

# **Ramsar Information Sheet**

Published on 8 November 2016 Update version, previously published on 29 July 2004

# Ukraine **Perebrody Peatlands**



Designation date Site number

29 July 2004 1402 Coordinates 51°42'5"N 27°7'33"E Area 12 718,00 ha

https://rsis.ramsar.org/ris/1402 Created by RSIS V.1.6 on - 8 November 2016

# Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

# 1 - Summary

# Summary

The Site Perebrody Peatlands is important for the conservation of typical boreal wetland types with different vegetation cover, including the largest non drained mire in Ukraine preserved in a natural state. In the northern part of the Site, an open-water eutrophic and meso-eutrophic peatland is situated with sedge-reed communities. Mesotrophic communities with sedge-peat moss predomine on the periphery of the site. The Perebrody Peatlands show a transition of vegetation development. At low altitudes, there are forest communities and coppices. The Site provides habitat for over 630 native plant species and 430 animal species, including 92 protected species (at different levels). Four globally threatened bird and one mammal species are breeding on the Site - Aquila clanga, Haliaeetus albicilla, Coracias garrulus, Acrocephalus paludicola and Mustela lutreola. The Perebrody Peatlands are adjacent to the Olmany Mires Zakaznik (Ramsar Site No. 1091) on Belarus territory and form together the biggest mire in Europe. The Site is a part of Rivnenskyi Nature Reserve and one of the most preserved peatlands in the Ukrainian Polissya Region.

# 2 - Data & location

- 2.1 Formal data
- 2.1.1 Name and address of the compiler of this RIS

# Compiler 1

| Name               | Rostyslav Zhuravchak  |
|--------------------|---|
| Institution/agency | Rivnenskyi Nature Reserve, State Forest Resources Agency of Ukraine         |
| Postal address     | Rozvylka site, village Chudel, Sarny district, Rivne region, 34542, Ukraine |
| E-mail             | rivnepz@ukr.net   |
| Phone              | +380365534763   |
| Fax                | +380365534763   |

2.1.2 - Period of collection of data and information used to compile the RIS

| From year | 2000 |  |
|-----------|------|--|
| To year   | 2015 |  |

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish) Perebrody Peatlands

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

 $^{(Update)}$ A Changes to Site boundary Yes  $oldsymbol{ imes}$  No  $oldsymbol{ imes}$ 

 $^{\rm (Update)}$  The boundary has been delineated more accurately  $\swarrow$ 

<sup>(Update)</sup> B. Changes to Site area No change to area

# 2.1.5 - Changes to the ecological character of the Site

<sup>(Update)</sup> 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?

# 2.2 - Site location

# 2.2.1 - Defining the Site boundaries

## b) Digital map/image

<1 file(s) uploaded>

# Boundaries description (optional)

Boundaries of the Ramsar Site lines correspond to the entire territory of Rivnensky Nature Reserve (Pivnichne Forestry and a part of Starosilske Forestry). The boundaries of the Site have been delineated more accurately. The network of ponds in the centre of the Site have been excluded from the boundaries because they were not part of the Site. According to the decision for the creation of the Perebrody Peatlands Ramsar Site, the Site's territory is 12718ha and corresponds to the entire territory of Rivnensky Nature Reserve (Pivnichne Forestry and a part of Starosilske Forestry) however the old map did not correspond to the agreed area of the wetland. The boundaries of the Ramsar Site have now been adjusted to correspond to the boundaries of the Nature Reserve. The northern and eastern boundary passes along the state boundary of Ukraine and Belorussia and lies next to the Ramsar Site Olmany Mires Zakaznyk (No. 3BY003)."

#### 2.2.2 - General location

a) In which large administrative region does the site lie? Rivne Region b) What is the nearest town or population centre? Dubrovytsya and Rokytne Districts

# 2.2.3 - For wetlands on national boundaries only

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

idem No O

| d) Transboundary Ramsar Site name: | Olmany – Perebrody mires |
|------------------------------------|--------------------------|
|                                    |                          |

# 2.2.4 - Area of the Site

| Official area, in hectares (ha):                         | 12718    |
|--|----------|
| Area, in hectares (ha) as calculated from GIS boundaries | 12938.33 |

# 2.2.5 - Biogeography

| Biogeographic regions                |                      |  |  |  |  |  |  |  |  |  |
|--------------------------------------|----------------------|--|--|--|--|--|--|--|--|--|
| Regionalisation scheme(s)            | Biogeographic region |  |  |  |  |  |  |  |  |  |
| Other scheme (provide<br>name below) |                      |  |  |  |  |  |  |  |  |  |
| EU biogeographic regionalization     | Continental          |  |  |  |  |  |  |  |  |  |

#### Other biogeographic regionalisation scheme

According to geo-botanical zoning of Ukraine, the site is located in the Poliska sub-province (Volynske Polissya), East European province, European broadleaf forest region. Y.P. Didukh, V.M. Minarchenko, V.V. Protopopova, V.S. Tkachenko, Y.R. Shelyag- Sosonko. Geobotanical regionalization. // National Atlas of Ukraine. – Kyiv: SSPE "Cartography", 2007. – P. 197 (in Ukrainian).

Kolky-Sarny physical and geographic region of Volyn Polissia district, Polissian area of mixed (coniferous and deciduous) forests of the Eastern European Plain. National Scheme of biogeographic regionalisation. National Atlas of Ukraine. – Kyiv: State scientific production enterprise 'Kartographia', 2007. – 440 p.

# 3 - Why is the Site important?

# 3.1 - Ramsar Criteria and their justification

# ☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

| Hydrological services provided    | This site is important for flood control, retention of water and water purification.  |
|-----------------------------------|---|
| Other ecosystem services provided | Site supports typical and rare species of the boreal biogeographic region, maintains the regional climate, accumulates carbon and fixed radioactive elements after Chernobyl catastrophe.   |
| Other reasons                     | The Perebrody Peatlands is a unique type of wetland for Ukraine and for Europe in general – it's a big area with transition course of development, which formed on the glacier melt-water accumulation area. Accumulation of the turf layer, depletion of feed are progressing from the periphery to the center; transitional communities of sedge-sphagnum mires prevail at the periphery, and in the central over-damped part of the swamp there are fens with domination of Phragmites australis and Carex lasiocarpa. Due to its hardly accessible location, the wetland has not been drained and has been preserved in a natural state. The Perebrody Peatlands is situated next to the Olmany Mires Zakaznik (The Ramsar Site No. 1091) in Belarus and they form together the biggest bogland in Europe." |

# ☑ Criterion 2 : Rare species and threatened ecological communities

# Criterion 3 : Biological diversity

|               | The site is very important for conservation of the typical Polissya (forest-type) vegetation, flora and fauna, |
|---------------|--|
|               | which are much more characteristic for the northern part of Polissya in the territory of Belarus. The site's   |
|               | wetlands provides habitat for over 630 native plant species (vascular plants is almost completely studied      |
| Justification | - they make up 524 species, besides other groups poorly studied - only 4, 68 and 30 species of lichens,        |
|               | mosses and fungi accordingly are known for the site territory) and 430 animal species (14 species of           |
|               | fishes, 7 amphibians, 6 reptiles, 167 birds and 29 mammals which are almost completely studied, 162            |
|               | species of insects and 46 of other invertebrates which only started to study).                                 |

# ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

3.2 - Plant species whose presence relates to the international importance of the site

| Scientific name                    | Common name  | Criterion 2 | Criterion 3 | Criterion 4 | IUCN<br>Red<br>List | CITES Appendix I | Other status                                | Justification |
|------------------------------------|--------------|-------------|-------------|-------------|---------------------|------------------|---|---------------|
| Astragalus arenarius               |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Carex chordorrhiza                 |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Dactylorhiza incarnata             |              | Z           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Diphasiastrum<br>complanatum       |              |             | V           |             |                     |                  | listed in the Red Data Book of Ukraine - NT |               |
| Diphasiastrum zeilleri             |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - EN |               |
| Drosera intermedia                 |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine      |               |
| Epipactis palustris                |              | Z           | V           |             | LC                  |                  | listed in the Red Data Book of Ukraine - VU |               |
| Goodyera repens                    |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Juncus bulbosus                    | bulbous rush | Z           | V           |             | LC                  |                  | listed in the Red Data Book of Ukraine - VU |               |
| Lycopodiella inundata              |              | V           | V           |             | LC                  |                  | listed in the Red Data Book of Ukraine - VU |               |
| Lycopodium annotinum               |              | Z           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Pedicularis sceptrum-<br>carolinum |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Salix Tapponum                     |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Salix myrtilloides                 |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Scheuchzeria palustris             |              | V           | V           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Utricularia intermedia             |              | ×           | ×           |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |
| Utricularia minor                  |              | V           | <b>X</b>    |             |                     |                  | listed in the Red Data Book of Ukraine - VU |               |

Wetlands are important for conservation the plant species that are close to their Southern areal range: Carex chordorrhiza, Carex limosa, Drosera intermedia, Juncus bulbosus, Rhynchospora alba, Salix lapponum, Salix myrtilloides, Scheuchzeria palustris, Utricularia minor, Silene lithuanica, and close to the eastern distribution range (Teesdalia nudicaulis).

# 3.3 - Animal species whose presence relates to the international importance of the site

| Phylum            | Scientific name            | Common name              | q<br>c<br>2 | pecies<br>ualifies<br>under<br>riterion<br>4 6 | 9 3 | Spe<br>contri<br>uno<br>crite | cies<br>ibutes<br>der<br>erion<br>7 8 | Pop.<br>Size | Period of pop. Est. | %<br>occurrence | IUCN<br>Red<br>List | CITES<br>Appendix<br>I | CMS<br>Appendix<br>I | Other Status  | Justification |
|-------------------|----------------------------|--------------------------|-------------|--|-----|-------------------------------|---------------------------------------|--------------|---------------------|-----------------|---------------------|------------------------|----------------------|---|---------------|
| CHORDATA/<br>AVES | Acrocephalus<br>paludicola | Aquatic Warbler          | Ø           | 20   |     | 90                            |                                       | ] 10         |                     |                 | VU<br>Str           |                        | ×                    | listed in the Red Data Book of Ukraine - VU                   | breeding      |
| CHORDATA/<br>AVES | Aquila clanga              | Greater Spotted<br>Eagle | Ø           | ZO   | J   | 0                             |                                       | 8            | 2012-2015           |                 |                     |                        | V                    | listed in the Red Data Book of Ukraine - VU, IUCN Europe - EN | breeding      |

| Phylum                      | Scientific name              | Common name  | S<br>qu<br>cu<br>2 | pecies<br>ualifies<br>under<br>riterion<br>4 6 9 | Sp<br>cont<br>u<br>cri | ecies<br>tributes<br>nder<br>terion | Pop.<br>Size | Period of pop. Est | %<br>occurrence | IUCN<br>Red<br>List  | CITES<br>Appendix<br>I | CMS<br>Appendix<br>I | Other Status                                | Justification |
|-----------------------------|------------------------------|--|--------------------|--|------------------------|-------------------------------------|--------------|--------------------|-----------------|--|------------------------|----------------------|---|---------------|
| CHORDATA/<br>MAMMALIA       | Barbastella<br>barbastellus  | western<br>barbastelle;Wester<br>Barbastelle                   | r 🗹 (              |  | D                      |                                     |              |                    |                 | NT<br>Straight Straight |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>ACTINOPTERYGII | Carassius<br>carassius       |  | Ø                  |  | D                      |                                     |              |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Ciconia nigra                | Black Stork  |                    |  | D                      |                                     | 12           |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - NT | breeding      |
| CHORDATA/<br>AVES           | Circaetus gallicus           | Short-toed Snake<br>Eagle                                      |                    |  | D                      |                                     | 6            |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - NT |               |
| CHORDATA/<br>AVES           | Circus pygargus              | Montagu's Harrier  | Ø                  |  | D                      |                                     |              |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| ARTHROPODA/<br>INSECTA      | Colias palaeno               | Moorland Clouded<br>Yellow;Palaeno<br>Sulphur;Arctic<br>Sulfur | Ø                  |  | D                      |                                     |              |                    |                 |  |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>AVES           | Columba oenas                | Stock Dove   | Ø                  |  | D                      |                                     |              |                    |                 | LC<br>Strainer   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Coracias garrulus            | European Roller  | Ø                  | ZOC  | D                      |                                     | 6            | 2014-2015          |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - EN | breeding      |
| CHORDATA/<br>REPTILIA       | Coronella<br>austriaca       |  | Ø                  |  | D                      |                                     |              |                    |                 |  |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Gallinago media<br>🌄 💁 🔊     | Great Snipe  |                    |  | D                      |                                     |              |                    |                 |  |                        |                      | listed in the Red Data Book of Ukraine - NT |               |
| CHORDATA/<br>AVES           | Glaucidium<br>passerinum     | Eurasian Pygmy<br>Owl  | Ø                  |  | D                      |                                     | 10           | 2015               |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Grus grus                    | Common Crane   |                    |  | D                      |                                     | 80           | 2013-2015          |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - NT |               |
| CHORDATA/<br>AVES           | Haliaeetus<br>albicilla      | White-tailed Eagle   | Ø                  | 200  | D                      |                                     | 4            | 2012-2015          |                 | LC<br>Str  | V                      | V                    | listed in the Red Data Book of Ukraine - NT | breeding      |
| CHORDATA/<br>MAMMALIA       | Lutra lutra                  | European Otter   | Ø                  |  | D                      |                                     |              |                    |                 | NT   | V                      |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Lyrurus tetrix               |  | Ø                  |  | D                      |                                     | 120          | 2015               |                 | LC<br>Stress   |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>MAMMALIA       | Mustela lutreola             | European Mink  | Ø                  |  | D                      |                                     |              |                    |                 | CR   |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>AVES           | Numenius arquata<br>🎇 🔍 💫    | Eurasian Curlew  |                    |  | D                      |                                     |              |                    |                 |  |                        |                      | listed in the Red Data Book of Ukraine - NT |               |
| CHORDATA/<br>MAMMALIA       | Nyctalus noctula             | noctule;Noctule  | Ø                  |  | D                      |                                     |              |                    |                 | LC<br>String   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| ARTHROPODA/<br>INSECTA      | Papilio machaon              | Common Yellow<br>Swallowtail                                   | Ø                  |  | D                      |                                     |              |                    |                 |  |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Picoides<br>tridactylus      | Eurasian Three-<br>toed<br>Woodpecker;Three<br>toed Woodpecker | , <b>Z</b> (       |  |                        |                                     |              |                    |                 | LC<br>●\$  |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>AVES           | Picus viridis                | European Green<br>Woodpecker                                   | Ø                  |  | D                      |                                     |              |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>MAMMALIA       | Pipistrellus<br>pipistrellus | Common<br>Pipistrelle;common<br>pipistrelle                    | 2                  |  | D                      |                                     |              |                    |                 | LC   |                        |                      | listed in the Red Data Book of Ukraine - VU |               |

| Phylum                     | Scientific name            | Common name                                     | Species<br>qualifies<br>under<br>criterion<br>2 4 6 9 | Species<br>contributes<br>under<br>criterion<br>3 5 7 8 | Pop.<br>Size Period of pop. E | st. %<br>occurrence | IUCN<br>Red<br>List | CITES<br>Appendix<br>I | CMS<br>Appendix<br>I | Other Status                                | Justification |
|----------------------------|----------------------------|---|---|---|-------------------------------|---------------------|---------------------|------------------------|----------------------|---|---------------|
| CHORDATA/<br>MAMMALIA      | Plecotus auritus           | brown big-eared<br>bat;Brown Long-<br>eared Bat | ØOOC  |   | ו                             |                     | LC                  |                        |                      | listed in the Red Data Book of Ukraine - VU |               |
| CHORDATA/<br>ACTINOPTERYGI | Rhynchocypris<br>percnurus |   | Ø000  |   | ו                             |                     |                     |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>AVES          | Tetrao urogallus           | Western<br>Capercaillie                         | Rooc  | Rooc  | ] 12 2000-2008                |                     | LC<br>Str           |                        |                      | listed in the Red Data Book of Ukraine - EN |               |
| CHORDATA/<br>AVES          | Tetrastes bonasia          | Hazel Grouse                                    | Rooc  | Rooc  | ]                             |                     |                     |                        |                      | listed in the Red Data Book of Ukraine - VU |               |

The site territory is important for threatened in global scale Aquila clanga – species has stable 2-4 pairs breeding population on small forests islands among bog massif. All pairs are looks like "genetically pure" – interspecific hybridization with Aquila pomarina named one of the main threat for A.clanga. Peatlands vegetation provide good conditions for Rallidae habitat – one of the main pray of A. clanga. Detected increasing of Strix nebulosa, Glaucidium passerinum, Grus grus, local populations during last years (2012-2015). Quantity of local breeding groups of Acrocephalus paludicola and Coracias garrulus are stable low.

# 3.4 - Ecological communities whose presence relates to the international importance of the site

| Name of ecological community               | Community qualifies under<br>Criterion 2? | Description   | Justification  |
|--|---|---|--|
| Sedge-scheuchzeria-sphagnum<br>communities | Ø   | Floating carpets and quaking mires in<br>mesotrophic conditions formed by Carex<br>limosa, Rhynchospora alba and<br>Scheuchzeria palustris, associated with<br>sphagnum or brown mosses. Plant<br>communities belong to the alliance<br>Rhynchosporion albae Koch 1926. | listed in the Green Data Book of Ukraine,<br>2009; Natura 2000: 7150 Depressions on<br>peat substrates of the Rhynchosporion;<br>Characteristic species (Scheuchzeria<br>palustris) is under legal protection (Red Data<br>Book of Ukraine, 2009).                     |
| Sedge-sphagnum communities                 | Ø   | Transition mires formed by medium-sized or<br>small sedges, associated with sphagnum<br>mosses. Plant communities belong to the<br>alliance Caricion lasiocarpae Vanden<br>Berghen in Lebrun et al. 1949.   | Natura 2000: 7140 Transition mires and quaking bogs.   |
| Sarganieta minimi community                | Ø   | Shallow pools on peat with brown water rich<br>in humic acids. Plant communities belong to<br>the association Sparganietum minimi Schaaf<br>1925.   | listed in the Green Data Book of Ukraine,<br>2009; Natura 2000: 3160 Natural dystrophic<br>lakes and ponds; Characteristic species<br>(Sparganium minimun, Juncus bulbosus,<br>Utricularia intermedia) are under legal<br>protection (Red Data Book of Ukraine, 2009). |
| Nymphaeeta candidate community             | V   | Permanent ponds on peat with brown water<br>rich in humic acids. Plant communities<br>belong to the association Nymphaeetum<br>candidae Miljan 1958.  | listed in the Green Data Book of Ukraine,<br>2009; Natura 2000: 3160 Natural dystrophic<br>lakes and ponds   |
| Utricularieta minoris community            | Ø   | Acidic pools and hollows on peat. Plant<br>communities belong to the association<br>Sphagno-Utricularietum minoris (Fijałkowski<br>1960) Pietsch 1975.  | listed in the Green Data Book of Ukraine,<br>2009; Natura 2000: 3160 Natural dystrophic<br>lakes and ponds; Characteristic species<br>(Utricularia minor) is under legal protection<br>(Red Data Book of Ukraine, 2009).   |

# 4 - What is the Site like? (Ecological character description)

## 4.1 - Ecological character

The basis of the Site occupy not drained and well preserved in a nature state peatland-mire with 1.4 m average depth of peat lying (max. 4 m). The precipitations in the form of snow and rain are the main water source. During flood and high-water period big areas are covered by water.

The mires and small forested islands within the Site are critically important for 4 globally threatened species of birds, provides several ecosystem services (maintenance of hydrological regimes, climate regulation, water purification, nutrient cycling, gathering of the cranberries and so on).

The eutrophic and mesotrophic bog communities of Carex elata and Phragmites australis are predominant in the watered central part of the Site. The mesotrophic sphagnum areas with Rhynchospora alba, Scheuchzeria palustris and Carex limosa can be found there. The less-watered part of bog has got a sheeted sphagnum cover (Sphagnum fallax, S.palustre, S.obtusum). Carex lasiocarpa is dominant here, and there are some areas where Eriophorum vaginatum and Oxycoccus palustris are predominant.

The pine forests, covered with green moss and lichen, form on upper sand ridges and islands; open psammophyt communities with prevalence of Corynephorus canescens i Festuca polesica can be found. In south-western and southern parts of the Site there are an areas of waterlogging Black Poplar forests, where hydromesophyts (Scirpus sylvaticus, Phragmites australis) prevalent in the grass-tier.

Other important plant communities are Carex-Phragmites communities; bog with Scheuchzeria palustris, Eriophorum vaginatum, Carex spp. and Sphagnum spp.; oligo-mesotrophic cottongrass-sphagnum coenoses Eriophorum-Sphagnum with suppressed Pinus silvestris; swamped alder forests (Alnus glutinosa), swamped birch forests; swamped pine-sphagnum forests with Ledum palustre and Vaccinum uliginosum; pine forests with bilberry Vaccinium myrtillus, with lichens, with Calluna vulgaris, with cowberry Vaccinium vitis-idaea, with bracken fern Pteridium aquilinum; oak forests formed by Quercus robur.

On the contiguous territory aquaculture ponds are situated, which has medium impact on local water regime an biodiversity.

## 4.2 - What wetland type(s) are in the site?

## Inland wetlands

| Wetland types (code and name)  | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha)<br>of wetland type | Justification of Criterion 1 |
|--|------------|--|------------------------------|------------------------------|
| Fresh water > Flowing<br>water >> M Permanent<br>rivers/<br>streams/<br>creeks               | Rybnycya   | 4  | 10                           |                              |
| Fresh water > Marshes on<br>peat soils<br>>> U: Permanent Non-<br>forested peatlands         |            | 1  | 6800                         | Representative               |
| Fresh water > Marshes on<br>inorganic<br>soils >> W: Shrub-<br>dominated wetlands            |            | 3  | 2100                         | Representative               |
| Fresh water > Marshes on<br>inorganic<br>soils >> Xf: Freshwater,<br>tree-dominated wetlands |            | 3  | 2100                         | Rare                         |
| Fresh water > Marshes on<br>peat soils<br>>> Xp: Permanent Forested<br>peatlands             |            | 4  | 50                           | Representative               |

#### Human-made wetlands

| Wetland types (code and name) | Local name  | Ranking of extent (1: greatest - 4: least) | Area (ha)<br>of wetland type | Justification of Criterion 1 |
|-------------------------------|-------------|--|------------------------------|------------------------------|
| 1: Aquaculture ponds          | Venera pond | 4  | 130                          | Rare                         |

#### 4.3 - Biological components

#### 4.3.1 - Plant species

| Scientific name                          | Common name | Impacts                  | Changes at RIS update |
|--|-------------|--------------------------|-----------------------|
| Capsella bursa-pastoris                  |             | Actually (minor impacts) | No change             |
| Erechtites hieraciifolius<br>cacalioides |             | Actually (minor impacts) | increase              |
| Erigeron canadensis                      |             | Actually (minor impacts) | No change             |
| Galinsoga parviflora                     |             | Actually (minor impacts) | No change             |
| Impatiens parviflora                     |             | Actually (minor impacts) | No change             |
| Pinus banksiana                          | Black pine  | Actually (minor impacts) | No change             |
| Quercus rubra                            |             | Actually (minor impacts) | increase              |

# 4.3.2 - Animal species

Other noteworthy animal species

| Phylum            | Scientific name      | Common name                      | Pop. size | Period of pop. est. | %occurrence | Position in range<br>/endemism/other |
|-------------------|----------------------|----------------------------------|-----------|---------------------|-------------|--------------------------------------|
| CHORDATAAVES      | Anser anser          | Greylag Goose                    |           |                     |             |                                      |
| CHORDATA/AVES     | Crex crex            | Corn Crake                       |           |                     |             |                                      |
| CHORDATAREPTILIA  | Emys orbicularis     |                                  |           |                     |             |                                      |
| CHORDATA/AMPHIBIA | Lissotriton vulgaris |                                  |           |                     |             |                                      |
| ARTHROPODAINSECTA | Orthetrum albistylum |                                  |           |                     |             |                                      |
| CHORDATA/AVES     | Picus canus          | Grey-headed Woodpecker           |           |                     |             |                                      |
| CHORDATA/AVES     | Strix nebulosa       | Great Gray Owl;Great Grey<br>Owl |           |                     |             |                                      |
| CHORDATA/AVES     | Tringa glareola      | Wood Sandpiper                   |           |                     |             |                                      |

#### Invasive alien animal species

| Phylum                 | Scientific name    | Common name   | Impacts                  | Changes at RIS update |
|------------------------|--------------------|---------------|--------------------------|-----------------------|
| CHORDATAMAMMALIA       | Neovison vison     | American Mink | Actually (major impacts) | No change             |
| CHORDATAMAMMALIA       | Ondatra zibethicus |               | Actually (minor impacts) | No change             |
| CHORDATAACTINOPTERYGII | Perccottus glenii  |               | Actually (minor impacts) | unknown               |

# 4.4 - Physical components

#### 4.4.1 - Climate

| Climatic region                                    | Subregion  |
|--|--|
| D: Moist Mid-Latitude<br>climate with cold winters | Dfb: Humid continental<br>(Humid with severe winter,<br>no dry season, warm<br>summer) |

The climate of the site is comparatively humid and warm. An average annual precipitation is 550-600 mm. An average temperature is +6-7°C; temperature of the warmest month (July) is +18.5°C, temperature of the coldest month (January) is -5.5°C. The site is located in the zone of sufficient humidity, the average annual evaporation values from the surface are 525-550 mm.

#### 4.4.2 - Geomorphic setting



Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Perebrody Peatlands are headwaters of the L'va River (172 km long; catchment area is 2,400 km2), which in the territory of Belarus flows into the Stviga River, a tributary of the Prypiat River (length is 761 km; catchment area is 114,000 km2). Basin affiliation: basin of the L'va River, which flows into the Prypiat River in Belarus; the Prypiat River, in its turn, flows into the Kyivske Reservoir in the middle reaches of the Dnipro River.

#### 4.4.3 - Soil

Organic 🗹

### Are soil types subject to change as a result of changing hydrological Yes O No conditions (e.g., increased salinity or acidification)?

#### Please provide further information on the soil (optional)

Excessive moisture of the territory and high water logging with anthropogenic transformation (first of all – draining melioration on surrounding territories) affected on soil cover formation of Perebrody bogland. The hydromorphic types of soil are dominating, particularly bog soils, peatbog soils, meadow-bog soil and their variations. Average depth of peat lying is 1.4 m, max. – 4 m. The sod-podzolic and sandy soils are widelydistributed on upper areas.

#### 4.4.4 - Water regime

| Water permanence  |                       |
|---|-----------------------|
| Presence?   | Changes at RIS update |
| Usually permanent water<br>present                              | decrease              |
| Usually seasonal,<br>ephemeral or intermittent<br>water present | increase              |

#### Source of water that maintains character of the site

| Presence?                          | Predominant water source | Changes at RIS update |
|------------------------------------|--------------------------|-----------------------|
| Water inputs from rainfall         | ×                        | No change             |
| Water inputs from surface<br>water |                          | No change             |

Water destination

#### RIS for Site no. 1402, Perebrody Peatlands, Ukraine

| Presence?                           | Changes at RIS update |
|-------------------------------------|-----------------------|
| Feeds groundwater                   | No change             |
|                                     |                       |
| Stability of water regime           |                       |
| Stability of water regime Presence? | Changes at RIS update |

#### Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The subterranean waters mostly are lying close to terrestrial surface. Big areas are covered by water during flood and high-water period. The precipitations in the form of snow and rain are the main water source. Level regime of surface waters is changeable. Inadequate drainage of the territory courses the season subterranean water level elevation. The site includes several small lakes. During extensive floods, which happen once in 10 years, the site territory is almost completely covered by water; the duration of the high water period is increasing due to backwater by the Lva River, the Goryn River and even the Prypiat River. Last 2013-2015 years was very dry so the water level has become lower and period of floods became shorter.

#### 4.4.5 - Sediment regime

<no data available>

#### 4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4 )

#### Please provide further information on pH (optional):

pH-level of water from bog (in November 2015) was 6,3; pH-level from small river Rybnycya (in November 2015) was 6,9.

# 4.4.7 - Water salinity

Fresh (<0.5 g/l) 🗵

Please provide further information on salinity (optional)

Water salinity from bog (in November 2015) was 0.11 g/l; water salinity from small river Rybnycya (in November 2015) was 0,4.

#### 4.4.8 - Dissolved or suspended nutrients in water

Eutrophic 🗹 Mesotrophic 🗹 Oligotrophic 🗹

#### 4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different likelity.

Surrounding area has more intensive agricultural use 🗵

Please describe other ways in which the surrounding area is different:

Only to the West and South from the site territory ecological characteristic are different – there are villages and lands of human use there. To the North and to the East there is broadly similar territory.

## 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

## Provisioning Services

| Ecosystem service         | Examples                                      | Importance/Extent/Significance |
|---------------------------|---|--------------------------------|
| Fresh water               | Drinking water for humans<br>and/or livestock | Medium                         |
| Wetland non-food products | Livestock fodder                              | Low                            |

| Regu | lating | Serv | ices |
|------|--------|------|------|
|      |        |      |      |

| Ecosystem service                   | Examples   | Importance/Extent/Significance |
|-------------------------------------|--|--------------------------------|
| Maintenance of hydrological regimes | Groundwater recharge and discharge                 | High                           |
| Climate regulation                  | Local climate<br>regulation/buffering of<br>change | High                           |
| Hazard reduction                    | Flood control, flood storage                       | Medium                         |

#### Cultural Services

| Ecosystem service          | Examples  | Importance/Extent/Significance |
|----------------------------|---|--------------------------------|
| Scientific and educational | Long-term monitoring site   | High                           |
| Scientific and educational | Major scientific study site   | High                           |
| Scientific and educational | Important knowledge<br>systems, importance for<br>research (scientific<br>reference area or site) | High                           |

#### Supporting Services

# RIS for Site no. 1402, Perebrody Peatlands, Ukraine

| Ecosystem service | Examples  | Importance/Extent/Significance |
|-------------------|---|--------------------------------|
| Biodiversity      | Supports a variety of all life<br>forms including plants,<br>animals and<br>microorganizms, the genes<br>they contain, and the<br>ecosystems of which they<br>form a part | High                           |
| Nutrient cycling  | Carbon<br>storage/sequestration   | High                           |
| Nutrient cycling  | Storage, recycling,<br>processing and acquisition<br>of nutrients   | High                           |

# Other ecosystem service(s) not included above:

Populated areas, including social and cultural entities, are absent within the site. Fishing and forestry are not conducted here.

Within the site: 10s

Outside the site: 10000s

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O Unknown O

# 4.5.2 - Social and cultural values

<no data available>

# 4.6 - Ecological processes

<no data available>

# 5 - How is the Site managed? (Conservation and management)

# 5.1 - Land tenure and responsibilities (Managers)

# 5.1.1 - Land tenure/ownership

| Public ownership   |                        |                         |  |  |  |  |  |
|--|------------------------|-------------------------|--|--|--|--|--|
| Category   | Within the Ramsar Site | In the surrounding area |  |  |  |  |  |
| Provincial/region/state<br>government                    | V                      | V                       |  |  |  |  |  |
| Local authority,<br>municipality, (sub)district,<br>etc. |                        | V                       |  |  |  |  |  |
| Other public ownership                                   |                        | 1                       |  |  |  |  |  |

#### Private ownership

| Category                                      | Within the Ramsar Site | In the surrounding area |
|---|------------------------|-------------------------|
| Other types of<br>private/individual owner(s) |                        | ×.                      |

#### Other

| Category                 | Within the Ramsar Site | In the surrounding area |
|--------------------------|------------------------|-------------------------|
| No information available |                        | ×                       |

### Provide further information on the land tenure / ownership regime (optional):

a) within the Ramsar site: State ownership; lands are transferred to permanent use to the Administration of the Rivnenskyi Nature Reserve. Administration of the Reserve has the Certificate on the right of permanent land use.

b) in the surrounding area: Private agricultural lands (arable lands, hayfields, pastures, gardens) and state forest lands; lands of populated areas (private and municipal) are located nearby. There are also lands of conservation value – lands of Water Fund and site Olmany Mire Zakaznik (No 3BY003) from Belorussia side.

### 5.1.2 - Management authority

| Please list the local office / offices of any agency or organization responsible for    | Rivnenskyi Nature Reserve   |
|---|---|
| managing the site:  |   |
| Provide the name and title of the person or people with responsibility for the wetland: | Director: Vasyl Bachuk; deputy director for scientific work: Rostyslav Zhuravchak |
| Postal address:   | Urochyshche Dubky-Rozvylka, Sarny, Rivnenska Oblast, 34503, Ukraine               |

E-mail address: rivnepz@ukr.net

# 5.2 - Ecological character threats and responses (Management)

# 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

| Water regulation                    |               |                  |                 |         |                         |         |
|-------------------------------------|---------------|------------------|-----------------|---------|-------------------------|---------|
| Factors adversely<br>affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
| Drainage                            |               |                  | ×               |         | ×                       |         |

| Agriculture and aquaculture              |               |                  |                 |           |                         |           |  |
|--|---------------|------------------|-----------------|-----------|-------------------------|-----------|--|
| Factors adversely<br>affecting site      | Actual threat | Potential threat | Within the site | Changes   | In the surrounding area | Changes   |  |
| Annual and perennial<br>non-timber crops | Low impact    | Low impact       |                 | No change | ×.                      | No change |  |
| Wood and pulp<br>plantations             | Low impact    | Low impact       |                 | No change | ×                       | No change |  |
| Marine and freshwater<br>aquaculture     | Medium impact | Medium impact    |                 | No change | ×                       | No change |  |

| Biological resource use                       |               |                  |                 |           |                         |           |  |
|---|---------------|------------------|-----------------|-----------|-------------------------|-----------|--|
| Factors adversely<br>affecting site           | Actual threat | Potential threat | Within the site | Changes   | In the surrounding area | Changes   |  |
| Hunting and collecting<br>terrestrial animals |               |                  |                 |           | ×                       |           |  |
| Gathering terrestrial<br>plants               | Low impact    | Low impact       |                 | No change | ×                       | No change |  |
| Logging and wood<br>harvesting                | Medium impact | Medium impact    |                 | No change | ×.                      | No change |  |
| Fishing and harvesting aquatic resources      | Medium impact | Medium impact    |                 | No change | ×.                      | unknown   |  |

| Human intrusions and disturbance    |               |                  |                 |           |                         |           |
|-------------------------------------|---------------|------------------|-----------------|-----------|-------------------------|-----------|
| Factors adversely<br>affecting site | Actual threat | Potential threat | Within the site | Changes   | In the surrounding area | Changes   |
| Recreational and tourism activities | Low impact    | Low impact       |                 | No change | V                       | No change |

#### Natural system modifications

| Factors adversely<br>affecting site | Actual threat | Potential threat | Within the site | Changes   | In the surrounding area | Changes   |
|-------------------------------------|---------------|------------------|-----------------|-----------|-------------------------|-----------|
| Fire and fire suppression           | Low impact    | Low impact       | <b>X</b>        | No change | ×                       | No change |

#### Invasive and other problematic species and genes

| Factors adversely<br>affecting site   | Actual threat  | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|---------------------------------------|----------------|------------------|-----------------|---------|-------------------------|---------|
| Invasive non-native/<br>alien species | unknown impact | Low impact       | <b>X</b>        | unknown | <b>S</b>                | unknown |

#### Climate change and severe weather

| Factors adversely<br>affecting site | Actual threat  | Potential threat | Within the site | Changes | In the surrounding area | Changes |
|-------------------------------------|----------------|------------------|-----------------|---------|-------------------------|---------|
| Droughts                            | unknown impact | High impact      | ×               | unknown | ×                       | unknown |

# 5.2.2 - Legal conservation status

National legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|------------------|--------------|------------------------|--------------------------|
| Nature Reserve   | Rivnenskyi   |                        | whole                    |

# 5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve 🗵

#### 5.2.4 - Key conservation measures

| Legal protection |             |  |
|------------------|-------------|--|
| Measures         | Status      |  |
| Legal protection | Implemented |  |
|                  |             |  |

## Habitat

| Measures                            | Status                |
|-------------------------------------|-----------------------|
| Habitat<br>manipulation/enhancement | Partially implemented |
|                                     |                       |

#### Species

| Measures                | Status                |  |
|-------------------------|-----------------------|--|
| Threatened/rare species | Partially implemented |  |
| management programmes   | r aniany implemented  |  |

#### Human Activities

| Measures   | Status                |
|--|-----------------------|
| Communication, education,<br>and participation and<br>awareness activities | Partially implemented |
| Research   | Implemented           |

# 5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes O No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No processes with another Contracting Party?

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

From 2006 has functioning the Ecological-and-Education Center of Rivnensky Nature Reserve. On the base of the Centre and in regional educational institutions there are annual events where the attention is focused on importance of environment conservation and bog value, including wetlands the Perebrody Peatlands.

URL of site-related webpage (if relevant): http://nuwm.edu.ua/en

#### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

## 5.2.7 - Monitoring implemented or proposed

| Monitoring                      | Status      |
|---------------------------------|-------------|
| Water regime monitoring         | Implemented |
| Water quality                   | Implemented |
| Plant species                   | Implemented |
| Animal species (please specify) | Implemented |
| Birds                           | Implemented |
|                                 |             |

On the territory of the site and in the Rivnenskyi Nature Reserve totally, according to the appointed aims of the reserve, annual inventory and monitoring of rare plant groupings, flora and fauna species are implemented, phonological observations are carried out. Also the development and research on special contracting works is carried, including radioecology, hydrochemical, hydrobiological, flora and fauna survey, syntaxonomy vegetation studying, population parameters of rare plants monitoring and others that accumulate factual and statistical material and contain environmental guidelines.

# 6 - Additional material

# 6.1 - Additional reports and documents

### 6.1.1 - Bibliographical references

Chronicle of Nature: Rivnenskyi Nature Reserve. – 2000-2010. [In Ukrainian]

Conservation and restoration of biodiversity of protected areas. Proceedings of the International scientific conference devoted to 10th anniversary of the Rivne Nature Reserve (Sarny, 11-13 June 2009) / Ed. by Budz M.D. et al. – Rivne: "Rivne printing", 2009. – 936 p. [In Ukrainian, Russian]

Voloshynova N., Bachuk V., Gryshchenko Yu. The reserve land of forests, wetlands and lakes. – Rivne: "Rivne printing", 2007. – 200 p. [In Ukrainian]

Directory of Ukraine's Wetlands / Edited by G. Marushevsky, I. Zharuk. – Kyiv: Wetlands International Black Sea Programme, 2006. – P. 103-107. [In Ukrainian]

Reserves and National Nature Parks of Ukraine. – Kyiv: Vyshcha Shkola, 1999. – 230 p. [In Ukrainian] Zhuravchak R. (2013) About the square and location of international value wetland The Perebrody Peatlands // Nature Reserves in Ukraine. Is. 19. Vol. 1. 5-8. [In Ukrainian]

Nature of Polissia: Research and conservation / Materials of international scientific-practical conference, dedicated to the 15th anniversary of the Nature Reserve "Rivnenskyi" and the 10th anniversary of the Ramsar site "Perebrody Peatlands" (Sarny, 3-5 July 2014) / Edited by Zhuravchak R.O. – Rivne: Ovid, 2014. – 660 p. [In Ukrainian, Russian, English]

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

iii. a description of the site in a national or regional wetland inventory

iv. relevant Article 3.2 reports

<no file available>
v. site management plan

<no file available>

vi. other published literature

<1 file(s) uploaded>

# 6.1.3 - Photograph(s) of the Site

#### Please provide at least one photograph of the site:



Cariceto-Scheuchzerieto (palustris)-Sphagneta formations ( *Zhuravchak R*, *Jun 2012* )



Ringed Aquila clanga ( Franchuk M., August 2013 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Transboundary Designation letter

<1 file(s) uploaded>

Date of Designation 2004-07-29