

## **Information Sheet on Ramsar Wetlands**

*Categories approved by Recommendation 4.7, as amended by Resolution VIII.13  
of the Conference of the Contracting Parties*

### **1. Name and address of the RIS compiler:**

Dr. Lyudmyla Lyubinska

Podilski Tovtry National Nature Park

1 Polskyi Rynok Square, Kamyanets-Podilskyi, Khmelnytska Oblast, 32300,  
Ukraine

Tel./fax: +380 3849 327-71, 312-70.

E-mail: [tovtry@kp.rel.com.ua](mailto:tovtry@kp.rel.com.ua)

Mr. Mykola Stetsenko, First Deputy Head of the State Agency for Protected Areas  
Ministry of the Environment and Natural Resources of Ukraine

1 Tymiryazevska Str., Kyiv, 01014, Ukraine

Tel./fax: +380 44 295 3572

E-mail: [parks@parks.freenet.kiev.ua](mailto:parks@parks.freenet.kiev.ua)

### **2. Country:**

UKRAINE

### **3. Date:**

April 7, 2003

### **4. Name of the Ramsar site:**

**Bakotska Bay**

### **5. Map of the Ramsar site:**

**a) hard copy**

yes

**b) digital (electronic) format**

raster

### **6. Geographical coordinates:**

48 ° 35'      N 26 ° 56' E

### **7. General location:**

Bakotska Bay is a bay of the Dniester River.

Administrative location: Khmelnytska Oblast (Khmelnitsky Region), Kamyanets-Podilskyi Rayon (Kamyanets-Podilskyi District). The site is located near the villages of Goraivka and Kolodiivka, 50 km south-east of the city of Kamyanets-Podilskyi (150 thousand inhabitants).

**8. Elevation:**

117.5; max -121;- min -114 m

**9. Area:**

1,590 ha

**10. Overview:**

The site Bakotska Bay was formed during the filling of this low-lying area of the Dniester River valley with waters of the newly constructed Dniester Reservoir located in the river canyon. The site represents typical for the Upper Dniester basin natural vegetation, floral and faunal complexes. The site has an important role as a habitat of some bird species rare in Europe and Ukraine, first of all such birds of prey as Goshawk *Accipiter gentilis*, Sparrowhawk *Accipiter nisus*, Buzzard *Buteo buteo*, Short-toed Eagle *Circaetus gallicus*, Kestrel *Falco tinnunculus*; long-term staying during spring and autumn migrations of such birds of the wetland complex as Mallard *Anas platyrhynchos*, Mute Swan *Cygnus olor*, Great White Egret *Egretta alba*, Little Egret *Egretta garzetta*, Wood Sandpiper *Tringa glareola*, Lapwing *Vanellus vanellus* and others. There are also spawning grounds of fish. Bakotska Bay is one of the most valuable parts of Podilski Tovtry National Nature Park.

**11. Ramsar Criteria:**

2 3 4 7 8

**12. Justification for the application of each Criterion listed in 11. above:**

(2) Within the site and nearby there are species, which are under protection of the Bern Convention and/or the Red Data Book of Ukraine, namely: Goshawk *Accipiter gentilis* L., Sparrowhawk *Accipiter nisus* L., Buzzard *Buteo buteo* L., Short-toed Eagle *Circaetus gallicus* Gmelin, Kestrel *Falco tinnunculus* L., Corncrake *Crex crex* L., Kingfisher *Alcedo atthis* L., Bee-eater *Merops apiaster* L., Sand Martin *Riparia riparia* L., Yellow Wagtail *Motacilla flava* L., Pied Wagtail *Motacilla alba* L. The Lesser Kestrel *Falco naumanni* and the fish *Zingel zingel* are considered vulnerable in IUCN Red List and other birds mentioned are listed on European Bird Directive.

(3) Bakotska Bay has an important role in biodiversity conservation of the Dniester River basin and the Podilska Height (Podolian Highland), located in the south-western part of Ukraine, with total area of 100 000 km<sup>2</sup> within the Continental biogeographical region.

During the nesting period, Grey Heron *Ardea cinerea*, White Stork *Ciconia ciconia*, Black Kite *Milvus migrans*, Golden Eagle *Aquila chrysaetus*, Lesser Kestrel *Falco naumanni*, Swallow *Hirundo rustica* and others occur in this area.

Rare associations listed the Green Data Book of rare and typical plant communities of Ukraine, with domination of *Lemna minor*, and those with domination of *Sagittaria sagittifolia* and *Sparganium emersum* are characteristic for the riparian and aquatic plant cover of the site's delta part.

(4) During autumn migrations and in winter, on the territory of the site the following species stay: Red-throated Diver *Gavia stellata Pontoppidan*, Great White Egret *Egretta alba L.*, Little Egret *Egretta garzetta L.*, Tufted Duck *Aythya fuligula L.*, Goldeneye *Bucephala clangula L.*, Great Crested Grebe *Podiceps cristatus Boddaert*, Hen Harrier *Circus cyaneus L.*, Merlin *Falco columbarius L.*, Peregrine *Falco peregrinus Tunstall*, Crane *Grus grus L.*, Lapwing *Vanellus vanellus L.*, Wood Sandpiper *Tringa glareola L.*, Rough-legged Buzzard *Buteo lagopus Pontoppidan*, Hobby *Falco subbuteo L.*, Red-footed Falcon *Falco vespertinus L.*, Mallard *Anas platyrhynchos L.*, Scaup *Aythya marila L.*, White Stork *Ciconia ciconia L.*, Mute Swan *Cygnus olor Gmelin*, *Aythya ferina L.* and others.

(7) In waters of the site the following species spawn and feed, which are protected by the Bern Convention (Appendix II) and listed in the Red Data Book of Ukraine or the regional Red List of rare and threatened species of Khmelnytska Oblast: *Rutilus frisii Nordmann*, *Leucaspius delineatus Heckel*, *Alburnoides bipunctatus Bloch*, *Chondrostoma nasus L.*, *Rhodeus sericeus Pall.*, *Silurus glanis L.*, *Zingel zingel L.*, *Gobius fluviatilis Pall.*

(8) The site is also important as spawning grounds of common fish species, such as pike *Esox lucius L.*, crucian *Carassius gibelio (Bloch)*, *C. carassius (L.)*, carp *Cyprinus carpio L.*, perch *Perca fluviatilis L.*, pike perch *Lucioperca lucioperca (L.)*, *Gymnocephalus cernua L.*, roach *Rutilus rutilus L.*, dace *Leuciscus leuciscus L.*, chub *L. cephalus L.*, *Scardinius erythrophthalmus L.*, *Gobio gobio L.*, *Blicca bjorkna L.*, loach *Misgurnus fossilis L.*, *Alburnus alburnus L.*, bream *Abramis brama L.*, *Hypophthalmichthys militrix Val.*, *Barbus barbus L.*, *Neogobius gymnotrachelus Kessler* and others.

### 13. Biogeography:

Biogeographical region on the map of the Emerald Network of Europe: Continental.

According to geobotanical zoning of Ukraine: Podillian-Bessarabska (Podolian-Bessarabian) Subprovince; East European Province; European Broadleaf Forest Region.

Geomorphological subprovince: Podilska Height (Podolian Highland) of the Volyno-Podilskyi (Volhynian-Podolian) Tectonic Block.

Basin affiliation: the Smotrych River flows directly into the Dniester River in its middle reaches.

#### **14. Physical features of the site:**

The Site is located within the Volyno-Podilskyi (Volhynian-Podolian) Tectonic Block and is characterized by strata of the crystalline basis coming close to the daylight surface. It is formed by limestone, marls, sandstone, slates, and also granite and gneiss, which are covered by loess. Within the Site, there is only one geomorphological subprovince recognized, the Podilska (Podolian) structurally-denudated height. The Neogene (mainly marine) and Quaternary (alluvial and hillside) deposits are of relief-forming importance. The surface of the Site is basically a high, slightly hilly loess plain.

By the physical-geographical zoning of Ukraine, the territory of the Site belongs to the West Podilskyi (West Podolian) District of the West Podilska (West Podolian) Province of the Podilska (Podolian) Forest-steppe Zone. On the Site's territory there are dark-gray podzol, chernozem-podzol soils formed mainly on loess layers.

Bakotska Bay was created in 1976, as a result of creation of the Dniester Reservoir on the Dniester River. The length of the reservoir is 194 km and volume 3 km<sup>3</sup>; the buffer reservoir (17 km long, with the capacity of 0.031 km<sup>3</sup>) is located downstream.

Water mineralization in the upper reaches of the Dniester varies from 205 to 570 mg/l. The water belongs mainly to hydrocarbonate-calcium class of II type. In general, the water quality is satisfactory (there are water intake facilities near the Site, providing water for the needs of Kamyanyets-Podilskyi), though water is definitely somewhat polluted by the cities of Stebnyk, Kalush, Drohobych, Galych, and Ivano-Frankiv's'k.

Climate of the Site is moderately continental, with mild winters, and warm, humid summers. An average January temperature is -5.5°C, July +18.8°C. The period with temperatures above +10°C lasts for about 168 days.

#### **15. Physical features of the catchment area:**

The Dniester River (length 1352 km, drainage basin area 72.5 thousand km<sup>2</sup>) is formed on the northeastern slopes of the Ukrainian Carpathians, and flows into the Dniester Liman (Dniester Estuary) of the Black Sea. Average annual water runoff of the Dniester is 9.50 km<sup>3</sup> (at flow rates in average at about 300 m<sup>3</sup>/s), at that about 80 % of its flow is formed in the mountain part and foothills of the Carpathians. Feed of the river is mixed, with domination of snow above rain.

#### **16. Hydrological values:**

During the low water period on the Dniester, the depth of Bakotska Bay is up to 34 m, and width is 1700 m, the current velocity of the river in the main channel is 0.7-3.0 m/s. During floods, which are observed more often in May - June, water

can rise by 6 m, but do not overflow the banks of the Dniester canyon. In winter water in the bay freezes, except for current limits. Small streams and sources from surrounding limestone rocks run into the bay. The average annual precipitation in the area of the bay is about 532 mm, and the greatest quantity of precipitation is characteristic for summer months.

The water regime within the limits of the bay largely depends on conditions of formation of the Dniester runoff and operations of the Dniester Reservoir with a hydroelectric power station, though at identifying the volumes of drawdowns from the Dniester water reservoir the needs of the Upper Dniester are necessarily taken into account.

**17. Wetland Type:**

6 M L (by order of dominance)

**18. General ecological features:**

The riparian and aquatic flora is represented by widespread species *Typha angustifolia* L., *Typha latifolia* L., *Carex acuta* L., *Galium palustre* L., *Stachys palustris* L., *Potamogeton natans* L., *Mentha aquatica* L., *Eleocharis palustris* (L.) Roem. et Schult. In water of the bay there are representatives of green, blue, red, and euglenophytic algae, especially *Oscillatoria granulata* Gardner, *Euglena acus* Ehr., *Bangia atropurpurea* (Roth) Ag., *Ulothrix tenerrima* Kutz.

Banks of the bay are steep (area of the Dniester canyon), in some places rocky, and the riverside is covered with pebble and stone debris. On the banks of Bakotska Bay the steppe, forest and limestone-petrophytic flora and communities are widespread.

**19. Noteworthy flora:**

Rare associations listed the Green Data Book of rare and typical plant communities of Ukraine, with domination of *Lemna minor*, and those with domination of *Sagittaria sagittifolia* and *Sparganium emersum* are characteristic for the riparian and aquatic plant cover of the site's delta part.

**20. Noteworthy fauna:**

Within the site and nearby there are species, which are under protection of the Bern Convention and/or the Red Data Book of Ukraine, namely: Goshawk *Accipiter gentilis* L. – 1 pair, Sparrowhawk *Accipiter nisus* L. – 4 pairs, Buzzard *Buteo buteo* L. – 3 pairs, Short-toyed Eagle *Circaetes gallicus* Gmellin – 1 pair, Kestrel *Falco tinnunculus* L. – 1 pair, Corncrake *Crex crex* L. – 2 pairs, Kingfisher *Alcedo atthis* L. – 2 pairs, Bee-eater *Merops apiaster* L. – 5-15 pairs, Sand Martin *Riparia riparia* L. – 11-26 pairs, Yellow Wagtail *Motacilla flava* L. – 3-5 pairs, Pied Wagtail *Motacilla alba* L. – 3-5 pairs.

## **21. Social and cultural values:**

On the bank of Bakotska Bay there is Bakotskyi rocky monastery, built by monks in the IX century in limestone rocks by hollowing up of galleries.

In the Upper Bay, there are two equipped places for summer camps, in particular, for the Youth Summer camp.

## **22. Land tenure/ownership of:**

### **site:**

State ownership on lands of the Water Fund of Ukraine, including the area of water and riverside protection stripes on both sides of the river and the bay within the Podilski Tovtry National Nature Park. The state of the River and riverside stripes is controlled by the Dniester Regional Basin Department. 70% of lands belong to the water-protection zone of the Dniester River.

### **surrounding area:**

Nearby all the lands are within the Podilski Tovtry National Nature Park: other lands of state property – lands of the water fund; lands of populated areas (private and municipal), and private agricultural lands (arable lands, pastures, gardens).

## **23. Current land (including water) use:**

### **(a) site:**

Scientific research, nature conservation activities; recreational activities: leisure in designated places, fishing and hunting are carried out in coordination with Podilski Tovtry National Park in agreed terms and volumes.

Two mobile trailers of fishermen of the Khmelnytsky Fishery are located on the bank of the bay during the period of commercial fishing (from 1 June until the beginning of freezing).

### **(b) surroundings/catchment:**

Recreational and forestry activities, amateur and commercial fishing in designated places of the recreation zone, economic activities (according to the types of agricultural lands: pastures, hayfields, arable lands, gardens) of Podilski Tovtry National Nature Park.

## **24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:**

### **a) within the Ramsar site:**

Non-controlled recreational activities, fishing and hunting, banks erosion, changes of the water level because of the Dniester Reservoir drawdown.

**b) in the surrounding area :**

Fishing, navigation, recreational activities.

**25. Conservation measures taken:**

In accordance to the Presidential Decree of 27 June 1996, No. 174/ 96, this area is a part of the recreational zone of Podilski Tovtry National Nature Park.

Biodiversity management is conducted in accordance to the Law of Ukraine "On the Nature Reserve Fund of Ukraine" (1991), the Regulation (By-law) of Podilski Tovtry National Nature Park (1996).

The Dniester Regional Basin Department (Novodnistrovsk, Chernivtsi Region) is responsible for monitoring of water resources.

**26. Conservation measures proposed but not yet implemented:**

The Management plan on the territory, restoration and recreational use of natural complexes and sites of Podilski Tovtry National Nature Park was approved by the Ministry of the Environment and Natural Resources of Ukraine in 2002. The special Management plan on wetlands of international importance will be developed.

**27. Current scientific research and facilities:**

The Podilski Tovtry National Nature Park, in which subordination the Site stays, is a scientific research institution at the Ministry of the Environment and Natural Resources of Ukraine. In the staff of the Park there are 6 scientific officers, working in the Scientific Department. The main research activities are monitoring the state of biological and landscape diversity within the frameworks of the annual Program on Chronicles of Nature. Scientific researches are conducted with active participation of the employees of the Institute of Ecology of the Carpathians of the National Academy of Sciences of Ukraine (Lviv), M.G. Kholodny Institute of Botany and the I.I. Schmalhausen Institute of Zoology of the National Academy of Sciences of Ukraine (Kyiv).

**28. Current conservation education activities related to communications, education and public awareness (CEPA) related to or benefiting the site:**

Ongoing environmental education activities among local people, especially children of adjacent villages and tourists travelling near Podilski Tovtry National Nature Park. Information leaflets about values of the Park are published each year. The administration building of the Park is located in Kamyanets-Podilskyi, and its branch is established in the town of Stara Ushytsia (2 km of Bakotska Bay).

**29. Current recreation and tourism:**

In camps of Upper Bay, about 6 thousand persons have recreational activities annually (mainly in summer). Up to 5 thousand people visit each year the

Bakotskyi Rocky Monastery, which is located on the steep bank of the Bay.

Amateur fishing is permitted from the beginning of June and in winter (in winter – under the ice).

The Khmelnytsky Fishery Association carries out commercial fishing. Hunting (game bird species – wild ducks) is permitted from mid-August until the beginning of November.

There are an ecological trail 4 km long and the tourist route 8 km long coming to Bakotska Bay. Employees of Podilski Tovtry National Nature Park accompany about 3 thousand visitors each year. Excursions for schoolboys and ecological camps for students are also organized.

### **30. Jurisdiction:**

Territorially the lands of the site are subordinated to the State Administration of Khmelnytska Oblast (Khmelnytsky Region).

Functionally the site is in subordination of the Dniester Regional Basin Department (lands of water fund) and the Administration of Podilski Tovtry National Nature Park (biodiversity and landscape conservation, recreation activities) at the Ministry of the Environment and Natural Resources of Ukraine.

### **31. Management authority:**

Administration of Podilski Tovtry National Nature Park

Mr. Oleksandr Nikitin, Director

1 Polskyi Rynok Square, Kamyanets Podilskyi, Khmelnytska Oblast, 32300  
Ukraine

Tel./fax: +380 3849 327-71, 312-70.

E-mail: [tovtry@kp.rel.com.ua](mailto:tovtry@kp.rel.com.ua)

### **32. Bibliographical references:**

1. Chronicle of Nature: Podilski Tovtry National Nature Park – 6 volumes (1997-2002).
2. Phytodiversity of National Nature Parks / Edited by T.L. Andrienko & V.A. Onishchenko. – Kyiv: Naukovyi Svit, 2003. – 143 pp.
3. Red Data Book of Ukraine: Flora - 1996, 608 p.; Fauna - 1994, 464 p. - Kyiv: Ukrainian Encyclopaedia.
4. Reserves and National Nature Parks of Ukraine. – Kyiv: Vyscha Shkola (Higher School), 1999. – 230 p.