
<p>Freshwater plant species prevail, but relic 'pontian-caspian' complex (such as <i>Heterocope caspia</i> and <i>Dreissena polymorpha</i>) and Mediterranean-Sea complex (such as <i>Eurytemora affinis</i> and <i>E. vorax</i>) are also well-represented. The estuarine islands support lake and marsh vegetation composed mainly of reeds <i>Phragmites australis</i>, <i>Typha angustifolia</i>, <i>Sparganium</i> and <i>Carex sp.</i>, with thickets of <i>Salix sp.</i> and <i>Solarium dulcamare</i> in higher areas. The waters are rich in aquatic and submergent vegetation with extensive stands of <i>Vallisneria spiralis</i>, <i>Najas sp.</i> and <i>Ceratophyllum demersum</i>. On dried out sandy and silty spits, the predominant plants are <i>Salsola sp.</i>, <i>Elymus arenarius</i>, <i>Xanthium sp.</i> and <i>Tussilago farfara</i>. Along the sea edge of some of the larger islands, large beds of <i>Hippophae rhamnoides</i> occur. The site supports at least 133 bird species. The warmed shallows of the bays include rich plankton, nekton and benthos, especially crustaceans, mollusks and larvae of waterside insects. The site contains many native fish species.</p>			
Hydrological/Physical notes: The flat islands of alluvial origin are separated from each other by small and large channels. In the lower coastal zone, the channels open into a system of shallow open bays, divided from the sea by low silty-sandy spits and underwater bars. In the arms, water current is strong. The islands are inundated at high water levels, and they usually contain residual stagnant waters in their inland parts. All delta water bodies are fresh. Only the sea shallows have a variable degree of salinity, depending mainly on the strong easterly winds. The flow of sediment depends on the weather conditions in the Danube basin. The water level in the delta may fluctuate by 90 cm per day, and depends on seasonal phenomena, such as flood and wind. The March flood submerges 95% of the territory of delta. Average height of the water level between floods is 80–180 cm. The river water has a salinity of 1.8‰.			

Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly collective and private ownership. The Christian religious center Vylkove (also known as the 'Ukrainian Venice') is located at the border of the Kyliiske Mouth. The mouth contains numerous channels, which harbor many boats. There is some limited and controlled hunting, traditional fishing, grazing of cattle and sheep, haymaking, frog catching and recreation at the site. These activities occur in the surrounding area, along with traditional farming, including wine making, cultivation of rice and cutting of reeds. Scientific research projects on ecology and waterbirds censuses have been carried out by experts from the Dunaiskyi Man and Biosphere Reserve. Ecotourism occurs within the borders of the Biosphere Reserve.

Conservation Measures: When Ukraine was part of the USSR, this site was known as the Kyliiske Gyrlo Ramsar site. Kyliiske Mouth is part of the Dunaiskyi (Danube) UNESCO Man and Biosphere Reserve. The creation of a non-disturbance area for waterbirds, nursery places for fish, and breeding sites for amphibians, have been proposed. At the same time, more human activities will be allowed in parts of the wetland that are less important for waterbirds, frogs and fish.

Adverse Factors: Commercial fishing activities occur on the main breeding, feeding and resting areas for birds. There is also some illegal fishing within the wetland, and night spotlight poaching of frogs. As a result of all disturbances, the wetland hosts fewer waterbirds than its capacity allows. There is considerable organic and toxic pollution of the Danube River and of floodplain water from local rice fields.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Sasyk Lake	Designation date: 23/11/1995	
Coordinates: 45°40'N 029°41'E	Elevation: 1–3 m	Area: 21,000 ha
Location: Sasyk Lake is situated near the city of Tatarbunary, in Odeska Oblast, along the Black Sea. It is close to the Kyliyske Mouth (3UA003) and Shagany-Alibei-Burnas Lakes System (3UA005) Ramsar sites.		
Criteria: 2a, 2c, 3a, 3b, (3c) The site contains plant species from the Ukraine Red Data Book, including <i>Eremogone caphalotes</i> , <i>Orchis palustris</i> , <i>Salvinia natans</i> (relic) and <i>Trapa natans</i> (relic). Sasyk Lake is important for migrating, breeding and molting waterbirds. About 25,000 pairs, including the threatened wader <i>Charadrius alexandrinus</i> and the pratincole <i>Glareola pratincola</i> , breed in the area. The lake is used by ~100,000 migrating and wintering waterbirds, including large numbers of ducks, geese and waders, and threatened species, such as the goose <i>Branta ruficollis</i> , the pelican <i>Pelecanus onocrotalus</i> (2,000, about 3% of the European population) and the cormorant <i>Phalacrocorax pygmeus</i> .		
Wetland Types: K, J Sasyk Lake is an estuary of the Kogylnik and Sarata Rivers, with abrupt shores, except for the upper and lower reaches. Sasyk Lake is connected with the Danube (Dunau) River by the Danube-Sasyk-canal.		
Biological/Ecological notes: The emergent vegetation (mainly <i>Phragmites australis</i> , <i>Bolboschoenus maritimus</i> and <i>Typha angustifolia</i>) and the submergent plant communities (<i>Potamogeton pectinatus</i> , <i>P. perfoliatus</i> , <i>Myriophyllum spicatum</i> and <i>Ruppia spiralis</i>) are mainly found in the northern part and along the shores. Marine fish fauna has been replaced by freshwater fauna, and fish production in the lake reaches 70 kg/ha per year. The lake contains 47 fish species from the 12 families <i>Acipenseridae</i> , <i>Clupeidae</i> , <i>Cyprinidae</i> , <i>Esocidae</i> , <i>Cobitidae</i> , <i>Siluridae</i> , <i>Atherinidae</i> , <i>Gasterosteidae</i> , <i>Percidae</i> , <i>Gobiidae</i> , <i>Syngnathidae</i> and <i>Pleuronectidae</i> . The most successful breeding and dominant fish species include <i>Carassius gibelio</i> , <i>Abramis brama</i> , <i>Cyprinus carpio</i> , <i>Lucioperca lucioperca</i> and <i>Perca fluviatilis</i> .		
Hydrological/Physical notes: The catchment area of Sasyk Lake is 536,300 ha. The lake, containing 530 million cubic m of water, has a water surface of 21,000 ha. The lake has a length of 35 km, a maximum width of 11 km, and an average depth of 2.5 m (maximum depth 3.3 m). Between 1950 and 1978, water level changes in the brackish lagoon Sasyk Liman mirrored water level changes in the Black Sea. In 1978, a dam changed Sasyk Liman into the freshwater reservoir Sasyk Lake. Its water regime is mainly influenced by the artificial supply of freshwater from the Danube River. Periodically water is pumped into the sea. The area around the site is a delta complex, due to the various water flows of the Kogylnik and Sarata Rivers, running into Sasyk Lake. The climate is temperate continental, with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Sometimes the lake is covered with ice (no longer than one month).		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly collective and private ownership. Sasyk Lake is important for ecological education, recreation and scientific research. There is some limited and controlled hunting, fish breeding, traditional fishing, grazing of sheep, recreation and irrigation at the site. These activities occur in the surrounding area, along with traditional farming, including wine making and cultivation of rice. Many scientific projects on hydrology, fauna and flora have been carried out by experts from research institutes of the National Academy of Sciences of Ukraine, the Mechnikov State University of Odesa, and the Dunaiskyi Man and Biosphere Reserve.		
Conservation Measures: The site is to be included in the Dunaiskyi (Danube) UNESCO Man and Biosphere Reserve.		
Adverse Factors: The lake receives freshwater by artificial means from the Danube River, and this has decreased the salinity, leading to changes in the species composition of the wetland's flora and fauna. Disturbance by recreation and commercial fishing activities are the main unfavorable human influences for waterfowl. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , in the lake is unfavorable for native fish species.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Shagany-Alibei-Burnas Lakes System	Designation date: 23/11/1995	
Coordinates: 45°48'N 029°55'E	Elevation: 0.5–2.4 m	Area: 19,000 ha
Location: The Shagany-Alibei-Burnas Lakes System (or the Tuzlovska Group of Limans) is situated near the city of Tuzly, in Odeska Oblast, along the Black Sea. It is close to the Sasyk Lake (3UA004) and Kyliyske Mouth (3UA003) Ramsar sites.		
Criteria: 1c, 2a, 2b, 2c, (3a), 3b, 3c The site contains plant species from the Ukraine Red Data Book (RDB), including <i>Eremogone cephalotes</i> . The Shagany-Alibei-Burnas Lakes System is important for breeding birds (about 1,000 pairs), as well as about 120,000 migrating and wintering birds. The Lakes System is a breeding place for several species from the Ukraine RDB, such as the pratincole <i>Glareola pratincola</i> and the waders <i>Himantopus himantopus</i> , <i>Charadrius alexandrinus</i> and <i>Haematopus ostralegus</i> . The site also supports migrating and wintering birds of the European List of Endangered Species, such as the pelican <i>Pelecanus onocrotalus</i> , the cormorant <i>Phalacrocorax pygmeus</i> , the goose <i>Branta ruficollis</i> (460 birds, about 1% of the European population), and the eagle <i>Haliaeetus albicilla</i> (max. 21 birds).		
Wetland Types: J, (E) The Shagany-Alibei-Burnas Lakes System consists of half-closed shallow brackish lagoons of small rivers adjacent to the Black Sea, with peninsulas and islands, sandy spits and shell bars.		
Biological/Ecological notes: The most important aquatic vegetation of the site includes <i>Zostera noltii</i> , <i>Zannichelia major</i> , <i>Potamogeton pectinatus</i> , <i>Ceramium tenuissimum</i> , <i>Chondria tenuissima</i> , <i>Enteromorpha intestinalis</i> and <i>Ulva lactuca</i> .		
Hydrological/Physical notes: The Shagany-Alibei-Burnas Lakes System is separated from the Black Sea by a sandy shell bar. The upper reaches of the lakes are shallow with low shorelines. The catchment area of the Shagany Lake is 27,880 ha. This lake contains approximately 102 million cubic m of water, with a water surface is 7,840 ha, a length of 11 km, a maximum width of 10 km, and an average depth of 1.3 m (maximum depth 2.3 m). The Alibei Lake has a catchment area of 130,000 ha. The volume of the lake is about 128 million cubic m, with a water surface of 10,140 ha. The length is 18 km, the maximum width is 8 km, and the average depth is 1.2 m (maximum depth 2.5 m). The catchment area of the Burnas Lake is 64,900 ha. The volume of the lake is about 32 million cubic m, with a water surface of 2,690 ha, a length of 9.6 km, a maximum width of 3.2 km, and an average depth of 1 m (maximum depth 1.5 m). The climate is temperate continental, with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Sometimes the lake is covered with ice (no longer than one month).		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. This group of lakes is important for ecological education, recreation and scientific research. Because of siltation, the lakes are hardly used for local recreation and tourism. There is some limited and controlled traditional fishing of mullet and flatfish, and salt production at the site. These activities occur in the surroundings, along with traditional farming, including wine making, grazing of sheep and irrigation. Many scientific research projects, on hydrology, fauna and flora, have been carried out by experts from the Mechnikov State University of Odesa and research institutes of the National Academy of Sciences of Ukraine.		
Conservation Measures: The use of natural resources is limited and controlled. There is a proposal for the creation of game reserves in the site.		
Adverse Factors: The site has minimal river input, so the water level in the lakes is dependent on precipitation, infiltration through a sandbar and inflow of seawater via an artificial canal. Water surface area is reduced during periods of drought, decreasing the food base of waterbirds. Around the site, there is some pollution from agricultural irrigation drainage waters.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Dniester-Turunchuk Crossrivers Area	Designation date: 23/11/1995	
Coordinates: 46°28'N 030°13'E	Elevation: 0.4–0.9 m	Area: 76,000 ha
Location: The site is located between the Rivers Dniester and Turunchuk, near the city of Biliavka, in Odeska Oblast, near the Moldovan border. It is close to the “Northern Part of the Dniester Liman” Ramsar site (3UA007).		
Criteria: 1c, (2a), 2c, 3a, 3c, (4b) The plant species from the Ukrainian Red Data Book (RDB) at the site include <i>Aldrovanda vesiculosa</i> , <i>Epibacchis palustris</i> , <i>Leucojum aestivum</i> , <i>Orchis palustris</i> , <i>Salvinia natans</i> and <i>Trapa natans</i> . The site is important for more than 15,000 breeding pairs of waterbirds, and for 50,000 migrating and wintering waterbirds. There occur 35 bird species listed in the Ukrainian RDB, such as the ibis <i>Plegadis falcinellus</i> (1,300 pairs, about 9% of the European population), the spoonbill <i>Platalea leucorodia</i> (20 pairs) and the egret <i>Casmerodius albus</i> (200 pairs, about 2% of the European population). Other animal species from the Ukrainian RDBs include the mollusc <i>Turricaspia lincta</i> , and fish <i>Acipenser ruthenus</i> , <i>Huso huso ponticus</i> (relic), <i>Umbra krameri</i> and <i>Zingel zingel</i> . The Lower Dniester is an important spawning area for valuable fish species.		
Wetland Types: L, P (M, U, Xf) The site consists of the Dniester River delta including the main arm of the river, and a second arm, the Turunchuk River. The site contains swampy floodplains, lakes and islands with floodplain forests, bushes, many scroll levees, deep floodplain lakes and floating bogs.		
Biological/Ecological notes: Reed beds of the Lower Dniester and other valuable habitats, are situated between the Dniester and Turunchuk river arms. The site contains 340 bird species, including 100 breeding species, and about 70 fish species, falling into 20 families.		
Hydrological/Physical notes: The meandering Turunchuk River usually ranges between 60–75 m wide (full range is 34–270 m) and is 2–13 m deep. The current typically flows at 0.5–1.0 m/sec. The width of the Dniester River is 100–200 m (max. 600 m). Waterholes are 16–25 m deep, and water current flows at 0.2–0.4 m/sec. The average monthly water temperature varies from 0° to 20°C. The maximum air temperature in July is 27–33°C. The Dniester River obtains water from both rain and melting snow. The Dniester exhibits distinct determined spring floods. The floods stem from Carpathian rains which fall from April until January. Water levels increase fast, but decrease slowly. Summer is the drought period. River slope in the lower river is not considerable, and water current is low (0.2–0.3 m/sec). Wind induced surge from the Dnistrovsky Liman may change the water current direction. The average Dniester outflow at the river mouth is 330 cubic m/sec. The period of freezing is not continuous and not always predictable. Spring ice drift occurs in the first part of March and continues on average 5 days. The Lower Dniester belongs to the low moisture hydrological steppe zone.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for conservation education, recreation and scientific research. The Dniester-Turunchuk Crossrivers Area is an important transport artery, connecting the port of Ust-Dunaisk to other ports in Ukraine and other nearby Danube countries. There is some limited and controlled hunting, fish breeding, traditional fishing, domestic water use, irrigation and recreation at the site. These activities also occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, and wine making. Many scientific research projects on hydrology, fauna and flora have been carried out by experts from the Mechnikov State University of Odesa, the research institutes of the National Academy of Sciences of Ukraine (the Institute of Botany, the Institute of Zoology, and the Institute of Biology of Southern Seas), and the Hydrometeorological Institute of Odesa. Creation of a reservoir for the irrigation of 157,000 ha of drought-affected grounds, and for supply of water to cities and localities (650 million cubic m/year), is envisioned.		
Conservation Measures: A plan for the creation of the Lower Dniester National Nature Park is being elaborated.		
Adverse Factors: The site is frequently visited by the inhabitants of Odesa and other nearby localities, and this adds to pressure on the site. Most commercial fishing activities occur on the main breeding, feeding and resting areas for birds. There is also some illegal fishing within the wetland, and night spotlight poaching of frogs. As a result of all disturbances, the wetland hosts fewer waterbirds than its capacity allows. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , in the Dniester River is unfavorable for native fish species. Around the site, there is some pollution from drainage of irrigation water.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Northern Part of the Dniester Liman	Designation date: 23/11/1995	
Coordinates: 46°22'N 030°12' E	Elevation: 0.5 m	Area: 20,000 ha
Location: The site is situated in Odeska Oblast in Ukraine, near the Moldovan border. It is close to the Dniester-Turunchuk Crossrivers Area Ramsar site (3UA006).		
Criteria: 1c, 2c, 3a, 3b, (3c) Ukrainian Red Data Book (RDB) plant species found in the site include <i>Aldrovanda vesiculosa</i> , <i>Leucojum aestivum</i> , <i>Salvinia natans</i> and <i>Trapa natans</i> . The site is important for 3,000 breeding pairs of waterbirds, including a Ukrainian RDB species, <i>Casmerodius albus</i> . Among the 20,000 migrating and wintering birds, there are also Ukrainian RDB species such as the pelicans <i>Pelecanus crispus</i> (800, about 32% of the European population) and <i>P. onocrotalus</i> (500). Other species from the Ukrainian RDBs include the mollusc <i>Turricaspia lincta</i> , and fish <i>Acipenser ruthenus</i> , <i>Huso huso ponticus</i> (relic), <i>Umbra krameri</i> and <i>Zingel zingel</i> .		
Wetland Types: L, P, K The site includes the Dniester River delta with streams, floodplain lakes and shallow waters adjacent to accreted peninsulas.		
Biological/Ecological notes: The dominant breeding waterbird species include <i>Anas platyrhynchos</i> , <i>Podiceps cristatus</i> , <i>Cygnus olor</i> , <i>Fulica atra</i> , <i>Larus ridibundus</i> , waders and storks.		
Hydrological/Physical notes: The site is part of the estuary of the Dniester River. The western and eastern coasts are abrupt. Accumulative peninsulas with reed-swamp vegetation occur on the northern coast; this has developed on conglomeration ridges eroded by Dniester water. The catchment area of the site is 7,520,000 ha. The water volume inside the total Liman is 673–733 million cubic metres, and the water surface area is 36,000–40,800 ha. The Liman is 42.5 km long, a maximum of 12 km wide, and on average 1.8 m deep (maximum depth 2.7 m). The climate is temperate continental, with a short mild winter and a long hot summer. Annual precipitation equals 300–400 mm, while annual evaporation is 800–900 mm. Sometimes the Liman is covered with ice (no longer than one month).		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education, recreation and scientific research. The site forms part of an important transport artery, connecting the port Ust-Dunaisk to other ports of Ukraine and other Danube countries. There is some limited and controlled hunting, traditional fishing, recreation, domestic water use and irrigation at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, and wine making. Many scientific research projects, on hydrology, fauna and flora, have been carried out by experts from the Mechnikov State University of Odesa, the research institutes of the National Academy of Sciences of Ukraine (the Institute of Botany, the Institute of Zoology and the Institute of Biology of Southern Seas), and the Hydrometeorological Institute of Odesa.		
Conservation Measures: A plan for the creation of the Lower Dniester National Nature Park is being elaborated. Part of the site is a Game Reserve of the Military Society of Fishermen and Hunters.		
Adverse Factors: The site is frequently visited by the inhabitants of Odesa and other nearby localities. Most commercial fishing activities occur on the main breeding, feeding and resting areas for birds. There is also some illegal fishing within the wetland, and night spotlight poaching of frogs. As a result of all disturbances, the wetland hosts fewer waterbirds than its capacity allows. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , in the Dniester River is unfavorable for native fish species. Around the site, there is some pollution coming from the agricultural irrigation drainage waters.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Tyligulskiy Liman	Designation date: 23/11/1995	
Coordinates: 46°50'N 031°10'E	Elevation: 0.2–1.8 m	Area: 26,000 ha
Location: Tyligulskiy Liman is situated near the Black Sea in Odeska and Mykolaivska Oblasts.		
Criteria: 1c, 2a, 2b, 2c, 2d, 3a, 3b, (3c)		
<p>Tyligulskiy Liman is one of the most natural brackish lagoons in the northwest Black Sea coastal area. The site generally supports 8,000–10,000 of migrating and wintering waders, mainly <i>Calidris sp.</i> and ducks, but also other waterbirds, such as the Ukrainian Red Data Book (RDB) species <i>Casmerodius albus</i> (900 birds, more than 25% of the European population). The total amount of breeding birds ranges from 2,100–7,000 pairs, including RDB and European List of threatened species, such as waders <i>Charadrius alexandrinus</i>, <i>Himantopus himantopus</i> and <i>Haematopus ostralegus</i>, the ibis <i>Plegadis falcinellis</i> (200 pairs), the spoonbill <i>Platalea leucorodia</i>, and the cormorant <i>Phalacrocorax pygmeus</i>. On banks of the Tyligulskiy Liman grow endemic plant species, such as <i>Gymnospermium odessanum</i>, <i>Colchicum ancyrense</i>, <i>Crocus reticulatus</i>, <i>Tulipa bibersteiniana</i>, <i>Tulipa schrenkii</i>, <i>Galanthus elvesii</i> and <i>Astragalus dasyanthus</i>.</p>		
Wetland Types: J, K, Tp (F)		
<p>Tyligulskiy Liman is a half-closed Liman or brackish lagoon, connected with the Black Sea by a canal. The upper part of the site contains the estuary of the Tyligul River near the Black Sea; the lower part includes accumulative islands and salt meadows.</p>		
Biological/Ecological notes: The shore slopes and the high water mineralization (up to 1.7%) limit the development of aquatic vegetation, which is represented mainly by <i>Zostera marina</i> , <i>Ulva sp.</i> and thread algae (which occupies 22% of water surface), and by <i>Potamogeton pectinatus</i> , <i>Ruppia maritima</i> and <i>Zannichelia major</i> . The northern part of the site (mouth of the Tiligul River) is occupied by floodplain vegetation including <i>Phragmites australis</i> , <i>Bolboschoenus maritimus</i> and <i>Schoenoplectus tabernaemontani</i> . Collectively, more than 200 bird species have been observed at the site.		
Hydrological/Physical notes: The shores of the site are, sometimes abrupt and jagged, with sandy peninsulas. The catchment area of the Tyligulskiy Liman is 524,000 ha. The Liman contains 250–600 million cubic m of water, with a water surface of 15,000–17,000 ha, a length of 55–80 km, a maximum width of 4.5 km, and an average depth of 3 m (maximum depth 21 m). The climate is temperate continental, with a short, mild winter and a long, hot summer. Annual precipitation equals 300–400 mm, while annual evaporation is 800–900 mm. Sometimes the Liman is covered with ice (no longer than one month). There is little influence from the confluent shallow Tyligul River on the Tyligulskiy Liman.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The Tyligulskiy Liman is important for ecological education, recreation and scientific research. On the right shore of the lower part of Liman, the remains of ancient Greek settlements are found. There is some limited and controlled hunting, fish breeding, traditional fishing, grazing of cattle and sheep, recreation and irrigation at the site. These activities occur in the surroundings, along with traditional farming and wine making. Many scientific research projects on hydrology, fauna and flora have been carried out by experts from research institutes of the National Academy of Sciences of Ukraine, and the Mechnikov State University of Odesa. At the lowest part of the site, especially near the Black Sea, there is significant recreation (annually involving about 300,000 people, with a potential expansion to 1 million people).		
Conservation Measures: The site is protected within two Ornithological Game Reserves ('Ornithologichni Zakaznyky') in the lower part of the wetland site, the Tyligul Sand Bank ('Tyligulska Peresyp') and the Lower Tyligul Liman ('Nizovje Tyligulskogo Limana'). Hunting is organized by the Society of Fishermen and Hunters in the upper part of the site. To improve wetland conservation, it is necessary to establish the Regional Landscape Park 'Tyligulskiy' by local authority with a scientific division and guarding.		
Adverse Factors: The main ecological changes at the site have been related to the inflow of seawater from the Black Sea into the lower liman by an artificial canal. In the upper liman, there have been changes in the capacity of nesting territories, due to the artificial inflow of freshwater and from long term fluctuations in total water volume. Disturbance by recreation and commercial fishing activities are the main unfavorable human influences on waterfowl. The environment around the site has changed through intensive conversion of remaining steppe, erosion and structural change in vegetative communities. In the lower part of the site, possible changes are connected to the expansion of a resort zone on the border of the Black Sea. There is some pollution from the Tyligul River from agricultural runoff.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Dnipro River Delta	Designation date: 23/11/1995	
Coordinates: 46°34'N 032°29'E	Elevation: 0.2–1.4 m	Area: 26,000 ha
Location: The Dnipro River Delta is situated near the Black Sea, southwest of the city of Kherson, in the center of Khersonska Oblast.		
Criteria: 1c, 2a, 2b, 2c, 3a, 3b, 3c, 4a The site contains about 19 (typical and rare) plant complexes, as well as about 30 species of rare plants and about 70 species of rare animals. Ukrainian Red Data Book (RDB) plant species include <i>Cryspogon gryllus</i> , <i>Aldrovanda vesiculosa</i> , <i>Nymphoides peltata</i> , <i>Epipactis palustris</i> , <i>Orchis palustris</i> , <i>Salvinia natans</i> (relic) and <i>Trapa natans</i> (relic). Among the Ukrainian RDB animal species, there are the mollusc <i>Turricaspia lincta</i> , fish <i>Acipenser ruthenus</i> , <i>Barbus barbus borystenicus</i> , <i>Chalcalburnus chalcoides mento</i> , <i>Huso huso ponticus</i> (relic) and <i>Umbra krameri</i> , birds <i>Haliaeetus albicilla</i> , <i>Plegadis falcinellus</i> , <i>Ardeola ralloides</i> , <i>Oxyura leucocephala</i> , <i>Mergus serrator</i> , <i>Aythya nyroca</i> and <i>Bucephala clangula</i> , and mammals <i>Mustela lutreola</i> and <i>Lutra lutra</i> . The site is important for 6,000–8,000 pairs of breeding waterbirds, including the Ukrainian RDB species <i>Casmerodius albus</i> (350–700 pairs, 2–5% of the European population). The Delta is also an important moulting, migrating and wintering area for more than 100,000 waterbirds.		
Wetland Types: L, O, P, F The Dnipro River Delta includes river branches, a number of swamp areas, floodplain forests, sandy ridges and a complex of lakes.		
Biological/Ecological notes: Dnipro delta area is an ecotonic zone type of “river-sea”, characterized by a high diversity of species and ecological communities, such as reed-swamp associations. Freshwater species prevail, but relic “pontian-caspian” complexes (such as <i>Heterocope caspia</i> and <i>Dreissena polymorpha</i>) and Mediterranean-Sea immigrants (such as <i>Eurytemora affinis</i> and <i>E. vorax</i>) are also well-represented.		
Hydrological/Physical notes: The Dnipro River Delta is the estuary of the Dnipro River, which is connected with the Black Sea by the Dnipro-Bug Liman. The Dnipro River is the third largest river of Europe and the second river of the Black Sea basin. The climate is temperate continental, droughty, with a hot summer and a short, mild winter. The annual snow cover fluctuates from 0 to 40 days with frequent thaws. The period without frost is 180–210 days, and the average monthly temperature fluctuates from –2.5°C to 20°C. The annual load of sediments is in the range of 320–350 mm, mainly resulting from summer storm rains.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The Delta is important for conservation education, recreation and scientific research. The Dnipro River is the largest water transport artery of Ukraine, ensuring communication of continental industrial regions of Ukraine with other regions of the country and the Black Sea countries. There is some limited and controlled hunting, fish breeding, traditional fishing, domestic water use, irrigation, and cutting of reeds at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, and wine production. Scientific research has been carried out by the Institute of Biology of Southern Seas (Sevastopol City), the Institute of Hydrobiology and the Institute of Zoology of the National Academy of Sciences of Ukraine, and the Chornomorskyi Biosphere Reserve.		
Conservation Measures: Water purification stations have been built to deal with petroleum and other pollution. Protected water zones and shoreline have been established. Closed water cycles have been introduced at industrial enterprises. Site protection is carried out by land and resource users within the Ichthyological Game Reserve ‘Krasna Khatka’. The Lower Dnipro National Nature Park is being established. Recommendations for improvement of water quality and reduction of water flow have been developed.		
Adverse Factors: There is an advanced infrastructure of tourism; numerous created reservoirs along the Dnipro River have extended tourist opportunities. This presents potential impacts on the site. Most commercial fishing activities occur on the main breeding, feeding and resting areas for birds. There is also some illegal fishing within the wetland, and night spotlight poaching of frogs. As a result of all disturbances, the wetland hosts fewer waterfowl than its capacity allows. Introduction of exotic fish, such as <i>Hypophthalmichthys molitrix</i> and <i>Ctenopharyngodon idella</i> , in the Dnipro River is unfavorable for native fish species. Around the site, there is a considerable organic and toxic pollution from the Dnipro River water.		
Most recent Ramsar Information Sheet/datasheet: 1998; Please see Introduction for more details.		

Site: Tendrivska Bay	Designation date: 23/11/1995	
Coordinates: 46°14'N 031°56'E	Elevation: 0–2 m	Area: 38,000 ha
<p>Location: Tendrivska Bay is a bay of the Black Sea, situated 60 km southwest from the city of Kherson, in Khersonska Oblast. It is close to the Yagorlytska Bay Ramsar site (3UA014). In 1977 this site was part of the former Yagorlitz and Tendrov Bays Ramsar site of the former USSR.</p>		
<p>Criteria: 2a, 2c, 3a, 3b, (4a)</p> <p>The Tendrivska Bay is very important for 25,000 to 100,000 breeding pairs of waterbirds, notably <i>Tadorna tadorna</i>, <i>Anas strepera</i> and <i>Mergus serrator</i> (800–900 pairs), the wader <i>Tringa totanus</i>, gulls <i>Larus melanocephalus</i> and <i>L. genei</i> (10,000–20,000 pairs) and the tern <i>Sterna sandwicensis</i> (max. 28,800 pairs). Other breeding species include grebes <i>Podiceps grisegena</i> and <i>P. cristatus</i>, herons and egrets <i>Botaurus stellaris</i>, <i>Ixobrychus minutus</i>, <i>Ardea purpurea</i>, <i>A. cinerea</i>, <i>Casmerodius albus</i>, the duck <i>Somateria mollissima</i>, the waders <i>Recurvirostra avosetta</i>, <i>Vanellus vanellus</i> and <i>Himantopus himantopus</i>, pratincoles <i>Glareola pratincola</i> and <i>G. nordmami</i>, and terns <i>Gelocheidon nilotica</i>, <i>Sterna caspia</i>, <i>S. hirundo</i> (3,400–4,900 pairs) and <i>S. albifrons</i>. The total migrating and wintering population of the bay includes 450,000–700,000 birds of 45 species, mainly waterbirds <i>Cygnus cygnus</i>, <i>C. olor</i> (12,000 birds), <i>Anser anser</i>, <i>A. albifrons</i>, <i>Anas platyrhynchos</i> (about 100,000), <i>A. penelope</i>, <i>A. crecca</i>, <i>Aythya ferina</i> (25,000–40,000) and the globally threatened <i>A. nyroca</i>, <i>Gavia sp.</i>, <i>Podiceps sp.</i>, the coot <i>Fulica atra</i> (400,000) and waders <i>Calidris sp.</i>, <i>Gallinago gallinago</i>, <i>Scolopax rusticola</i>, <i>Philomachus pugnax</i> (7,000–10,000), <i>Numenius arquata</i>, <i>N. phaeopus</i>, <i>Limosa limosa</i> and <i>Gallinago gallinago</i>. Threatened species, such as bustards <i>Tetrax tetrax</i> and <i>Otis tarda</i>, the globally threatened goose <i>Branta ruficollis</i> and the critically endangered <i>Numenius tenuirostris</i>, also occur at the site. Ukrainian Red Data Book of fish species occurring at the site include <i>Salmo trutta labrax</i>, <i>Callionymus belemus</i>, <i>C. festimus</i>, <i>Huso huso ponticus</i> (relic), and sturgeons <i>Acipenser sturio</i>, <i>A. nudiiventris</i>, and the relic <i>A. stellatus</i> (part of a commercial fishery).</p>		
<p>Wetland Types: A, E, J, Q, Sp (dominant type listed first)</p> <p>Tendrivska Bay is a saltwater lagoon with numerous islands, separated from the Black Sea by low, narrow, sandy spits, and numerous adjoining small lakes and temporary water bodies.</p>		
<p>Biological/Ecological notes: Brackish and saltwater associations with predominance of <i>Salsola sp.</i> and <i>Puccinellia sp.</i> characterize the vegetation of the low coast and islands. On the steep sloping island shores, kelp lies among sparse reeds <i>Phragmites australis</i>. Behind the shore there is typically a strip of brackish marsh. Emergent vegetation along the coast consists of reeds, <i>Typha</i> and <i>Scirpus</i>. The shallow waters support rich aquatic plant species, such as <i>Zostera sp.</i>, <i>Ruppia spiralis</i>, <i>Potamogeton pectinatus</i> and <i>Characeae</i>. The waters also support abundant benthos and nektobenthos, especially crustaceans, molluscs (<i>Cradium</i>, mussels and oysters) and fish, including the small Black Sea genus, <i>Cottus</i>.</p>		
<p>Hydrological/Physical notes: The extensive, open water bodies of Tendrivska Bay occur atop silty sediments. The eastern bay is shallower (average 2 m), than the western part (average 8 m). There are some flat islands (with small saucer-shaped depressions) of mainland origin, in the central part of the Bay. However most of the islands are of marine origin (sand/ground shell alluvium). The seaward shores of these islands are constantly changing. The shore on the landward side of the bay is low-lying and marshy. In general, the islands have small, centrally located lakes. Small fresh to saline water lakes and temporary water bodies are scattered in gently sloping depressions along the main shore adjoining the bays. Winds sometimes influence the bays in terms of water level and water flow. The daily regularity of change in wind direction can result in relatively calm conditions. Tendrivska Bay and the adjacent Yagorlytska Bay are separated from the open sea by a long sandy spit and exposed to the Dnipro River runoff. Average salinity varies from 10 to 14 ppt. During severe winters, the water is covered by ice for two to three weeks.</p>		
<p>Human Uses: Part of the site is owned by the state, and part has a collective ownership. The sur-</p>		

rounding area is partly owned by the state, and partly in collective and private ownership. There is some limited and controlled hunting, traditional fishing by local villagers, recreation and tourism at the site. These activities occur in the surroundings, along with traditional farming, including grazing of sheep, wine making, irrigation and cultivation of rice. Scientific research is systematically carried out by the staff of the Chornomorskyi Biosphere Reserve, the Institute of Biology of Southern Seas, the Institute of Hydrobiology and the Institute of Zoology of the National Academy of Sciences of Ukraine. Regular counts of wintering and nesting birds are made and scientists have participated in the international program for color marking of swans in order to clarify distribution and movements.

Conservation Measures: This site was included in the old Yagorlytska and Tendrivska Bays Ramsar site, when Ukraine was part of the USSR. The 50,000 ha Chornomorskyi Biosphere Reserve occupies

some of the area of the Yagorlytska and Tendrivska Bays and gives total protection against human exploitation or recreational activities. Permanent protection in these wetland reserves is carried out by the Hunting Service in 12 cordons, both by motorbike and by boat. During the breeding season, 24-hour protection is maintained at the most important breeding sites in the area. In severe winters, additional food is provided at bird gathering sites. The site was added to the Montreux Record in 1993. Intensification of the protection regime and expansion of the Chornomorskyi UNESCO Man and Biosphere Reserve and its protected area have been proposed.

Adverse Factors: Irrigation projects for rice growing have caused an unnatural inflow to the site of fresh water since 1975. A water drainage system near Potijevka has caused an unnatural inflow of salt water. Both have upset the hydrological balance of the bays, and thus affected the productivity of the system. There is disturbance from commercial fishing during the breeding season, and pollution by industrial and agricultural wastewater. These impacts led to the inclusion of the site on the Montreux Record. Around the site, there is pollution of the coastal bays by drainage waters, which contain chemicals, used in agriculture.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Karkinitska and Dzharylgatska Bays	Designation date: 23/11/1995	
Coordinates: 46°00'N 033°05'E	Elevation: 0 m	Area: 87,000 ha
<p>Location: Karkinitska and Dzharylgatska Bays are large bays in the northeastern corner of the Black Sea, close to the cities of Scadovsk and Krasnoperekopsk in Khersonska Oblast. Also within the Crimean Autonomous Region. In 1977 this site was part of the former Karkinitski Bay Ramsar site of the former USSR.</p>		
<p>Criteria: 1a, 2c, 2d, 3a, 3b</p> <p>On the Lebiazhi Isles component of the site, 12,000–14,000 pairs of waterbirds breed, including threatened species, such as egrets <i>Ardeola ralloides</i>, <i>Egretta garzetta</i>, <i>Casmerodius albus</i>, <i>Ardea cinerea</i> (700–1,500 pairs), the ibis <i>Plegadis falcinellus</i>, the gull <i>Larus ichthyaethus</i>, and terns <i>Gelochelidon nilotica</i> (800–900 pairs), <i>Sterna caspia</i> and <i>S. hirundo</i> (1,000 pairs). Large numbers of swans <i>Cygnus olor</i> (4,000–5,000 birds) moult in the bay. During migration and winter, the bay is visited by several hundreds of thousands of waders, such as <i>Philomachus pugnax</i>, and a maximum of 75,000 geese, such as <i>Anser anser</i> and <i>A. albifrons</i>. Ukrainian Red Data Book (RDB) mammals include <i>Putorius eversmannii</i> and the dolphins <i>Tursiops truncatus ponticus</i>, <i>Delphinus delphis ponticus</i> and <i>Phocaena phocaena relicta</i>. Ukrainian RDB fish species include <i>Salmo trutta labrax</i>, <i>Hippocampus hippocampus</i>, <i>Guttulatus microstephanus</i>, <i>Lucioperca marina</i>, <i>Umbrina cirrosa</i>, <i>Huso huso ponticus</i> (relic), <i>Acipenser sturio</i>, <i>A. nudiventris</i>, and the relic <i>A. stellatus</i> (the sturgeon of commercial interest).</p>		
<p>Wetland Types: A, E, Sp, Ss, D (dominant types listed first)</p>		
<p>Karkinitska and Dzharylgatska Bays are large saltwater lagoons with a number of islands and peninsulas, in the northeast corner of the Black Sea.</p>		
<p>Biological/Ecological notes: The vegetation at the site is typical for the steppe zone bordering the Black Sea. The Lebiazhi Isles are almost 50% covered by <i>Phragmites reeds</i>. The unflooded parts are covered with sparse saltmarsh vegetation including species of the genera <i>Artemisia</i>, <i>Salsola</i>, <i>Crambe maritima</i>, <i>Calamagrostis epigeios</i>, <i>Crampe pontica</i>, <i>Elytrygia moeotica</i> and <i>Leymus sabulosus</i>. About 15% of the islands are devoid of vegetation. The shallows around the islands are rich in submerged vegetation, primarily <i>Charophyta</i> and eelgrass <i>Zostera marina</i>. Common breeding birds are the cormorant <i>Phalacrocorax carbo</i> (1,400–2,400 pairs) and the gull <i>Larus argentatus</i> (6,800–10,000 pairs). Terrestrial mammals include <i>Mus musculus hortulanus</i>, <i>Microtus socialis</i> and <i>Vulpes vulpes</i>.</p>		
<p>Hydrological/Physical notes: The site includes two areas, Karkinitska Bay and Dzharylgatska Bay. Karkinitska Bay is comprised of two units, one formed by a part of the Karkinitska Bay coast including a one-kilometre-wide band of water paralleling the shore, and the other unit formed by the Lebiazhi Isles and surrounding waters. The water depth of the bay varies from <1–8 m. The coastal line is indented with several small bays and a number of sand spits. The site includes several small islands formed by colonial invertebrates. The Lebiazhi Isles rise no higher than two metres above sea level. They are of marine origin, composed of sand/ground shell deposits with silted bays on the leeward side, and residual water bodies in the inner areas. The coastline and small islands are dynamic owing to the influence of the constant wind. The Lebiazhi Isles are subject to strong erosion, which reduced their area up to 7% during to 1970s. The coastal area is mountainous. Dzharylgach Bay is enclosed between the Black Sea, the Dzharylgach Peninsula and the Tendrivskiy Peninsula. The area of the islands is about 52 ha, from which approximately 7 ha contain channels and internal inlets. The islands have no real soil layer and are composed of a combination of loose shell rock, deposited sands and silts. The Black Sea bays have a salinity of 18–19 ppt.</p>		
<p>Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. There is <u>some limited and controlled hunting, fishing, tourism and recreation at the site. These activities occur</u> in the surroundings, along with traditional farming, including grazing of sheep, wine making, irrigation and cultivation of rice. Scientific research has been carried out at the site including hydrobiological investigations, systematic studies, and bird ringing, bird censuses and annual monitoring programs.</p>		
<p>Conservation Measures: Part of the site was included in the old Karkinitski Bay Ramsar site, when Ukraine was part of the USSR. The site includes the Karkinitskiy Ornithological Game Reserve 'Karkinitska Zatoka', part of the Crimean Nature Reserve 'Krymskiy Zapovidnyk', which was estab-</p>		

lished in 1957, as well as the Botanical Reserve 'Dzharylgatskyi', established in 1974. Economic exploitation and recreational activities are prohibited in these protected parts. In the remaining area of the site, commercial fishing is regulated and recreational activities are restricted to the seashore. Part of the site (37,300 ha) was added to the Montreux Record in 1990. The creation of a large marine reserve has been proposed.

Adverse Factors: The development of fish farming and rice growing has resulted in the uncontrolled input of freshwater, which lowers the salinity and thus adversely affects the productivity of the Characeae and Zostera. The coverage of this submerged vegetation has decreased significantly during recent years. In addition, adverse factors affecting the wetland and its biota include: shooting and disturbance of fish-eating birds, rice growing, sheep grazing and tourism (resulting in severe disturbance of waterbirds). The movement of vehicles is destroying the turf soil cover of the remnant steppe, and the dumping of (sometimes very toxic) domestic or construction waste is also seriously damaging parts of the steppe and the breeding sites in it). Poaching occurs in the absence of adequate control. As a result of these problems, many species have been in decline. The site was added to the Montreux Record owing to these impacts. Storms are a natural threat to the site. Around the site, agricultural pollution occurs in coastal bays from drainage runoff.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Central Syvash	Designation date: 23/11/1995	
Coordinates: 46°07'N 034°15'E	Elevation: 0.1–1.5 m	Area: 80,000 ha
Location: The Central Syvash is situated near the Azov Sea, partly in the Novotroytskyi Rayon of the Khersonska Oblast, and partly in the Dzhankovskiy Rayon of the Crimean Autonomous Republic (Crimean Peninsula). In 1977 this site was part of the former Sivash Bay Ramsar site of the former USSR.		
Criteria: 1d, (2a), 2c, 3a, (3b, 3c) The Central Syvash is part of an extremely large lagoon, unique in Europe. More than 1,000,000 waders, predominantly <i>Philomachus pugnax</i> , <i>Calidris ferruginea</i> , <i>C. alpina</i> , <i>Tringa totanus</i> and <i>Charadrius morinellus</i> , and many other waterbirds, such as <i>Cygnus olor</i> (3,000–4,000), <i>Tadorna tadorna</i> (2,000–3,000), <i>Aythya fuligula</i> , <i>A. fennel</i> and <i>Anas platyrhynchos</i> , and <i>Fulica atra</i> , moult, migrate through, and winter in the Central Syvash. Some 11,000 breeding pairs of waterbirds, including threatened species such as the duck <i>Branta ruficollis</i> (about 1% of the European population), gulls <i>Larus ichthyaetus</i> , <i>L. melanocephalus</i> and <i>L. genei</i> , terns <i>Gelochelidon nilotica</i> , <i>Sterna sandvicensis</i> , <i>S. albifrons</i> and <i>S. caspia</i> , egrets and herons <i>Nycticorax nycticorax</i> , <i>Ardeola ralloides</i> , <i>Egretta garzetta</i> , <i>Casmerodius albus</i> , <i>Ardea purpurea</i> , the crane <i>Anthropoides virgo</i> , waders <i>Recurvirostra avosetta</i> , <i>Numenius tenuirostris</i> and <i>Limicola falcinellus</i> (about 1% of the European population), occur at the site along with birds of prey <i>Haliaeetus albicilla</i> and <i>Falco naumanni</i> , bustards <i>Otis tarda</i> and <i>Tetrax tetrax</i> , and the ibis <i>Plegadis falcinellus</i> .		
Wetland Types: J, H, Sp, Ss, Q (dominant types listed first) Central Syvash is part of an extremely large, shallow, saltwater lagoon with spits, islands, saline lowlands and peninsulas along a rocky limestone coast.		
Biological/Ecological notes: The brackish to saline lagoons of the Syvash Bay are exclusively characterised by salt-tolerant vegetation and aquatic fauna. The generally flat and windswept coastal area is covered with halophytic grasses. The lagoons are fringed by extensive areas of steppe. High productivity under the existing eutrophic conditions forms a valuable source of food for birds. The Central Syvash contains 250 plant species and several plant complexes, including <i>Psammophytes</i> (<i>Argusia sibirica</i> , <i>Artemisia compressis</i> , <i>Calamagrostis epigeios</i> and <i>Leymus sabulosus</i>), Meadow (<i>Artemisia pontiaca</i> , <i>Bolboschoenus maritimus</i> , <i>Juncus gerardii</i> , <i>J. maritimus</i> , <i>Triglochin bessarabicum</i> , <i>Puccinellia distans</i> and <i>Triglochin maritimum</i>), <i>Galophytes</i> (<i>Camphorosma monspeliaca</i> , <i>Halimione pedunculata</i> , <i>H. verrucifera</i> , <i>Halocnemum strobilaceum</i> , <i>Limonium gmelinii</i> , <i>L. suffruticosum</i> , <i>Salicornia europaea</i> and <i>Salsola soda</i>), Grass-marsh (<i>Phragmites australis</i> , <i>Scirpus lacustris</i> , <i>S. tabernaemontanii</i> and <i>Typha laxmanii</i>), and Water complex (<i>Ruppia maritima</i> , <i>Zostera marina</i> and <i>Z. noltii</i>).		
Hydrological/Physical notes: The water level is sensitive to meteorological conditions and the extent of evaporation during hot weather. Strong winds expose or inundate large areas. When the shallows are exposed in summer by prevailing winds, they become subject to intense evaporation, followed by wind erosion. A dam at Chongar Peninsula regulates the water from the Azov Sea into the Central and Western Syvash. The non-tidal shallow lagoons all around Syvash Bay can be very saline and differ from tidal estuaries in their thermal regime. They warm up quickly in spring, being shallow (the average water depth in the entire bay is about 1 m).		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. Outside the Azovo-Syvaskiy National Nature Park, there is some limited and controlled hunting, fishing, tourism and recreation at the site. These activities occur in the surroundings, along with traditional farming, including wine making, grazing of sheep and irrigation. Much scientific research on the 'MAR-Ukraine', 'Wetlands', and 'IBA territories' programs, and Research Biodiversity Program in the Azov-Black Sea Region, have been carried out continually by the Azov-Black-Sea Ornithological Station, the Institute of Zoology of the National Academy of Sciences of Ukraine, and the Melitopol Pedagogical Institute. Breeding bird, and bird migration studies have also been carried out.		
Conservation Measures: This site was included in the old Sivash Bay Ramsar site, when Ukraine was part of the USSR. The Administration of the National Nature Park 'Azovo-Syvaskiy' carries out the protection of the site. To improve wetland conservation, a management plan is being elaborated.		
Adverse Factors: The most important threats to the site are tourism, waste water pollution from agriculture and chemical enterprises, salinization, increased commercial and recreational fisheries, resettlement and more intensive agricultural development. A reduction of seawater inflow of the Azov Sea into Syvash Bay will translate into a drop in water level and an increase in salinity. Around the site, coastal bays are polluted by drainage waters with agricultural chemicals. Sheep have overgrazed part of the natural vegetation.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Eastern Syvash	Designation date: 23/11/1995	
Coordinates: 45°40'N 035°00'E	Elevation: 0.1–1.5 m	Area: 165,000 ha
<p>Location: Syvash Bay is situated near the Azov Sea, partly in the Genicheskyi Rayon of the Khersonska Oblast, and partly in the Leninskyi, Dzhankoiskyi, Nyzniegorskyi, Sovietskyi and Kirovskyi Rayons of the Crimean Autonomous Republic (Crimean Peninsula). In 1977 this site was included part of the former Sivash Bay Ramsar site of the former USSR.</p>		
<p>Criteria: 1d, (2a), 2c, 3a, (3c)</p> <p>The Eastern Syvash is part of an extremely large lagoon, unique in Europe. The site is of great importance for about 2,000,000 moulting, migrating and wintering waders, predominantly <i>Philomachus pugnax</i>, <i>Calidris ferruginea</i>, <i>C. alpina</i>, <i>Tringa totanus</i> and <i>Charadrius morinellus</i>, and other waterbirds, such as <i>Cygnus olor</i> (3,000–4,000), <i>Tadorna tadorna</i> (2,000–3,000), <i>Aythya fuligula</i>, <i>A. fennel</i> and <i>Anas platyrhynchos</i>, and <i>Fulica atra</i>. Among the 80,000 breeding pairs, there are threatened waterbirds, such as the duck <i>Branta ruficollis</i> (over 1% of the European population), gulls <i>Larus ichthyaetus</i>, <i>L. melanocephalus</i>, <i>L. genei</i>, terns <i>Gelochelidon nilotica</i>, <i>Sterna sandvicensis</i>, <i>S. albifrons</i> and <i>S. caspia</i>, herons and egrets <i>Nycticorax nycticorax</i>, <i>Ardeola ralloides</i>, <i>Egretta garzetta</i>, <i>Casmerodius albus</i>, <i>Ardea purpurea</i>, the crane <i>Anthropoides virgo</i>, waders <i>Numenius tenuirostris</i>, <i>Limicola falcinellus</i> (over 1% of the European population) and <i>Recurvirostra avosetta</i>, ibis <i>Plegadis falcinellus</i>, birds of prey <i>Haliaeetus albicilla</i> and <i>Falco naumanni</i>, and bustards <i>Otis tarda</i> and <i>Tetrax tetrax</i>. Other nesting waterbirds are the duck <i>Tadorna tadorna</i>, and gulls <i>Larus marinus</i> and <i>L. argentatus</i>.</p>		
<p>Wetland Types: J, H, Sp, Ss, Q (dominant types listed first)</p>		
<p>Eastern Syvash is part of an extremely large, coastal lagoon. The site is a shallow, saltwater bay with an invaginated rocky shoreline and numerous spits and islets, and a large number of saline lowlands and peninsulas.</p>		
<p>Biological/Ecological notes: The generally flat and windswept coastal area is covered with halophytic grasses. The lagoons are fringed by extensive areas of steppe. The high salinity of the water restricts the aquatic flora, such as <i>Artemia salina</i>, and fauna to salt-tolerant species. Their high productivity under the existing eutrophic conditions forms a valuable source of food for birds. On the top areas and slopes of the hills of the large islands, <i>Artemisia</i> – <i>Festuca</i> steppe vegetation with xerophytic under-shrub and turf grasses is found. On the small islands, secondary vegetation is formed as a result of the activity of colonial birds and small rodents. The site contains 250 species and several plant complexes, including <i>Psammophytes</i> (<i>Argusia sibirica</i>, <i>Artemisia compressis</i>, <i>Calamagrostis epigeios</i> and <i>Leymus sabulosus</i>), Meadow (<i>Artemisia pontiaca</i>, <i>Bolboschoenus maritimus</i>, <i>Juncus gerardii</i>, <i>J. maritimus</i>, <i>Triglochin bessarabicum</i>, <i>Puccinellia distans</i> and <i>Triglochin maritimum</i>), <i>Galophytes</i> (<i>Camphorosma monspiliaca</i>, <i>Halimione pedunculata</i>, <i>H. verrucifera</i>, <i>Halocnemum strobilaceum</i>, <i>Limonium gmelinii</i>, <i>L. sulfriticolum</i>, <i>Salicornia europaea</i> and <i>Salsola soda</i>), Grass-marsh (<i>Phragmites australis</i>, <i>Scirpus lacustris</i>, <i>S. tabernaemontanii</i> and <i>Typha laxmanii</i>), and Water complex (<i>Ruppia maritima</i>, <i>Zostera marina</i> and <i>Z. noltii</i>).</p>		
<p>Hydrological/Physical notes: Syvash Bay is almost completely cut off from the Azov Sea by the 100 km long Arabatskaya Strilka Peninsula. It is connected with the Azov Sea by a strait near the town of Genichesk. The Eastern Syvash is divided from Central Syvash by Chongar Peninsula, and includes the Koyanly islands. The water level fluctuates according to the meteorological conditions and the extent of evaporation during hot weather. Strong winds expose or inundate large areas. When the shallows are exposed in summer by prevailing winds, they become subject to intense evaporation, followed by wind erosion. A dam at Chongar Peninsula regulates the water from the Sea of Azov into the Central and Western Syvash. The non-tidal, brackish to hypersaline shallow lagoons all around Syvash Bay differ from tidal estuaries in their thermal regime. They warm up quickly in spring, due to their shallowness (the average water depth in the entire bay is about 1 m).</p>		

Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. At the site, there is some limited and controlled fishing, recreation and hunting. These activities occur in the surroundings, along with traditional farming, including grazing of sheep, wine making and irrigation. Much scientific research on the 'MAR-Ukraine', 'Wetlands', and 'IBA territories' programs, and Research Biodiversity Program in the Azov-Black Sea Region, have been carried out continually by the Azov-Black-Sea Ornithological Station, the Institute of Zoology of the National Academy of Sciences of Ukraine, and the Melitopol Pedagogical Institute. Breeding bird, and bird migration studies have also been carried out.

Conservation Measures: This site was included in the old Sivash Bay Ramsar site, when Ukraine was part of the USSR. About 10% of the site, located within the Azovo-Syvashkyi National Nature Park, is protected. The creation of a Regional Landscape Park 'Kalynivskyi' and 'Syvaskyi' National Nature Park in the Crimean Autonomous Republic has been proposed.

Adverse Factors: The most important threats to the site are tourism, waste water pollution from agriculture and chemical factories, salinization, increased commercial and recreational fisheries, resettlement and more intensive agricultural development. A reduction of seawater inflow of the Azov Sea into Syvash Bay may result in a drop in water level and increasing salinity. Around the site, coastal bays are polluted by drainage waters with agricultural chemicals. Sheep have overgrazed part of the natural vegetation.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Yagorlytska Bay	Designation date: 23/11/1995	
Coordinates: 46°24'N 031°53'E	Elevation: 0–2 m	Area: 34,000 ha
<p>Location: Yagorlytska Bay is situated 45 km southwest of the city of Kherson, in Khersonska Oblast and Mykolaivska Oblast. It is close to the Tendrivska Bay Ramsar site (3UA010). In 1977 this site was part of the former Yagorlitz and Tendrov Bays Ramsar site of the former USSR.</p>		
<p>Criteria: 2a, 2c, 3a, 3b</p> <p>Yagorlytska Bay is important for 300,000 moulting, migrating and wintering waterbirds (45 species), including <i>Cygnus cygnus</i>, <i>C. olor</i> (10,000 birds), <i>Anser anser</i>, <i>A. albifrons</i>, <i>Anas platyrhynchos</i> (about 80,000), <i>A. penelope</i>, <i>A. crecca</i>, <i>Aythya ferina</i> (25,000–40,000), <i>A. nyroca</i>, <i>divers Gavia sp.</i>, grebes <i>Podiceps sp.</i>, the coot <i>Fulica atra</i> (30,000–50,000), waders <i>Calidris alpina</i> (3,000–5,000), <i>Gallinago gallinago</i>, <i>Scolopax rusticola</i>, <i>Philomachus pugnax</i> (4,000–6,000), <i>Numenius arquata</i>, <i>N. phaeopus</i> and <i>Limosa limosa</i>, and the threatened species <i>Branta ruficollis</i>, <i>Tetrax tetrax</i>, <i>Otis tarda</i> and <i>Numenius tenuirostris</i>. The 3,500–6,000 breeding pairs of waterbirds include threatened species, such as the gull <i>Larus cachinnans</i> (4,000), the tern <i>Sterna hirundo</i> (1,500), and waders <i>Himantopus himantopus</i> and <i>Tringa totanus</i>. Other breeding birds are the duck <i>Somateria mollissima</i>, the cormorant <i>Phalacrocorax carbo</i>, and the wader <i>Vanellus vanellus</i>. Ukrainian Red Data Book fish species include the salmon <i>Salmo trutta labrax</i>, <i>Callionymus belenus</i>, <i>C. festimus</i>, <i>Huso huso ponticus</i> (relic), and sturgeons <i>Acipenser sturio</i>, <i>A. nudiventris</i>, and the relic <i>A. stellatus</i> (the sturgeon of commercial interest).</p>		
<p>Wetland Types: A, E, J, Q, Sp (dominant type listed first)</p> <p>Yagorlytska Bay is a saltwater lagoon with many islands, with numerous adjoining small lakes, marshes and temporary waterbodies.</p>		
<p>Biological/Ecological notes: The vegetation of the low coast and islands is characterized by brackish and saltwater associations with <i>Salsola sp.</i> and <i>Puccinellia sp.</i> predominating. On steep sloping island shores, kelp lies among sparse <i>Phragmites australis</i> reeds. Behind the shore, there is typically a strip of brackish marsh. Emergent vegetation along the coast consists of <i>Phragmites australis</i>, <i>Typha sp.</i> and <i>Scirpus sp.</i> The shallow waters support rich aquatic vegetation, such as <i>Characeae</i>, <i>Zostera sp.</i>, <i>Ruppia spiralis</i> and <i>Potamogeton pectinatus</i>. The waters also support abundant benthos and nektobenthos, especially crustaceans and molluscs (<i>Cradium</i>, mussels and oysters), and fish, including the small Black Sea genus, <i>Cottus</i>.</p>		
<p>Hydrological/Physical notes: The Yagorlytska Bay is an extensive, open water body overlaying silty sediments. The flat islands are of mainland origin, with small saucer-shaped depressions in the central part. Most of the islands are made of sand/ground shell alluvium. The seashore of these islands is constantly changing owing to wind induced wave erosion. The low-lying shore on the landside of the bay is marshy. In general, the islands have small, centrally located lakes. Small fresh to saline water lakes and temporary water bodies are scattered in gently sloping depressions along the main shore adjoining the bays. Winds sometimes influence the bays in terms of water level and water flow. The daily regularity of change in wind direction can result in relatively calm conditions. Yagorlytska Bay and Tendrivska Bay, separated from open sea by a long, sandy spit and exposed to the Dnipro River runoff, have an average salinity of 10 to 14 ppt. During severe winters, the water is covered by ice for two to three weeks.</p>		
<p>Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. Outside the Chornomorskyi UNESCO Man and Biosphere Reserve, there is some limited and controlled fishing, recreation and hunting. These activities occur in the surroundings, along with traditional farming, including grazing of sheep, wine making, irrigation and cultivation of rice. Scientific research has been systematically carried out by research staff of the Biosphere Reserve, the Institute of Biology of Southern Seas, the Institute of Hydrobiology and the Institute of Zoology of the National Academy of Sciences of Ukraine. Regular counts of wintering and nesting birds are made, and scientists have participated in the international program for color marking of swans in order to elucidate their distribution and movements.</p>		
<p>Conservation Measures: This site was included in the old Yagorlits and Tendrov Bays Ramsar site,</p>		

when Ukraine was part of the USSR. The Chornomorskyi (Black-Sea) UNESCO Man and Biosphere Reserve (50,000 ha) occupies some of the area of Yagorlytska and Tendrivska bays and provides for total protection from human exploitation and recreational activities. The non-shooting area of the Yagorlytska ornithological refuge (30,300 ha) is included in this protection regime. The remaining 42,900 ha are subject to only general protection. Protection in these wetland reserves is carried out by the Hunting Service in 12 cordons, both by motorbike and by boat. During the breeding season, 24-hour protection is maintained at the most important breeding sites in the area. In severe winters, additional food is provided at gathering sites of birds. Part of the site (113,200 ha) was added to the Montreux Record in 1993. Intensification of the protection regime and expansion of the Chornomorskyi Biosphere Reserve have been proposed.

Adverse Factors: Irrigation projects for rice growing have caused an unnatural inflow of freshwater since 1975. The water drainage system near Potiievka has caused an unnatural inflow of saltwater. Both have upset the hydrological balance of the bays, and thus affected the productivity of the system. There is also disturbance from commercial fishing during the breeding season, and pollution by industrial and agricultural wastewater. Therefore, the site was added to the Montreux Record. Around the site, coastal bays are polluted from drainage waters carrying agricultural chemicals.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Molochnyi Liman	Designation date: 23/11/1995	
Coordinates: 46°32'N 035°22' E	Elevation: 0.3–1.6 m	Area: 22,400 ha
Location: Molochnyi Liman, the estuary of the Molochna River near the Azov Sea, is located 18 km south of the city of Melitopol in Zaporizka Oblast.		
Criteria: (2a), 2c, 3a, 3b Molochnyi Liman regularly supports 200,000 to 290,000 migrating and wintering waterbirds, mainly waterfowl, egrets and waders. The total amount of nesting waterbirds is 12,000–15,000 breeding pairs, including threatened species such as the egret <i>Casmerodius albus</i> . Ukrainian Red Data Book plant species include <i>Damasonium alaiima</i> and <i>Elitrigia stipifolia</i> .		
Wetland Types: J, F Molochnyi Liman is a brackish liman (lagoon) of a small river near the Azov Sea, with sandy-shell islands and peninsulas, coastal reeds and saltings.		
Biological/Ecological notes: The upper part of the liman and some parts of the coast are covered with mire vegetation, such as <i>Phragmites australis</i> , <i>Scirpus tabernaemontani</i> , <i>S. lacustris</i> and <i>Bolboschoenus maritimus</i> , and vegetation of saline meadows, such as <i>Puccinella distans</i> , <i>Juncus gerardii</i> and <i>Halimione pediculata</i> . Salt meadow and marsh vegetation is common on the small liman islands and spits. In the liman, plant communities of broad ecological tolerance, such as pondweeds <i>Potamogeton pectinatus</i> , <i>Zannichelia palustris</i> and <i>Ruppia maritima</i> , are dominant together with brackish water species, such as eelgrass <i>Zostera marina</i> and <i>Z. nana</i> .		
Hydrological/Physical notes: Molochnyi Liman is connected with the Azov Sea by a canal, which passes through a sandy-pebble bar. The liman is 35 km long, with a maximum width in the southern part of 10 km, a depth of 0.5–3 m, and a surface area of 16,800 ha. The western shore of the liman is high and abrupt, and the eastern shore is low and flat. The liman water level is more dependent of the water exchange with the sea than with the shallow Molochna River. The climate is temperate continental with a short, mild winter and a long, hot summer. Only in very severe winters does the liman become frozen (and birds are forced to move to the sea). Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Water temperature varies from 30°C in summer to around 0°C in winter. Water salinity in the liman (16–17 ppt) is higher than in the Azov Sea (14–15 ppt).		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education and scientific research. Scientific research has been carried out systematically by the Institute of Zoology of the National Academy of Sciences of Ukraine, and the Pedagogical Institute of Melitopol. There is some limited and controlled fish breeding, fishing, hunting and recreation. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, wine making and irrigation.		
Conservation Measures: Site protection is carried out by land and resource users, within the Hydrological Game Reserve and the three Ornithological Game Reserves, 'Altashyrskiy', 'Rodionovskiy' and 'Stepanovskiy Peninsula'. In 1998, the expansion of protected area was foreseen.		
Adverse Factors: At the site, domestic waste water has caused water eutrophication. Freshwater inflow into the Azov Sea is also decreasing. Around the site, there is an increase of pollution of wastewater by the numerous industrial and agricultural enterprises of the Azov Sea coastal areas. Unorganized tourism and recreation is increasing, with negative effects on the nesting of colonial birds.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Obytochna Spit and Obytochna Bay	Designation date: 23/11/1995	
Coordinates: 46°35'N 036°12' E	Elevation: 0.2–1.8 m	Area: 2,000 ha
Location: Obytochna Spit and Obytochna Bay, located at the southern part of the Azov Sea, are situated 45 km southwest of the city of Berdiansk in Zaporizka Oblast.		
Criteria: (2a), 2c, (2d), 3b, (3c) Obytochna Spit and Obytochna Bay include 16,000–17,000 migrating and wintering waterbirds, such as <i>Aythya marila</i> (about 5% of European population), waders and egrets, as well as 4,000–6,000 breeding pairs of waterbirds, such as the threatened egret <i>Casmerodius albus</i> (120 pairs, about 1% of European population). Ukrainian Red Data Book (RDB) plant species include <i>Tamarix gracilis</i> , <i>Astragalus borysthenticus</i> (endemic), <i>Caragana scythica</i> (endemic), <i>Astrodaucus littoralis</i> (endemic), <i>Elitrigia stipifolia</i> , <i>Stipa capillata</i> , <i>S.grafiana</i> , <i>S. lessingiana</i> , and the very rare medicinal plant <i>Glycyrrhiza glabra</i> . Ukrainian RDB fish species are <i>Umbrina cirrosa</i> , the relic <i>Huso huso ponticus</i> , and the relic sturgeon <i>Acipenser stellatus</i> (commercial fishery species).		
Wetland Types: A, E Obytochna Spit and Obytochna Bay include a number of accreted islands in shallow water, sandy spits, salty lakes, temporary canals and salt regressions.		
Biological/Ecological notes: The site has a rich fauna of hydrobionts, and contains 254 bird species, including 32 breeding species. Shell deposits on the bottom of the bay are good fish spawning sites. In the shallows of the bay, common emergent vegetation includes reeds <i>Phragmites australis</i> , <i>Scirpus tabernaemontani</i> and <i>Bolboschoenus maritimus</i> . Submergent vegetation includes eelgrass <i>Zostera marina</i> and <i>Z. noltii</i> , pondweed <i>Potamogeton pectinatus</i> and <i>Zanichellia major</i> . On the coast and spit, salt meadows and halophytic and steppe vegetation are characteristic.		
Hydrological/Physical notes: The Obytochna Spit peninsula separates Obytochna Bay from Berdianska Bay. Obytochna Bay is 30 km long, with a depth of 6–8 m. The continental shores of the bay are high, occasionally divided by beams. The bottom of the bay is covered with silt, sand and shells. The western shore of the Obytochna Spit is strongly divided by small and narrow coves, but the eastern shore is not invaginated. The peninsula includes small salty lakes, intermittently filled canals and a low, hilly plain, composed of sand and shell. The peninsula decreases in height from east to west. The shallow Obytochna, Lozovatka and Korsak Rivers do not appreciably influence the site. The spit continually grows through deposition of sand and shells, mainly <i>Cardium</i> . The climate is temperate continental with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Water temperature varies from 32°C in summer to around 0°C in winter. Water salinity is about 14 ppt. During autumn and spring storms, a significant part of the coastal shore is flooded.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education and scientific research. Scientific research has been systematically carried out by the Institute of Zoology of the National Academy of Sciences of Ukraine, the Pedagogical Institute of Melitopol, and the State University of Donetsk. There is some limited and controlled fish breeding, traditional fishing, hunting and recreation at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, wine making and irrigated agriculture.		
Conservation Measures: Site protection is carried out by land and resource users within the Game Reserve Obytochna Spit 'Obytochna Kosa', and other areas. In 1998, the creation of Pryazovskyi (Near-Azov-Sea) National Nature Park was progressing.		
Adverse Factors: On the islands, reed vegetation spreads due to the accumulation of biogenous elements, resulting in a simplification of bird habitat. Around the site, there is an increase pollution of wastewater by the numerous industrial and agricultural enterprises of the Azov Sea coastal area. Unorganized tourism and recreation is increasing, with negative effects on nesting colonial birds.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Berda River Mouth and Berdianska Spit and Berdianska Bay	Designation date: 23/11/1995
Coordinates: 46°44'N 036°48'E	Elevation: 0.3–2.3 m
Area: 1,800 ha	
Location: The site is located at the southern part of the Azov Sea. The Berda River Mouth is situated 7 km northeast of the city of Berdiansk in Zaporizka Oblast. Berdianska Spit and Berdianska Bay are situated south of Berdiansk.	
Criteria: 2c, (3a), 3b The site supports 30,000–40,000 migrating and wintering waterbirds, such as <i>Anas platyrhynchos</i> , <i>Aythya nyroca</i> , <i>A. marila</i> and <i>A. ferina</i> . The 3,000–5,000 breeding pairs include threatened waterbirds, such as the egrets <i>Casmerodius albus</i> and <i>Egretta garzetta</i> . Ukrainian Red Data Book (RDB) plant species occurring in the site are <i>Tamarix gracilis</i> , <i>Astragalus borysthenticus</i> (endemic), <i>Caragana scythica</i> (endemic), <i>Astrodaucus littoralis</i> (endemic), <i>Elitrigia stipifolia</i> , <i>Stipa capillata</i> , <i>S. grafiana</i> , <i>S. lessin-giana</i> , and the very rare medicinal plant <i>Glycyrrhiza glabra</i> . Ukrainian RDB fish species are <i>Umbrina cirrosa</i> , the relic <i>Huso huso ponticus</i> , and the relic sturgeon <i>Acipenser stellatus</i> (the target of a commercial fishery).	
Wetland Types: A, E, M This site includes a shallow bay of the Azov Sea between the Obytochnyi and Berdianskyi Peninsulas, and the mouth of the small river, with accumulative islands, spits, salt sites and small flood swamps with different salt gradients.	
Biological/Ecological notes: The site contains 254 bird species, including 32 breeding species. On the shallows of the bay, common emergent vegetation includes reeds <i>Phragmites australis</i> , <i>Scirpus tabernaemontani</i> and <i>Bolboschoenus maritimus</i> , and submergent vegetation, such as pondweed <i>Ruppia maritima</i> , eelgrass <i>Zostera marina</i> and <i>Zanichellia major</i> . The riverine edge is mainly covered by reed vegetation. There is considerable occurrence of “solonchaks” (saline soils) near the shallow water bays.	
Hydrological/Physical notes: Berdianska Bay is about 50 km wide, with a depth of 5–8 m. The bottom of the bay is covered by silt, sand and shells. Ravines and mounds add to the relief of the jagged shores. Berdianska Spit is 23 km long and 15 km wide. The peninsulas mainly consist of sand and shells, and include small bays, small shallow saline lakes and a low, hilly plain with sand hills (up to 2 m in height). The spit continually grows because of deposition of sand and shells, mainly <i>Cardium</i> . Confluent shallow and intermittent rivers are not significant. The bay is connected to the city of Berdiansk by a navigable canal. The climate is temperate continental with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Water temperature varies from 30°C in summer to around 0°C in winter. Water salinity is about 13 ppt. During spring and autumn storms, the spit coastline varies, and the number of salt lakes within the spit increases.	
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education and scientific research. Scientific research has been systematically carried out by the Institute of Zoology of the National Academy of Sciences of Ukraine, the Pedagogical Institute of Melitopol, and the State University of Donetsk. There is some limited and controlled fish breeding, traditional fishing and hunting at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, wine making and irrigation.	
Conservation Measures: Site protection is carried out by land and resource users within the Game Reserve Berdianskyi Peninsula (‘Berdianska Kosa’) and other areas. In 1998, the creation of Pryazovskiyi (Near-Azov-Sea) National Nature Park was being undertaken.	
Adverse Factors: Around the site, there is an increase of pollution by wastewater from the numerous industrial and agricultural enterprises in the Azov Sea coastal areas. Unorganized tourism and recreation increase negative effects on nesting colonial birds.	
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.	

Site: Bilosaraiska Bay and Bilosaraiska Spit	Designation date: 23/11/1995
Coordinates: 46°54'N 037°20'E	Elevation: 0.2–1.8 m
Area: 2,000 ha	
Location: Bilosaraiska Bay and Bilosaraiska Spit are located at the Azov Sea, south of the city of Pershotravneve in Donetsk Oblast.	
Criteria: (2a), 2c, (2d), 3b	
<p>The site includes several thousands of migrating and wintering waterbirds, egrets and waders, as well as 2,500–3,000 breeding pairs of waterbirds. Bird species from the Ukrainian Red Data Book (RDB) include the egret <i>Casmerodius albus</i> and the breeding wader <i>Charadrius alexandrinus</i>. The site contains relic fish species from the RDB, such as <i>Huso huso ponticus</i> and the sturgeon <i>Acipenser stellatus</i> (the target of a commercial fishery). Ukrainian RDB plant species include <i>Tamarix gracilis</i>, <i>Astragalus borysthenticus</i> (endemic), <i>Caragana scythica</i> (endemic), <i>Astrodaucus littoralis</i> (endemic), <i>Elitrigia stipifolia</i>, <i>Stipa capillata</i>, <i>S. grafiana</i>, <i>S. Lessingiana</i>, and the very rare medicinal plant <i>Glycyrrhiza glabra</i>.</p>	
Wetland Types: A, E	
<p>The site contains a sandy-shell spit, the floodplains of a river, and a shallow bay of the Azov Sea, including numerous shallow lakes, silt islands, damp saltings and saline meadows, fresh-water limans or lagoons, and littoral swamps.</p>	
Biological/Ecological notes: The site has a rich fauna of hydrobionts, and contains 254 bird species, including 32 breeding species. On the shallows of the bay, common emergent vegetation includes reeds <i>Phragmites australis</i> , <i>Scirpus tabernaemontani</i> and <i>Bolboschoenus maritimus</i> . Submergent vegetation includes <i>Ruppia maritima</i> , eelgrass <i>Zostera marina</i> and <i>Zanichellia major</i> .	
Hydrological/Physical notes: Bilosaraiska Spit (peninsula) is 14 km long, with a width of 12 km, and formed by shells, sand, and occasionally silt sediment. The spit includes a low, hilly plain, with dunes at the eastern part and salt marshes on the western part. The spit continually grows because of accretion of sand and shells, mainly <i>Cardium</i> . The site contains a significant occurrence of “solonchaks” (saline soils), and floodplains of the Mokra Belosaraika River. The influence of the confluent shallow Berda River and several small intermittent rivers is not substantial. The climate is temperate continental with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Water temperature varies from 30°C in summer to around 0°C in winter. Water salinity is about 13 ppt. Due to spring and autumn storms the spit coastline varies, increasing the number of salty lakes at the peninsula.	
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education and scientific research. Systematic scientific research has been carried out by the Institute of Zoology of the National Academy of Sciences of Ukraine, the Pedagogical Institute of Melitopol, and the State University of Donetsk. There is some limited and controlled fish breeding, traditional fishing, hunting and recreation at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, wine making and irrigation.	
Conservation Measures: Site protection is carried out by land and resource users within the Game Reserve ‘Bilosaraiska Kosa’ and other areas. In 1998, the creation of the National Nature Park ‘Lukomoria’ was being progressed.	
Adverse Factors: Around the site, there is an increase of wastewater pollution by the numerous industrial and agricultural enterprises of the Azov Sea coastal areas. Unorganized tourism and recreation increase negative effects on nesting colonial birds.	
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.	

Site: Kryva Bay and Kryva Spit	Designation date: 23/11/1995	
Coordinates: 47°03'N 038°08'E	Elevation: 0.2–1.6 m	Area: 1,400 ha
Location: Kryva Bay and Kryva Spit are located at the Azov Sea, southwest of the city of Novoazovsk in Donetsk Oblast.		
Criteria: (2a), 2c, (2d), (3a), 3b The site includes 10,000–15,000 breeding pairs of waterbirds, such as the egret <i>Casmerodius albus</i> , the wader <i>Charadrius alexandrinus</i> and the pratincole <i>Glareola pratincola</i> . There are regularly 25,000–30,000 molting, migrating or wintering waterbirds at Kryva Bay and Kryva Spit. Relic fish species from the Ukraine Red Data Book (RDB) include <i>Huso huso ponticus</i> and the sturgeon <i>Acipenser stellatus</i> (the item of commercial fishery). Ukraine RDB plant species include <i>Tamarix gracilis</i> , <i>Astragalus borysthenicus</i> (endemic), <i>Caragana scythica</i> (endemic), <i>Astrodaucus littoralis</i> (endemic), <i>Elytrigia stipifolia</i> , <i>Stipa capillata</i> , <i>S. grafiana</i> , <i>S. lessingiana</i> , and the very rare medicinal plant <i>Glycyrrhiza glabra</i> .		
Wetland Types: A, E The site includes a sandy-shell spit, sandy-shell beaches, “solonchaks” (saline soils) short-grasses, salt meadows, saltings, littoral swamps, silt islands, shallow lakes with reed thickets and floodplains of the Mokra River.		
Biological/Ecological notes: Kryva Bay and Kryva Spit have a rich fauna of hydrobionts, and support 254 bird species, including 32 breeding species. The shallows of the bay include common emergent vegetation, such as reeds <i>Phragmites australis</i> , <i>Scirpus tabernaemontani</i> and <i>Bolboschoenus maritimus</i> , and submergent vegetation, such as <i>Ruppia maritima</i> , eelgrass <i>Zostera marina</i> and <i>Zanichellia major</i> .		
Hydrological/Physical notes: Kryva Spit (or peninsula) is 10 km long, but grows permanently, because of sea deposit of sand and shells, mainly <i>Cardium</i> . The influence of the confluent shallow Gruzskiy Yelanchyk and several small intermittent rivers is not significant. The climate is temperate continental with a short, mild winter and a long, hot summer. Annual precipitation is 300–400 mm, while annual evaporation is 800–900 mm. Water temperature varies from 30°C in summer to around 0°C in winter. Water salinity is about 13 ppt. Due to spring and autumn storms, the spit coastline undergoes frequent morphological change. There are several salt lakes along the peninsula.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. The site is important for ecological education and scientific research. Scientific research has been systematically carried out by the Institute of Zoology of the National Academy of Sciences of Ukraine, the Pedagogical Institute of Melitopol, and the State University of Donetsk. There is some limited and controlled fish breeding, traditional fishing and hunting at the site. These activities occur in the surroundings, along with traditional farming, including grazing of cattle and sheep, wine making and irrigation.		
Conservation Measures: Site protection is carried out by land and resource users within the Ornithological Game Reserve ‘Kryvokoskyi Liman’, the Nature Monument ‘Kryva Kosa’ and other areas. In 1998, the creation of a National or bilateral (Ukraine-Russia) Nature Park was beginning inception.		
Adverse Factors: Around the site, there is an increase of wastewater pollution by the numerous industrial and agricultural enterprises of the Azov Sea coastal areas. Unorganized tourism and recreation increase negative effects on nesting colonial birds.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Shatsk Lakes	Designation date: 23/11/1995	
Coordinates: 51°31'N 023°50'E	Elevation: 158–178 m	Area: 32,850 ha
Location: The Shatsk Lakes are located 160 km northwest of the city of Lutsk in Volynska Oblast in northwest Ukraine, on the border with Belarus.		
Criteria: 1a, 1d, 2a, 2b, 3a, 3b The Shatsk Lakes are part of a unique European lake system of 22 lakes. Ukrainian Red Data Book (RDB) plant species include <i>Aldrovanda vesiculosa</i> , <i>Betula humilis</i> , <i>Cephalanthera rubra</i> , <i>Neottia nidus-avis</i> , <i>Botrychium lunarium</i> , <i>Dyphazistrum complanatum</i> , <i>Lipalis loeseli</i> , <i>Oxycoccus microcarpus</i> , <i>Cypripedium calceolus</i> , <i>Orchis helleborine</i> , <i>Epipactis atrorubens</i> , <i>Lilium martagon</i> , <i>Platanthera bifolia</i> , <i>Carex davaliana</i> , <i>C. umbrosa</i> , <i>Dactylorhiza incarnata</i> , <i>D. maculata</i> , <i>Lycopodium annotinum</i> , <i>Drosera intermedia</i> , <i>Pinguicula vulgaris</i> and <i>Scheuchzeria palustris</i> . The estimated 6,000–10,000 breeding pairs of waterbirds include <i>Cygnus olor</i> , <i>Anser anser</i> , <i>Anas platyrhynchos</i> , <i>Aythya ferina</i> , <i>A. nyroca</i> , the grebe <i>Podiceps cristatus</i> , egrets <i>Botaurus stellaris</i> and <i>Ardea cinerea</i> , the coot <i>Fulica atra</i> (800–1,000 pairs), the wader <i>Numenius arquata</i> , the gull <i>Larus ridibundus</i> (3,000–4,500 pairs), and the warbler <i>Acrocephalus paludicola</i> . Among the 30,000–60,000 molting, migrating and wintering waterbirds, the most numerous species are coots, gulls and waders, such as <i>Vanellus vanellus</i> , <i>Philomachus pugnax</i> and <i>Calidris sp.</i> Other threatened animal species include <i>Neomys anomalus</i> , <i>Myotis dasycneme</i> , the wolf <i>Canis lupus</i> , the weasel <i>Mustela erminea</i> , the badger <i>Meles meles</i> , the otter <i>Lutra lutra</i> , <i>Coronella austriaca</i> , and the toad <i>Bufo calamita</i> .		
Wetland Types: O, W, Xf, 9 (U) (dominant type listed first) The Shatsk Lakes are part of a unique system of 22 lakes (6,628 ha of water), with rivers, ditches, 1,977 ha of marshes (mires) and peatlands, 4,492 ha of meadows, and 13,935 ha of forests.		
Biological/Ecological notes: The site contains 792 plant species, 26 fish species, 12 amphibians, 7 reptiles, 238 bird species and 44 mammals. The vegetation is typical for the forest zone (Western Polissia), although parts of the riversides, lakesides and marshes (mires) are dominated by aquatic vegetation, such as reeds <i>Phragmites australis</i> , and associations of sedges and different grasses. The forest vegetation is typical for the forest zone without visual dominant plants or their associations.		
Hydrological/Physical notes: Shatsk Lakes are situated within the Upper-Prypiat physical-geographical region of the western part of the Atlantic continental region. Shatsk Lakes includes 6 large lakes, Svitiiaz (2,519 ha), Pulemetske (1,588 ha), Luky (688 ha), Liutsymer, Ostrivske and Peremut. The deepest lakes are Svitiiaz (58 m) and Pulemetske (19 m). The Rivers Bug and Prypiat divide the site into two catchment areas. The lakes have limited water circulation. Water input comes from precipitation and surface and ground water inflow. The water is very transparent and soft. Water levels were affected previously when the Lakes were first open to exploitation. Stabilization of the water level of the lakes is possible only after the wetlands return to a more natural condition. Summers are moderately wet and warm. Winters are mild, with ice-cover lasting on water bodies from some weeks to three months. Annual precipitation is about 600 mm.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly collective and private ownership. Outside the protected zone of the Shatskyi National Nature Park, there is heavy tourism and recreation (with many sanitariums and recreation buildings), and some hunting, sport, small commercial fishing, grazing of cattle and hay-making. These activities occur in the surroundings, along with traditional farming. Since 1983, scientific research on waterbirds and habitat improvement has been carried out by the Scientific Department of the Direction of the Shatskyi National Nature Park, the University of Lvov, and the Western Department of the Ukrainian Ornithological Society.		
Conservation Measures: Shatsk Lakes is part of the Shatskyi National Nature Park. In 1998, the EECONET Action Fund supported the construction of a dam on the canal to stabilize the water level in the Krymne Lake, outside the site. In 1998, the cooperative project “Creation of Interstate Protected Areas in Upper Prypiat Basin” was being prepared by the Central Board of National Nature Parks, the Reserve Affairs and the EECONET Action Fund. The Shatskyi National Nature Park is to be enlarged to 75,900 ha. Ukraine and Poland have an agreement to create a bilateral protected area (Belarus may participate later) as the Biosphere Reserve ‘Western Polissia’.		
Adverse Factors: The influence of draining, intensification of agricultural production and wood use, and the increased recreation loading on the site have decreased the numbers of waterbirds and waders, especially during the last 20–30 years. To effectively implement wetland conservation, it is necessary to stabilize the water levels in the lakes.		
Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.		

Site: Prypiat River Floodplains	Designation date: 23/11/1995	
Coordinates: 51°48'N 025°15'E	Elevation: 139–154 m	Area: 12,000 ha
Location: Prypiat River Floodplains is situated about 145 km north of the city of Lutsk in Volynska Oblast in northwest Ukraine, near the border with Belarus. It is close to the Stokhid River Floodplains Ramsar site (3UA022).		
Criteria: 1a, 1c, 2a, 2b, 3a, (3b), 4b		
<p>The Prypiat River Floodplains is one of the most important river complexes of Ukraine, situated on the crossroads of two main (Polissia and Baltic-Mediterranean) flyways. Threatened plant species include <i>Lycopodium annotinum</i>, <i>Huperzia selago</i>, <i>Drosera intermedia</i>, <i>Hydrocotyle vulgaris</i>, <i>Dactylorhiza incarnata</i>, <i>D. maculata</i>, <i>Epipactis atrorubens</i>, <i>E. helleborine</i>, <i>Platanthera bifolia</i> and <i>Carex umdrosa</i>. The 8,000–12,000 breeding pairs of waterbirds include <i>Cygnus olor</i>, <i>Anser anser</i>, <i>Anas platyrhynchos</i>, <i>A. clypeata</i>, <i>A. querquedula</i>, <i>Aythya ferina</i>, the grebe <i>Podiceps cristatus</i>, egrets <i>Botaurus stellaris</i>, <i>Casmerodius albus</i> and <i>Ardea cinerea</i>, the coot <i>Fulica atra</i> (800–1,000 pairs), waders <i>Charadrius hiaticula</i>, <i>Vanellus vanellus</i>, <i>Tringa totanus</i>, <i>Limosa limosa</i> and <i>Gallinago media</i>, terns <i>Chlidonias leucoptera</i> (450–700 pairs) and <i>C. nigra</i> (300–600 pairs), and the warbler <i>Acrocephalus paludicola</i>. Among the 120,000–150,000 molting, migrating and wintering birds, the most numerous species are geese (10,000–20,000 birds), ducks (23,000–30,000), the coot <i>Fulica atra</i> (8,000–10,000), rails <i>Porzana porzana</i> (500–1,000) and <i>P. parva</i>, the crane <i>Grus grus</i> (600–1,000), terns (5,000–8,000), the gull <i>Larus ridibundus</i> (3,000–5,000), waders <i>Philomachus pugnax</i> (5,000–7,000) and <i>Calidris sp.</i> (1,000–1,500), and swallows (10,000–15,000). Other threatened bird species at the site are the stork <i>Ciconia nigra</i>, the goose <i>Branta ruficollis</i>, birds of prey <i>Pandion haliaetus</i>, <i>Circus cyaneus</i>, <i>Haliaeetus albicilla</i>, <i>Aquila pomarina</i>, <i>Circus gallicus</i>, the crane <i>Crex crex</i>, waders <i>Haematopus ostralegus</i>, <i>Tringa stagnatilis</i>, <i>Numenius arquata</i>, the owl <i>Bubo bubo</i> and the shrike <i>Lanius excubitor</i>. Other Ukrainian Red Data Book animal species include the toad <i>Bufo calamita</i>, <i>Neomys anomalus</i>, weasels <i>Mustela erminea</i> and <i>M. lutreola</i>, the badger <i>Meles meles</i>, the otter <i>Lutra lutra</i> and the invertebrate <i>Papilio machaon</i>. The site is an important local freshwater complex for feeding, nursery and wintering fish, such as <i>Exos lucius</i>, <i>Rutilus rutilus</i>, <i>Tinca tinca</i>, <i>Carassius carassius</i>, <i>Perca fluviatilis</i>, <i>Lota lota</i>, <i>Abramis brama</i>, <i>Leuciscus idus</i>, <i>Misgurnus fossilis</i> and <i>Silurus glanis</i>.</p>		
Wetland Types: M, U, Tp, O, Ts, W, Xp, 4, 9 (dominant types listed first)		
The site includes rivers, 2,200 ha of water, lakes, 8,800 ha of marshes (mires), peatlands, swampy and sandy islands, sandy dunes and 1,000 ha of meadows.		
Biological/Ecological notes: At the site, there are about 800 plant species, 19 fish species, 9 amphibians, 5 reptiles, 160 bird species and 26 mammals. The vegetation is typical for the forest zone (Western Polissia), although parts of the riversides, lakesides and marshes (mires) are dominated by aquatic vegetation, such as reeds <i>Phragmites australis</i> , and associations of sedges and different grasses. Isolated sandy dunes have little vegetation.		
Hydrological/Physical notes: Prypiat River Floodplains are situated within the Upper-Prypiat physical-geographical region of western Polissia, the western part of the Atlantic continental region. The site lies in the Upper-Prypiat sedimentary plane with Dnipro River catchment areas. The yellow tinted water is clean. Summers are moderately wet and warm. Winters are mild, with ice-cover lasting on water bodies from some weeks to three months. Annual precipitation is about 600 mm.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly in collective and private ownership. Outside the protected zone of the Regional Landscape Park 'Prypiat-Stokhid', there is some hunting, sports, tourism, recreation, small commercial fishing, grazing of cattle and haymaking at the site. These activities occur in the surroundings, along with traditional farming. Since 1992, scientific research on waterbirds and wetlands has been carried out by the scientific-ecological organization 'Bird World', the Western Department of the Ukrainian Ornithological Society, and the Ukrainian Society of Bird Protection (partner of the BirdLife International).		
Conservation Measures: The site includes the Hydrological Game Reserves Prypiat-1, Prypiat-2, Prypiat-3 (960 ha), Girky (400 ha), Vetly (600 ha), Birky (850 ha), Velyka Glusha (360 ha),		

Shchedrohiv (700 ha), Richytsya (1,047 ha), part of Zalukhiv (839 ha) and part of the Regional Landscape Park Prypiat-Stokhid (44,958 ha). These protected areas occupy about 80% of the site. In 1998, the cooperative project “Creation of Interstate Protected Areas in Upper Prypiat Basin” was being prepared by the Central Board of National Nature Parks, the Reserve Affairs and the EECONET Action Fund. There is a proposal to create a ‘Prypiat-Stokhid’ National Nature Park of more than 60,000 ha. Ukraine has proposed for Belarus to create an interstate protected area Prypiat River Reserve in this region.

Adverse Factors: Since 1974, the beginning of the exploitation of the Upper-Prypiat, Vetly, Girky, Zalukhiv, Richytsa, Shchedrogir and Pidkormillia drainage systems and the beginning of the construction of dykes, hydrological balance and water level of the river have been rendered unstable. The draining of the site has caused the decrease of numbers of waterbirds, especially during last 20–30 years. Around the site, there is intensification of agricultural production and forest use.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

Site: Stokhid River Floodplains	Designation date: 23/11/1995	
Coordinates: 51°40'N 025°22'E	Elevation: 139–191 m	Area: 10,000 ha
Location: The Stokhid River Floodplains site is situated about 125 km north of the city of Lutsk in Volynska Oblast in northwest Ukraine. It is close to the Prypiat River Floodplains Ramsar site (3UA021).		
Criteria: 1a, 2a, 2b, 3a, (3b), 4b		
<p>The Stokhid River Floodplains is one of the most important river complexes of Ukraine, situated on the crossroads of two main (Polissia and Baltic-Mediterranean) flyways. Ukraine Red Data Book (RDB) plant species include <i>Epipactis helleborine</i>, <i>E. atrorubens</i>, <i>Lilium martagon</i>, <i>Platanthera bifolia</i>, <i>Huperzia selago</i>, <i>Aldrovanda vesiculosa</i>, <i>Cypripedium calceolus</i>, <i>Daphne cneorum</i>, <i>Gratiola officinalis</i>, <i>Hyppuris vulgaris</i>, <i>Lycopodium annotinum</i>, <i>Hydrocotyle vulgaris</i>, <i>Dactylorhiza incarnata</i>, <i>D. maculata</i> and <i>Senecio paludosa</i>. The 5,000–8,000 breeding pairs of waterbirds include <i>Anas platyrhynchos</i> (700–800 pairs), <i>A. clypeata</i>, <i>A. querquedula</i>, egrets <i>Botaurus stellaris</i> and <i>Ardea cinerea</i>, the crane <i>Porzana porzana</i> (500–600 pairs), the coot <i>Fulica atra</i>, waders <i>Vanellus vanellus</i>, <i>Tringa totanus</i> and <i>Gallinago gallinago</i>, and the warbler <i>Acrocephalus paludicola</i>. Among the 50,000 molting, migration and wintering birds, the most numerous species are geese (5,000–10,000 birds), ducks (13,000–17,000), the coot (5,000–7,000), rails <i>Porzana porzana</i> (1,000–1,500) and <i>P. parva</i> (300–500), the crane <i>Grus grus</i> (600–1,000), terns (1,000–1,500), the gull <i>Larus ridibundus</i> (1,000–2,000), waders <i>Philomachus pugnax</i> (1,000–2,000), <i>Calidris sp.</i> (500–800), and <i>Limosa limosa</i> (500–1,000), and swallows (10,000–12,000). Other threatened bird species at the site are the stork <i>Ciconia nigra</i>, birds of prey <i>Circus cyaneus</i>, <i>Aquila pomarina</i>, and <i>Circaetus gallicus</i>, the wader <i>Numenius arquata</i>, the owl <i>Bubo bubo</i> and the shrike <i>Lanius excubitor</i>. Other Ukraine RDB animal species include the toad <i>Bufo calamita</i>, <i>Neomys anomalus</i>, weasels <i>Mustela erminea</i> and <i>M. lutreola</i>, the otter <i>Lutra lutra</i> and the invertebrate <i>Papilio machaon</i>. The site is an important local freshwater complex for feeding, nursery and wintering fish, such as <i>Exos lucius</i>, <i>Rutilus rutilus</i>, <i>Tinca tinca</i>, <i>Carassius carassius</i>, <i>Perca fluviatilis</i>, <i>Lota lota</i>, <i>Abramis brama</i>, <i>Leuciscus idus</i>, <i>Misgurnus fossilis</i> and <i>Silurus glanis</i>.</p>		
Wetland Types: M, Tp, Xf, Xp, Ts, U, W, 4, 9 (dominant types listed first)		
The site contains floodplains, rivers, lakes, 1,800 ha of water, 7,400 ha of marshes (mires), peatlands, swampy islands, 800 ha of meadows and swampy woods.		
Biological/Ecological notes: The site includes about 650 plant species, 17 fish species, 9 amphibians, 5 reptiles, 140 bird species and 23 mammals. The vegetation is typical for the forest zone (Western Polissia), although parts of the riversides, lake-sides and marshes (mires) are dominated by aquatic vegetation, such as reeds <i>Phragmites australis</i> , and associations of sedges and different grasses. The lone, sandy dunes have little vegetation.		
Hydrological/Physical notes: The site is situated within the Upper-Prypiat and Manevychi physical-geographical zones on western Polissia. The site lies in the Upper-Prypiat sedimentary plain within the Dnipro River catchment. The water carries an innocuous yellow tint. Summers are moderately wet and warm. Winters are mild with ice-cover lasting on water bodies from some weeks to three months. Annual precipitation is about 600 mm.		
Human Uses: Part of the site is owned by the state, and part has a collective ownership. The surrounding area is partly owned by the state, and partly collective and private ownership. Outside the protected zone of the Regional Landscape Park 'Prypiat-Stokhid', there is some hunting, sports, tourism, recreation, small commercial fishing, grazing of cattle and haymaking. These activities occur in the surroundings, along with traditional farming. Since 1992, scientific research on waterbirds and wetlands has been carried out by the scientific-ecological organization 'Bird World', the Western Department of the Ukrainian Ornithological Society, and the Ukrainian Society of Bird Protection (partner of the BirdLife International).		

Conservation Measures: The site includes the Landscape Game Reserve “Stokhid” (5,992 ha), the Hydrological Game Reserves “Gulivka” (242 ha) and “Sedlyshche” (350 ha) and part of the Regional Landscape Park “Prypiat-Stokhid” (44,958 ha). These protected areas occupy about 90% of this wetland. In 1998, the cooperative project “Creation of Interstate Protected Areas in Upper Prypiat Basin” was being prepared by the Central Board of National Nature Parks and Reserve Affairs of the Ministry of the Environment and Natural Resource of Ukraine and the EECONET Action Fund. There is a proposal to create a “Prypiat-Stokhid” National Nature Park of more than 60,000 ha. Ukraine has suggested a transboundary protected area in this region with Belarus.

Adverse Factors: Since 1974, the beginning of the exploitation of the Upper-Prypiat, Vetly, Girky, Zalukhiv, Richytsa, Shchedrogir and Pidkormillia drainage systems and the beginning of the construction of dykes, hydrological balance and water level of the river have been rendered unstable. The draining of the site has caused the decrease of numbers of waterbirds, especially during last 20–30 years. Around the site, there is intensification of agricultural production and forest use.

Most recent Ramsar Information Sheet/datasheet: 1998. Please see Introduction for more details.

RAMSAR CONTRACTING PARTIES (31/12/1998)

COUNTRY	CONVENTION Entry Into Force	RAM SAR W ETLANDS	AREA (ha)
ALBAN IA	29-03-96	1	20000
ALGER IA	04-03-84	2	4900
ARGENT NA	04-09-92	6	420039
ARM EN IA	06-11-93	2	492239
AUSTRALIA	21-12-75	49	5099180
AUSTR IA	16-04-83	9	102772
BAHAM AS	07-06-97	1	32600
BAHRAN	27-02-98	2	7
BANGLADESH	21-09-92	1	596000
BELGIUM	04-07-86	6	7935
BELIZE	22-08-98	2	?
BOLIVIA	27-10-90	2	805240
BOTSW ANA	09-04-97	1	6864000
BRAZIL	24-09-93	5	4536623
BULGAR IA	24-01-76	5	2803
BURKINA FASO	27-10-90	3	299200
CANADA	15-05-81	36	13050975
CHAD	13-10-90	1	195000
CHILE	27-11-81	7	100174
CHINA	31-07-92	7	588380
COLOMBIA	18-10-98	1	400000
COMOROS	09-06-95	1	30
CONGO , DEMOCRATIC REPUBLIC OF	18-05-96	2	866000
CONGO , THE REPUBLIC OF	18-10-98	1	438960
COSTA RICA	27-04-92	7	245301
COTE D 'IVOIRE	27-06-96	1	19400
CROATIA	25-06-91	4	80455
CZECH REPUBLIC	01-01-93	10	37891
DENMARK	02-01-78	38	2283013
ECUADOR	07-01-91	3	94750
EGYPT	09-09-88	2	105700
ESTONIA	29-07-94	10	215950
FINLAND	21-12-75	11	101343
FRANCE	01-12-86	18	795085
GABON	30-04-87	3	1080000

COUNTRY	CONVENTION Entry Into Force	RAM SAR WETLANDS	AREA (ha)
GAMBIA	16-01-97	1	20000
GEORGIA	07-06-97	2	34223
GERMANY	26-06-76	31	672852
GHANA	22-06-88	6	178410
GREECE	21-12-75	10	163501
GUATEMALA	26-10-90	3	83099
GUNEA.	18-03-93	6	225011
GUNEA-BISSAU	14-05-90	1	39098
HONDURAS	23-10-93	3	102575
HUNGARY	11-08-79	19	149841
ICELAND	02-04-78	3	58970
INDIA	01-02-82	6	192973
INDONESIA	08-08-92	2	242700
IRAN, ISLAMIC REPUBLIC OF	21-12-75	18	1357150
IRELAND	15-03-85	45	66994
ISRAEL	12-03-97	2	366
ITALY	14-04-77	46	56950
JAMAICA	07-02-98	1	5700
JAPAN	17-10-80	10	83530
JORDAN	10-05-77	1	7372
KENYA	05-10-90	2	48800
KOREA, REPUBLIC OF	28-07-97	2	960
LATVIA	25-11-95	3	43300
LIECHTENSTEIN	06-12-91	1	101
LITHUANIA	20-12-93	5	50451
LUXEMBOURG	15-08-98	1	313
MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	08-09-91	1	18920
MADAGASCAR	25-01-99	2	53095
MALAWI	14-03-97	1	224800
MALAYSIA	10-03-95	1	38446
MALI	25-09-87	3	162000
MALTA	30-01-89	2	16
MAURITANIA	22-02-83	2	1188600
MEXICO	04-11-86	6	1095414
MONACO	20-12-97	1	10

COUNTRY	CONVENTION Entry Into Force	RAM SAR W ETLANDS	AREA (ha)
MONGOLIA	08-04-98	4	264220
MOROCCO	20-10-80	4	10580
NAMIBIA	23-12-95	4	629600
NEPAL	17-04-88	1	17500
NETHERLANDS	23-09-80	24	326928
NEW ZEALAND	13-12-76	5	38868
NICARAGUA	30-11-97	1	43750
NGER	30-08-87	1	220000
NORWAY	21-12-75	23	70150
PAKISTAN	23-11-76	8	61706
PANAMA	26-11-90	3	110984
PAPUA NEW GUINEA	16-07-93	2	594924
PARAGUAY	07-10-95	4	775000
PERU	30-03-92	7	2932059
PHILIPPINES	08-11-94	1	5800
POLAND	22-03-78	8	90455
PORTUGAL	24-03-81	10	65813
ROMANIA	21-09-91	1	647000
RUSSIAN FEDERATION	11-02-77	35	10323767
SENEGAL	11-11-77	4	99720
SLOVAK REPUBLIC	01-01-93	11	37130
SLOVENIA	25-06-91	1	650
SOUTH AFRICA	21-12-75	16	492830
SPAIN	04-09-82	38	158216
SRILANKA	15-10-90	1	6210
SURINAME	22-11-85	1	12000
SWEDEN	21-12-75	30	382750
SWITZERLAND	16-05-76	8	7049
SYRIA	05-07-98	1	10000
THAILAND	13-09-98	1	494
TOGO	04-11-95	2	194400
TRINIDAD & TOBAGO	21-04-93	1	6234
TUNISIA	24-03-81	1	12600
TURKEY	13-11-94	9	159300
UGANDA	04-07-88	1	15000
UKRAINE	01-12-91	22	716250

COUNTRY	CONVENTION Entry Into Force	RAM SAR WETLANDS	AREA (ha)
UNITED KINGDOM	05-05-76	128	546093
UNITED STATES OF AMERICA	18-04-87	17	1172633
URUGUAY	22-09-84	1	435000
VENEZUELA	23-11-88	5	263636
VIETNAM	20-01-89	1	12000
YUGOSLAVIA	28-07-77	4	39861
ZAMBIA	28-12-91	2	333000
former USSR		5	1559500
Totals		966	70550146

ANNEX 2

CRITERIA FOR IDENTIFYING WETLANDS OF INTERNATIONAL IMPORTANCE

as adopted by the 4th and 6th Meetings of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971) to guide implementation of Article 2.1 on designation of Ramsar sites

Annexes to Recommendation 4.2, Montreux, Switzerland, 1990, and Resolution VI.2, Brisbane, Australia, 1996

A wetland is identified as being of international importance if it meets at least one of the criteria set out below:

1. Criteria for representative or unique wetlands

A wetland should be considered internationally important if:

- (a) it is a particularly good representative example of a natural or near-natural wetland, characteristic of the appropriate biogeographical region;
- or (b) it is a particularly good representative example of a natural or near-natural wetland, common to more than one biogeographical region;
- or (c) it is a particularly good representative example of a wetland which plays a substantial hydrological, biological or ecological role in the natural functioning of an major river basin or coastal system, especially where it is located in a trans-border position;
- or (d) it is an example of a specific type of wetland, rare or unusual in the appropriate biogeographical region.

2. General criteria based on plants or animals

A wetland should be considered internationally important if:

- (a) it supports an appreciable assemblage of rare, vulnerable or endangered species

- or subspecies of plant or animal, or an appreciable number of individuals of any one or more of these species;
- or (b) it is of special value for maintaining the genetic and ecological diversity of a region because of the quality and peculiarities of its flora and fauna;
- or (c) it is of special value as the habitat of plants or animals at a critical stage of their biological cycle;
- or (d) it is of special value for one or more endemic plant or animal species or communities.

3. Specific criteria based on waterfowl

A wetland should be considered internationally important if:

- (a) it regularly supports 20,000 waterfowl;
- or (b) it regularly supports substantial numbers of individuals from particular groups of waterfowl, indicative of wetland values, productivity or diversity;
- or (c) where data on populations are available, it regularly supports 1% of the individuals in a population of one species or subspecies of waterfowl.

4. Specific criteria based on fish

A wetland should be considered internationally important if:

- (a) it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity;
- or (b) it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

ANNEX 3

RAMSAR WETLAND TYPE

The codes are based upon the Ramsar Classification System for “Wetland Type” as approved by Recommendation 4.7 and amended by Resolution VI.5 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

RAMSAR WETLAND TYPE

Marine/Coastal

- A — Permanent **shallow marine waters** less than six metres deep at low tide; includes sea bays and straits.
- B — Marine **subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.
- C — **Coral reefs**.
- D — **Rocky marine shores**; includes rocky offshore islands, sea cliffs.
- E — **Sand, shingle or pebble shores**; includes sand bars, spits and sandy islets; includes dune systems.
- F — **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.
- G — **Intertidal mud, sand or salt flats**.
- H — **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
- I — **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
- J — **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.
- K — **Coastal freshwater lagoons**; includes freshwater delta lagoons.

Inland Wetlands

- L — **Permanent inland deltas**.
- M — **Permanent rivers/streams/creeks**; includes waterfalls.
- N — **Seasonal/intermittent/irregular rivers/streams/creeks**.
- O — **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- P — **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.
- Q — **Permanent saline/brackish/alkaline lakes**.
- R — **Seasonal/intermittent saline/brackish/alkaline lakes and flats**.
- Sp — **Permanent saline/brackish/alkaline marshes/pools**.
- Ss — **Seasonal/intermittent saline/brackish/alkaline marshes/pools**.
- Tp — **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation waterlogged for at least most of the growing season.
- Ts — **Seasonal/intermittent freshwater marshes/pools** on inorganic soil; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.
- U — **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.
- Va — **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.
- Vt — **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.
- W — **Shrub-dominated wetlands**; Shrub swamps, shrub-dominated freshwater marsh, shrub carr, alder thicket; on inorganic soils.
- Xf — **Freshwater, tree-dominated wetlands**; includes freshwater swamp forest, seasonally flooded forest, wooded swamps; on inorganic soils.
- Xp — **Forested peatlands**; peat swamp forest.
- Y — **Freshwater springs; oases**.

- Zg — **Geothermal wetlands**
Zk — **Subterranean karst and cave hydro-
logical systems.**

Note: * — “**floodplain**” is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types.

~~Some examples of floodplain wetlands~~ are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forest. Floodplain wetlands are not listed as a specific wetland type herein.

“Man made” wetlands

- 1 — **Aquaculture** (e.g., fish/shrimp) **ponds**
- 2 — **Ponds**; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
- 3 — **Irrigated land**; includes irrigation channels and rice fields.
- 4 — **Seasonally flooded agricultural land.***

- 5 — **Salt exploitation sites**; salt pans, salines, etc.
- 6 — **Water storage areas**; reservoirs/bar-rages/dams/impoundments; (generally over 8 ha).
- 7 — **Excavations**; gravel/brick/clay pits; borrow pits, mining pools.
- 8 — **Wastewater treatment areas**; sewage farms, settling ponds, oxidation basins, etc.
- 9 — **Canals and drainage channels**, ditches.

Note: * — To include intensively managed or grazed wet meadow or pasture.

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