Ramsar Information Sheet

Published on 27 July 2021
Update version, previously published on : 1 January 2003

Ukraine

Polissia Mires

Designation date	17 November 2003
Site number	1403
Coordinates	51°32'08"N 28°00'49"E
Area	2 145,00 ha

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 is a typical wetland complex of Polissia, one of the largest waterlogged regions of Europe. It includes"Miroshi", an area of high marshes and transition mires, and an area of low transition mires in the floodplains of Zholobnytsia and Bolotnytsia rivers. High marshes are oligotrophic and represented mainly by pine cotton grass sphagnum groupings. Transition mires are formed by mesotrophic pine-birch and shrub-sedge-sphagnum groupings. Low mires are comprised of eutrophic reeds, sedges, and forest groupings.

The wetland is important for its preserved biological and landscape diversity. In the wetlands territory, there have been recorded more than 100 species of high vascular plants, about 90 algae species, more than 1000 species of insects, 14 fish species, 4 species of amphibians, 4 reptile species, 45 species of birds and 18 species of mammals.

Some species are listed in the Red Data Book of Ukraine: 3 species of bryophytes - blushing bog-moss (Sphagnum molle Sull.), lustrous bog-moss (Sphagnum subnitens Russ. et Warnst.), soft-bog-moss (Sphagnum tenellum), 4 lycophyta species - stiff clubmoss (Lycopodium annotinum L.), blue clubmoss (Diphasiastrum tristachyum (Pursh) Holub), issler's clubmoss (Diphasiastrum zeileri (Rouy) Holub) and inundated club moss (Lycopodiella inundata (L.) Holub).

30 species of flowering plants recorded in the Site are also listed in the Red Data Book of Ukraine, including creeping lady's-tresses (Goodyera repens (L.), common spotted orchid (Dactylorhiza fuchsii (Druce), early marsh-orchid (Dactylorhiza incarnata (L.) Soó), spoonleaf sundew (Drosera intermedia Hayne), bulbous rush (Juncus bulbosus L.), Ilygaeron bach (Oxycoccus microcarpus Turcz. ex Rupr.), Rannoch-rush (Scheuchzeria palustris L.) etc.

Among the fauna listed in the Red Data Book of Ukraine found within the wetland, there are more than 10 species of insects, 4 fish species, 1 reptile species, about 10 species of birds, and 4 species of mammals. Some endangered bird species, Montagu's harrier (Circus pygargus), short-toed snake eagle (Circaetus gallicus), boreal owl (Aegolius funereus), Eurasian pygmy owl (Glaucidium passerinum), great grey owl (Strix nebulosa) have also been recorded.
The wetland is important for scientific research and the carrying of environmental educative activities.
The Site is a part of Polissia Nature Reserve.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Poliskyi Nature Reserve
Postal address	Selezivka Village, Ovrutskyi Rayon, Zhytomyrska Oblast, 11189, Ukraine

National Ramsar Administrative Authority

Institution/agency	Ministry of Environmental Protection and Natural Resources of Ukraine
Postal address	35 Mytropolyta Vasylia Lypkivs'kogo Str., Kyiv, 03035, Ukraine

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

From year	2012
To year	2018

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Polissia Mires

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 ◉ No ○
(Update) The boundary has been delineated more accurately	☑
(Update) The boundary has been extended	☐
(Update) The boundary has been restricted	☐
(Update) B. Changes to Site area	No change to area
(Update) For secretariat only: This update is an extension	☐

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<2 file(s) uploaded>

Former maps	0

Boundaries description

The wetland is situated in the northern part of Zhytomyr region of Ukraine near the border with Belarus. It consists of two areas "Zholobnytsia" and "Miroshi". To the north is 35 km from the city of Olevsk. The Site is a part of Polissia Nature Reserve.
The natural boundaries of the Site mostly coincide with the boundaries of large swamps and floodplains of the river Zholobnytsia with its wetlands. In the north, the border of the "Zholobnytsia" runs along the border with Belarus and limited by fireguard. The western boundary of the "Zholobnytsia" is partially limited by a forest road and a 20-meter-wide fireguard. A forest road runs along the eastern border of the Zholobnytsia section from south to north to the border with Belarus.
The "Miroshi" on the periphery is surrounded by fireguards and forest roads, which are laid along the natural border of the swamp and forest plantations.
The boundaries of the site are limited by both the natural boundaries of the swamp and the boundaries of the Polissya Nature Reserve.

2.2.2 - General location

a) In which large administrative region does the site lie?	Zhytomyr Region, Ovrutskyi District
b) What is the nearest town or population centre?	Selezivka Village, Olevsk City, Ovruch City

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ◉ No ○

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 2145

Area, in hectares (ha) as calculated from GIS boundaries: 2145.598

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	continental

Other biogeographic regionalisation scheme

According to geobotanical zoning of Ukraine: Polissia subprovince (Zhytomyr Polissia) of East European province of European broadleaf region.
Basin affiliation: the basin of Ubort River, which leads down to Pripyat River on the territory of Belarus, and then also to the Kiev Reservoir in the middle section of the Dnieper River.

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	The Site “Polissia Mires” is important for seasonal water storage, which is important for the wetland and for other territories located downstream of Zholobnytsia River.
Other reasons	The wetland includes typical wetland types for one of the largest European marshland areas "Polissia", such as areas of high (oligotrophic) marshes and transitional (mesotrophic) and low (eutrophic) mires in the floodplains of small rivers.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification	The Site is important for the biological and landscape diversity preservation. On the wetland's territory, more than 90 species of vascular plants, about 90 algae species, more than 1000 species of insects, 14 fish species, 4 species of amphibians, 4 reptile species, 45 species of birds and 18 species of mammals have been recorded. The wetland is a complex of unique high marshes and transition mires, which are rare types of habitats. The pine-birch-cranberry-sphagnum association is the most widespread. A special feature of the association is the significant participation of Oxycoccus palustris, which often acts as dominant. Typical for the wetland’s fauna is the prevalence of vertebrates of dendrophilous (forest) complex. Most of them are of the boreal (taiga) origin. Of taiga species, there are elk Alces alces, lynx Lynx lynx, mountain hare Lepus timidus, grey owl Strix nebulosa, great spotted woodpecker Dendrocopos major, viviparous lizard Zootoca vivipara, common frog Rana temporaria etc. The majority of animals are of European origin, such as: wild boar Sus scrofa, European pine marten Martes martes etc. The proximity of the forest-steppe zone causes the penetration of animals of the southern (steppe) complex such as: Montagu's harrier Circus pygargus, European pond turtle Emys orbicularis etc.

☑ 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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ LILIOPSIDA	*Dactylorhiza fuchsii*	☐	☑	☑		☐	listed in the Red Data Book of Ukraine - NE	The species is noted in meadow and marshy areas not violated by melioration and forest using. Such biotopes remained only within the wetland.
TRACHEOPHYTA/ LILIOPSIDA	*Dactylorhiza incarnata*	☑	☑	☑		☐	Red Data Book of Ukraine – VU	The species is noted in meadow and marshy areas not violated by melioration and forest using. Such biotopes remained only within the wetland.
TRACHEOPHYTA/ LYCOPODIOPSIDA	*Diphasiastrum complanatum*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LYCOPODIOPSIDA	*Diphasiastrum tristachyum*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - EN	
TRACHEOPHYTA/ LYCOPODIOPSIDA	*Diphasiastrum zeilleri*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - EN	
TRACHEOPHYTA/ MAGNOLIOPSIDA	*Drosera intermedia*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LILIOPSIDA	*Goodyera repens*	☑	☐	☑		☐	listed in the Red Data Book of Ukraine - VU	The species is noted in meadow and marshy areas not violated by melioration and forest using. Such biotopes remained only within the wetland.
TRACHEOPHYTA/ LILIOPSIDA	*Juncus bulbosus*	☑	☐	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LYCOPODIOPSIDA	*Lycopodiella inundata*	☑	☐	☐	LC	☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ LYCOPODIOPSIDA	*Lycopodium annotinum*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	*Rhododendron luteum*	☐	☑	☐		☐		
TRACHEOPHYTA/ LILIOPSIDA	*Scheuchzeria palustris*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
BRYOPHYTA/ SPHAGNOPSIDA	*Sphagnum molle*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
BRYOPHYTA/ SPHAGNOPSIDA	*Sphagnum tenellum*	☑	☐	☐		☐	listed in the Red Data Book of Ukraine - VU	
TRACHEOPHYTA/ MAGNOLIOPSIDA	*Vaccinium oxycoccos*	☑	☑	☐		☐	listed in the Red Data Book of Ukraine - VU	

The Site is very valuable for conservation of rare and endangered flora and fauna species in Ukraine and Europe.

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

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
ARTHROPODA / INSECTA	*Carabus menetriesi*	☐	☐	☐	☐	☑	☐	☐	☐		2012-2018			☐	☐	Red Data Book of Ukraine - NT	
CHORDATA / MAMMALIA	*Castor fiber*	☐	☐	☐	☐	☑	☐	☐	☐	50	2012-2018		LC	☐	☐		
ARTHROPODA / INSECTA	*Coenonympha hero*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018			☐	☐	Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	*Colias palaeno*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018			☐	☐	Red Data Book of Ukraine - EN	
CHORDATA / REPTILIA	*Coronella austriaca*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018		LC	☐	☐	Red Data Book of Ukraine - VU, Appendix II of Bern Convention	
CHORDATA / REPTILIA	*Emys orbicularis*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018			☐	☐	Appendix II of Bern Convention	
CHORDATA / MAMMALIA	*Lepus timidus*	☐	☐	☐	☐	☑	☐	☐	☐		2012-2018		LC	☐	☐	Red Data Book of Ukraine - LC	
ARTHROPODA / INSECTA	*Leucorrhinia albifrons*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018		LC	☐	☐	Red Data Book of Ukraine - CR, Appendix II of Bern Convention	
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☑	☐	☐	☑	☐	☐	☐	4	2012-2018		NT	☑	☐	Red Data Book of Ukraine – NE, Appendix II of Bern Convention	The Site provide habitat for the species on all stages of life cycle.
CHORDATA / MAMMALIA	*Lynx lynx*	☐	☐	☐	☐	☑	☐	☐	☐	2	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	
CHORDATA / REPTILIA	*Vipera berus*	☐	☐	☐	☐	☑	☐	☐	☐		2012-2018			☐	☐		
Fish, Mollusc and Crustacea																	
CHORDATA / CEPHALASPIDOMORPHI	*Eudontomyzon mariae*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018		LC	☐	☐	Red Data Book of Ukraine - CR	
Birds																	
CHORDATA / AVES	*Aegolius funereus*	☐	☑	☐	☐	☑	☐	☐	☐	10	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	Nesting density is evaluated as 8,1-17,3 couples /100 sq km
CHORDATA / AVES	*Aquila clanga*	☑	☐	☐	☐	☑	☐	☐	☐	2	2012-2018			☐	☐	Red Data Book of Ukraine - NT, Appendix II of Bern Convention	
CHORDATA / AVES	*Aquila pomarina*	☑	☐	☐	☐	☑	☐	☐	☐	2	2012-2018			☐	☐	Red Data Book of Ukraine - NT, Appendix II of Bern Convention	
CHORDATA / AVES	*Ciconia nigra*	☐	☑	☐	☐	☑	☐	☐	☐	10	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	The Site support 3-5 of nesting couples.
CHORDATA / AVES	*Crex crex*	☑	☐	☐	☐	☑	☐	☐	☐		2012-2018		LC	☐	☐	Appendix II of Bern Convention	
CHORDATA / AVES	*Dendrocopos leucotos*	☐	☐	☐	☐	☑	☐	☐	☐	12	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	
CHORDATA / AVES	*Glaucidium passerinum*	☐	☑	☐	☐	☑	☐	☐	☐	2	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	Nesting density2,9-12,7 couples /100 sq km
CHORDATA / AVES	*Grus grus*	☐	☑	☐	☐	☑	☐	☐	☐	6	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	The Site support 2-3 of nesting couples, and 100-200 individuals in autumn during migration
CHORDATA / AVES	*Lyrurus tetrix*	☑	☑	☐	☐	☑	☐	☐	☐	30	2012-2018		LC	☐	☐	Red Data Book of Ukraine - EN	The Site provide habitat for the species on all stages of life circle. 10-15 individuals display courtship at marshes
CHORDATA / AVES	*Picus viridis*	☑	☐	☐	☐	☑	☐	☐	☐	6	2012-2018		LC	☐	☐	Red Data Book of Ukraine - VU	
CHORDATA / AVES	*Strix nebulosa*	☐	☑	☐	☐	☑	☐	☐	☐	2	2012-2018		LC	☐	☐	Red Data Book of Ukraine - NT	Nesting density 1,2-5,0 couples /100 sq km

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Tringa ochropus*	☑	☐	☐	☐	☑	☐	☐	☐	80	2012-2018		LC	☐	☐	Appendix II of Bern Convention	

1) Percentage of the total biogeographic population at the site

The wetland is important for hygrophilous insects associated with marshes, peat-bogs, wet meadows, river banks and small forest water bodies. The rarest among them are dark whiteface (Leucorrhinia albifrons), carabus menetriesi (Carabus menetriesi), colias palaeno (Colias palaeno), scarce heath (Coenonympha hero).

Analyzing the fish species composition of the area, it should be noted that among the 14 species, 9 are in unfavorable status.
A relatively constant population in the wetland's water bodies has been registered for the rare Ukrainian brook lamprey (Eudontomyzon maria), crucian carp (Carassius carassius), burbot (Lota lota).

Among amphibians, the most abundant is moor frog (Rana tarrestris), while the common spadefoot (Pelobates fuscus), pool frog (Pelophylax lessonae), and European toad (Bufo bufo) are habitually found. The other amphibian species are much less common.

The most common reptile species is the sand lizard (Lacerta agilis). The European pond turtle (Emys orbicularis) and grass snake (Natrix natrix) are also regularly found. Rarer species in the Site are viviparous lizard (Zootoca vivipara) and smooth snake (Coronella austriaca).

Several bird species are commonly found in the wetland. In reed marshes and stagnant water bodies, Eurasian bittern (Botaurus stellaris), western marsh harrier (Circus aeruginosus), water rail (Rallus aquaticus), spotted crake (Porzana porzana), Savi's warbler (Locustella luscinioide) etc are typically found. On mesotrophic and oligotrophic marshes, nesing populations of common crane (Grus grus), black grouse (Lyrurus tetrix) and meadow pipit (Anthus pratensis) are found. The wood sandpiper (Tringa glareola) and citrine wagtail (Motacilla citreola) are only found in oligotrophic marshes.
Regarding mammals, the most common within the wetland are Eurasian beaver (Castor fiber) and wild boar (Sus scrofa).

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Nuphareta lutae	☑	formations	listed in the Green Data Book of Ukraine
D1.1 High marshes	☑	Unique bogged areas, which reached high oligotrophic level on "Mroshi" site	Classification is given according to EUNIS. In Resolution 4 high marshes are marked as complex X04.
G1.51 Sphagnum birch forests	☑	Occur as small strips around oligotrophic marshes	Classification is given according to EUNIS. The wetland is included in Resolution 4 of Berne Convention.
G3.E Nemoral marshy coniferous forests	☑	Ledum-sphagnum pineries and blueberry-sphagnum pineries occur near marshes.	Classification is given according to EUNIS. The wetland is included in Resolution 4 of Berne Convention.
Nympheaeta candidae	☑	formations	listed in the Green Data Book of Ukraine
D2.3 Transition mires	☑	Typical Polissia sphagnum marshes occur on the whole territory of the wetland	Classification is given according to EUNIS. Are typical for the region, need preservation.

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

4.1 - Ecological character

The wetland is a complex of high sand-waves, dunes and sandkeys (formed in the Ice Age (circumferential position)), and river-valleys and marshes in between. A tributary of Ubort River – Zholobnytsia River (length 113 km, area of the basin 1460 sq. km) is located in the wetland.

The most common wetland types are floodplain wetlands, oligotrophic and mesotrophic mires, which constitute a single complex of sphagnum marshes. Other types of vegetation can be found surrounding the wetland, such as upland pine forests, as well as plant communities, which are characteristic for different stages of succession in places of fires and felling.

Peat-bogs occupy almost 65% of the wetland territory, and in some places, the peat deposits reach 3 m or more. Different subtypes of podzolic-gley soils occur within the Site.

Maintenance of the reclamation system, which is located in the upper reaches of Zholobnytsia village, has been suspended since the 90s. As a consequence, siltation of the bottom of the drainage channels and the overgrowth of stream beds with bog vegetation started. Nowadays drainage channels are often dammed by beavers. As a result, the waterflow of Zholobnytsia River has slowed down noticeably. There is a lot of felled wood on the watercourse area. Deceleration of water flow, flooding, and stagnation contributed to the high waterlogging of the river.

Freshwater of the “Zholobnytsia” wetland is important for animals. In recent years, on surrounding areas, various biotechnical measures for marsh watering and water level rise were carried.
It is necessary due to the fact that in recent years, as a result of droughts, dehydrophysification of marshy areas and mesophytisation of swamps has noticeably intensified, and in consequence, the vegetation cover of grass-sedges-hypnum and motley grass-sedges cenosis has increased. Open marsh areas are actively forested with Scots pine.

Drought negatively affects oligotrophic marshes, as they are mainly nourished by rain- and snow waters. Bog plant species and sphagnum cover also suffer from drought.
During the last five years, as a result of climate aridization, there are no spring floods on the wetland area, the negative phenomenon of summer droughts and long-term periods without abundant precipitation are noted.
The wetland is important as scientific ground and is used for long-standing scientific research by the Polissia Nature Reserve.

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) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		4	30	
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4		Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		3		
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		4	25	
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		3	470	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		2	620	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		4		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1	1000	Representative

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
9: Canals and drainage channels or ditches		4	

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Areas of upland pine forests	
Felled wood and conflagrations (Recently felled areas)	100

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	*Carex limosa*	considerable scientific value
TRACHEOPHYTA/MAGNOLIOPSIDA	*Dianthus arenarius pseudosquarrosus*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Nymphaea candida*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pulsatilla patens*	
TRACHEOPHYTA/LILIOPSIDA	*Rhynchospora alba*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Salix lapponum*	relict species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Salix myrtilloides*	relict species

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	*Bidens frondosa*	- Please select a value -	No change

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	*Alces alces*				
CHORDATA/MAMMALIA	*Canis lupus*				
CHORDATA/MAMMALIA	*Martes martes*				
CHORDATA/AVES	*Accipiter gentilis*	2	2011-2015		
CHORDATA/AVES	*Circus aeruginosus*				
CHORDATA/AVES	*Gallinago gallinago*				
CHORDATA/AVES	*Scolopax rusticola*	40	2011		

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	*Neovison vison*	Actual (minor impacts)	No change
CHORDATA/MAMMALIA	*Nyctereutes procyonoides*	Actual (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	*Perccottus glenii*	Actual (minor impacts)	No change

4.4 - Physical components

4.4.1 - Climate

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

The climate is temperate continental. Average air temperatures are the following: annual 6-7°C; January – -5.5–6°C, July – +17–19°C. Annual precipitation is about 530–600 mm. The duration of the steady snow cover period is 90 days in average. The humidity balance is positive. Frequent thaws are typical phenomena in winter.
During last years as a result of droughts, dehydrophysification of marshy areas and mesophytisation of swamps have noticeably intensified, in consequence, in vegetation cover specific weight of grass-sedges-hypnum and motley grass-sedges cenosis has increased. Open areas of marshes are actively forested naturally with Scots pine.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 147

a) Maximum elevation above sea level (in metres): 198

- Entire river basin ☐
- Upper part of river basin ☑
- Middle part of river basin ☑
- Lower part of river basin ☐
- More than one river basin ☑
- Not in river basin ☐
- Coastal ☐

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.

The Prypiat River basin. The wetland is situated in Ubort River basin (length 292 km, basin area 5820 sq km), which starts in Zhytomyr region and leads down on the territory of Belarus to the tributary of Dnieper - Pripyat River (length 761 km, basin area 144 thousand sq km).
Directly within the wetland flows a tributary of Ubort River – Zholobnytsia River (length 113 km, basin area 1460 sq km) with its tributary – Bolotnytsia River (length 26 km, basin area 143 sq km).

4.4.3 - Soil

- Mineral ☑
  (Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○
- Organic ☑
  (Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○
- No available information ☐

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

Please provide further information on the soil (optional)

Sandy, sod and slightly podzol soils, often gleyey, which alternate with swamp soils, prevail here. Depressions between sand hills are covered by peat-gley soils and peatlands.
Peat-bogs (in some places peat deposits reach 3 m or more), formation of which had started 8-9 thousand years ago, occupy almost 65% of the wetland territory. Different subtypes of podzolic-gley soils occur within the Site.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from precipitation	☐	No change
Water inputs from surface water	☑	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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

In the upper reaches of the Zholobnytsia River is canalized and is a trunk channel of Zholobnytsia drainage system. Canalized river-bed extends deep into the Reserve at a distance up to 1 km and then is discharged into natural watercourse. In the first years after the drainage reclamation, the natural river-bed of the river could not pass all the water that was accumulated on the drained territory. As a result low marshy floodplain of Zholobnytsia extends up to 3 km through the river-bed and is completely flooded. On the place of forests here were low eutrophic marshes formed.
Since the 90s, the maintenance of the reclamation system, which is located in the upper reaches of Zholobnytsia village, has been suspended. The silting of the bottom of draining channels and the overgrown of their stream beds with bog vegetation began. Nowadays draining channels are often dam by beavers. As a result, the waterflow of Zholobnytsia River has slowed down noticeably. There is a lot of felled wood on the watercourse area. The bottom of Zholobnytsia River is rather silted. During the last five years, as a result of arid climate, there are no spring floods on the wetland area. The annual amount of precipitation ranges from 510 to 890 mm. The most part (70%) falls from April till October. In wet years the amount of precipitation increases to 800 mm, while in the dry one it decreases to 400-500 mm.

(ECD) Connectivity of surface waters and of groundwater	High and transition marshes of “Miroshi” site are mainly nourished by rain- and snow waters, while the other site of the wetland “Zholobnytsia” is of floodplain type.

4.4.5 - Sediment regime

Sediment regime is highly variable, either seasonally or inter-annually ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Sediment regime unknown ☐

Please provide further information on sediment (optional):

Small deposits of river sand are observed in Bolotnytsia river-bed.
Water in rivers has a brownish color, turbid, especially in summer period because of the high content of iron in it and the intensive algae development.

4.4.6 - Water pH

Acid (pH<5.5) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Alkaline (pH>7.4) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Mesotrophic ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Oligotrophic ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

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 site itself: i) broadly similar ○ ii) significantly different ◉

Surrounding area has greater urbanisation or development ☐

Surrounding area has higher human population density ☐

Surrounding area has more intensive agricultural use ☐

Surrounding area has significantly different land cover or habitat types ☑

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

Wetland “Miroshi”, the part the Site, is surrounded by pine and pine-birch forest tracts. Here dominate boreal types of forest of different ecological groups: green-moss pineries, blueberry green-moss, wet and marshy blueberry sphagnum pineries. Also, the area of "Miroshi" is surrounded by large sandy hills, on which lichen pine forests are spread (sandy dunes are the rare habitat type by Berne Convention). Around the site "Zholobnytsia" grow similar forest types - centuries old pineries with blueberry, marsh Labrador tea, purple moor-grass. In southern part to the site adjoins the area of Zholobnytsia drenaige system, which is overgrown by birches and willows. Drainage system of the 90s is in a state of neglect. Channels, which have not been cleared for a long time, are overgrown with marsh vegetation. Nowadays the impact of drainage reclamation on the wetland area is imperceptible.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Fresh water	Drinking water for humans and/or livestock	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Nutrient cycling	Carbon storage/sequestration	High

Within the site: 1000

Outside the site: 10000

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

4.5.2 - Social and cultural values

i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) 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 ☐

<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
National/Federal government	☑	☑
Local authority, municipality, (sub)district, etc.	☐	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☐	☑

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

The territory of the site is a part of the Poliskyi Nature Reserve (total area 20,097 ha).
a) within the Ramsar site:
State ownership of land, which was transferred for permanent use to the Administration of Poliskyi Nature Reserve. The Administration of the Reserve has the Certificate on the right of permanent land use.
b) in the surrounding area:
Near the site there are lands (about 12,600 ha), which are in permanently used by the Administration of Poliskyi Nature Reserve, and behind them there are lands of other users within the Protection zone of Poliskyi Nature Reserve (area of 9,878 ha; state lands of the forest fund, subordinated to the State Forestry 'Zhytomyrlis') and private agricultural lands, where industrial construction and other activities adversely affecting the environment are not allowed, and private agricultural lands (arable lands, hayfields, pastures, gardens) and state forestry; lands of populated areas (private and municipal).

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Polissia Nature Reserve

Provide the name and/or title of the person or people with responsibility for the wetland: Sergiy Zhila, director

Postal address: Selezivka Village, Ovrutskyi Rayon, Zhytomyrska Oblast, 11189, Ukraine.

E-mail address: big-zapovednik@bigmir.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 affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Low impact	Low impact	☑	No change	☑	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Low impact	Low impact	☐	No change	☑	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Gathering terrestrial plants	Low impact	Low impact	☑	No change	☑	No change
Hunting and collecting terrestrial animals	Low impact	Low impact	☐	decrease	☑	No change
Logging and wood harvesting	Medium impact	Medium impact	☐	No change	☑	No change
Fishing and harvesting aquatic resources	Low impact	Low impact	☐	No change	☑	No change

Human intrusions and disturbance

Factors adversely 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	☑	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression	High impact	High impact	☑	No change	☑	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Low impact	Medium impact	☑	No change	☑	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Garbage and solid waste	Low impact	Low impact	☐	No change	☑	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts	Low impact	Medium impact	☑	increase	☑	increase

Please describe any other threats (optional):

The wetland “Polissia mires” is situated on the Reserve territory, so the influence of negative factors here is minimized. For the site “Miroshi”, which is represented mainly by high oligotrophic marshes, the real threat is the fires that can escalate due to the climate warming. At the marshes, significant deposits of peat are accumulated, which become the main combustible material during the fire. The arid climate of recent years negatively affects on vegetation of upper marshes: dry up thickets of bog cranberry, hare's-tail cottongrass, bog-rosemary. Opened areas of marshes are actively forested by pine. Reclamation in the past and regulation of river flow in the area of the Zholobnytsia site nowadays has fading character. Banks of Zholobnytsia River in the past were heavily flooded. Here the transformation of natural biotopes was proceeded. Alder forests were changed by low reed marshes. Invasive flora species on the wetland territory are practically absent. Among plants is known leafy beggartick on beaver dams (settling locally), and among animals there is American mink in Zholobnytsia River.
Synanthropic species have no significant impact on the local flora and fauna of the site.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other international designation	Emerald site UA0000001 Poliskyi		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Polissia Nature Reserve	http://polesye-reserve.org.ua/	partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Polis'kyi Nature Reserve	http://datazone.birdlife.org/site/factsheet/poliskyi-nature-reserve-iba-ukraine	whole

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☑

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Partially implemented
Habitat manipulation/enhancement	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Partially implemented

Other:

The territory of the site is a part of the Poliskyi Nature Reserve (area 20,097 ha), which was created by the Resolution of the Government of Ukraine of 12 November 1968, No. 568 'On organizing of new state reserves in the Ukrainian SSR', and around it there is the Protection zone with the total area 9,878 ha (approved by the Resolution of the Government of Ukraine of 29 November 1972, No. 544).

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 ○ No ◉

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

URL of site-related webpage (if relevant): http://polesye-reserve.org.ua

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

Further information

Measures are needed to further reconstruction and elimination reclamation canals to restore wetlands and prevent the effects of adverse climatic events.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Plant community	Implemented
Birds	Proposed

Annually the scientific researches within the framework of the Chronicles of Nature of Poliskyi Nature Reserve are carried out. Scientific studies are conducted mainly by research officers of the Reserve and the curator institution, the M. G. Kholodny Institute of Botany of the National Academy of Sciences of Ukraine (Kyiv).
In the staff of the Reserve, there are 4 research officers working in the Scientific Department. The basic research directions are monitoring of the state of biological and landscape diversity within the frameworks of the annual Program on Chronicles of Nature; long-term monitoring of populations of rare flora species; improvement of conservation conditions for Felix lynx. Scientific activities are carried out according to the scientific profile of the Reserve as the center on studying and conservation of the Polissia flora and fauna.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Полесский государственный заповедник. Растительный мир / Андриенко Т.Л., Попович С.Ю., Шеляг-Сосонко Ю.Р. – Киев: Наукова думка, 1986. – 208 с.
Бумар Г.Й. Аналіз сучасного стану природних екосистем Поліського заповідника та деякі рекомендації щодо їх охорони та збереження // Вісник національного університету водного господарства та природокористування. Збірник наукових праць, Рівне , 2005, в.3 (31), С. 11-18.
Бумар Г.Й., Панасевич О.І. Особливості водного режиму та його вплив на рослинність Поліського заповідника в районі дії Жолобницької осушувальної системи //Вісник національного університету водного господарства та природокористування. Зб. наукових праць, вип. 1 (37), Рівне, 2007. с. 70-75.
Капустін Д.О. Водорості р. Жолобниця (Житомирська область, Україна) //Актуальні проблеми ботаніки та екології: матеріали Міжнар. конф. молодих вчених (м. Ялта, 21-25 вересня 2010 р) – Сімферополь: ВД «Аріал», 2010. – С. 68-70.
Панасевич О.І. Особливості екології видри річкової в Поліському заповіднику // Заповідна справа в Україні, 2002, т.8, в.2, С. 55-57.
Фіторізноманіття Поліського природного заповідника: водорості, мохоподібні, судинні рослини / Колектив авторів / За загальною редакцією к. б. н. О.О.Орлова. – Київ: вид-во ТОВ» НВП «Інтерсервіс», 2013. – 256 с.
Vis M.L., Kapustin D.A. Batrachospermum keratophytum Bory emend. R.G. Sheath, M.L. Vis et K.M. Cole, a new freshwater red algal species for Ukraine //Альгология. – 2009. – 19 (2). – С. 226-229.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<1 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<2 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Young birds Ciconia nigra in the nest. (*Yuriy Kuzmenko, 02-07-2007*)


the Zholobnytsya River (*Yuriy Kuzmenko, 10-08-2008*)


Lyrurus tetrix (*Yuriy Kuzmenko, 26-04-2007*)


Nest of Grus grus in the swamp "Myroshi" (*Sergiy Zhila, 02-05-2007*)


Штучні пніздування платформи на екотоні ВБУ (*Sergiy Zhila, 18-05-2012*)


Плодоношення пухівки на болоті урочище «Мироші» (*Sergiy Zhila, 15-06-2012*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2003-11-17