Information Sheet on Ramsar Wetlands (RIS)

1. **Date this sheet was completed/updated**: January 30 2001

2. **Country**: Republic of Belarus

3. **Name of wetland**: Olmany Mires Zakaznik

4. **Geographical coordinates**: 52°44'N, 27°16'E

5. **Elevation**: 125-140 m above see level

6. **Area**: 94,219 ha

7. Overview: The site is one of Europe's largest natural complex of bogs and transitional mires. It is an important concentration place of nesting and migrating waterbirds. Olmany mires is a key nesting site of the globally threatened Spotted Eagle (*Aquilla clanga*).
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8. **Wetland Type**: (please circle the applicable codes for wetland types as listed in Annex I of the Explanatory Note and Guidelines document)

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)**		

Please now rank these wetland types by listing them from the most to the least dominant: Tp, Xf, U, Xp, M, O, 9

9. **Ramsar Criteria**: (please circle the applicable criteria; see point 12 below)
1a 1b 1c 1d 2a 2b 2c 2d 3a 3b 3c 4a 4b
Please specify the most significant criterion applicable to this site: 1a, 2a,

10. **Map of site included**? **YES**

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12. **Justification of the criteria selected under point 9, on previous page**. (Please refer to Annex II in the *Explanatory Note and Guidelines* document).
The site is of international importance because it meets the following criteria:

Criterion 1
1a - The Olmany mires is a typical example of mires formerly wide-spread on the territory of Polesie, but now drained and degraded. This is the largest natural mires of its type in the Pripyat Polesie area.
1c - The Olmany mires play a very important hydro-regulating role for the Pripyat river. The site has a transboundary location.

Criterion 2:

2a - The Olmany mires support one of the largest European populations of the globally threatened Greater spotted eagle *Aquila clanga*.

13. **General location**: The site is located in the central part of the Polesie region, on the territory of Stolin District of Brest Region. The Zakaznik is located between rivers Lva and Stviga. It borders with Ukraine in the south, Pripyatski National Park in the east. The closest dwelling is Olmany village. Borders of the Zakaznik fully coincide with the borders of the potential Ramsar site.

14. **Physical features**:

Geology and Morphology. Olmany Mires are situated in a fluvial depression (which formed during the Late Poozerie period) in between rivers Goryn' and Stviga, right-bank tributaries of the Pripyat river. In geostructural terms the site is situated in the southern part of the Pripyat deflection and stays apart from the footstall elevations of the Ukrainian crystalline shield of the South-Pripyat fault. The relief of the anthropogenic bed corresponds to absolute marks of 110-120 m. The depth of the anthropogenic cap is small, 20 m on average. Day marks drop northwards from 140 to 125 m. The site is a slightly undulating wet lowland with broadly present eolian relief forms. Central parts of wetlands are coomb traversing the area in a north-eastern direction. This also is the prolation direction of main mire complexes stretching for tens of kilometers.

The genesis of wet flatlands is connected to functioning of numerous multi-arm rivers which were meandering among sandy accumulations in the post-glacial period during the decent of waters of the Polesie basin and formation of the Pripyat river channel. Sandy ridges very often mark ancient channels. In the lowest parts of wet coombs, especially in places where several coombs meet, bottoms of former lakes were registered, which have now become peatlands.

Hydrographic and hydrological features. The high level of wetness of the area is explained by both geological (especially tectonic) and hydrological features of the area. The large artesian basin located within the boundaries of the Pripyat deflection bears a number of aquifers. The main reason of wetland formation in this territory is dislocation of underground waters from valleys of rivers flowing with a slight gradient from Volynskaia Ridge. This contributes to regular feeding of groundwater. Major waterways draining the territory of the Olmany mires is the Stviga river with its tributaries. The Stviga river floodplain is 0.2 – km wide in the upstream and up to 3 km in the downstream reaches. The Stviga river is joined by a number of old central draining canals constructed in the beginning of the century. They are currently in a half-broken condition, but the water still flows via these canals, most intensively in spring.

The Lva river flows along the north-western boundary of the Zakaznik. That part of this river's floodplain which flows through the Zakaznik is extremely wet. Two lakes (Bolshoie Zasominnoie and Maloie Zasominnoie) with a total area of 100 ha are located on the territory of the mire. The other 23 lakes are quite small (0.5-5 ha).

Soils. The dominating soil types are mire and soddy-podzolic. Close proximity to the surface of the groundwater aquifers has determined the wide presence of soddy-podzolic soils of various hydromorphic levels. The same factor also contributed to progressive development of mire soils. Vast lands are dominated by bog soils. They are concentrated close to the central part of the Zakaznik. They are adjoined by transition mire soils. Fen soils, in their turn, are dominated by low-depth peat, peaty-gley, humus-gley and slimy-humus types, with underlaying loose ancient alluvial sands. They all depend on feeding from groundwater aquifers of various flowage capacities. Soddy semihydromorphic soils are pretty common in the north of the Zakaznik. The floodplain of the Stviga river also has plots with alluvial meadow, floodplain peat mire, and floodplain soddy podzolized semihydromorphic soils of different texture. Other soil types worth mentioning are poorly developed sandy and drift sandy soils occurring in the south and east of the Zakaznik.

Climate. The whole mire lies in Pinsk agroclimatic district of Western unstably wet agroclimatic region. District's climate is the warmest and the least "continental" one compared to other parts of the country. Winters here are short and soft, while summers are warm and long. The average January temperature is (-5.3°C); the average July temperature is +18.5°C. Temperature maximum is marked at +37°C, and the minimum – at -36°C. The vegetation period continues for about 200 days. The temperature keeps above 0°C for 250 days; above 10°C – for 155 days. The frost-free period continues for 169 days. The total of temperatures above 10°C is 2,400-2,500°C. Latest air frosts on the territory of the Olmany mires have

been registered on May 11; first frosts occur in the first 10 days of December. Annual precipitation figure for the site is 600 mm on average, with 420 mm falling in the warm season. Stable snow cover keeps for 75 days on average. In 15-20 per cent of all winters formation of a stable snow cover was not observed at all. The average maximum of the snow cover reaches 16 cm, with up to 55 cm in some years.

15. **Hydrological values**: The mires of Olmany play a very important water-protection and hydrology-regulating role for the Pripyat river. Sparse population and limited accessibility of the local mires ensured conservation in natural condition of parcels with typical composition of vegetation communities and faunistic complexes. This contributes to the unique nature of the site and has special value for preservation of primeval biological and landscape diversity of the Belarusian Polesie. Besides, the named features of the territory define the high scientific significance of the site as a reference area for estimation of the consequences of man-induced transformation of natural environment.

In terms of landscape, structural and functional features, the Olmany mires stand out for their size, well-preserved natural conditions, stability of the hydrological regime. Conservation of the Olmany mires in their natural state would allow for preservation of the unique landscape value of the region and isolated natural complexes, alongside with creating the territorial and functional basis for optimization of this region's environment in general.

16. **Ecological features**: Territories with natural vegetation (forests, meadows, mires, shrubs and waters) cover more than 94,200 ha, or 99 per cent of the area of the Zakaznik. The total area of open mires located on the territory of the Zakaznik is 38,200 ha. Most mires are concentrated in two complexes: Krasnoie and Galo. The array of mineral islands has the form of long high ridges, covered by pine and parvifoliate forests. Bogs cover 754.7 ha of the Zakaznik (2.1 per cent of the overall area of the mires). Bogs are dominated by sedge, sedge-sphagnum and sphagnum communities. Bog complexes are mainly represented by open and semi-open territories with wetland kinds of Common pine and a bush stratum. The latter is dominated by March tea and Butter-bur.

Transition mires cover 24,057 ha of the Zakaznik (65.7 per cent of the overall area of the mires). These are dominated by sedge and sedge-sphagnum communities (about 44 per cent of the overall area of the Zakaznik's mires).

Fens (lowland mires) cover more than 11,760 ha.

Forests cover 46,936.9 ha, which is 49.8 per cent of the overall area of the Zakaznik. Forests are represented by 43 forest types of 8 formations. Best represented is the formation of pine and white birch forests. The forest cover of the Zakaznik is comprised of wetland and adjoining overwetted forest communities, in combination with separately located on sandy ridges dry pine stands and complexes of floodplain oak- and black alder stands, with black alder forests located along the border of the oak stands.

Zakaznik's forest stands are dominated by radical types. They constitute 96.6 per cent of the total forest area, which is unusually high for Belarus. Radical floodplain oak forest communities make up 2.9 per cent of all forests of the Zakaznik.

Succession processes in the forest ecosystems. Gradual overgrowth of old drainage canals, located on large area of mires and wet forests, and discontinuation of their draining function speeds up accumulation of peat and leads to transformation of mires whereupon they become wetter and lose their flowage capacity. Rise of water along the perimeter of some of the ridges results in drying out of pine forests and encroachment of mire vegetation.

Woodcutting is another factor impacting the dynamics of the vegetation structure.

Succession processes in all radical formations are clearly related in time to the development of communities as they grow older and such parameters as stands' height, density and biomass volume change.

17. **Noteworthy flora**: 687 plan species have been identified on the territory of the site, including 5 representatives of the Lycopsida class, 6 equisetails, 7 fern-like species, 3 gymnosperms, and 662

angiosperms. The site supports 12 National Red Data Book species, including Shadow Sedge *Carex umbrosa*, Intermediary Prominent *Corydalis intermedia*, Long-leaved Sundew *Drosera intermedia*, *Lycopodiella inundata*, White Water Lily *Nymphaea alba,* Meadow Pasque-flower *Pulsatilla pratensis*, Whortleberry Willow *Salix myrtilloides*, Sibirian Iris *Iris sibirica*, Meadow Sage *Salvia pratensis*, Martagon Lily *Lilium martagon, Salvinia natans*, Violet *Viola uliginosa.*

18. **Noteworthy fauna**:

Mammals. 26 mammal species have been registered on the territory of the Zakaznik, including 3 National Red Data Book species. European mink (*Mustela lutreola*), a globally threatened European species, has been identified on the site. Floodplains of the Stviga and Lva support one of the largest populations of Otter (*Lutra lutra*).

Birds. 151 bird species have been identified on the territory of the Olmany mires, including 25 National Red Data Book. The site is important in that it hosts large breeding populations of a number of rare and threatened European birds, including Corncrake *Crex crex* (50-100 pairs), Common Crane *Grus grus* (30-40), Black Stork *Ciconia nigra* (30-50), Short-toed Eagle *Circaetus gallicus* (8-15), Lesser Spotted Eagle *Aquila pomarina* (7-10), Capercailye *Tetrao urogallus* (20-30), Black Grouse *Tetrao tetrix* (60-80), Great Snipe *Gallinago media* (20), Curlew *Numenius arquata* (40-80), Black-tailed Godwit *Limosa limosa* (20-50), Eagle Owl *Bubo bubo* (5-6 pairs). The international value of the site is indicated in the first place by the fact that the Olmany mires support one of the largest European populations of the globally threatened Spotted Eagle *Aquila clanga* (15 pairs have been identified so far). The mires support a considerable share (10-20 per cent) of the Belarusian population of Great Gray Owl *Strix nebulosa*, the species which is most probably represented by an isolated relict grouping in the south of Belarus and north of Ukraine. Common Crane revealed to have about 15 pairs and 40-45 single individuals on the territory in question. Old pine woods on the edge of the mire complex and on large ridges amongst mires provide shelter to one of the most valuable hunting species, Capercailye, the Polesie population of which is currently in a catastrophic condition, especially along the right bank of the Pripyat.

19. **Social and cultural values**: The Zakaznik is situated on the territory of an active military aviation training ground. This is the largest Belarus' military training area, with an area of 127,400 ha or 0.06 per cent of the total area of the country.

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

(a) site

State ownership is the only land tenure type established on the territory of the Olmany mires Zakaznik. Two legal bodies rent the lands of the Zakaznik. The absolutely majority of all lands is rented by the Polesie Military Forestry, with only 774 ha belonging to collective farm "Rubelski".

(b) surrounding area

Surrounding forests and farmlands are of the State ownership.

21. **Current land use**:

(a) site

Polesie Military Aviation Training Ground and Polesie Military Forestry (both under jurisdiction of the Ministry of Defense of the Republic of Belarus), and additionally collective farm "Rubelski" are active on the territory of the Olmany mires.

In opposition to a wide-spread opinion, the activities of the military have not cause any degradation of natural communities located on the territory of the mire complex. On the contrary, limitation of civil activities in the area, especially of hydroamelioration works, allowed for preservation of the naturalness of the site.

The military exercises are practiced on localized land plots. Activities of the military forestry are regulated by the Provision on the regime of activities on the territory of the Zakaznik. Demilitarization of the country was accompanied by transfer of some of the lands of the training ground under jurisdiction of civil agencies and/or organizations. However, the biggest part of the Zakaznik stays under the supervision of the Ministry of Defense of the Republic of Belarus. It is planned that the site will continue to be used as a military training ground and no visible changes in human-related activities will be brought about on its territory.

Hunting and fishing, as well as collection of mushrooms and berries by local people are allowed on the territory of the Zakaznik.

In economic terms, the forest stands of the Zakaznik are attributed to the 2nd forest group (economically exploitable forests cover 57,065 ha) and to 6 economic categories: currently exploited forests (10,222 ha); unproductive plantations (6,352 ha), unexploited plantations (1,292 ha); specially protected forests (552 ha); long-term use forests (8,604 ha), and reference or sample forests (41 ha). Exploited stands include forests on mineral islands. Unproductive and unexploited plantations are mire low-production forests, the exploitation of which is either impossible or economically inexpedient. Specially protected forests include water protection strips along rivers Lva and Stviga, as well as along lakes Bolshoie Zasominnoie and Maloie Zasominnoie. Long-term use forests are used by the military for their specific tasks. Reference stands include the most productive forests and forests outstanding in one respect or another. These are marked on the list of most valuable vegetation communities of the Zakaznik.

According to the 1995 data from forestry agencies, the overall tree stand reserve of the Zakaznik counts 494,000 m^3 of timber, including 353,500 m^3 of coniferous and 105,500 m^3 of hard-leaved timber. The liquid woodstock reserve is dominated by economically valuable tree kinds (92.8 per cent of the overall reserve).

(b) surroundings/catchment
Agriculture, forestry.

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

Main factors negatively impacting and/or threatening the existence of natural communities on the territory of the Zakaznik are:

- illegal pasturing of cattle by local people on the Ukrainian side;
- burning of vegetation in spring. Especially dangerous are frequent in last years cases of creation of open fire places and intentional burning of dry mire vegetation by local people to improve pasturing conditions. In 1995-96 fires damaged about one third of wetlands and wetland forests;
- poaching woodcutting on mineral ridges;
- unlimited collection of cranberries. Each year thousands of people visit the site for unsanctioned collection of cranberries. This aggravates the disturbance factor, leads to substantial shrinking of the feeding base for most animals, initiates fires. Most of the cranberry collectors come over from the Ukrainian side;
- unlimited hunting of wild animals (hunting species) leading to dramatic declines in the number of Capercailyes, Elks, Wild Boars.
- military exercises still continue on the site but their intensity has dropped significantly. This brought about changes in the protection regime, significant increase in cases of illegal use of the site's natural resources and a substantial rise in other kinds of anthropogenic load on the natural biocommunities.

b) around the site
draining amelioration of overwetted areas adjoining the Zakaznik on both Belarusian and Ukrainian sides leading to a drop in groundwater level in the Zakaznik and as a result, to degradation of natural communities;

23. **Conservation measures taken**: A specially protected area, National Landscape Zakaznik "Olmany mires", is located on the site in question. A status of the zakaznik presupposes a number of limitations for certain economic activities, while at the same time provide for obligatory conservation measures on its territory. The following activities are prohibited in the Zakaznik:
The following activities are prohibited at the Olmany Mires National Landscape Zakaznik:

- Hydrological amelioration and other activities leading to changes in natural landscape and threatening the existing hydrological regime;

- Damage to and destruction of trees and shrubs, disturbance of the natural soil cover (excluding the territory of the 41 aviation training ground, and cases related to forestry activities);
- Clearance of water and riparian vegetation;
- Withdrawal of water from water bodies for industrial use and irrigation;
- Dumping of polluted and poorly purified wastewater, industrial and municipal wastes into water bodies;
- Establishment of tourist camps, fires, car parkings in places where this is not allowed;
- Driving outside roads, except vehicles used in agricultural and forestry activities, as well as vehicles servicing the 41 aviation training ground;
- Main purpose clear and successive felling in oak forests, as well as main purpose felling in plots indicated in the Order;
- Cattle pasturing except floodplain meadows of the Stviga river.

Construction of buildings, power lines, roads, pipelines and other engineering facilities, mining of wide-spread minerals may be effected on the territory of the Zakaznik for economic purposes exclusively in line with the legislation of the Republic of Belarus, in coordination with the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus, and the Ministry of Architecture and Construction of the Republic of Belarus.

24. **Conservation measures proposed but not yet implemented**: For more effective conservation of biological diversity of the site it is necessary to elaborate a management plan for Zakaznik "Olmany mires", in which measures to reduce anthropogenic loads on the Zakaznik's natural complexes could be stated and their subsequent implementation would be envisaged.

25. **Current scientific research and facilities**: Since the site has been always used as a military training ground no scientific research was conducted on its territory in the past. The scientific study of the Olmany mires was initiated by the Institute of Zoology of the National Academy of Sciences in connection with elaboration of a scientific background for establishment of a zakaznik in this area. Since 1996 the scientific field trips of scientists from the Institute of Zoology have become annual. The research is primarily focused on the ornitho-fauna of the site in question. However, the site is also of great interest for other areas of research, because it can be considered a best example of a mire complex remaining in a natural condition.

26. **Current conservation education**: Conservation education about the site has slightly intensified during the time when the background for establishment of a zakaznik here was developed. This included a number of articles in newspapers and magazines, reports on several conferences. This kind of work was of great significance for conservation of the mires, because it helped to change the views of local authorities and main land-users about the value of the site. Further campaigns to popularize the significance of the Olmany mires is necessary for effective conservation of its biodiversity.

27. **Current recreation and tourism**: Earlier access to the site was limited because of its intensive use as a military training area. Only the military branch of the Belarusian Society of Hunters and Fishermen was allowed to conduct certain activities on the territory of the site.

Currently collection of berries and mushrooms, as well as fishing for private purposes, are allowed on the site. The timing of shooting exercises is made known to local population via local authorities and forest guard. Special protection facilities are installed in potential passageways.

International ecotourism has recently been introduced in the site (on a limited scale). The timing of ecotours are agreed with the administration of the military training area. The potential for development of ecotourism on the territory of the Olmany mires is quite high, but its realization will require capital outlays for construction of tourist paths and roads.

28. **Jurisdiction**:
Ministry of Natural Resources and Environmental Protection of the Republic of Belarus, Ul. Kollektorknaia 10, 220048 Minsk, Belarus. Tel. 220 40 16

Ministry of Defense;

29. **Management authority**:

Stolin District Inspection of the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus: Ul. Sovetskaia 69, Stolin, Brest Oblast, Belarus. Tel. 22244.
Polesie Military Forestry

30. **Bibliographical references**:

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