Information Sheet on Ramsar Wetlands (RIS)

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

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

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DD MM YY

Designation date | Site Reference Number

2. Date this sheet was completed/updated:
August 10, 2003

3. Country:
Republic of Moldova (Moldova)

4. Name of the Ramsar site:
The Lower Dniester (Nistru de Jos)

5. Map of site included:
Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps.

a) hard copy (required for inclusion of site in the Ramsar List): *yes* X -or- *no* ☐
1. General Location map; 2. Map of proposed Ramsar site; 3. Map of important bird areas; 4. Map of indicated rare fauna sites; 5. Map of indicated rare flora sites; 5. Map with indicated cultural heritage sites
b) digital (electronic) format (optional): *yes* X*, the same as in point a).*

6. Geographical coordinates (latitude/longitude):
46°34'26" North Latitude / 29°48'41" East Longitude

7. General location:
Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

The area is situated in the south-eastern protuberance of Moldova, 8 km below town of Bendery and 40 km from city Odessa, to the village Palanca. It lies mainly on the edges of the administrative Tighina County (right river bank) and, partly, district Slodozia in Transdniestria (left river bank).

8. Elevation: (average and/or max. & min.) **9. Area:** (in hectares) about 60,000
Average altitude is 22 m asl. The lowest place of the site, -1.75 m occurring in the dammed floodland between villages Olanesti and Crocmaz, but the highest elevation 193 m asl on the watershed edge to the West of Copanca village.

10. Overview:

The general landform is varying by width of river valley, in the zone of strong meandering, and adjacent river terraces. Territory partly covers delta with integral Turunciuc Island between the two river arms, Dniester and Turunciuc that is before the state border between Moldova and Ukraine with following estuary. That is a complex of relict and transformed habitats of the River Dniester floodplain, united by the river; a protective band and a channel, formed after construction of the state's flood-prevention dam. The main core area of site is Talmaza Wetland of *c.* 1,503 ha, containing forest tracts with many glades, a lake (24 ha), a connected loop of the old river-bed, permanent and seasonal channels, and pools, bogs, meadows and parcels of abandoned arable land. Along the river, the site is comprised of woods and old forest

planting, extensive shallow pools, degraded illegal pasture-meadows, meadows, bogs and waterlogged, stunted trees. There are aquaculture ponds along the right bank. The river goes through *c.* 30 meanders, many of which are semi- or almost completely closed. Some river loops contain orchards and fields, most of which are accompanied by bands of forest. Mainly the forest belt protects the left bank but cultivated fields occupy the other valley up to the Moldovan-Ukrainian border.

11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1# • 2# • 3# • 4 • 5 • 6 • 7# • 8#

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

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1st. The site covers meander zone of the river with almost closed river loops typical for the north-west of the Black Sea basin, as well as lakes and noteworthy oxbows formed by river roaming, and other wet formations. Representative examples of meanders contain relevant near-natural or natural ecosystems as specific ash communities and unique old stand flood-land poplar forest - ***Fraxineto-Populeta (albae)*** - with full succession row, from native tree stands of 65-80 years with full floristic content and typical structure to different derivates. Being characteristic for azonal vegetation, such stands are mainly lost due to forestry activity. Among other wetland habitats communities with *Trapa natans* and *Salvinia natans* (endangered in Europe) has to be noted, as well as reed bogs.

Criterion 2nd. The site support many endangered and vulnerable species of the World Red List-2000, e.g. among birds 2 nesting - Corncrake *Crex crex* (VU), Pygmy Cormorant *Phalacrocorax pygmaeus* (LR); 4 migratory - Red-breasted Goose *Branta ruficollis* (VU), Ferruginous Duck *Aythya nyroca*, Pale Harrier *Circus macrourus,* White-tailed Eagle *Haliaeetus albicilla* (all - LR); usual visitor - Dalmatian Pelican *Pelicanus crispus* (LR). Other taxa of the World Red List-2000, insects – 3, mammals – 4 and fishes – 8, are listed in section 20. Besides, many species of European concern and both Moldovan and Ukrainian Red Data Books inhabit and use the site.

Criterion 3rd. Uniting varying by width lowland and adjacent slopes of high terraces and due to confluence of steppe, silvo-steppe and azonal wetland vegetation on the background of diverse relief and regimes of wetting, the site includes outstanding diversity of communities/ecosystems. Besides wetland, ecosystems of *Querceta pubescentis steposum* (characteristic for the Danube forest-steppe region), which are formed by oak clumps and glades containing up to 80 herbaceous species, are conserved on terrace slopes. The site contains parcels of primarily steppe associations as *Festuceto-Stipetum (S. lessingiana) herbosum, Festuceto-Stipetum (S. tirsa) herbosum,* and *Festuceto herbosum* with up to 90 species per 100 m², typical for Azov-Black Sea steppes.

Criterion 7th. More than 90% of freshwater anadromous and catadromous fish species of the region inhabit water bodies in this site.

Criterion 8th. Site includes migration path of all catadromous and local migrants in the Dniester River, important riverbed spawning ground, area of pelagic spawning and residuals of nursery places.

13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region: Intersection of the Danube Wooded-Steppe, Podillya-Moldova Wooded-Steppe and Steppe Azov-Black Sea biogeographical regions. Area of the Dniester River Delta belongs to the geobotanical district of the feather-grass (*Stipa*) and fescue (*Festuca*) steppe formations, and also plain-land vegetation of the South-Moldavian Dniester valley of the Euro-Asiatic Steppe Region, covering also the edge of semi-arid forest-glade complex of the Mediterranean type "Gyrnents", formed by *Quercus pubescens* of South Moldova, elements of which can be found on the nearest Dniester valley terraces.

b) biogeographic regionalisation scheme (include reference citation): Sobolev N.A. & Russo B.Iu. Start positions of the ecological network of Northern Eurasia: work hypothesis // Premises and perspectives for the ecological network of Northern Eurasia formation. Okhrana zhivoi prirody. Issue 1(9), Nizhnii Novgorod, 1998. P. 22-31. [In Russian]

14. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Geology and geomorphology. The north of the site was formed during the Sarmatian stage of Neogenic deposits, represented by limestones, clays and sands; the south is from the Pontic stage of Neogenic deposits, with a predominance of clays and sands. The surface geology is predominantly Quaternary. Mineral origins are near Slobozia village on the depths 30-50 m. The river channel is varying from almost closed meanders to a few sinusoid fragments. The right banks are steep, 1-3 m high. Width of floodplain alternates from 9 km to some decades of meters. The upper floodplain terraces are sometimes precipice and crossed by ravines, but mainly moderate steep with fragments of landslips.

Dominated soils are: in lowlands - meadow, meadow saline, and silty-marshy (fluvial) soils, meadow chernozem; in uplands: chernozems leached, meadow, carbonate and carbonate saline. Carbonate meadow chernozem, meadow and silty-marshy soils are found in the Resource Reserve situated in Talmaza Wetland.

Hydrology. Depending on the character of the recharge flood, the low-water period is unclear most years in the main stream - Dniester. There are three types of years: with dominant spring floods and sparse floods later; with an absence of spring floods and prevalence of summer floods; with a constant flood of equal height during spring, summer and autumn. The maximum spring water level in an average low flow period is 4.5-5.8 m, the water rising 0.4-6.2 m/24 hours. Normally 3-5 floods occur each summer and autumn, (sometimes as many as 12-15), with an average length of 10-15 and maximum of 55 days. However, the number of floods decreases to 1-2 in dry years. These features together with relief of lowlands determine regime in other water bodies mainly through ground waters. The pattern of water discharge in the Dniester depends on the management of the Novodnestrovsk Reservoir in Ukraine.

Water quality. The waters of the Lower Dniester are attributed to hydrocarbonate class II with mineralisation 395-638 mg/l and dissolved oxygen content of not less than 88.4%. Average content of suspended substances was 180-420 mg/l in the past but is now about 29.5 mg/l. Contamination by organic and other nitrogen-containing substances, phenols, oil products and metals takes place, especially below the town of Bender. The destruction of organic substances slows between Bender and main river fragment included in the site.

Hydrological background. The Lower Dniester River bed has a width of 100-200 m; depths in shoals of 1.6-2.5 m, in reaches 4.0-8.0 to 16 m. Its arm Turunciuk has width 30 m, row depths up to 6 m, in deeps up to 9 m. The Talmaza Wetland contains the V-shaped Lake Adana, 2.4 km in length and 100 m in width, and the loop-like oxbow a length of 2.5 km, width up to 40 m and depth up to 4 m; it is partly connected to the main stream. The Old River Bed meanders to 32 km in the widest part of valley between Copanca and Talmaza villages; this riverbed has width up to 40 m and depth up to 4-12 m, during drought it decreases to 1 m in some places last years. Diverse pools, channels, bogs and shallows are mainly intermittent besides big channel along state anti-flood dam aside Talmaza Wetland; it has length about 5 km, depth 1-4 m and general width up to 40 m with protuberance about 100 m. Drainage system in the valley between Olanesti and Crocmaz villages contains channel about 3.5 km length, 40 m width and up to 4 m depth, it is non-intermittent being below average level of the Dniester River to –1.5m by surface.

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Catchment (local) area is about 29,000 ha and situated within the site that is its specific feature. Therefore geological characteristics are mainly the same as in the point 14. Slopes vary mainly from 4 to 12 degrees; slopes of the recent sliding genesis are wavy in profile, surface is complicated by hollows, ravines and landslides; aged slopes are prominent in profile. There are three general kinds of the land use: forestry,

arable agriculture including vineyards and orchards, and grazing. Main soil types in catchment area: chernozems leached, meadow, carbonate.

Downstream (catchment) area is about 443 km^2.

Climate. Average data: annual temperature 9-10°C (minimum -29°C, maximum 38°C); annual rainfall *c.* 450 mm, *c.* 300 mm falling between April and November. The prevailing winds are from the northwest and southeast, with average velocity of 2-5 m/s. Average snow thickness is 10 cm, with mean cover duration of 30-40 days. Ice cover on the river averages 4-15 days.

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Hydrological mean of main water bodies is very different. Dniester River creates a hydro-system background for wide territory, determines ground water level in all valleys (not only relatively the 1st ground water layer) and in the same time accumulates general basin and local discharges. It acts here as self-purification buffer between last industrial area (Bender-Tiraspol city complex) and estuary, receives underground waters from rural settlements without collecting systems and untreated sewage from some local enterprises.

Valley is completely dammed, chemical agricultural impact in strong diminished last decade, however soil erosion contributes to eutrophication through wind and partly water drift, especially in breaks of protective forest band, together with illegal pasturing on riversides.

Old River Bed acts as head of water relatively underground flows on terrace slopes; it is very silted, lost connection with the mainstream owing to anti-flood damming, lowland agricultural development and lack of adequate decisions. Strong danger of bogging up arises for this water body, which is supported mainly by rainfall, surface run-off, springs in the bed, and rarely by flooding from mainstream.

Channels created by anti-flood dam construction interconnect many little pools and swamps, but the big channel aside Talmaza Wetland provides consumption of Adana Lake by the Dniester waters. Dam construction prevents flood flushing of soils and salinization takes place in the lowest parts of plain at the expense of ground water bearing salts from sea deposits; drainage canal systems decrease this process lowering ground waters, but cannot stop on the background of arable land use.

17. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

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)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

1	2	3	4	5	6	7	8	9	10	11	12
Xf	M	O	9	W	Ts	Tp	1	P	4	2	N

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The site supports high ecosystem diversity.

Water biotopes amount 7 types.

1. River - ecosystem of the Dniester segment has limited richness of plankton and benthos, but microorganisms, macrophytes and especially fish incl. rare (*Acipenceriformes,* etc.) are very diverse.

2. Lowland permanent and intermittent lakes and pools (shallow standing freshwater), united mainly by high floodwaters. Ecosystem of these wetlands has the most diversity at the expense of species richness in algae (1300 species and subspecies) and also highest water vegetation, phyto- and zooplankton; ratio "families: genera: species" is 1:4:10 that testifies high originality. That diversity is conserved mainly in "Talmaza Wetland".

3. Biotope of the Old River-Bed (standing water in long meandering bed with extremely varying depths) takes the 2nd place by water volume, resource and recreational potential, keeps biodiversity meaning but its hyper-ecosystem certainly degrades through silting and eutrophication.

4. Channel, permanent-temporal linked with river. Standing water ecosystem interacted with stream. Being consequence of state anti-flood dam construction, the channel connects natural wetland remainders in valley large segments.

5. Fresh-water drainage systems, ponds and connected waterlogged bodies - very diverse artificial wetlands.

6. Brackish water channels - had never direct water connection with the Dniester besides ground water. It has appeared in dammed and drained valley due to stopped forced water depression, probably as the result of salt gradient from geological deposits towards upper stratums without surface ablution by flooding.

7. Brook ecosystems. The most branched system of the Plop-Stiubei stream covers about 15% of the site area, in its wide upland part.

Terrestrial habitats.

Lowland woods are represented in described area by all forest formations of the Lower Dniester region including the unique for Moldova and still undescribed (*Fraxinus*-dominant communities) yet as was revealed in 1999. Part of them has artificial origin or there are the consequences of untrue management. However full successive rows and communities with normal structural-functional links are here as distinct from common lowland Moldovan forests; very old native wood plots are conserved also. There is the most large integral wetland forest tract of Moldova on the Dniester River in "Talmaza Wetland", which contains also many water bodies of diverse water regimes and sizes, small and large bogged up places with wide water mirror, meadows, etc. *Acer negundo* became aggressive alien species in lowland forests.

There are 4 typical biotopes of lowland woods.

1. Fluvial forest - that is main native biotope, formed by poplar associations. *Populus alba* forms six of them. *Populus alba* and *P. nigra* dominate in native stands with an admixture of *Quercus robur*, *Salix alba, Fraxinus excelsior* and *Ulmus laevis*. The ratio of main species that form woodland varies strongly. Tree stands completely lacking *P. alba* and with single *Salix* sp., or including only *P. alba* and *F. excelsior* have been recorded. Dominant association is *Populetum (alba) rubosum (caesii).*

2. Riparian willow formations (incl. swamp forest) – young poor biotopes. Forests of *S. alba,* mainly *Salicetum (alba) rubosum,* and *S. undulatum* or *S. (alba) undulatum,* include often shrubby *S. triandra* and *S. purpurea.*

3. Alluvial ash-dominated forest. Dominant association is *Fraxinetum (excelsior)-P. (alba) ulmosum.*

4. Artificial mono-dominant plantings of *P. alba, F. excelsior, Q. robur*

Upland forests are represented mainly by artificial plantings or degraded tree-stands, many of them have abnormal reproduction, but valuable parcels of pubescent oak (*Querscus pubescens*) communities with seed offspring take place too. As remainders of silvo-steppe they contains beautiful glades of steppe grass associations with the most rare in Moldova plants. However special forest management is necessary to conserve these valuable habitats of Mediterranean type because natural succession series cannot be stable on too limited area. Upland forest makes 5 biotope types.

1. Semiarid** (Quercus pubescens) **oak curtain forest – main native forest-glade biotope, which generates high floral and faunal diversity, 4 associations: *Quercetum (pubescentis) cornoso-cotinosum*, *Quercetum (pubescentis) stepposum*, *Quercetum(pubescentis) herbosum.*

***2. Semi-arid oak stands** (Quercus robur)*, incl. with special southern eco-type of the English Oak.

3. Natural and artificial tree-shrubby thickets** (*oaks, ash and locust-tree with numerous *Cornus mas, Cotinus coggygria, Prunus spinosa, Crataegus monogyna, Viburnum lantana) **on steep slopes – important habitat of birds and snakes.

***4. Compound forest plantings** (Quercus robur, Fraxinus excelsior, Carpinus betulus, Ulmus, Tilia argentea, Robinia pseudacacia, Armeniaca vulgaris, Cerasus avium)* – biotopes attractable for hoofed and carnivorous mammals**.**

5. Robinian (locust-tree) plantings of anti-erosion and production purpose – biodiversity scanty habitats**.**

Native meadows and steppes are deleted in the country excluding small remainders; nevertheless 60 grassy formations including primary ones, were revealed the last time in the site. There is some considerable potential for meadows restoration on remote arable plots of the valley where active ground cultivation became unprofitable when free market fuel prices were introduced, or because of hydro-edaphic conditions. Vast marshes did not conserved here after anthropogeneous landscape transformation. All stated below grassland biotopes require rehabilitation in the most degree.

1. Dry native grasslands (steppe) are the most rare and valuable sites considering herbs and anthophilous insects. They include subtropical grasslands, meadow steppe and true steppe. Different variants of *Festuceto – Stipetum* and *Stipeto – Festucetum* prevail by number of associations, but various *Festuceto – Stipetum* with *Stipa tirsa, S. pulcherrima, S. capillata, S. lessingiana, S. ucrainica* clearly dominate in habitats.

***2. Weeded dry grasslands and pastures**(*usually *Festuceto-Bothriochloetum* and *Bothriochloetum)* are the most spread upland open semi-natural sites.

3. Tall-herbaceous lowland meadows are mainly renewing habitats on abandoned lands *(communities with Elytrigia repens, Phalaroides arundinaceus, Poa pratensis, Agrostis gigantea, Phleum pratense, Alopecurus pratensis, Bromopsis inermis).*

4. Lowland pastures are covered first of all by combinations of four ediphicators: *Lolium perenne, Poa pratensis, Agrostis stolonifera* and the most spread *Elytrigia repens***.**

5. Wet meadows and fens are conserved in Talmaza Wetland and as not great plots of riverside protective band. Main associations are *Alopecureta aequalisi, Cariceta acutiformisi, Eleocharieta palustrisi.*

***6. Reedbeds** (Phragmiteta australisi, Typheta angustifoliae, Scirpeta tabernaemontanii*, etc.*)* occupied natively relatively small ratio in the area, they are spread in limited degree now, but acquire space along drainage channels.

Agricultural arable lands include mainly fields of annual crops and orchards both on upland and lowland, and also vineyards.

Wetland and upland natural habitats together with agricultural lands create integrity for main part of bird species. Besides water-birds, species composition is similar. In all high number and diversity is characteristic due to excessive longevity of forest edges. In the upland Copanca forest tract population density varies 4-5 times in different places and reach 572/km, but species density 42/km. Population density reaches 484/km and species 24/km in the Turkish Garden forest wetland reserve, but 146/km

and species 34/km in the Talmaza Wetland. There is colony of 5 water-birds (*Ardea cinerea, Egretta garzetta, Nycticorax nycticorax, Phalacrocorax carbo, Phalacrocorax pygmaeus*) in the last locality. The most noticeable nesting water-birds are herons (*Ardeola ralloides, Egretta garzetta, E.alba, etc.*) and storks (*Ciconia ciconia*), some birds of prey (*Milvus migrans, Buteo buteo, Falco tinnunculus, F. subbuteo, etc.).* It is one of the few places in Moldova where large aggregations of moulting waterfowl (2,000-3,000 specimens) are recorded, as well as *Plegadis falcinellus* foraging flocks of 200-300 birds. *Phasianus colchicus* is numerous in particular in uplands. Among migrants in the Lower Dniester area water-birds and birds of prey are offered expressly rich. The most numerous are ducks (*Anas platyrhynchos, A.querquedula, Aythya ferina*) and some other (*Hirundo rustica, Riparia riparia, Sturnus vulgaris, Emberiza schoeniclus*). Not numerous but enough diverse plovers, snipes and sandpipers, more often *Tringa nebularia, Tringa totanus, Gallinago gallinago, Vanellus vanellus*. Geese (*Anser erythropus, A. albifrons,* etc.) fly en route.

Terrace slopes are habitats of sufficient populations of *Coronella austriaca, Elaphe longissima,* and single viable in Moldova population of *E. quatuorlineata.* Wetland habitats support numerous populations of *Natrix tesselata, N. natrix*, *Hyla arborea,* sufficient populations of *Pelobates fuscus* and *Emys orbicularis.*

The usual animals in all parts of the site are *Lepus europaeus, Vulpes vulpes*, *Talpa europaeus Martes foina, Putorius putorius*, *Meles meles* (badger is especially numerous in Talmaza Wetland). *Capreolus capreolus* is quite numerous among hoofed, *Sus scrofa* is usual but not numerous and occurs more often in wetlands. The site supports one of two viable in the country populations of *Cervus elaphus.* Bats are very abundant in wetlands, the most numerous species is *Pipistrellus pygmaeus*, then *Myotis dasycneme*, and also *Myotis daubentonii* and *Nyctalus noctula.*

Fish *Alosa kessleri pontica,Silurus glanis, Rutilus rutilus heckeli, Leuciscus cephalus, Pelecus cultratus, Aspius aspius, Chondrostoma nasus, Cyprinus carpio, Abramis sapa, A. brama, A. bjoerkna, Stizostedion lucioperca, Carassius auratus gibelio,* are the most common species in the Dniester mainstream; the last four species, but mainly *Carassius auratus gibelio,* dominate in oxbows, canals and lakes together with *R.rutilus rutilus, Perca fluviatilis* and *Alburnus alburnus*.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS*.

Last counting (2001) has revealed 909 vascular plant species.

Rare plants in Lower Dniester area, strong protected by **Bern Convention:** Water-chestnut *Trapa natans* – (CR), Floating-moss *Salvinia natans* (EN), Large Pasque-flower *Pulsatilla grandis* (VU), Rye-like Sedge *Carex secalina*, Grass-wrack *Zostera marina,* Bladdery Aldrovanda *Aldrovanda vesicuosa,* Black Sea Speedwell *Veronica euxina.* There is much more species of the national Red Data Book, as steppe species *Sternbergia colchiciflora, Crambe tatarica, Convolvulus lineatus, Ephedra distachia, Colchicum ancyrense, Fritillaria meleagroides, Chrysopogon gryllus*, endemic of the northern-west Black Sea region *Astragalus dasyanthus* and wetland inhabitants *Maianthemum bifolium, Nymphaea alba, Vitis sylvestris, Euonymus nana.*

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS*.

High vertebrate faunal richness includes: (i) 190 bird species, 95 of these nest and 95 are migrants and seasonal visitors; (ii) about 40 mammals incl. at least 12 bats; (iii) 18 or more reptiles and amphibians; (iv) 83 species of fishes. Dragonflies and damselflies number 34 species, i.e. 64% of expected species in Moldova that is evident concentration of diversity.

Rare insects. **World Red List-2000:** Southern damselfly *Ceonagrion mercuriale,* Hermit Beetle *Osmoderma eremita* and Predatory Bush Cricket *Saga pedo* (all VU). ***Species of both Moldovan and Ukrainian Red Data Books*** (considering transboundary context of the described site): Stag-beetle *Lucanus cervus,* Wasp-giant *S. maculata,* Argillaceous Bumblebee *Bombus argilleceus,* Polyxena *Zerinthia polyxena* (all - EN), *Callimorpha quadripunctaria* (VU), *Iphlicides podalirius* (VU).

Rare birds. **World Red List-2000:** nesting - Corncrake *Crex crex* (VU), Pygmy Cormorant *Phalacrocorax pygmaeus* (LR); migratory - Red-breasted Goose *Branta ruficollis* (VU), Ferruginous Duck *Aythya nyroca*), Pale Harrier *Circus macrourus,* White-tailed Eagle *Haliaeetus albicilla* (all - LR); usual visitor - Dalmatian Pelican *Pelicanus crispus* (LR). ***European-concern species of both Moldovan and Ukrainian Red Data Books:*** nesting – Black Stork *Ciconia nigra,* Geat White Egret *Egretta alba* (only Moldovan List), Booted Eagle *Hieraaetus pennatus* (all - CR); Purple Heron *Ardea purpurea,* Squacco Heron *Ardeola ralloides,* Peregrine *Falco peregrinus* (all - EN), Sacker *Falco cherrug* (VU); migratory - Pallid Harrier *Circus macrourus,* Hen Harrier *Circus cyaneus* (all – CR), Crane *Grus grus* (EN), Lesser Spotted Eagle *Aquila pomarina,* Short-toed Eagle *Circaeus gallicus,* Osprey *Pandion haliaetus* (all - VU); visitors - Glossy Ibis *Plegadis falcinellus,* Spoonbill *Platalea leucorodia* (both – EN, very usually), Oystercatcher *Haemantopus ostralegus* (VU, very rarely). *Haliaeetus albicilla* and *Falco peregrinus* are characteristic for diverse species pool of the Dniestrian migratory mainline.

Rare mammals. **World Red List-2000:** European Mink *Mustela lutreola* (EN), Common Otter *Lutra lutra,* Bechstein's Bat *Myotis bechsteinii,* Pond Bat *M. dasycneme* (all - VU), Giant Noctule *Nyctalus laseopterus* (LR). ***European-concern species of both Moldovan and Ukrainian Red Data Books:*** European Wildcat *Felis sylvestris* (EN), Ermine *Mustela erminea* (VU).

Amphibians and reptiles. **World Red List-2000:** European Fire-bellied Toad *Bombina bombina,* European Tree Frog *Hyla arborea*, European Pond Turtle *Emys orbicularis* (all – LR). ***European-concern species of Moldovan and Ukrainian Red Data Books:*** Grass-snake *Coronilla austriaca*, Aesculapian Snake *Elaphe longissima*, European Four-lined Snake *Coluber quatuorlineata*, Russet-belly Runner *Coluber jugularis* – all EN.

Rare fishes. **World Red List-2000:** European Mud-minnow *Umbra krameri* (VU) would have clear benefit; such catadromous species as Russian Sturgeon *Acipenser guldenstadti* colchicus*, Bastard Sturgeon *A. nudiventris*, Stellate Sturgeon *A. stellatus*, Beluga *Huso huso*, Danube Salmon *Hucho hucho* (all – EN), and also anadromous ones - Streber *Zingel streber* and Zingel *Zingel zingel* (VU), Ukrainian Brook Lamprey *Eudontomyzon mariae* (DD) may have very indeterminable promotion, together with species of Moldovan and Ukrainian Red Data Books Black Sea Roach *Rutilus frisii* (CR) and Black Sea Chub *Leuciscus borysthenicus* (VU).

Besides listed here animals many species of the Red Data Book of Moldova and Bern Convention Lists inhabit the site or use during migration. Number of birds with different kind of being in the site, which are in the Bern Convention List of strong protected species (besides Paridae) and/or Moldovan and/or Ukrainian Red Data Book reaches 40, mammals – 10, amphibians and reptiles – 13, insects – 16.

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21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

The site contains important agricultural arable areas (main crops are corn, sunflowers, wheat, vineyard, plums, tomatoes, etc.), and some locations are connected with wine production of international known trademark; stock-rising (cattle, sheep) became extensive, based on grazing, over-pasturing is characteristic for destined lands. There is tinned food factory for vegetables processing. Intensive forestry is developed using mainly plantations, especially of introduced species *Robinia pseudacacia* in uplands. The site includes the important remaining spawning places. Pisciculture is in crisis; fishing is the traditional trade, but lost economical value due to become scarce fish resources; recreational fishing is very traditional. The site contains known locations of paleontologic fossils. There are 40 recognised and mainly identified archeological places as tumuli, Cimmerian, Ghetic, Sarmatic, Slavic memorials, etc. Villages were mainly established in XV-XVI centuries.

Tourist business is undeveloped; however there is traditional place of boating tourist yearly festival. The site's natural cultural value is well recognized by the local population within the context of conservation.

22. Land tenure/ownership:

(a) within the Ramsar site:

The main territory of the site is on the right Dniester bank, and the key ownership is private (about 66%), the state and the local communities own 15 % and 18 % of lands correspondingly. Dammed and drained agricultural lands are privately owned and under individual and collective management. Land property on the left bank is state as well as in some localities on the upstream of site, which subordinate to authorities from Tiraspol. Surface of usual private domain is about 1.5-2 ha owing to dense rural population (decreasing last years due to labour migration).

(b) in the surrounding area: Mainly private lands on the right river bank and state lands on the left bank.

23. Current land (including water) use:

(a) within the Ramsar site:

Lands of private property are arable as well as main part of the left bank, first of all "Turunciuc Island"; sometimes that is abandoned areas in bogging up part of valley. State lands of the right bank are mainly under State Forest Service. Lands under local authorities includes first of all pastures and settlements, but a part is afforested or apportioned for anti-erosion planting and for creation of corridors to interconnect isolated woodlands. Illegal pasturing takes place on lowland grassy and partly-wooded areas; such usage predominates in riverside protective band out of compact forests. Fishponds, arable fields and orchards occupy smaller areas. Illegal arable cultivation has been noted. Fishery and agriculture are no longer intensive. Legal and semi-legal fishing and hunting occur. Many drained arable lands border the strong protected riverside band along the flood-prevention dam.

At present, recreational use is limited mostly to the local population.

(b) in the surroundings/catchment: agricultural lands in the limits of Moldova; mainly agricultural lands in Ukraine, turning into forestry lands along the Cuciurgan River before emptying into Turunciuc branch of the Dniester River.

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:

The current situation in lowland has been brought about by the damming of the valley of the Dniester and the consequent, almost total, agricultural transformation; large areas of important meadow spawning grounds have been lost. This has been accompanied by the removal of some lowland forest tracts, however many riverside forests have been planted. The conservation of native forests has been poorly managed long time. Spreading of alien *Acer negundo* (introduced into Moldova for planting of greenery in residential areas) became serious problem in lowland forest.

The dam system causes the drying out of habitat in the Talmaza Wetland in years of low flow and water-logging in high floods, as the dams prevent normal water discharge from flooded areas. Both provoke the degradation of terrestrial, aquatic and intermediate ecosystems. All the problems affecting the River Dniester impact on the aquatic ecosystems of the site (water pollution, discharge violations, destruction of gravel riverbed, etc).

Major disturbance is caused by grazing, which degrades grassland. The impact of chemical residues from agriculture is low at present, but this threat could revive. After destruction of big farms main livestock

population and poultry is in the private husbandry (in villages), that forms organic underground water pollution in row of untreated sewage.

Various poaching activities take place, primarily illegal fishing. However, in national terms, pressure on the fauna is relatively low.

Drainage systems lost integral management, canals are silting, and power dry-up job, as well as pumping refill of the Old River Bed became impossible due to market energy prices. That creates dander of oxbow degradation, spreading soil salinization on drained lands; whilst it promotes extension of wild areas, rehabilitation of bogs and meadows, stimulates transition to environment friendly crop rotation and grass farming.

Done privatization was not accompanied by appropriate land use planning to consider environment conditions and needs, or by cooperation of small private owners. That has deleted crop rotation system and relevant household links within local community. Many owners had received unusable or inarable land privacy that has created obstacles for re-planning in land use and transition to sustainable agriculture.

Further changes should be determined by the creation of strict protected zones, substitution of grazing by grass mowing, restoration of meadow spawning, development of tourism and local crafts, etc., as a consequence of the creation of the National Park.

The rehabilitation of natural ecosystems is expected to increase in some adjacent territories if the drainage system continues to decline. Amendments to the Law on Water-Protection Zones and Bands of Rivers and Water Bodies, which were adopted by the Parliament (2001) are currently in process, provide stricter and clearer restrictions on land use.

The significant part of the site (about 27,000 ha) is included to the State Silvo-Hunting Enterprise, founded by the Governmental Regulation in 2002. The staff and structure of this enterprise, subordinated to the State Chancelorate, are not still established, as well as internal regulations.

BIOTICA Ecological Society has developed (2001) a model management-plan to improve forestry and green band in the water protective riverside strip in order to advance biodiversity conservation. It has been developed management plans and technological recommendations for the most affected valley between Crocmaz and Olanesti villages; these are based on territorial zoning in agricultural area, apportion of the natural development territory, buffer zone for meadow restoration and arable area of environment sound crop rotation. The documents are adopted by local authorities and the Ministry of Ecology, Construction and Territorial Development.

(b) in the surrounding area:
The surrounding zone is characterized by extensive land use for arable agriculture and pasturing. In transboundary Ukrainian County of Odessa the Lower Dniester National Park is establishing, where main human activity is fishing and also agriculture.

25. Conservation measures taken:
List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Upland forest is protected in Nature Reserves Copanca (167 ha) and Leuntea (30 ha). The Talmaza Wetland includes a Resource Soil Reserve (200 ha); Nature Reserves in lowland – Olanesti Forest (108 ha) and Togai Bog (50 ha) – are situated in two of the mainstream meanders, Landscape Reserve the Turkish Garden (224 ha) occupies two of the Old River Bed meanders. The above-mentioned reserves are under state protection. A certain level of protection has been afforded to the woodlands. There are also three small-scale Nature Monuments (paleontologic) 2 ha each. The water-protective riverside strip is up to 100 meters from the Dniester bank or from the line of meanders, but could be limited by the state anti-flood dam; grazing, arable agriculture and construction besides special installations are prohibited here, and special forest management has to be applied.

26. Conservation measures proposed but not yet implemented:
e.g. management plan in preparation; official proposal as a legally protected area, etc.

The creation of a Lower Dniester National Park is proposed. It would cover 60,000 ha and form an ecological network uniting wetlands with upland forests through the planting of corridors and restoration of the natural ecosystem, especially of flood-land. The network would integrate natural areas of Moldova and Ukraine. Proposed strictly protected zone is 1336 ha in total, buffer zone with special management – 3047 ha (to be extended), buffer zone with regulated economic activity – 7413 ha (to be extended). Besides properly conservational and restoration activity, sufficient attention would be paid to environment friendly agriculture and sustainable forestry in transitional and buffer zones, and also to agricultural and environmental tourism including to stimulate local community. Jointly with creating the Lower Dniester National Park of Ukraine the most evident perspective is the establishing trans-national biosphere reserve in this area.

27. Current scientific research and facilities:
e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

There are no permanent research facilities. Earlier relevant institutes of the Academy Sciences of Moldova, Fishery Research Station, specialists of the State University of Moldova did some fragmentary studies. The most recent study (1998-1990) was conducted by the BIOTICA Ecological Society, funded by a grant from the John & Catherine MacArthur Foundation, and then in 2001 at the expense of Ramsar Small Grant programme.

28. Current conservation education:
e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There are no existing special programs and facilities for conservation education and training within the site. Environmental NGOs conduct different educational seminars and trainings for last 6 years within different projects. Near the site there is a small-scale Natural History Museum in Stefan-Voda, maintained by local NGO.

29. Current recreation and tourism:
State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

There is no organized recreation/tourism, besides annual festivals of boating tourists and excursions held by Alvona Private Tourist Company about Palanca Village near Ukraine border.

30. Jurisdiction:
Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Local Authorities:

Causeni Region Authority – Regional Council

Stefan-Voda Region Authority – Regional Council

District Slobozia Authority – Slobozia Regional State Administration

Central authorities:

Ministry of Ecology, Construction and Territorial Development

31. Management authority:
Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Addresses of regional; and local authorities are: Moldova, the name of region, the name of village.

Stefan-Voda Region.

Stefan-Voda Region Authority – Region head Mr. Iurie Moiseev, tel. (+373 42) 22650.

Village Popeasca – mayour Mr. Cojocari Chiril (+373 42) 34-336, 34-338

Village Talmaza – mayor, Mr. Craciun Alexandru, tel. (+373 42) 41 236

Village Cioburciu – mayor Mr. Bitca Valerian, (+373 42) 35 236

Village Rascaeti – mayor Mr. Tihon Igor, (+373 42) 36 236

Village Purcari – mayor Mr. Nistor Anatolie, (+373 42) 30 236

Village Olanesti – mayor Mr. Feodosie Darii (+373 42) 52 236

Village Crocmaz – mayor Mr. Ion Bondar (+373 42) 46 236

Village Tudora – mayor Ms. Ghilan Tatiana (+373 42) 53 288

Village Palanca – mayor Mr. Ion Voloh (+373 42) 47 236

Cauiseni Region

Cauiseni Region Head – Mr. Mihai Iluh +373 43 23005

Village Copanca – mayor Mr. Sergei Muntean, (373 43) 50 2 34

Village Plop-Stiubei – mayor Ms. Ilishova Valentina

Village Gradenita (with village Leuntea) - Siianov Vladimir (373 43) 45 217

Slobozia Region

Slobozia Regional Authority – Deputy Head of State Administration Alexandru Muntean, tel. (+373 57) 2 52 14

Village Cremenciug – president of council

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32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

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