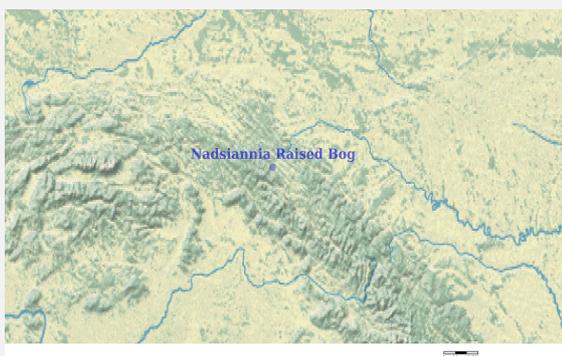




Ramsar Information Sheet

Ukraine

Nadsiania Raised Bog



Designation date	20 March 2019
Site number	2392
Coordinates	49°10'11"N 22°42'58"E
Area	37,00 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 Nadsiania Raised Bog is one of the largest and among the few surviving raised bogs of the Ukrainian Carpathians, which has no visible signs of human impact. It is considered as a truly virgin (untouched) bog in the Ukrainian Carpathians with a full spectrum of relevant natural processes and high diversity of relict species of the post-glacial age. The Site is represented by a diversity of wet forest and meadow habitats on slope, the Sian River and the peat bog called 'Mishok' ('Bag'). The vegetation of the raised bog is formed by a continuous moss cover mainly composed of species of the genus *Sphagnum* with a mixture of very rare vascular plants such as *Andromeda polifolia*, *Eriophorum vaginatum*, *Ledum palustre*, *Oxycoccus palustre*, etc. The Site holds well-preserved, over century-old, juniper-fir-beech wet forests. It supports survival of a number Red Data Book (2009) species. The swamp area of the riparian zone of the river Sian is occupied with communities of riparian tall-herb and aquatic vegetation.

This wetland area is a biodiversity hotspot. It supports the survival of more than 105 species of animals, including 9 species of amphibians, 4 species of reptiles, about 70 species of birds and 24 species of mammals. The area encompasses extreme limits of ranges for a number of mostly representatives of boreal fauna that has resulted in a significant proportion of rare species. Among these, 12 species of animals are included in the Red Data Book of Ukraine (2009).

Due to its geographical location, the Site plays an important role as a transnational ecological corridor. The site is also extremely important as feeding and resting ground of many terrestrial animals. It provides quality water thousands of Polish and Ukrainian people. The Site is a part of the Regional Landscape Park 'Nadsianskyi'.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Ivan Danylyk
Institution/agency	Institute of Ecology of the Carpathians of National Academy of Sciences of Ukraine
Postal address	4 Kozelnytska St., Lviv, Ukraine, 79026
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Compiler 2

Name	Andrii-Taras Bashta
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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)	Nadsiania Raised Bog
Unofficial name (optional)	'Mishok'

2.2 - Site location

2.2.1 - Defining the Site boundaries

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

Former maps	0
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Boundaries description

The Site is part of the Regional Landscape Park 'Nadsianskyi' and located within the catchment area of the Sian River. The Site is U-shaped. The eastern, western and southern borders of the Site are delimited by the riparian areas of the Sian River along the river and state border between Ukraine and Poland. In the north, the Site is limited by the wet forest stands located at the slope of the fluvial terrace. The Site ranges between 100 and 350 m above sea level.

2.2.2 - General location

a) In which large administrative region does the site lie?	Turkivskyi District, Lviv Region, Ukraine
b) What is the nearest town or population centre?	Turka town

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):

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

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Alpine

Other biogeographic regionalisation scheme

According to geobotanical zoning of Ukraine, the Site is located within the European broad-leaved region (zone), the Carpathian-Alpine mountain province of forests and alpine vegetation, the Eastern Carpathian sub-province of the deciduous and coniferous forests and alpine vegetation, the Verkhovynsko-Beskydskyi district of common oak, beech, larch and fir forests, and post-forest meadows (National Atlas of Ukraine, 2007).

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 plays an essential role in the natural functioning of the river basin of the Sian River. It is important for the natural control and regulation of floods and is a regulator of the flood regime accumulating waters of the surface runoff from the adjacent slopes of the Sian River Valley.

Other reasons

The Site is represented by a very rare natural wetland of non-forested peatbog, located in the biogeographical region of the Eastern Carpathians. It is a largest survived raised bog of the Ukrainian Carpathians, which has no visible signs of human impact.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The Site is the biodiversity hotspot and supports the survival of a large number of plant and animal species. The flora consists of about 200 species of vascular plants, which belong to 52 genera, 36 families, including the families Cyperaceae, Poaceae, Juncaceae with the highest number of species.

The Site supports populations of the invertebrate species, important for maintaining the biological diversity of the Eastern Carpathians biogeographic region. The fauna of terrestrial vertebrates is composed of more than 105 species (9 species of amphibians, 4 species of reptiles, about 70 species of birds and 24 species of mammals). Due to the geographical location, the site plays an important role as a transnational ecological corridor and is extremely important for migrations and dispersions of terrestrial animals, thus contributing to the maintenance of the biodiversity of this region. For a number of species from dominantly boreal types of fauna the territory delineates the limits of the ranges that have resulted in a significant proportion of rare species listed in various red lists.

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 Red List	CITES Appendix I	Other status	Justification
<i>Dactylorhiza maculata</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Dactylorhiza majalis</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - NT	
<i>Dactylorhiza sambucina</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Dactylorhiza viridis</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - NT	
<i>Epipactis palustris</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Festuca drymeja</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Gladiolus imbricatus</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Gymnadenia conopsea</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Gymnadenia densiflora</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	
<i>Spinulum annotinum</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Red Data Book of Ukraine - VU	

Within the territory of the Site are 10 plant species listed in the Red Book of Ukraine.

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

Phylum	Scientific name	Common 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								
Birds																		
CHORDATA/AVES	<i>Picoides tridactylus</i>	Eurasian Three-toed Woodpecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - LC	
CHORDATA/AVES	<i>Tetrastes bonasia</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
Fish, Mollusc and Crustacea																		
CHORDATA/ACTINOPTERYGII	<i>Thymallus thymallus</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
Others																		
CHORDATA/MAMMALIA	<i>Bison bonasus</i>	European bison	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - EN	
CHORDATA/AMPHIBIA	<i>Bombina variegata</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
ARTHROPODA/INSECTA	<i>Colias palaeno</i>	Arctic Sulfur; Palaeno Sulphur; Moorland Clouded Yellow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - EN	
ARTHROPODA/INSECTA	<i>Endromis versicolora</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
CHORDATA/AMPHIBIA	<i>Ichthyosaura alpestris</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
CHORDATA/AMPHIBIA	<i>Lissotriton montandoni</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
CHORDATA/MAMMALIA	<i>Neomys fodiens</i>	Eurasian Water Shrew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - LC	
CHORDATA/AMPHIBIA	<i>Salamandra salamandra</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	

1) Percentage of the total biogeographic population at the site

The fauna of terrestrial vertebrates of the wetland Nadsiaunia Raised Bog is composed of more than 105 species (9 species of amphibians, 4 species of reptiles, about 70 species of birds and 24 species of mammals). Due to the geographical location, the site plays an important role as a transnational ecological corridor, joining the territory of the Bieszczady National Park and protected areas in the Beskydy (NPP 'Skolivski Beskydy', a number of wildlife sanctuaries) and is extremely important for migrations and dispersions of terrestrial animals. Natural populations of many of them (*Ursus arctos*, *Lynx lynx*, *Bison bonasus*, etc.) are virtually found in Ukraine only within the Carpathians. For a number of species from boreal and other types of fauna the territory encompasses the extreme limits of their ranges that has resulted in a significant proportion of rare species listed in various conservation lists and documents.

The upper part of the Sian river basin holds important habitats for the conservation and reproduction of populations of such fish species as *Thymallus thymallus* and the river trout.

In the recent years the site has been supported a small herd of European bisons up to 10 individuals. Other mammals, regularly occurred in the area include *Canis lupus*, *Vulpes vulpes*, *Martes martes*, *Sus scrofa*, *Capreolus capreolus*, *Cervus elaphus*, and *Castor fiber*.

The site supports the population of the moorland clouded yellow *Colias palaeno* (listed in Red Data Book of Ukraine with the category Endangered).

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
D2.226 Peri-Danubian black-white-star sedge fens	<input checked="" type="checkbox"/>	Acidic fens, with an herbaceous sward formed by <i>Carex echinata</i> , <i>Carex canescens</i> , or <i>Carex rostrata</i> and sometimes <i>Juncus effusus</i> , or <i>Nardus stricta</i> .	Bern Convention - Resolution 4 habitat type.
D1.234 Northern boreo-Atlantic <i>Calluna</i> - <i>Empetrum</i> - <i>Sphagnum fuscum</i> blanket bogs	<input checked="" type="checkbox"/>	Bog-surface and hummock communities of the northern boreal blanket bogs dominated by <i>Calluna vulgaris</i> , <i>Empetrum</i> spp., <i>Vaccinium uliginosum</i> and <i>Sphagnum fuscum</i> with <i>Andromeda polifolia</i> .	Bern Convention - Resolution 4 habitat type.
D2.3 Transition mires and quaking bogs	<input checked="" type="checkbox"/>	Incompletely terrestrialized wetlands occupied by peat-forming vegetation with acid groundwater. Characteristic species are <i>Carex lasiocarpa</i> . Included are rafts of <i>Sphagnum</i> and <i>Eriophorum</i> (D2.38).	Bern Convention - Resolution 4 habitat type.
E3.4 Moist or wet eutrophic and mesotrophic grassland	<input checked="" type="checkbox"/>	Wet eutrophic and mesotrophic grasslands and flood meadows of the boreal and nemoral zones, dominated by grasses <i>Poaceae</i> , rushes <i>Juncus</i> spp. or club-rush <i>Scirpus sylvaticus</i> .	Bern Convention - Resolution 4 habitat type
G1.63 Medio-European neutrophile <i>Fagus</i> forests	<input checked="" type="checkbox"/>	<i>Fagus sylvatica</i> and, in higher mountains, <i>Fagus sylvatica</i> - <i>Abies alba</i> or <i>Fagus sylvatica</i> - <i>Abies alba</i> - <i>Picea abies</i> forests developed on neutral or near-neutral soils, with mild humus.	Bern Convention - Resolution 4 habitat type

Optional text box to provide further information

The Site contains a unique combination of various communities of wetland and meadow types (over 10 according to Braun-Blanquet classification), in particular the ones belonging to the classes Oxyccocco-Sphagnetea and Scheuchzerio-Caricetea fuscae, which belong to the Carpathian list of rare communities.

Here has been discovered the bog vegetation syntaxa belonging to the Green Book of Ukraine (2009), in particular Shagneta depressipiceetosa, Scheuchzerieto-Sphagneta, and Cariceto-Scheuchzerieto-Sphagneta.

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

4.1 - Ecological character

The Site represents the largest surviving raised bog of the Ukrainian Carpathians, which has no visible signs of human impact. The site is represented by a very rare natural wetland type of non-forested peatbog. It is located in the biogeographical region of the Eastern Carpathians. It is composed of a raised bog, wet forest and meadow habitats, rivulets and watercourses. Bog areas are located among fragments of forests. The wetland is an example of a unique sphagnum bog, preserved in an untouched cover. It is a core area for the distribution of many rare flora and fauna species. It is also extremely important for the migration and survival of terrestrial animals.

The Site is located on the floodplain terrace of the Sian River, composed by alluvium and covered with alluvial deposits that are brought from the adjacent slope. Soil cover is mostly represented by peat soils of different depths.

The vegetation cover is mostly represented by a fir forest, planted instead of the former natural fir-beech forest stand. The macroclimate of the area is moderately continental; the mesoclimate is mountain, moderately cold (the sum of active temperatures is about 1,800 °C; the annual sum of rainfall is circa 1,000 mm).

The area is important for the natural functioning of the Sian river basin. It affects the control and regulation of the flood process and is a regulator of the flood regime due to the accumulation of the water surface runoff from surrounding slope surfaces of the Sian river valley. The Site is also important for the seasonal storage of water for other areas.

The Site provides a number of ecosystem services, among which there are fresh water supply and support of hydrological regime, which slows down the 'flash floods' etc. It provides quality water for thousands of Polish and Ukrainian people downstream.

Due to its geographical location, the Site plays an important role as a transnational ecological corridor. The Site borders with the Bieszczady National Park (Poland) and is situated close to protected areas in the Ukrainian Beskydy (National Nature Park 'Skolivski Beskydy', a number of wildlife sanctuaries).

The Site is part of the Regional Landscape Park 'Nadsianskyi'.

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		3	0.5	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1	10	Unique
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		2	7.5	Rare

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Floodplain meadows	2
Coniferous and deciduous forests	10

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Andromeda polifolia</i>		Disjunctive species at the southern limit of its range
<i>Carex limosa</i>		Disjunctive species at the southern limit of its range
<i>Empetrum nigrum hermaphroditum</i>		Disjunctive species at the southern limit of its range
<i>Menyanthes trifoliata</i>		Disjunctive species at the southern limit of its range
<i>Vaccinium oxycoccos</i>		Disjunctive species at the southern limit of its range

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	<i>Canis lupus</i>	Gray Wolf				
CHORDATA/MAMMALIA	<i>Castor fiber</i>	Eurasian Beaver				
CHORDATA/MAMMALIA	<i>Mustela erminea</i>	Ermine				
ARTHROPODA/INSECTA	<i>Trechus amplicollis</i>					

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	
CHORDATA/MAMMALIA	<i>Nyctereutes procyonoides</i>	Tanuki;Raccoon dog	Potentially	No change

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
H: Highland	H: Highland (-)

The microclimate of the catchment area is moderately continental; the mesoclimate is highland moderately cool (the sum of active temperatures is about 1800 °C, annual rainfall is about 1,000 mm. The average annual temperature is 5,6 °C. The period of active vegetation lasts 85 days, the general vegetation period is 136 days, hydrothermal coefficient is 2.5-3.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- 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 wetland is located in the upper part of the basin of the Sian River, which is the right tributary of the Vistula River.

4.4.3 - Soil

- Mineral
- Organic
- 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)

The site is located on a low above-floodplain terrace of the Sian River, made of alluvium and covered with dealluvial deposits that are brought from the adjacent slope. The soil cover is mostly represented by peat soils of different depths. The soil cover of the catchment area is represented by acidic cool brown earth soils, the vegetation cover is mostly composed of the secondary fir forest on the place of the natural fir (Abies)- beech forest stands.

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from rainfall	<input checked="" type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

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

The wetland accumulates waters of the surface runoff from the surrounding slope surfaces, thus contributing to the decrease of the flood level in the Sian river valley.

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

<no data available>

4.4.6 - Water pH

- Acid (pH<5.5)
- Circumneutral (pH: 5.5-7.4)
- Alkaline (pH>7.4)
- Unknown

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mxohaline (brackish)/Mxosaline (0.5-30 g/l)
- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- 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 i) broadly similar ii) significantly different site itself.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Erosion protection	Soil, sediment and nutrient retention	Low

Cultural Services

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

Supporting Services

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

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

Description if applicable

The territory is closely connected with a cultural ethnographic group of Ukraine and the Carpathians – the Boykos which traditionally manage the pastures and collect hay in this area. However, such use is strictly limited to the boundary regime of the territory.

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

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

The site is associated with the protected core area of the Regional Landscape Park 'Nadsiania' and located in the frontier zone. That is why any use of natural resource is prohibited in the area. The site is located in the neutral zone of the border between Ukraine and Poland.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Regional Landscape Park 'Nadsiania'

Provide the name and title of the person or people with responsibility for the wetland: Myron Senkiv, director

Postal address: 1 Lisova St., Borynnia Village, Turka District, Lviv Region, 85547, Ukraine
Tel/fax: +38 3269 34011

E-mail address: rip.nadsyansky@ukr.net

5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Tourism and recreation areas	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Utility and service lines (e.g., pipelines)	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Logging and wood harvesting	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
(Para)military activities	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Please describe any other threats (optional):

The territory of the wetland is located rather close to the state border with Poland behind the control trace strip. In regard to this pressure on the territory is rather limited.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Regional Landscape Park	'Nadsiania'	http://www.rlpnadsyansky.org.ua	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
Faunal corridors/passage	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Research	Partially 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 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

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

The center or other facility have not been created yet.

URL of site-related webpage (if relevant):

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant species	Proposed
Plant community	Proposed
Animal species (please specify)	Proposed
Birds	Proposed
Animal community	Proposed

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Danyliuk K.M. O. Flora of vascular plants of the regional landscape park "Nadsianskyi". – Kyiv: Naukova Dumka, 2012. – 120 p. [in Ukrainian]
National Atlas of Ukraine. - Kyiv: Kartografiia, 2007. - 440 p. [in Ukrainian]
Phylogenetic fund of rarities of western regions of Ukraine (sozological assessment and scientific basis of conservation) / [ed. by S. M. Stoiko]. - Lviv: Liha-Press, 2004. - 232 p. [in Ukrainian]
Regional Landscape Park 'Nadsiansky'. Scientific-popular edition / Maryskevich O., Shpakivska I., Neviadomskyi Z., Bashta A.-T. V., Danyliuk K.M., Kanarskyi Yu.V., Kulachkivskyi R.P. - Lviv: ZUKTS Press, 2011. - 74 p.
Rare species of plants and animals of the regional landscape park 'Nadsiansky'. - Scientific-popular edition / Maryskevich O., Shpakivska I., Danyliuk K.M., Bashta A.-T. V., Kanarskyi Yu.V., Kahalo O.O. - Lviv: ZUKTS Press, 2010. - 14 p.
Red Data Book of Ukraine. Plant World / ed. by Ya.P. Didukh - Kyiv: Globalconsulting, 2009.-912 p. [in Ukrainian]
Red Data Book of Ukraine. Animal World / ed. by I. A. Akimov. - Kyiv: Globalconsulting, 2009. - 600 p. [in Ukrainian]
[IUCN, 2018]. 2018 IUCN Red List of Threatened Species. Gland, IUCN
EU Water Framework Directive 2000/60/EC Definitions of Main Terms

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)

<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

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Mishok Bog: general view (*L. Borsukevych, 04-08-2010*)



Grass-scrub moss cover of Mishok Bog (*L. Borsukevych, 04-08-2010*)



Mishok Bog: general view (*L. Borsukevych, 04-08-2010*)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation