

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes 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. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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

FOR OFFICE USE ONLY.

DD MM YY

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Designation date

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Site Reference Number

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2. Date this sheet was completed/updated:

03 of December 2012

3. Country:

Belarus

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Duleby Islands – Zaozerye; (Острова Дулебы – Заозерье)

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
ii) the boundary has been extended ; or
iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List):;
- ii) an electronic format (e.g. a JPEG or ArcView image) ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The boundaries coincide with those of Republican hydrological reserves "Duleby Islands" and "Zaozerie".

The boundaries of the national hydrological reserve "Duleby Islands" are:

In the North - from the northern corner of the quarter # 44 of the Kirov forest along the boundaries of quarters # 44, 45, 46, 47, 58, 71 of this forest, along the boundaries of quarters # 11, 1, 2, 3, 15, 16, 4, 5, 6, 20, 21, 7, 8, 9, of the State Forestry Enterprise "Drut Military Forestry";

In the East and South - along the boundaries of quarters # 9, 24, 42, 60, 74, 87, 99, 98, 97, 111, 110, 109, 108, 120, 121, 133, 145, 157, 168, 177, 176, 180, 179, 178, 172, 171, 170, 169 of the State Forestry Enterprise "Drut Military Forestry";

The West - on the borders of quarters # 169, 158, 146, 134, 122, 112 of the State Forestry Enterprise "Drut Military Forestry", quarters, # 37, 26, 18, 12 Kolbchany forest, quarters # 83, 79, 72, 73, 66, 54,44 of the Kirov forest to the northern corner quarter # 44 of this forestry.

The boundaries of the national hydrological reserve "Zaozerie" are:

In the North - from the intersection of the southern boundary of the M4 highway Minsk-Mogilev on the northern boundary of the quarter # 40 of Osovets forestry of the State Forestry Enterprise "Belynichi Forestry", then in an easterly direction along the northern boundary of quarters # 40, 41 along said road to the intersection of the north border of quarter # 41 of said forest on the northern boundary of the quarter # 23 October forestry of the State Forestry Enterprise "Belynichi Forestry", then along the northern boundary of quarters # 23, 24 to the north-east corner of the quarter # 24 of the forest;

In the East - from the north-eastern corner of the quarter # 24 October Forestry of the State Forestry Enterprise "Belynichi Forestry" to south on the eastern boundary of quarters # 24, 31 to the southeast corner of quarter # 31, then to west on the southern border of quarter # 31 to the south-east corner of the quarter # 30, then to south on the eastern border of the quarters # 38, 49, 56, 65 to the southeast corner of quarter # 65, then to west on the southern border of quarter # 65 to the northeast corner of quarter # 73, then to south on the eastern boundary of quarters # 73, 79 of said forest, the eastern boundary of quarter # 9 of the Kirov forestry of the State Forestry Enterprise "Belynichi forestry", then on the eastern border of the number quarters 9, 19 to the south-east corner of the quarter # 19 of said forest;

In the South - from the south-east corner of the quarter # 19 of the Kirov Forestry of the State Forestry Enterprise "Belynichi Forestry" to west on the southern border of quarter # 19 to the north-east corner of the quarter # 27,

further to south on the eastern border of the quarter # 27, then to the west and north along the southern and western boundary of quarter # 27 to the southeast corner of quarter number 25, on the southern and western boundary of quarter # 25 to the north-west corner of the quarter # 25 of this forest;

In the West - from the north-west corner of the quarter # 25 of the Kirov Forestry of the State Forestry Enterprise "Belynichi Forestry" on the south-western boundary of quarter # 85 of Osovets forestry of the State Forestry Enterprise "Belynichi forestry", the western boundary quarters # 85, 81 to the northwest corner quarter # 81, then to east on the northern border of quarter # 81, thence northwards along the western boundary of quarters # 76, 72, then to east on the north-western border of quarter # 72 to the southwest corner of quarter # 68, thence northwards along the western boundary of quarter # 68 to the southeast corner of quarter # 60, then to west, north and east along the southern, western and northern boundaries of quarter # 60 to the southwest corner of quarter # 56, thence northwards along the western boundary of quarters # 56, 49 to the north-west corner of the quarter # 49, then to east on the northern border of quarter # 49 to the southwest corner of quarter # 44, then north along the western boundary of quarters # 44, 40 to the point crossing the northern border of quarter # 40 of the forest on the southern boundary of the right of way of the road Minsk-Mogilev M4.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

"Zaozerye" WGS 84 (DMX): N53°53' / E29°27'

"Duleby Islands" WGS 84 (DMX): N53°40' / E29°30'

Approximate Central Coordinate: 53°40'00"N / 29°30'00"E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The wetland is located in the eastern part of Belarus, 125 km to east from Minsk and 60 to west from Mogilev. The territory is situated in Belynichi and Klichev administrative districts of the Mogilev region, 20 km to south-west from Belynichi (10,700 inhabitants), and 50 km to north from Klichev (7,100 inhabitants).

10. Elevation: (in metres: average and/or maximum & minimum)

"Zaozerye": 150–180 m above s. l.

"Duleby Islands": 160–170 m above s. l.

11. Area: (in hectares)

"Zaozerye": 4,172, ha

"Duleby Islands": 26,600 ha

Total area: 30,772 ha

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The wetland is the mire complex with prevalence of boreal Sphagnum ridge-hollow bogs. The location of these mire complexes is the south-western border of distribution of north-western boreal Sphagnum bogs. The ridge-hollow sphagnum bogs, oligomezotrophic cotton grass-sedge-sphagnum mires, pine swamp forests on transitional mires and bogs, and native deciduous swamp on transitional mires and fens are the most abundant within the wetland.

Cores of the mire-forest complex are mires Mokhovoye, Velikoe, Bolshoe and Dulebskoe. Mire complex plays an important role in water accumulation for the rivers that spring from the wetland and belong to the Dnieper basin. Large forest plays buffer role for the mire complex. This forest is characterized by the presence of quite large overgrown areas, rare in floristic composition, aesthetic, and soil properties. These forest and mire areas provide favourable

conditions for preservation of the number of rare and unique species of plants and animals, as well as for typical in the past but nowadays rare and threatened plant communities.

13. Ramsar Criteria:

Tick the box under 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). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

14. Justification for the application of each Criterion listed in 13 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 1 - Example of the unique type of natural wetland system for boreal biogeographical region. The wetland is the mire complex with prevalence of boreal Sphagnum ridge-hollow bogs. The location of these mire complexes is the south-western border of distribution of north-western boreal Sphagnum bogs.

Comment [RE1]: Please expand the description for the application of criterion 1 explaining why this wetland is rare or representative for its biogeographical region.

1a - an example of a standard forest-mire complex of the southern Taiga zone

1b - boreal bog of the northern-west European type.

1d - has a great hydrological importance for adjacent areas;

- during dry season stores water, and provides with it other water bodies (rivers Drut and Berezhina of Dnieper basin);
- maintains the groundwater level;
- plays an important role in maintaining of high water quality;
- participates in formation of underground hydrological systems, which supplies with water surface wetland complexes;

Criterion 2 – the wetland supports the existence of vulnerable, endangered or threatened species and ecological communities.

2a - ensures the preservation of threatened species and ecological systems, there are 7 categories of specially protected communities of higher plants (Annex 1).

2b - ensures the existence of rare, endangered or threatened populations of: 12 plants species (Annex 2), mammals - 4, birds - 20, reptiles – 1, amphibians- 1, and 13 species of insects (Annex 3).

2d - includes ecosystems (in accordance with the EEC Habitat Directive), endangered: 3160 Natural dystrophic lakes and ponds; 7110 Active raised bogs; 7140 Transition mires and quaking bogs; 9080 Fennoscandian deciduous swamp woods; 91D0 Bog woodland.

Criterion 3 - ensures the existence of populations of plants and animals that are important for maintaining biological diversity (Annexes 1, 2 and 3), a feasibility biogeographic region.

3a – the wetland supports populations of plant and animal species that are important for the conservation of biological diversity of fauna and flora of bogs in southern Taiga zone. The flora of the wetland is represented by 705 species of higher plant species, 6 species of lycopodium, 6 - horsetails, 12 - ferns, 3 - gymnosperms. Within a wetland established dwelling 170 animal species are recorded: 37 species of mammals, birds - 119 species, amphibians – 10, and 6 species of reptiles.

15. 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:

Boreal

b) biogeographic regionalisation scheme (include reference citation):

The Pan European Map of Biogeographical Regions 2001(T-PVS 2001/89 Appendix V)

www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe-2005/methodology-description-pdf-format/methodology-description-pdf-format/at_download/file

16. 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.

Geomorphology.

According to geomorphological zoning the wetland is located on a large Central Berezina (Central-Belarusian) water-glacial valley between the rivers Dnieper and Berezina and is a typical geomorphological area of plains and lowlands of Predpoleyse.

Origin.

The origin is natural. Relief was formed under the influence of the Sozh glacier and its melt waters. Relief determines the prevalence of the flat-wavy surface with a gradual decrease of elevation from northwest to southeast on the territory. The modern look of the wetland was finally formed during last Poozerye glacier. That time melt waters rapidly flow to south on the rivers of Beresina and Dnieper basins. The relief of characterized territory is flat, heavily smoothed by glacial waters flyuvioglacial plain with an average absolute heights 150-180 m. The distinctive feature of the relief is a complex system of plane depressions and shallow closed hollows. Their formation is associated with the action of the glacier melt waters. The moraine of Sozh glaciation predominates under the layer of flyuvioglacial sediments on the all territory of the wetland.

Hydrology and hydrography.

The wetland belongs to the hydrological basin of the Dnieper river, Drut and Berezina river systems. The wetland is located between two rivers - Berezina and Drut. Hydrological network of the site "Zaozerye" includes Mokhovoye mire, tract Scheglovitschina, Lake Zaozerye, rivers Dulebka, Malysh and Lipovka. Hydrological network of the site "Duleby Islands" includes: mires - Galoe, Velikoe, Velikoe-2, Shishki, Makovskoe; tracts - Velikiy Log, Skoblenkova Poliana, Perebrodie and Bolshoe Dulebskoe; lakes - Podozerische, Stoyachee and several small nameless lakes; rivers - Dolzhanka, Dulebka, Vshivka, Terebol, Rozhische, Sushanka, Vederka and Vodonoska.

River Malysh - right tributary of the river Drut, the length of the river is 29 km, catchment area - 234 km², the average slope of the water surface 1 ‰. The upper reaches of the river are located on the territory of site "Zaozerye" (2 km).

River Lipovka - left tributary of the river Malysh, the length of the river is 15 km, catchment area - 111 km², the average water surface slope 1.8 ‰. It springs from Mokhovoye mire (site "Zaozerye").

River Dolzhanka - right tributary of the river Drut, springs from the north-eastern edge zone of the site "Duleby Island", and flows in a south-eastern direction. River bed is meandering. Length of river is 37 km, width - 2.0-2.8 m, depth - 0.2-1.0 m, banks height - 0.3-1.0 m, catchment area - 272 km². The average slope of the water surface is 1 ‰. River banks are peaty. There are beaver dams on the river. River flows through the site "Duleby Islands." over 12 km.

River Dulebka - left tributary of the river Olsa, springs and runs along the north-western edge of the wetlands. Length - 23 km, width - 4.0 m, depth - 0.5 m, catchment area - 152 km², the average water surface slope 1.4 ‰. The riverbed is overgrown by aquatic vegetation. Water discharges from the peatland to the river through the 2 thalwegs and nameless stream. Width of the stream is 3.0-4.0 m, depth - 0.5-0.7 m.

River Sushanka - left tributary of the river Olsa, length - 20 km, catchment area - 174 km², the average slope of water surface 0.9 ‰. It springs from the site "Duleby Islands." Its main tributary – river Vodonoska.

River Vodonoska - right tributary of the river Sushanka, length - 10 km, catchment area - 54 km², the average slope of water surface - 1.2 ‰. Springs from the site "Duleby Islands." Catchment area and banks are swamped.

River Vederka - right tributary of the river Drut, length - 19 km, catchment area - 69 km², the average slope of the water surface is 1 ‰. It springs from the site "Duleby Islands". Catchment area is flat, 58% of it is covered by forest.

River Vshivka – tributary of the river Dulebka, runs along the northwest edge of the site "Duleby Islands". Width - 0.5-1.0 m, depth - 0.3-0.4 m. The river banks are low and peaty. Riverbed is overgrown.

River Rozhische - left tributary of the river Olsa, receives waters from south-western part of the wetland. Width - 3.0-4.0 m, depth - 0.6 m. The width of water edge is 2.0 m. The riverbed is overgrown with aquatic vegetation.

River Terebol - left tributary of the river Olsa, receives waters from south-western part of the wetland. Length - 15.2 km, catchment area - 61.0 km². Width - 4.0-8.0 m, depth - 0.2-0.6 m. The banks are low and peaty. Riverbed is meandering. Flood-land of the river is waterlogged, its width is 0.1-0.3 km. There are beaver dams on the river.

Lake Zaozerye is closed, fed by precipitation. Its area is 0.58 km², length - 1 km, width - 0.75 km, coastline length - 2.85 km, catchment area - 8.8 km². The maximum depth is 7.1 m, mean - 3.2 m. Basin is roundish. Lake is located in the mire Mokhovoye of the site "Zaozerye". The slopes of the basin are covered by shrubs and rare forest, waterlogged. The banks are low, swampy.

Lake Podozerisce is located near the western edge of the wetland, in the basin of the river Dulebka. Length - 0.79 km, maximum width - 0.28 km, maximum depth - 4.2 m, area - 0.16 km². The length of the coastline is 2 km, the type of the basin is residual, elongated, the slopes are not clear.

Lake Stoyachee is located in the eastern part of the site "Duleby Islands". Length - 0.3 km, width - 0.3 km. Its area is 0.09 km², depth - 3.3 m. The bottom of the lake is composed of sapropel sediments.

Hydrochemical parameters of water.

Hydrochemical conditions of lakes are determined by water supply and their location in bogs.

Hydrochemical parameters of water of Lake Zaozerye - typical for this area, are shown here as example ("Assessment of the current status...", 2002):

Temperature, 24°C	
O ₂ , mg/l	9.9
O ₂ , %	109.8
Transparency,	2.5 m
Chromaticity, degree	45
pH	4.95
OH ⁻ , mg/l	-
Ca ²⁺ , mg/l	1.6
Mg ²⁺ , mg/l	1.0
Cl ⁻ , mg/l	1.8
SO ₄ ²⁻ , mg/l	9.0
P ₂ O ₅ , mg/l	0.022
NO ₂ ⁻ , mg/l	0.014
NO ₃ ⁻ , mg/l	0.06
NH ₄ ⁺ , mg/l	1.13
CaCO ₃ , mg-eq/l	0.16
Total mineralization, mg/l	15.2
Oxidability, mg/l	66.6

Water salinity is very low (15.2 mg/l). Hydrocarbons in water are absent. Iron content is significant due to the specific water supply of the lake. Concentration of ammonia nitrogen is high - 1.13 mg/l, as well as sulphates content (9 mg/l). Chromaticity is 45 degrees, transparency - 2.5 m. In general, lake Zaozerye belongs to the dystrophic type of lakes

Soils.

Soils of the wetland were formed on moraine, which in many places comes close to the surface and is involved in the process of soil formation. Loess loam, glaciofluvial sands and loamy sand lie on the moraine.

Edges of the wetland are characterized by soils of the normal moisture (automorphic). Upper horizon is represented by sandy soils. Sod-podzolic and sand-loamy soils are predominant among the excessively moistened semihydromorphic soils. Floodplain soils occupy a small part of the wetland.

Large area of the wetland is occupied by peat soils of the fen, transitional, and mostly bog types.

Depth of the bog type peat deposits is 6.2 m (average - 2.4 m). Genetic horizons of peat have a weak (20%) decomposition degree, low ash content (3%), low acidity (pH less than 4.0), mineral content is poor, water level is 20-50 cm. The main peat-forming plants are sphagnum mosses.

Soils of the transitional mires, located on the periphery of bogs, are characterized by a more favourable properties: peat decomposition degree is medium (40%), ash content is higher (8-10%), peat is less acidic, botanical composition of peat is more diverse - sphagnum, sedge-sphagnum, cotton grass-sphagnum, wood-sedge-sphagnum types.

Climate.

The wetland area land belongs to the Berezinsky agroclimatic district of the Central agroclimatic region.

The average monthly temperature in January varies from -0.9°C (1975) to -14.1°C (1963). The average January temperature is -7°C, the average temperature of June ranges from +14. (1979) to +21 (1959). The average annual temperature is +5°C. Winter (December-March) is moderately cold with thaws. Frosts usually weak (-5, -12°C), sometimes reduce to -30°C. Cloudy weather prevails (20 cloudy days per month), sometimes with fogs. Snow cover (thickness - 30-45 cm) remains for 90-100 days. Snow melts by late March. The relative humidity is 86%. The weather is unstable in the spring (April-May). There are light morning/night frosts even in May. Precipitation falls usually in early April. Up to 5 days per month are foggy. Daytime temperatures range from +7 to 15°C, and at night - from -3 to -7°C. Summer (June-August) is moderately warm. Normal daytime temperatures are +17 - +21°C (the maximal is +32°C), at night vary from +7 to +14°C. Nearly half of annual precipitation falls during summer months. In July and August heavy rains sometimes occur. There are about 10 cloudy days per month. Relative humidity is up to 71%. The weather in the first half of autumn (September-November) is warm and fair, but cloudy in the second. Precipitation falls as drizzling rains (in the late autumn snowfalls can occur). There are 5-10 foggy days per month. Frosts set in early October. Winds are mainly western during the year, wind speed is 3-5 m/sec. Precipitation is about 620 mm.

Berezinsky-Drutsky geobotanical district is warm, moderately humid, with long vegetation period (190 days). Heat supply of the active vegetation period is about 2300°C.

Listed above climatic indices, high heat supply, long vegetation period, mild winter, and sufficient precipitation provide favourable conditions for vital functions of native plant species and for wildlife habitats development.

17. Physical features of the catchment area:

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

The wetland is located between two large rivers: the Dnieper and its tributary Berezina. From the eastern part of the wetland water flows via Olsa river tributaries to river Berezina, from the western part – via Drut river tributaries to river Dnieper.

River Drut is the fourth largest tributary of the river Dnieper; it springs from the small waterlogged hollow of the Dnieper- Dvina watershed. River Drut flows into the river Dnieper from its right bank. Length is 266 km, a catchment area - 5020 km². Main left tributaries: rivers Krivaya, Neroplya, Vabich and Orlyanka; right tributaries: rivers Oslik, Malysh and Dolzhanka. The watershed is located in the eastern part of Central-Berezina plain. Over 30% of the catchment area is covered by large forests.

Mixed forest is dominated by conifers. Mires, waterlogged territory and swamped forests occupy about 10% of the area. The riverbed is strongly meandering; below the place of confluence with river Vabich it forms ducts, branches, several former riverbeds, bays and small lakes. The width of the upper part is 10-20 m, middle and lower - 30-50 m, in some places – up to 60-65 m, and within the reservoirs it is about 900 m. The depth is 1-2.5 m, in the pools and pits - 5-6 m. The bottom is flat, sandy, and sometimes rocky. The riverbed littered by trees roots. Banks are steep, abrupt, and unstable.

River Olsa is the left tributary of the river Berezina (Dnieper basin). Its length is 92 km, catchment area - 1690 km², the average water surface slope - 0.3%. It starts at 3.4 km to the northeast from the village Kmenny Borok of Berezina district; estuary is located of a 5 km west from the village Lyubonichi of Kirov district. The main tributaries are rivers Neseta (right), Dulebka, Sushanka, Susha (left). The slopes of the river Olsa are flat, 2-7 m high, sometimes slightly cut; right slope is open, tilled, left is overgrown by mixed forest. Floodplain is two-sided, low, often swampy, width - 0.6-1.5 km. On the distance from its mouth to the village Zapolie of Klichev district floodplain crossed by drainage canals. During spring tide the water level in the floodplain rises to 0.5-1 m, and remains for 2 weeks. Upper part (10 km) of the riverbed is canalized; width of the lower part is 12-18 m. The banks of the upper part are low, swampy, between the villages Voevichi and Zapolie of Klichev district - flat, below the estuary - steep and precipitous. River freezes in the first week of December; ice begins to break in the third decade of March. The highest water level in the lower part of the river is observed in the end of March, the average height above the low level is 1.2 m. The river is used as the receiving waters from drainage canals.

18. Hydrological values:

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

The wetland is part of the natural hydrological network of Dnieper river and has the great importance for the surrounding areas:

- Stores water during the dry season, providing it to other water bodies (rivers Drut and Berezina of Dnieper basin);
- Maintains the groundwater level;
- Participates in the formation of underground hydrological systems, which supply with water the surface wetland complexes;
- Plays an important role in maintaining the high water quality in the region.

19. 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.

M, N, Tp, U*, W, Xf, Xp, 9

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The wetland is one of the sample areas of oligotrophic bogs of the region that have a low degree of disturbance. Vegetation the wetland is represented by the complex combinations of forest and mire (oligo- and mesotrophic) type of plant communities related to the oligotrophic and oligomesotrophic mires. They are characterized by alternating of ridge-hollow (hollow-lake) complexes, forested areas with pine and mineral islands.

There are 44 types of the plant communities in the overall structure of vegetation. Sphagnum bogs are the core of the wetland, which has the typical features of the north-western mires. The vegetation of bog is characterized by continental elements (*Chamaedapne calyculata*, *Sphagnum majus*), subatlantic and west-european species (*Calluna vulgaris*, *Sphagnum cuspidatum*, *S. rubellum*).

Bog is characterized by shallow shrub-sphagnum-hollow complexes (often with regressive features) with rare pine (*Pinus sylvestris* f. *litwinovii* and f. *villkommii*) on the top, by ridge-hollow complexes on its flat slopes, by ridge-lake complexes on the slope and top, by hummock-hollow complexes on the bottom of the slope, and by pine-shrub-sphagnum communities (as forested ring) on the steep slopes. Width of the ring, as well as the area of ridge-hollow complex, and the degree of its intensity, vary in different parts of the mire, depending on the surface inclination. Pine-cotton grass-sphagnum, cotton grass-shrub-sphagnum and cotton grass-sphagnum phytocoenoses are located in the low parts of slopes. And then are changed to mesotrophic sphagnum and eutrophic forest communities.

Mire forests, swamped forests and dry woodlands cover peripheral part and mineral islands of the wetland. Forests function as buffer for the bog. Forest land is the largest within the region. Due to its relative inaccessibility and specific geographic location, its operational and territorial status, the absence of permanent settlements (at present) it is not severely affected by human impact. Significant areas of previously prevalent oak forests, old pine and spruce forests at

subclimax stage remain here. In general, forest cover 22409,64 ha (72.7% of total area). Typological scheme of forest vegetation of the wetland includes four groups of formations, 8 formations, 12 series and 37 types. Composition of forests is dominated by pine (61.7%). Birch (23.5%), aspen (5.8%), black alder (4.6%) are also quite abundant in forest composition. Oak (1.4%), spruce (0.3%), ash (0.1%) forests sparsely cover the wetland territory.

Littoral-aquatic vegetation is represented by narrow belt along the lake- and riversides. Aquatic vegetation is represented by communities of higher aquatic plant formations of helophytes: *Phragmites australis*, *Schoenoplectus lacustris*; floating hydrophytes, occurring frequently: *Nuphar lutea*, *Nymphaea candida*, *Potamogeton natans*, *Lemna trisulca*; and submerged hydrophytes: *Potamogeton crispus*, *Utricularia* spp. Vegetation of lakes is lacking in higher plants, or represented by single-stage coenosis of attached to a lake bottom or floating aquatic plants. Such plant species are not common in the flora of oligotrophic bogs, and apparently were transmitted there by birds.

Weed and ruderal plant species can be found in pastures, along the forest roads and embankments of highways, and rare in the forests.

Flora of the wetland is peculiar, and characterized by low proportion of the synanthropic elements. In total 705 species of vascular plants (including hybridogeneous taxa) are registered on the territory of the wetland. Flora combines 468 genera and 116 families, and is represented by 6 species of lycopodium, 6 - horsetails, 12 - ferns, 3 - gymnosperm species. There are 24 tree species, 41 species of shrubs and subshrubs, and 649 species of dwarf shrub and herbaceous plants within the wetland area. The most species rich families are: *Asteraceae* - 73, *Graminae* - 50, *Cyperaceae* - 48, *Rosaceae* - 39, *Fabaceae* - 33, *Caryophyllaceae* - 32, *Lamiaceae* - 27 species. *Hornbeam* has insular localization in the wetland. It grows beyond the northern boundary of its main distribution area. There are many valuable food, officinal, ornamental and other economically useful plants on the wetland - cranberry, raspberry, buckthorn, mountain ash, various kinds of willows, bearberry, valerian, strawberry, bilberry, blueberry, thyme, nettle etc. 44 species of bryophytes are found here (two species of liverworts and 42 species of mosses). Lichens are represented by 64 species and one subspecies.

In total, 170 species of terrestrial vertebrates are recorded within the wetland and the surrounding area: mammals - 37 species, birds - 119 species, amphibians - 10 species, reptiles - 6 species. The number of mammal species is about half (43.9%) of all species living in Belarus. The number of such native species as elk, European roe deer, wild boar is high. Red deer is also sometimes recorded. The combination of forest, wetland and aquatic habitats creates favourable conditions for valuable furry animals - marten, raccoon dog, polecat, ermine, squirrel, fox, mountain and brown hare are very abundant. Otter, beaver, muskrat are quite common on the wetland.

The territory is characterized by a forest bog complexes which are favourable habitats for forest game birds: capercaillie, blackcock and hazel grouse. Some other hunting bird species (woodcock, ringdove, mallard, snipe, great godwit) inhabit the wetland area.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.

On the territory of the wetland 12 rare and endangered plant species are identified. They are listed in the last (2005) edition of the national Red Data Book of Belarus:

Huperzia selago (L.) Bernh. ex Schrank et Mart., *Dentaria bulbifera* L., *Salix myrtilloides* L., *Iris sibirica* L.), *Oxycoccus microcarpus* Turcz. ex Rupr., *Lycopodiella inundata* (L.) Holub., *Lilium martagon* L., *Allium ursinum* L., *Dactylorhiza majalis* (Reichenb.) P.F.Hunt et Summerhayes, *Cephalanthera rubra* (L.) Rich., *Listera ovata* (L.) R.Br., *Gladiolus imbricatus* L.

List of rare plant species that need a preventive protection and conservation:

Arnica montana L., *Thalictrum aquilegifolium* L., *Aquilegia vulgaris* L., *Dianthus superbus* L., *Gentiana pneumonanthe* L., *Epipactis palustris* (L.) Crantz, *Epipactis helleborine* (L.) Crantz, *Dentaria bulbifera* L., *Campanula persicifolia* L., *Polygonatum multiflorum* (L.) All., *Convallaria majalis* L., *Vincetoxicum hirundinaria* Medik., *Platanthera bifolia* (L.) Rich., *Digitalis grandiflora* Mill., *Dactylorhiza incarnata* (L.) Soo, *Dactylorhiza maculata* (L.) Soo, *Dactylorhiza fuchsii* (Druce) Soo, *Hepatica nobilis* Mill., *Pulsatilla patensis* (L.) Mill., *Pulsatilla latifolia* Rupr., *Polemonium caeruleum* L., *Mattencia struthiopteris* (L.) Tod., *Corydalis cava* (L.) Schweigg. et Koerte DC., *Phegopteris connectilis* (Michx.) Watt etc.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. 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.*

In total 39 animal species listed in the Red Data Book of Belarus (2005) were found within the investigated area: mammals -4, birds – 20, reptiles -1, amphibians-1, insects - 13 species (Treasures, 2005).

Mammals	<i>Meles meles</i> <i>Ursus arctos</i> <i>Felis lynx</i> (NT - under the IUCN Red List) <i>Muscardinus avellanarius</i> (LR/NT - under the IUCN Red List)
Birds	<i>Ciconia nigra</i> <i>Bucephala clang</i> <i>Circus gallicus</i> <i>Falco columbarius</i> <i>Falco subbuteo</i> <i>Falco vespertinus</i> (NT - under the IUCN Red List) <i>Lagopus lagopus</i> <i>Grus grus</i> <i>Pluvialis apricaria</i> <i>Numenius phaeopus</i> <i>Numenius arquata</i> <i>Tringa nebularia</i> <i>Aegolius funereus</i> <i>Lanius excubitor</i> <i>Aquila pomarina</i> <i>Asio flammeus</i> <i>Athene noctua</i> <i>Bubo bubo</i> <i>Picoides tridactylus</i> <i>Alcedo atthis</i>
Reptile	<i>Coronella austriaca</i>
Amphibia	<i>Bufo calamita</i>
Insects	Coleoptera <i>Carabus cancellatus</i> , <i>Carabus coriaceus</i> , <i>Carabus menetriesi</i> <i>Carabus violaceus</i> Lepidoptera <i>Apatura iris</i> <i>Papilio machaon</i> <i>Callimorpha dominula</i> <i>Polyommatus optilete</i> <i>Oeneis jutta</i> <i>Colias palaeno</i> Odonata <i>Calopteryx splendens</i> Hemiptera <i>Bombus muscorum</i> <i>Bombus shrenkii</i>

23. Social and cultural values:

a) Describe if the site has any general social and/or 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:

Historical and cultural importance.

The wetland is located in a remote, swampy area. Within the wetland settlements are absent. Any archaeological, cultural, historical monuments are not allocated within the territory..

Socio-economic potential.

Current land use. The wetland is situated within the lands of Octiabr, Osovets, Kirov and Druchany forest areas of Belynichi forestry, and within the lands of Kolobchany, Dolgovo, Usakino forest areas of Klichev forestry. The main land uses on the wetland area are agricultural production, forestry, mowing along the periphery of the wetlands, and use of recreational resources (picking berries, mushrooms and officinal plants mainly). The economy of adjacent territories is based on traditional forestry.

Population. On the territory of the wetland settlements are absent. The closest to the wetland borders villages are: Osovets, Gluboky Brod, Zabolotie, Barsuki, Korytnitsa, Porohovka, Dubrovo, Molotovki, Mistrovo, Starina, Guta, Usakino, Podvorie, Dubnoe, Razvadovo, Zalichinka, Aksenkovich, Ksaverovo, Senkov, Rubezh, Druchany, Stodolische, Zhuravok, Teresino, Mezhonka.

Industrial production. Industrial enterprises are situated quite far from the wetland. Its territory and resources are not raw materials for enterprises. On the territory adjacent to the wetland construction of industrial enterprises in the short term is not provided.

Mineral resources. There are no developed deposits of minerals resources on the wetland. But mires of the wetland belong to the peat deposits cadastre of Belarus.

Engineering and transport infrastructure. The highway Minsk - Mogilev runs along the northern boundary of the wetland, and railway line passes along the southern boundary.

Recreational resources. The territory of the wetland is difficult to traverse, with waterlogged forests, and that's why almost never used for recreation. Only a very small parts of the wetland are suitable for these purposes – dry heather-cowberry-pine and heather-birch forests. Part of the wetland is located in the radioactive contamination zone. The main types of recreation activities of local population are berries, mushrooms and officinal plants gathering. Fishing in the territory is not popular as productivity of lakes and rivers is low and they are difficult to access.

Agriculture. Agricultural production on the territory of the wetland is almost undeveloped. Mowing and ploughing are implemented only on 101.1 ha the territory.

Forestry. The basis of the wetland is forests of the state forest fund of the state forestry institution (SFI) "Belynichi forestry" and SFI "Klichev forestry". The total timber store is about 3120 thousand m³, but although the area has a high proportion of maturing, mature and overmature forests, wood quality is mainly low. Forest fund is represented by forest (72.7%) and non-forest (27.3%) lands. 21943.3 ha (97.9%) of forest land is covered by forest. Cultivated forests occupy 430.5 ha (1.4%). Uncovered by forest land have insignificant share (0.6%) and represented by 191.3 ha of cleared space. The largest area of non-forest lands is occupied by bogs (4851.8 ha), the rest of the area is represented by roads and glades (350.1 ha), agricultural lands (101.1 ha) and waters (15.6 ha). Forests of the wetlands are referred to the forests of the I group, which emphasize the high ecological value of the investigated territory.

Hunting management. Hunting within the wetland is managed by Belynichi and Klichev hunting management.

Water management. Waters flowing through the territory of the wetland are not used in water-supply and water consumption.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

a) within the Ramsar site:

The Octiabr, Osovets, Kirov and Druchany forest areas of the state forestry institution "Belynichi Forestry"; Kolobchany, Dolgovo, Usakino forest areas of the SFI "Klichev Forestry".

b) in the surrounding area:

State lands are leased by agricultural enterprises, forestes.

25. Current land (including water) use:

a) within the Ramsar site: The wetland is state property (lands of Belynichi and Klichev districts executive committees) and transferred to long-term use by state forestry institution "Belynichi Forestry", "Klichev Forestry".

Main land uses:**forestry**

- logging,
- reforestation
- secondary use (picking berries, mushrooms, officinal and technical plants)

recreation

- hunting

b) in the surroundings/catchment:

Major land uses:**forestry**

- logging,
- reforestation
- secondary use forest (picking berries, mushrooms, officinal and technical plants)

agriculture

- perennial grasses growing
 - tilled crops and grain-crops
 - grazing
-

26. 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:

Logging. The negative factor is local. Forests destined for cutting are located on the periphery or on the mineral islands of the wetland.

Poaching. Leads to a decrease in the number of economically valuable plant and animal species.

Pollution and eutrophication. Polluting and eutrophying substances come to the wetland by scattered flows of different types (soil, groundwater, plane washout, etc.) in the northern and southern parts of the wetland (highway Minsk-Mogilev and railway line run along the northern and southern boundaries of the wetland).

Radioactive contamination. The territory of the wetland is partially contaminated by Caesium -137, contamination density is 1 - 15 Cu/km². Radioactive contamination in the form of increased background radiation is present in the wetland as a result of the transfer of radioactive elements after the accident at the Chernobyl nuclear power plant in 1986.

b) in the surrounding area:

All negative factors listed for the wetland also occur on the adjacent territory.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

- By the decision of the Council of Ministers of the Republic of Belarus (№ 947, 17.06.1998) the hydrological reserve of republican importance "Duleby Islands" was established on the territory of wetland.
- By the decision of the Council of Ministers of the Republic of Belarus (№ 1833, 27.12.2007) the hydrological reserve of republican importance "Zaozerye" was established on the territory of wetland.
- The wetland has the status of Important Bird Area

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

Management plans for the hydrological reserves of republican importance "Duleby Islands" and "Zaozerye" are officially approved and implemented.

d) Describe any other current management practices:

There are not currently any management practices.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The national programme of tourism development in Belarus, the territory listed the wetland as perspective tourist zone. The programme for ecotourism development on the wetland is elaborating.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Case studies of landscape and biological diversity in the reserve were carried out to prepare the scientific justification for the specially protected territories establishment. Flora and fauna of the wetland were studied in details, the systematic list of major groups of vertebrates was also prepared; rare and endangered species were identified, and the current condition of the wetland was assessed in 1996 (site "Duleby Islands") and 2002 (site "Zaozerye"). These works were carried out by various specialists of the Belarusian State University, Scientific and Practical Center for Bioresources of the National Academy of Sciences, and of the Institute of Experimental Botany of the National Academy of Sciences.

In the framework of international project "Belarus Wetlands" the system of complex monitoring of the wetland ecosystems condition and dynamics was created in 2008 (Institute of Experimental Botany of the National Academy of Sciences). A system of stationary observation points (11 in total) for vegetation and hydrology monitoring was placed here.

The large-scaled map of vegetation of the wetland will be created by scientists of the Institute of Experimental Botany of the National Academy of Sciences.

Forestry management, grading of hunting areas, counts of hunting and rare species are periodically carried out on this territory. The obtained data have the great scientific importance (Scientific and Practical Center for Bioresources of the National Academy of Sciences, RUE "Belgosohota", RUE "Belgosles").

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

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There are no observational points and ecological trails on the wetland. Special environmental, scientific and popular publications, describing the flora, fauna, sights and uniqueness of the wetland, were not published.

31. Current recreation and tourism:

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

Recreational potential of the wetland is relatively low, and main forms of recreational pressure are hunting, picking mushrooms and berries by local population. However, these activities are seasonal, and do not have a significant impact on the functioning of natural systems. The area is perspective for tourism, which is still rare and unsystematic.

32. Jurisdiction:

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

- Ministry of Forestry (Myasnikovicha st., 39, Minsk, 220048, Belarus).
- Ministry of Natural Resources and Environment (Kolektornaya st., 10, Minsk, 220048, Belarus).

33. 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.

The wetland is located within the lands of:

1. State Forestry Institution "Belynichi Forestry"

- Belynichi Forestry

Address: 213160, Mogilev region, Bialynichy, Sovietskaya st., 48

Phone/fax: +375 (2232) 54256

e-mail: belinles@tut.by

Director: Sergei Kuznetsov, tel.: +375 (2232) 51405

Head forester: Vladimir Ganz

Head engineer: Alexander Dydyshko

The operational management of wetland:

- Druchany forest area

Address: 212782, Mogilev district, Gorodische

Tel: +375 (2222) 14205

e-mail: belinles2@tut.by

Forester: Evgeny Lavnik

- Kirov forest area

Address: 213175, Belynichi district, Zapolie

Tel: +375 (2232) 36732

e-mail: belinles3@tut.by

Forester: Alexander Bedny

- Osovets forest area

Address: 213179, B. Moschanitsa

Tel: +375 (2232) 37171

e-mail: belinles5@tut.by

Forester: Vitaliy Hodos

- Oktyabrskoye forest area

Address: 213051, Zabolotie

Tel: +375 (2232) 50237

e-mail: belinles6@tut.by

Forester: Arkady Kavtunov

2. State Forestry Institution "Klichev Forestry"

- [Klichev Forestry](#)

Address: 213900, Klichev, Leninskaya st., 45

Phone / fax: +375 (2236) 50404

e-mail: klichevforest@mail.ru

Director: Vladimir Kosenkov tel.: +375 (2236) 21554

Head forester: Oleg Selikh

Head engineer: Gennady Matyushonok

The operational management of wetlands is administered by:

- [Kolobcha forest area](#)

Address: 213 908, Klichev district, Kolbcha, Terebolskaya st., 5

Tel: +375 (2236) 28435

e-mail: klichevleshoz-1@tut.by

Forester: Tolochko Petr

- [Usakino forest area](#)

Address: 213919, Klichev district, Usakino, Shkolnaya st., 1

Tel: +375 (2236) 30435

e-mail: klichevleshoz-3@tut.by

- [Dolgoe forest area](#)

Address: 213902, Klichev district, Dolgoe, Solnechnaya st., 5

Tel: +375 (2236) 26683

e-mail: klichevleshoz-4@tut.by

Forester: Alexander Lazakovich

State control of the protection and rational use of the wetland is carried out by the Belynichi and Klichev Regional Inspectorates of Natural Resources and Environment.

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

1. The Red Book of Belarus: Rare and endangered species of wild plants / Ch. Editorial Board.: L.I. Khoruzhik (preds.), L.M. Sushchenya, V.I. Parfenov and others - 2nd ed. - Minsk: BelEn, 2006. - 456.
2. Treasures of Belarusian Nature: Areas of international importance for biodiversity conservation / A.V. Kozulin [and others]. - 2nd ed. - Mn.: Belarus, 2005. - 215.
3. "Assessment of the current status and conservation of natural systems of national reserves "Glubokoe-Cherbomyslo", "Bolshoe Ostrovito", "Zaozerye", "Krivoe", "Richie", "Sosno" and "Svityazyansky" created in 1968-1979, and develop coordinated proposals on their detention regime "// Report on the research work - Minsk, 2002, 34 p.

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org

ANNEX 1

THE MOST IMPORTANT HABITATS

Natura 2000 code	EUNIS habitat type name
71. Raised bogs	
7110 Active raised bogs	D1.1 Raised bogs D1.11 Active, relatively undamaged raised bogs G5.6 Early-stage natural and semi-natural woodlands and regrowth G5.64 Raised bog pre-woods
—«—	
7120. Degraded raised bogs still capable of natural regeneration	
7140 Transition mires and quaking bogs	D2.3 Transition mires and quaking bogs D2.31 [<i>Carex lasiocarpa</i>] swards D2.33 [<i>Carex rostrata</i>] quaking mires D2.34 [<i>Carex limosa</i>] swards D2.35 [<i>Carex chordorrhiza</i>] swards D2.37 [<i>Rhynchospora alba</i>] quaking bogs D2.38 [<i>Sphagnum</i>] and [<i>Eriophorum</i>] rafts D2.39 [<i>Menyanthes trifoliata</i>] and [<i>Potentilla palustris</i>] rafts D2.3A [<i>Calla palustris</i>] mires D2.3B Brown moss carpets D2.3C [<i>Eriophorum vaginatum</i>] quaking bogs D2.3D [<i>Molinia caerulea</i>] quaking bogs
72. Calcareous fens	
7230 Alkaline fens	D4.1C [<i>Carex rostrata</i>] alkaline fens
90 Europe boreal forest	
9080 Fennoscandian deciduous swamp woods	G1.51 <i>Sphagnum</i> [<i>Betula</i>] woods G1.52 [<i>Alnus</i>] swamp woods on acid peat
91 Europe continental forest	
91D0 Bog woodland	G1.51 <i>Sphagnum</i> [<i>Betula</i>] woods G3.D1 Boreal [<i>Pinus sylvestris</i>] bog woods G3.D2 Boreal sphagnum [<i>Pinus sylvestris</i>] fen woods
—«—	
—«—	

FLORA

On the territory of the wetland 12 rare and endangered plant species are identified, listed in the last (2005) edition of the national Red Data Book of Belarus:

Hyperzia selago (L.) Bernh. ex Schrank et Mart.,
Dentaria bulbifera L.,
Salix myrtilloides L.,
Iris sibirica L.,
Oxycoccus microcarpus Turcz. ex Rupr.,
Lycopodiella inundata (L.) Holub.,
Lilium martagon L.,
Allium ursinum L.,
Dactylorhiza majalis (Reichenb.) P.F.Hunt et Summerhayes,
Cephalanthera rubra (L.) Rich.,
Listera ovata (L.) R.Br.,
Gladiolus imbricatus L.

List of rare plant species that need a preventive protection and conservation:

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Gentiana pneumonanthe L.,
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Epipactis helleborine (L.) Crantz,
Dentaria bulbifera L.,
Campanula persicifolia L.,
Polygonatum multiflorum (L.) All.,
Convallaria majalis L.,
Vincetoxicum hirsutinaria Medik.,
Platanthera bifolia (L.) Rich.,
Digitalis grandiflora Mill.,
Dactylorhiza incarnata (L.) Soo,
Dactylorhiza maculata (L.) Soo,
Dactylorhiza fuchsii (Druce) Soo,
Hepatica nobilis Mill.,
Pulsatilla patensis (L.) Mill.,
Pulsatilla latifolia Rupr.,
Polemonium caeruleum L.,
Mattenuccia struthiopteris (L.) Tod.,
Corydalis cava (L.) Schweigg. et Koerte DC.,
Phegopteris connectilis (Michx.) Watt etc.

FAUNA

In total 39 animal species listed in the Red Data Book of Belarus (2005) were found within the investigated area:

Mammals	<i>Meles meles</i>
	<i>Ursus arctos</i>
	<i>Felis linx</i> (NT - under the IUCN Red List)
	<i>Muscardinus avellanarius</i> (LR/NT - under the IUCN Red List)
Birds	<i>Ciconia nigra</i>
	<i>Bucephala clang</i>
	<i>Circus gallicus</i>
	<i>Falco columbarius</i>
	<i>Falco subbuteo</i>
	<i>Falco vespertinus</i> (NT - under the IUCN Red List)
	<i>Lagopus lagopus</i>
	<i>Grus grus</i>
	<i>Pluvialis apricaria</i>
	<i>Numenius phaeopus</i>
	<i>Numenius arquata</i>
	<i>Tringa nebularia</i>
	<i>Aegolius funereus</i>
	<i>Lanius excubitor</i>
	<i>Aquila pomarina</i>
	<i>Asio flammeus</i>
	<i>Athene noctua</i>
	<i>Bubo bubo</i>
	<i>Picoides tridactylus</i>
	<i>Alcedo atthis</i>
Reptile	<i>Coronella austriaca</i>
Amphibia	<i>Bufo calamita</i>
Insects	Coleoptera
	<i>Carabus cancellatus,</i>
	<i>Carabus coriaceus,</i>
	<i>Carabus menetriesi</i>
	<i>Carabus violaceus</i>
	Lepidoptera
	<i>Apatura iris</i>
	<i>Papilio machaon</i>
	<i>Callimorpha dominula</i>
	<i>Polyommatus optilete</i>
	<i>Oeneis jutta</i>
	<i>Colias palaeno</i>
	Odonata
	<i>Calopteryx splendens</i>
	Hemiptera
	<i>Bombus muscorum</i>
	<i>Bombus sbrankii</i>