

**Information Sheet on Ramsar Wetlands (RIS)**

*Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.*

**1. Date this sheet was completed/updated:**

16<sup>th</sup> August, 1999

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Designation date

Site Reference Nu

**2. Country:**

The Republic of Moldova

**3. Name of wetland:**

Lower Prut Lakes

**4. Geographical coordinates:**

from 45°28' to 45°55' North Latitude, and  
from 28°08' to 28°13' East Longitude

**5. Elevation:**

The smallest is 2m in the absolute altitude in the Prut River mouth at its confluence with the Danube River.

The highest point is between the villages Brinza and Valeni – 152.9m.

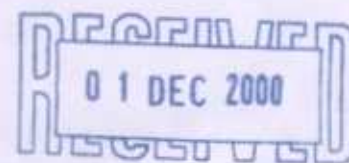
**6. Area:**

Total surface area constitutes 19 152,5 ha.

The general landform is a relatively narrow river valley with adjoining river terraces and in some places river-cliffs intersected by ravines. The lowest altitude of the site, 2 m asl, is at the confluence of the Prut with the River Danube; the highest altitude is 52,9 m asl, occurring between the villages of Brinza and Valeni. The lower Prut flood-plain is not very meandering, and may reach 6 km width. The river channel however is rather sinuous, with the prevailing width about 60 - 80 m, and depth around 2 - 4 m. The banks are steep, about 1 - 2 m high, with an estimated erosion rate of 20 - 30 cm per year (10-12%). The upper floodplain terraces are strongly eroded and cut by numerous ravines.

**7. Overview:**

The area is situated in the south-western part of Moldova, between the town of Cahul and village Giurguilesti in the lower part of the Prut River valley, within the single administrative region of Judet Cahul. The River Prut itself serves as the western border of the site and at the same time is the state border between Moldova



and Romania. The overall length of the site is 147,36 km and its area 19 152,5 ha, including 14,400 ha of wetlands.

### 8. Wetland Type

marine-coastal: A • B • C • D • E • F • G • H • I • J • K •

inland: L • M# • N • O# • P • Q • R • Sp • Ss • Tp  
Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

human-made: 1# • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

Please now rank these wetland types by listing them from the most to the least dominant:

O - Permanent freshwater lakes

M - Permanent river

1 - Fish Ponds

### 9. Ramsar Criteria:

1 • 2# • 3# • 4 • 5 • 6 • 7 • 8

#### *The most significant - Criterion 3:*

Lakes Beleu and Manta are unique ecosystems. They can be addressed as **last natural floodplains in the lower Danube** according to their flooding characteristics.

### 10. Map of site included? Please tick \*\* -or- no

Are included next maps ( format A4):

1. Map of the proposed Ramsar site with area boundaries
2. Map of the proposed Ramsar site with indicated Important Bird areas
3. Map of the proposed Ramsar site with indicated Rare Fauna sites
4. Map of the proposed Ramsar site with indicated Rare Flora sites
5. Map of the proposed Ramsar site with indicated Heritage sites

### 11. Name and address of the compilers of this form:

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## 12. Justification of the criteria selected

The largest natural lakes in Moldova, Beleu and Manta, are situated within the site. Lake Beleu is situated close to Slobozia Marea and was originally a Danubian lake in that it was connected to the Prut and was affected by floods in the River Danube. It is 5 km long and 2 km wide, covers about 1,700 ha, and has an average depth of 1.5 m (maximum 2 m). Water from the Prut now enters the lake via two canals. In low rainfall years the lake can dry out and thus the biodiversity of the wetland ecosystem is adapted to these cycles.

Lake Manta is situated between the town of Cahul and Brinza village. It was formed as a result of a conjunction of several former natural lakes interconnected by natural channels: Drachele (265 ha), Rotunda (208 ha), Surda, Listva, and Badelnik. At the beginning of the 1970s, the Cahul fish farm was established at Crihana Veche by embanking and expanding Lake Fontana (116 ha) a natural lake that lay to the north of Manta. It now consists of eight fish ponds, with a maximum depth of about 1.5 m even in wet years.

Both Lakes Beleu and Manta can still be considered as natural or at least near natural according to their flooding characteristics. No man made impacts on the sites by hydrotechnical structures or channel dredging are known which could influence the flooding features significantly. The existing dyke systems, designed for a flood with a 1% probability, are not complete (dyke breaches are widespread, either by failure or by uncompleted construction or by deliberate destruction).

Besides the River Prut and the remaining larger natural lakes, there are also smaller waterbodies in the floodplain and minor tributaries of the Prut which dry out during the summer. The site also supports grazing meadows and dry pastures on the slopes, and riverine forest. A large part of the floodplain area, especially in the northern part of the site, has been drained to provide farmland (cereals, vineyards, vegetables), but at present only about 40% of the irrigation system is operational.

The Prut river's headwater is near village Vorohta, Ukraine (in the Carpathians). It flows into the Danube River 0.5 km to south-east from the village of Giurgiulesti. It runs throughout the region Cernauti (the Ukraine); then it follows its way on the border between Moldova and Romania. The river length is 967km; the total area of the Prut river basin constitutes 28400 km<sup>2</sup> out of which 6710 km<sup>2</sup> belongs to Moldova, 10690 km<sup>2</sup> - to Ukraine and 11000 km<sup>2</sup>- to Romania. The Prut river basin is situated between 45-49 degrees northern latitude and 24-29 degrees eastern longitude. In typical year, the total water availability of Prut River is estimated at 2.9 mln.m<sup>3</sup> per year.

A summary of the biodiversity inventory in the Lower Prut Lakes area is given below.

No. of species	No. of species in Moldovan Red List	
Mammals	39	5
Birds	203	27
Reptiles	5	2
Amphibians	9	1
Fish*	41	6

Plants

12

\*(includes 5 introduced species)

Several migratory bird species occur that are listed in Appendix 1 of the Bonn Convention.

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**13. General location:** (include the nearest large town and its administrative region)

Ten large villages are situated within the site in administrative region of Cahul Judet, having a combined area of 52,845 ha and a total population 32,900 people in 1998. The population density of the site is 209 people per km<sup>2</sup> (excluding the wetland area). The villages are mainly situated in the river valley, along the lower part of the slopes, which serve as the eastern boundary and buffer zone of the site.

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**14. Physical features:** (e.g., geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

The general landform is a relatively narrow river valley with adjoining river terraces and in some places river-cliffs intersected by ravines. The lowest altitude of the site, 2 m asl, is at the confluence of the Prut with the River Danube; the highest altitude is 52,9 m asl, occurring between the villages of Brinza and Valeni. The lower Prut flood-plain is not very meandering, and may reach 6 km width. The river channel however is rather sinuous, with the prevailing width about 60 - 80 m, and depth around 2 - 4 m. The banks are steep, about 1 - 2 m high, with an estimated erosion rate of 20 - 30 cm per year (10-12%). The upper floodplain terraces are strongly eroded and cut by numerous ravines.

Geologically, the lower Prut area comprises unconsolidated rocks that are unstable and very geomorphologically active. The average area which is exposed to exogenous processes is estimated at 0,5 ha per km<sup>2</sup>.

The soils are mainly alluvial with chernozems in some places.

The climate is moderate and comparatively mild due to the proximity of the Black Sea. The average annual temperatures are above zero and generally average 9.0 - 10.0 0C. The average annual precipitation is 450 mm.

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**15. Hydrological values:**

groundwater recharge, flood control, sediment trapping

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**16. Ecological features:** (main habitats and vegetation types)

The main habitat types are:

- river - 7,11 km<sup>2</sup>, or 2,90%;
- natural lakes - 38,14 km<sup>2</sup>, or 15,57%;
- marshes - 12,98 km<sup>2</sup>, or 5,03 %
- fish ponds - 15,89 km<sup>2</sup>, or 6,49 %;
- riverine forest - 7,84 km<sup>2</sup>, or 4,02 %



In the Lower Prut Lakes site there are next vegetation types:

- *The Aquatic Vegetation* is presented in Beleu and Manta lakes and in the natural lake near the village Brinza. In these lakes there were found out 24 species of vascular plants. The aquatic vegetation includes different forms:

The unrooted submerged vegetation is represented by: *Ceratophylletum demersi*, *C.ceratophyllosum (submersi)*, *C.potamogetosum (crispi)*.

The floating vegetation is represented by: *Lemnetum (minoris)lemnosum (trisulcae)*, *L.salviniosum (natantis)*, *Salviniosum natanti*, *Potamogetum (crispi) ceratophyllosum (submersi)*.

The roofed aquatic vegetation mostly is presented in Beleu and Manta Lakes. Among them predominate: *Nymphoidetum peltate* and *Nyvphoidetum (peltatae) potamogetosum (crispi)*. Small surface areas on the lake Beleu occupied by *Trapetum natantis*. The biggest areas of *Nimphaea alba* habitats are situated in the lakes near the village Brinza and in the lake Beleu.

The reed beds are represented by *Phragmitetum australis* and *Phragmitetum (australis) typhosum (angustifoliae)*.

- *Mesophyl grasslands* are represented by 200 species. The most common are: *Agrostidetum stoloniferae*, *Agrostidetum (stoloniferae)*, *juncosum (gerardii)*, *A. Potentillosum (repentii)*, *Juncetum gerardii*, *Elytrigietum (repenti) agrostidosum (stoloniferae)*.

- *Forestry vegetation* is represented mostly by willow and poplar.

The biggest willow areas are in the State Natural Reservation "The Lower Prut" and are represented by willow shrubs: *Salix triandra*, *S. viminalis*, *S. cinerea* which prevail; here and there are cornel trees (*Swyda sanguinea*), red underbrushes (*Tamarix ramosissima*), hops (*Humulus lupulus*). The most common grasslands in the osier plots are *Salicetum (cinerea) phragmitosum (australis)* and *Salicetum (viminalis) phragmitosum (australis)*.

Currently in the area predominate white willow (*Salix alba*, osier willow (*Salix fragilis*), black poplar (*Populus nigra*), elm (*Ulmus laevis*). The most spread shrubs are: the black elder tree (*Sambucus nigra*), the cornel tree (*Swida sanguinea*), *Ligustrumvulgare*, *Euonymus euprepaea*. In willow plots there were found the following grasslands: *Salicetum (albae) rubosum (caesii)*, *Salicetum (albae) phragmitosum (australis)*, *S.caricosum (acutiformis)*.

### 17. Noteworthy flora:

Rare and threatened to be extinct plant species in the Lower Prut Lake area are: *Adonis vernalis* L., *Bulbocodium versicolor* (Ker.Gavl) Spreng, *Vitis sylvestris* C.C.Gmel., *Colchicum ancyrense* B.L.Burt, *Ephedra distachya* L., *Fraxinus pallisae* Wimott, *Helichrysum arenarium* (L.) Moench, *Nymphaea alba* L., *Ornithogalum oreoides* Zahar., *Salvinia natans* (L.) All, *Thelipteris palustris* Schott, *Trapa natans* L.

### 8. Noteworthy fauna:

Rare and threatened to be extinct fauna species in the Lower Prut Lake site are:

**Fish:**

Acipenser ruthenus, Umbra krameri, Leuciscus leuciscus, Leuciscus idus, Barbus barbus, Lota lota, Aspro zingel, Silurus glanis, Aspius aspius, Cyprinus carpio, Misgurnus fossilis, Leucaspis delineatus, Abramis sapa, Vimba vimba, Rhodeus sericeus, Carassius carassius, Esox lucius, Perca fluviatilis, Stizostedion lucioperca, Esox lucius, Perca fluviatilis

**Reptiles:**

Emys orbicularis, Coluber jugularis,

**Aphibians:**

Triturus cristatus, Bombina bombina, Pelobates fuscus

**Birds:**

Gavia stellata, Gavia arctica, Phalacrocorax pygmeus, Podiceps grisegena, Podiceps auritus, Pelecanus crispus, Pelecanus onocrotalus, Botaurus stellaris, Ixobrychus minutus, Ardeola ralloids, Ardea purpurea, Egretta alba, Egretta garzetta, Ciconia ciconia, Ciconia nigra, Plegadis falcinellus, Platalea leucorodia, Cygnus olor, Cygnus cygnus, Oxyura leucocephala, Branta ruficollis, Anser erythropus, Tadorna ferruginea, Aythya niroca, Pernis apivorus, Milvus migrans, Haliaeetus albicilla, Circus aeruginosus, Circus pygargus, Aquila clanga, Aquila pomarina, Hieraeetus pennatus, Pandion haliaetus, Falco vespertinus, Falco cherrug, Falco peregrinus, Porzana porzana, Porzana parva, Porzana pusilla, Crex crex, Recurvirostra avosetta, Recurvirostra avosetta, Glareola pratincola, Himantopus himantopus, Sterna albifrons, Chlidonias niger, Chlidonias leucopterus, Columba oenas, Asio flammeus, Coracias garrulus, Picus canus, Dryocopus martius, Dendrocopus major, Dendrocopus medius, Ficedula albicollis, Corvus corax.

**Mammals:**

Erinaceus europaeus, Lepus europaeus, Sorex minutus, Sorex araneus, Rhinolophus hipposideros, Plecotus auritus, Rhinolophus hipposideros, Plecotus auritus, Myotis desyncneme, Felis silvestris, Felis silvestris, Mustela nivalis, Mustela erminea, Mustela putorius, Mustela lutreola, Martes martes, Meles meles, Lutra lutra

**19. Social and cultural values:**

Currently for fishing are used only fish ponds, however due to economic situation fish catch strongly decreased and constitutes only 10-20% out of projected one. Recently Manta lakes also have been used for fish catch. Now this activity stopped. Forests are generally of poor and deteriorating quality and mostly represented by willow and poplar species.

The main religion - Orthodoxy.

In the Site are located five (5) Heritage sites:

**1. Geological and paleontological**

Ancient alluvial deposits with Moldovan and Tamarian fauna fossils 2 (two); vil. Valeni, vil. Giurgiulesti

**2. Archeological.**

Traian's Wall c.100 AD; vil. Vadu-lui-Isac

**3. Cultural.**

Orthodox church, 1805; vil Branza

**4. Botanical.**

Ancient oak tree, vil. Giurgiulesti

**20. Land tenure/ownership of:**

(a) Site. Land belongs to the Local Judeti authority



(b) Surrounding area. According to the Law on Protection Zones for Rivers and Water Bodies (1995) and Land Code (1991, revised in 1995) about 80% of the Site could not be privatized

### 21. Current land use:

- ⇒ Arable lands - 51,68 km<sup>2</sup>, or 21,11% of the total surface area of the Site,  
Including: irrigated - 20,17 km<sup>2</sup>, or 39,0 %,  
Including: sustainable harvesting - 20,17 km<sup>2</sup>, or 39 %;
  - ⇒ pastures - 35,05 km<sup>2</sup>, or 14,31 %;
  - ⇒ fish ponds - 15,89 km<sup>2</sup>, or 6,49 %;
  - ⇒ natural lakes ( Beleu, Manta lakes and others) - 38,14 km<sup>2</sup>, or 15,57%;
  - ⇒ reed beds - 12,98 km<sup>2</sup>, or 5,03 %
  - ⇒ woods - 7,84 km<sup>2</sup>, or 4,02 % \*;
  - ⇒ river ( Prut) - 7,11 km<sup>2</sup>, or 2,90% \*;
  - ⇒ others - 48,9 km<sup>2</sup>, or 19,97 % \*
- (\* - estimated data)

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

( a,b) at and around the site

- Socio-economic:
  - ❖ Improvisation
  - ❖ Unemployment
  - ❖ Lack of local energy sources; and high cost of imported ones, etc.
- Ecological:
  - ❖ Illegal wood and trees cutting
  - ❖ Illegal fishing
  - ❖ Illegal solid waste dumps
  - ❖ Surface water and groundwater pollution
  - ❖ Polluted surface rain off
  - ❖ Soil degradation: erosion, salinization etc.
  - ❖ Unregulated grazing etc.
  - ❖ Prut River regulation
  - ❖ Siltation
  - ❖ Prut River water abstraction
  - ❖ Alien species
  - ❖ Poaching

### 23. Conservation measures taken:

In 1991 by the Decision of the Government of the Republic of Moldova " Lower Prut" ( " Prutul de Jos") State Reserve has been established with total area 1691 hectares. It include Beleu Lake with surface area 800 ha and adjacent meadows.

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

The Lower Prut Lakes site is supposed to be declared as a Biosphere Reserve. Currently is being prepared a Management Plan for future Lower Prut Lakes Biosphere Reserve.

Due to some possible difficulties in financing and administration as a first step toward establishing of Biosphere Reserve the following areas may be in need of a multifunctional use areas protection status within above site:

- ❖ *Area between Giurgiulesti and Lake Beleu*: the area has no protection status yet; there are environmental and resource use problems; the area may need protection, restoration and control of natural resource use (fishing, hunting, wood cutting, collection of nature products);
  - ❖ *Area between Lake Beleu and Lake Manta*: no protection status yet; environmental problems include water pollution, soil degradation, overgrazing, uncontrolled wood cutting, overuse of natural resources in general; controlled use, restoration measures and pollution control needed; two areas may be strictly protected sites within the area: Lake Brinza and Lake Colibas;
  - ❖ *Lake Manta*: no protection status yet; problems include uncontrolled forest use; resource use controls, protection, restoration needed.
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**25. Current scientific research and facilities:**

Scientific research of the Lower Prut Lakes site have been carried out in the frame of multi-annual plans of scientific research of the relevant institutes of the Moldovan Academy of Sciences.

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**26. Current conservation education:**

In the frame of the on-going Tacis project " Selected Actions in Ukraine and Moldova" has been established the Information Center of scientific reserve "Prutul de Jos" ( "Lower Prut") included in the Lower Prut Lakes site, and has been prepared "Prutul de Jos" info booklet and logo.

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**27. Current recreation and tourism:**

There is no organized recreation/tourism in the Lower Prut Lakes site.

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**28. Jurisdiction:**

Judet Cahul Authority

Local Authorities

Ministry of Agriculture

Ministry of Environment and Territorial Development

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**29. Management authorities in the Site:**

*Judet Cahul Authority:*

Prefect - Mr. Vdovicenco Valery Alexandrovich;

tel. 8-239-22950, 8-239-25840



*Local Authorities:*

Village Crihana Veche: Pavel Lazar – mayor, tel. 8-239-72242;  
 Village Manta, Pashcani: Mihail Bargan - mayor, tel. 8-239-77341;  
 Village Vadul-lui-Isac: Gheorghii Hotnogu - mayor , tel. 8-253-75236;  
 Village Colibas: Maria Stirbu - mayor, tel. 8-253-62236;  
 Village Brinza: Dmitrii Gromada - mayor, tel. 8-253-72236;  
 Village Valeni: Vasilii Zgorea - mayor, tel. 8-253-73236;  
 Village Slobozia Mare: Vasilii Sas - mayor, tel. 8-253-61238;  
 Village Cislita-Prut, Giurgiulesti: Mihail Tornea - mayor, tel. 8-253-71238.

*Ministry of Agriculture and Processing Industry:* postal address: Moldova, Kishinev, 162 bul-d Stefan cel Mare; tel 373 2 233427

*The Ministry of Environment and Territorial Development* ( postal address: Moldova, Kishinev 2009, 9 Cosmonautilor st.; tel. 373 2 221667; 228608

**30. Bibliographical references:**

To complete this form has been used:

- Descriptive Material prepared in the frame of on-going Tacis project "Selected Actions in Ukraine and Moldova" ( unpublished)

Descriptive Material authors:

Dumitru Drumea - Geology, Geomorphology, Soil  
 Tatiana Plesco - Land Tenure  
 Nicolai Panov - Hydrology, Climate  
 Nicolai Zubcov - Fauna  
 Gheorghe Postolache - Flora  
 Anrew Isac - Conservation Management, Land Use  
 Tatiana Belous, Nicolai Siverenco - Socio-Economic Analysis

Project Manager - Paul Goriup, National Conservation Bureau, UK  
 Project Implementation Unit in Moldova - National Institute of Ecology  
 Project Coordinator in Moldova - Tatiana Belous, National Institute of Ecology

- Mission Report. Lothar Gundling, Attorney at law and Legal Expert, Germany
- Mission Report. Georg Rast, Hydrology Expert, WWF-Germany

*Literature used for preparing of Descriptive Material:*

- General Land Cadastre of the Republic of Moldova on January 1, 1996 ( in Romanian)
- Evaluation of Beleu Lake and Manta Lake conditions and recommendations on improvement of their hydrological regime. Technical Report, part 1. Institute Acvaproiect. Kishinev. 1995 ( in Russian)
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