

# Ramsar Information Sheet

Published on 23 August 2019

# **Ukraine**Pohorilets River Headwaters



Designation date 20 March 2019 Site number 2397

Coordinates 48°02'43"N 24°39'35"E

Area 1 624,55 ha

https://rsis.ramsar.org/ris/2397 Created by RSIS V.1.6 on - 9 September 2019

# 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 located within the upper basin of the Pohorilets River. It covers upland forest, subalpine and alpine zones of the Chornohora mountain range of the Ukrainian Carpathians with a dense network of streams, brooks, bogs and lakes. It is characterized by a high concentration of narrowly localized endemic Carpathian species and relicts of the post-glacial period, belonging to different biota groups. In post-glacial cirques, between the mountains Pip Ivan and Smotrych, areas of raised peatbogs with the participation of glacial relicts have been formed. An important component of the site is a number of sloping mesotrophic cottongrass-sedge-moss bogs dominated by the sedge Carex paniculata and Eriophurm latifolium. In the subalpine zone, large areas are occupied by the scrub communities formed by Pinus mugo and Alnus viridis. The surrounding mountain slopes of the forest belt are occupied by fir forests.

About 500 species of vascular plants, a number of plant communities and about 90 species of vertebrate animals are found within the Site. Many of them are included in the international, national and regional lists, such as the Bern Convention (59 species listed in the Appendix II). In particular, 23 species of vertebrates are listed in the Red Data Book of Ukraine.

The Site is a large reservoir of water resources accumulated during heavy rains or snow melting. Thus, it significantly reduces the drastic floods in downstream areas and is crucial for the maintenance of the hydrological balance of the Chornyi Cheremosh River.

The wetland is valuable in terms of environmental education, recreation and research. This area is one of the most popular in all Ukrainian Carpathians.

The Site is located within the Carpathian National Nature Park.

# 2 - Data & location

# 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

# Compiler 1

Compiler 2

Name	lvan Danylyk
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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

Fax +380322707430

# 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Pohorilets River Headwaters

Unofficial name (optional)

Витоки ріки Погорілець (Vytoky riky Pohorilets)

#### 2.2 - Site location

# 2.2.1 - Defining the Site boundaries

# b) Digital map/image

<3 file(s) uploaded>

Former maps 0

#### Boundaries description

The site boundaries overlap with the upper part of the Pohorilets river catchment. The site is limited by the mountain peaks of Pip Ivan Chornohirskyi (2,028 m a.s.l.), Smotrych (1,898 m a.s.l.), Shuryn (1,773 m a.s.l.), Mykuleska (1,728 m a.s.l.), Staiky (1,743 m a.s.l.). The Site situated in Ivano-Frankivsk region, Verkhovyna distr., 100 south-westwards of Ivano-Frankivsk, 20 km south-westwards of Verkhovyna, 8 km westwards of Zelena village; the Carpathians, East Carpathians, Chornohora.

The wetland's territory belongs to the core zone of the Carpathian National Nature Park

#### 2.2.2 - General location

a) In which large administrative region does	Verkhovyna District, Ivano-Frankivsk Region, Ukraine
b) What is the nearest town or population centre?	Zelena Village

#### 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes O No  $\odot$ 

# 2.2.4 - Area of the Site

Official area, in hectares (ha): 1624.55

Area, in hectares (ha) as calculated from 1624.53

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 Marmorosko-Chornohirsko-Svydovetskyi district of the sessile- and common oak, beech, larch and fir forests, of subalpine and alpine vegetation (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 is represented by a catchment basin of the Pohorilets River which, in turn, is a tributary of the Shybeny River and plays an important role in the formation of its runoff and regulation of the flood regime. It plays an essential role in the natural functioning of the river basin of the Chornyi Cheremosh (a tributary of the Prut). The Site is a large reservoir of water resources accumulating during heavy rains or snow melting. Therefore, it significantly reduces the likelihood of drastic floods in the downstream areas. Moreover, it is a valuable source of drinking water, for at least 1,000 inhabitants of these regions.

Other ecosystem services provided

The Site is crucial for ecological awareness, recreation, and scientific studies. This area is one of the most popular throughout the Ukrainian Carpathians. There is a wide network of thematic ecological routes: botanical, zoological, geographic and landscape. Their goal is to acquaint visitors with natural ecosystems, geological and geomorphological monuments, biological and landscape diversity, and to form and increase the level of ecological awareness of people.

The Site supports the existence of a rare natural wetland: permanent watercourses, including waterfalls, alpine wetlands, alpine meadows, freshwater springs in the Eastern Carpathian biogeographic region. The wetland includes high-altitude (mountain valley) and mountain forest (highland) parts. Here is concentrated a number of sources, from which high-altitude streams are formed, which are continued by mountain rivers, and which all together form hydrological net of the Chornyi Cheremosh (Black Cheremosh) basin. Unique for the wetland is the mountain wood lake Maricheychka, which serves as large (compared with mountain watersheds) water object, where has formed the wetland nature complex with polyfunctional pecularities not only for potable water usage, but also for habitats of many organisms which are directly or indirectly related with it. In the subalpine belt of the wetland, at the area of active sources on a relatively large square are formed rare for the Carpathians slope sphagnum-sedge marshes with a complex of rare types of groupings with a specific combination of flora and fauna representatives. Sphagnum marshes are ecological (natural) regulators of the hydrological flow. Typical for the wetland are damp or moist spruce forests, marshy mountain-pine curved forest, high-altitude grass meadow slopes on the stone substrates. All these types of forest and meadow ecosystems, which are present on the wetland territory, form the inherent for the Carpathians nature complex, ensure its resistance to negative natural and anthropogenic environmental factors.

Other reasons

#### Criterion 2 : Rare species and threatened ecological communities

#### Criterion 3 : Biological diversity

The Site provides habitats for the populations of species of plants and animals, important for the support of biological diversity of a biogeographical region of the Eastern Carpathians. The flora consists around 500 species of plants. In a taxonomic composition of flora, representatives of the families Asteraceae, Poaceae, Cyperaceae, Rosaceae, Juncaceae dominate. A total of 4 species of amphibians and reptiles, around 60 species of birds and 25 species of mammals inhabit the Site. The Site supports a great number of endemic species of animals of the Eastern Carpathian biogeographic region. Among invertebrates 21 endemic species are listed in the Red Data Book with different statuses, for example, Quedius transsylvanicus, Chrysolina carpathica, Oreina plagiata, Oreina viridis, Erebia manto. The current population status of many of them is unfavourable, and it is often instensified by climate change and an upward shift of the upper forest border in these mountains.

Justification

☑ 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 Red List	CITES Appendix I	Other status	Justification
Arnica montana			<b>⊘</b>		LC			
Aster alpinus			<b>₽</b>				listed in the Red Data Book of Ukraine - NT	
Botrychium Iunaria		<b>2</b>	<b></b>				listed in the Red Data Book of Ukraine - VU	
Campanula serrata			V		LC			
Carex chordorrhiza		<b>&gt;</b>	<b></b> ✓		LC		listed in the Red Data Book of Ukraine - VU	
Carex lachenalii		<b>2</b>	V		LC		listed in the Red Data Book of Ukraine - EN	
Carex pauciflora		<b>2</b>	<b></b>		LC		listed in the Red Data Book of Ukraine - VU	
Dactylorhiza cordigera		<b>2</b>	<b>₽</b>		LC		listed in the Red Data Book of Ukraine - VU	
Dactylorhiza maculata		<b>2</b>	<b></b> ✓				listed in the Red Data Book of Ukraine - VU	
Epipactis palustris		<b>2</b>	<b></b> ✓		LC		listed in the Red Data Book of Ukraine - VU	
Galanthus nivalis			V		NT		Red Data Book of Ukraine - NE	
Gentiana acaulis			<b>V</b>		LC		listed in the Red Data Book of Ukraine - NT	
Gentiana punctata		✓	V		LC		listed in the Red Data Book of Ukraine - VU	
Goodyera repens		<b>2</b>	V				listed in the Red Data Book of Ukraine - VU	
Gymnadenia conopsea		<b>2</b>	V				listed in the Red Data Book of Ukraine - VU	
Gymnadenia densiflora		<b>2</b>	V				listed in the Red Data Book of Ukraine - VU	
Neottia cordata		<b>2</b>	V		LC		Red Data Book of Ukraine - VU	
Pedicularis oederi		✓	<b></b> ✓				listed in the Red Data Book of Ukraine - CR	
Pinguicula alpina			<b></b> ✓				listed in the Red Data Book of Ukraine - NT	
Pinus cembra		<b>2</b>	<b></b> ✓		LC		listed in the Red Data Book of Ukraine - VU	
Poa granitica		<b>₽</b>	<b></b> ✓				Bern Convention - Appendix I	
Pseudorchis albida		<b>2</b>	<b></b> ✓				listed in the Red Data Book of Ukraine - VU	
Rhodiola rosea		<b>2</b>	<b></b> ✓				listed in the Red Data Book of Ukraine - VU	
hododendron myrtifolium		<b>2</b>	<b></b> ✓		EN		listed in the Red Data Book of Ukraine - NE	
Selaginella selaginoides		<b>2</b>	<b></b> ✓				listed in the Red Data Book of Ukraine - VU	
Spinulum annotinum		<b>S</b>	<b>₽</b>				Red Data Book of Ukraine - VU	

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Swertia perennis		$\checkmark$	<b>/</b>				listed in the Red Data Book of Ukraine - VU	
Tozzia alpina			✓					
Traunsteinera globosa		V	V				listed in the Red Data Book of Ukraine - VU	

The flora of the wetland is represented by three belts: dark-needle fir-tree forests with remnants of primeval forests, and subalpine and alpine belts. Forest and meadow vegetation are represented by communities of the classes Mulgedio-Aconitetea Hadac et Klika in Klika 1948., Loiseleurio-Vaccinietea Eggler ex Schubert 1960, Calluno-Ulicetea Br.-Bl. et Tx. ex Westhoff et al. 1946, Juncetea trifidi Hadac 1946, Salicetea herbaceae Br.-Bl. 1948, Asplenietea trichomanis Br.-Bl. in Meier et Br.-Bl. 1934, Montio-Cardaminetea Br.-Bl. et Tix. 1943. These classes include a number of unique vegetation communities with the dominance of Poa deylii, Loiseleuria procumbens, Juncus trifidus, Carex curvula, C. sempervirens, Doronicum stiriacum, Gentiana punctata, Rhodiola rosea, Rhododendron myrtifolium.

Bog vegetation, which is rare for the Carpathians, is represented by eutrophic hillslope bogs in the site "Pohorilets" (the class Scheuchzerio-Caricetea fuscae, the order Caricetalia fuscae W. Koch 1926 and the class Oxycocco-Sphagnetea Br.-Bl. et Tüxen ex Westhoff et al. 1946). This area is important for the conservation of more than 40 species from the Red Data Book of Ukraine. The Pohorilets headwaters are one of the distribution centers of endemic and relic species of plants – more than 30 endemics and a lot relic species have been revealed. A considerable area in the Pohorilets headwaters is occupied by the formation of Cariceta paniculatae; associations: Carex paniculata – Hypnales, Carex paniculata – C. flava – Hypnales, which are rare communities for the Carpathians at the south-eastern limit of their range. They are formed by the Mediterranean-Central European species Carex paniculata, and participated by a lot of plant species included in the Red Data Book of Ukraine.

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

Phylum	Scientific name	Common name	qua un crit	ecies alifies ader erion 6 9	Species contributes under criterion 3 5 7 8	Period of pop. Est. occurre			CMS Appendix I	Other Status	Justification
Birds											
CHORDATA/ AVES	Aegolius funereus	Boreal Owl	<b>2</b>		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - NT, Bern Convention - Annex II	
CHORDATA/ AVES	Aquila chrysaetos		<b>V</b>		<b>2</b> 000	]	LC			Red Data Book of Ukraine - VU	
CHORDATA/ AVES	Aquila pomarina	Lesser Spotted Eagle	<b>V</b>		Ø00c					listed in the Red Data Book of Ukraine - NT, Bern Convention - Annex II	
CHORDATA/ AVES	Glaucidium passerinum	Eurasian Pygmy Owl	$\square$				LC			Red Data Book of Ukraine - VU	
CHORDATA/ AVES	Prunella collaris	Alpine Accentor	$\square$			]	LC			Red Data Book of Ukraine - VU	
Others											
CHORDATA/ AMPHIBIA	Bombina variegata		<b>V</b>		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - VU	lives and spawns here
CHORDATA/ MAMMALIA	Chionomys nivalis	European snow vole	V		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - VU	
ARTHROPODA / INSECTA	Erebia manto				<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - NT	
CHORDATA/ AMPHIBIA	Ichthyosaura alpestris		$\square$		<b>2</b> 000	]	LC			Red Data Book of Ukraine - VU	
CHORDATA/ AMPHIBIA	Lissotriton montandoni		1		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - VU, Bern Convention - Annex II	lives and spawns here
CHORDATA/ MAMMALIA	Lutra lutra	European Otter	<b>2</b>		<b>2</b> 000		NT	<b></b>		listed in the Red Data Book of Ukraine - NE, Bern Convention - Annex II	
CHORDATA/ MAMMALIA	Mustela erminea	Ermine					LC			listed in the Red Data Book of Ukraine - NE	
CHORDATA/ MAMMALIA	Mustela lutreola	European Mink				]	CR			Red Data Book of Ukraine - EN	
CHORDATA/ MAMMALIA	Neomys anomalus	Mediterranean Water Shrew; Southern Water Shrew	<b>2</b>		<b>2</b> 000		LC			Red Data Book of Ukraine - VU	
CHORDATA/ AMPHIBIA	Salamandra salamandra		J		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - VU	lives and spawns here
CHORDATA/ MAMMALIA	Sicista betulina		<b>V</b>		<b>2</b> 000		LC			listed in the Red Data Book of Ukraine - NT, Bern Convention - Annex II	
CHORDATA/ MAMMALIA	Sorex alpinus	Alpine Shrew			<b>2</b> 000		NT			listed in the Red Data Book of Ukraine - NT	
CHORDATA/ MAMMALIA	Ursus arctos	Brown Bear; Grizzly Bear	<b>V</b>		<b>2</b> 000		LC	V		listed in the Red Data Book of Ukraine - CR	

<sup>1)</sup> Percentage of the total biogeographic population at the site

The Site holds a specific complex of boreal-taiga and mountain species of verterbrates. In total, around 90 species of terrestrial vertebrates have been revealed (5 species of amphbians and reptiles, around 60 species of birds and 26 species of mammals). A number of rare, vulnerable and endangered species are found among mammals. The life cycle of them is closely associated with wetlands other other habitats available in the area. Thus, Sorex alpinus predominantly inhabits the alpine and subalpine zones. The most important habitats for this species are banks of rivers and channels, boggy and grassy areas, forests of Pinus mugo, etc. Of other insectivorous mammals, Neomys fodiens can be found; it is characterized by half-water life mode, living close to non-freezing rivers and channels, preferring beech and mixed forests and well as elfin woodland of Pinus mugo and Alnus viridis. Other important species include Canis lupus, Ursus arctos, Mustela lutreola, Martes martes, Mustela erminea, Lutra lutra, Capreolus capreolus, Cervus elaphus and others, adapted ti extreme highland climate.

The wetlands are vital for a number of rodents closely associated with wet and waterlogged habitats (scrubs, Alnus viridis, meadows, beds of Rumex, areas covered with Pinus mugo, alder, rhododendron, juniper: Sicista betulina, Microtus agrestis.

Avifauna of the site is represented by 12 species listed in the Red Data Book of Ukraine: Aquila chrysaetos, Falco peregrinus, Aquila pomarina, Tetrao urogallus, Lyrurus tetrix, Bubo bubo, Glaucidium passerinum, Aegolius funereus, Strix uralensis, Prunella collaris, Picoides tridactylus, Monticola saxatilis.

The upper part of the Pohorilets river basin is an important habitat of Salmo trutta morpha fario. For red-listed species such as Salamandra salamandra, Mesotriton alpestris, Ichthyosaura montadoni, and also Bombina variegata, the site provides important breeding areas.

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
2.12 Hard water springs.	Ø	Species-rich habitats with high moss cover, high dominance of moss Cratoneuron commutatum is typical. The stands belong to alliances Cratoneurion commutati and Lycopodo-Cratoneurion commutati with typical species Saxifraga aizoides, Viola biflora.	Bern Convention - Resolution 4 habitat type.
c2.18 Acid oligotrophic vegetation of spring rooks.	<b>V</b>	Euhydrophyte communities of Palaearctic streams poor in nutrients and in lime, with, in particular Callitriche hamulata, or acidophilous mosses and algae.	Bern Convention - Resolution 4 habitat type.
C2.25 Acid oligotrophic vegetation of fast- owing streams.	V	Euhydrophyte communities of Palaearctic streams poor in nutrients and in lime, with, in particular, Callitriche hamulata, or acidophilous mosses and algae.	Bern Convention - Resolution 4 habitat type.
02.226 Peri-Danubian black-white-star edge fens.	Ø	Acidic fens, with an herbaceous sward formed by Carexechinata, Carexcanescens, Carex dacica or Carex rostrata and sometimes Juncus effusus, or Nardus stricta.	Bern Convention - Resolution 4 habitat type.
05.2 Beds of large sedges normally without ree-standing water.	<b>2</b>	Terrestrialized stands of tall Carex, usually species-poor and often dominated by one species, growing on waterlogged ground. These species also grow as emergents and fringing vegetation beside water bodies (C3.2).	Bern Convention - Resolution 4 habitat type.
E1.71 Nardus stricta swards.	Ø	Mesophile and xerophile Nardus stricta- dominated Other important species: Festuca rubra, Agrostis capillaris, Avenula versicolor, Campanula alpina and Avenella flexuosa.	Bern Convention - Resolution 4 habitat type.

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
E2.3 Mountain hay meadows.	Ø	Often species-rich mesotrophic to eutrophic hay meadows of the montane and subalpine levels of higher mountains of the nemoral and southern boreal zones.	Bern Convention - Resolution 4 habitat type.
E4.3 Acid alpine and subalpine grassland.	Ø	Alpine and subalpine grasslands developed over crystalline rocks and other lime-deficient substrates or on decalcified soils of mountains. On boreal mountains, Carex bigelowii and Juncus trifidus.	Bern Convention - Resolution 4 habitat type.
E5.5 Subalpine moist or wet tall-herb and fem stands.	✓	Luxuriant tall herb formations of deep, humid soils in the montane to alpine, but mostly subalpine, levels of the higher mountains, with Cicerbita alpina, Ranunculus platanifolius, Adenostyles alliariae, Trollius europaeus, Tozzia alpina.	Bern Convention - Resolution 4 habitat type.
F2.224 Carpathian Rhododendron kotschyl heaths.	✓	Heaths of the subalpine and lower alpine levels (1700-2000 m) of the eastern and southern Carpathian Mountains, common and widespread, but occupying small surfaces, dominated by Rhododendron mytifolium.	Bern Convention - Resolution 4 habitat type.
G1.12 Boreo-alpine riparian galleries.	Ø	Riverside of the high mountains of the nemoral zone and of their piedmont influence region, dominated by Alnus incana. In the herb layer, nitrophilous and hygrophilous species dominate.	Bern Convention - Resolution 4 habitat type.
G3.1B Alpine and Carpathian subalpine Picea forests.	<b>V</b>	Picea abies forests of the lower subalpine level. The spruces, often stunted or columnar, are accompanied by an undergrowth of decidedly subalpine affinities. Picea abies forests of the lower subalpine level of the Carpathians.	Bern Convention - Resolution 4 habitat type.

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

# 4.1 - Ecological character

The Site is a catchment area with a network of rivers, bogs and lakes in the upper reaches of the Pogorelets River and belongs to the highest massif of the Ukrainian Carpathians - Chornogory (2,028 m). It is located within the limits of the Chornohirska tectonic zone, consisting of Cretaceous and Paleogene flyschs with massive sandstones. The topography is characterized by a combination of rounded and dome-shaped mountain peaks with steep slopes of the relict glacial complex (Meso-Pleistocene glacial cirques and valleys deflections), complicated by modern nival, gravity and fluvial-denudation processes. The microclimate of the Site is moderately continental and represented by several mountain altitude meso-climatic belts, overlapping with vegetation zones. The soil cover is represented by weakly developed and short-profile brown soils.

Several altitude vegetation zones are distinguished: beech-fir (Abies) zone (up to 1,250 m), fir (Pices) zone (1,250-1,500 m), subalpine zone with Pinus mugo, the zone of creeping tree species (1,500-1,750 m), and the alpine zone (upper than 1,750 m). Forests and alpine grasslands were intensively exploited until the middle of the 20th century, which results in the prevalence of fir monocultures in the coniferous-beech zone. For many representatives of fauna, the following habitats are important: wet and waterlogged habitats, banks of rivers and channels, boggy areas in the upper part of the belt of beech and fir mountain forests, alpine meadows with rich grass cover, beds of Rumex, elfin woodland, scrub (in particular, Vaccinietum-Alnetum, juniper, rhododendron), evergreen sedges, raised bogs and water bodies of different size, including temporary.

The Site is a large reservoir of water resources accumulating during heavy rains or snow melting. Therefore, it significantly reduces the likelihood of drastic floods in the downstream areas. Moreover, it is a valuable source of drinking water for at least 1,000 inhabitants of these regions. The Site is crucial for ecological awareness, recreation and scientific studies. There is a wide network of thematic ecological routes within the Site: botanical, zoological, geographic and landscape trails.

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

#### Inland wetlands

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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 >> Mt Permanent rivers/ streams/ creeks		4	3	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		4	1.5	Unique
Fresh water > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/ pools		3	85	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		3	14.5	Representative
Fresh water > Marshes on inorganic or peat soils >> Va: Montane wetlands		1	640	Rare
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		2	135	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		3	20	Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		4	0.5	Representative

# Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Foliated rocks	20
Meadows and mountain valleys	100
Elfin woodland	50
Coniferous forests	640
Buidings	0.05
Roads	0.5

#### 4.3 - Biological components

#### 4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Crocus heuffelianus		Red Data Book of Ukraine - NE, Carpathian-Balkanian montane- alpine species at the north-eastern limit of its range
Dactylorhiza fuchsii		Red Data Book of Ukraine- NE, species at the southern limit of its range
Epipactis helleborine		Red Data Book of Ukraine - NE, polymorphal species with a wide ecological-coenotic amplitude
Huperzia selago		Red Data Book of Ukraine -NE, tertiary relict
Lilium martagon		Red Data Book of Ukraine - NE, species with a disjunctive range
Neottia nidus-avis		Red Data Book of Ukraine - NE, the plant with a complex biology of development and saprophytic (symbiomicotrophic) type
Platanthera bifolia		Red Data Book of Ukraine - NE, European-Mediterranean nemoral species

Invasive alien plant species

Scientific name	Common name	Impacts	
Erigeron annuus		Potentially	No change

#### 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
ARTHROPODA/INSECTA	Amara misella					Carpathian endemic
ARTHROPODA/INSECTA	Carabus sylvestris transylvanicus					Carpathian endemic
RTHROPODAINSECTA	Deltomerus carpathicus					Carpathian endemic
RTHROPODAINSECTA	Duvalius corpulentus					Carpathian endemic
RTHROPODAINSECTA	Duvalius roubali					Carpathian endemic
RTHROPODAINSECTA	Duvalius ruthenus					Carpathian endemic
RTHROPODA/INSECTA	Duvalius subterraneus					Carpathian endemic
RTHROPODA/INSECTA	Nebria reitteri					Carpathian endemic
RTHROPODA/INSECTA	Nebria transsylvanica					Carpathian endemic
RTHROPODA/INSECTA	Pterostichus foveolatus					Carpathian endemic
RTHROPODAINSECTA	Pterostichus pilosus					Carpathian endemic

# 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 macroclimate of the Site is temperate moderately-continental and is represented by several mountain altitudinal meso-climatic belts, which overlap with the vegetation zones. The wetland has a substantial altitudes difference, therefore, in summer, with an elevation on 100 m, the temperature drops on 0.7 degrees. Temperatures at the altitude of 1430 m above sea level - the average temperature in July is +11,1, in January +6,5, the average annual temperature is +2,7 degrees. The annual sum of active temperature (over 10 deg.) varies from 1400 in the lower part of the site to 100-200 deg. on the highest tops. The annual precipitation is around 1100 mm.

# 4.4.2 - Geomorphic setting

- N. Control and a section of the se	
a) Minimum elevation above sea level (in metres)	1050
metres)	.000

a) Maximum elevation above sea level (in metres)

Entire river basin

Upper part of river basin

	Middle pa	rt of river basin	
	Lower pa	rt of river basin	
	More than	one river basin	
	No	ot in river basin	
		Coastal	
Please name the river basi	n or basins. If the site lies in a		te the larger river basin. For a coastal/marine site, please name the sea or ocean.
		· · · · · · · · · · · · · · · · · · ·	a containing a network of natural streams, bogs and lakes in the upper part
of the Pohorilets stream			, , ,
4.4.3 - Soil			
		Mneral <b>☑</b>	
		Organic 🗹	
	No availab	ole information	
Are soil types subject to	change as a result of changir	ng hydrological	
conditi	ions (e.g., increased salinity or	acidification)?	,
	mation on the soil (optional)		
			-slope ridges with brown mountain-forest soils and sod-brown rubblish
			e ridges with mountain valleys which are dominated by brown mountain- e soils; gravel-sandy soils and loamy floodplains.
4.4.4 - Water regime			
Water permanence			
Presence?		1	
Usually permanent water present	No change		
		•	
Source of water that maintain Presence?	Predominant water source		
Water inputs from		No change	
groundwater Water inputs from surface	<b>2</b>	No change	-
water			-
Water inputs from rainfall	<b>S</b> .	No change	
Water destination			
Presence? To downstream catchment	No change		
10 downstroam catominant	140 Glange	I	
Stability of water regime  Presence?	7		
Water levels largely stable	No change		
			this box to explain sites with complex hydrology.
runoff and regulates the		er Basin, which is a tri	outary of Shybeny River and plays a significant role in the regulation of its
3			
4.4.5 - Sediment regim	ne		
Signifi	icant erosion of sediments occ	rurs on the site	
•	or deposition of sediments occ		
	on of sediments occurs on or the	_	
Sediment regime is high	ly variable, either seasonally or	_	
	Sediment re	gime unknown 🗆	
4.4.6 Water pH			
4.4.6 - Water pH			
		Acid (pH<5.5) □	
		al (pH: 5.5-7.4 ) 🗹	
	Ak	aline (pH>7.4) □	
		Unknown	
4.4.7 - Water salinity			
	F	Fresh (<0.5 g/l) 🗹	
	Mixohaline (brackish)/Mixosal	ine (0.5-30 g/l)	
	Euhaline/Eusa	line (30-40 g/l)	
	Hyperhaline/Hypers	saline (>40 g/l)	
	•	Unknown	
4.4.8 - Dissolved or su	spended nutrients in wat	ter	
		Eutrophic	
		Mesotrophic ☑	

RIS for Site no. 2397, Pohorilets River Headwaters, Ukraine

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  $\hfill\Box$ 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  $\hfill\Box$ 

character of the wetland

<no data available>

<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		(a)

#### 5.1.2 - Management authority

-	Carpathian National Nature Park
agency or organization responsible for	
managing the site:	
Provide the name and title of the person or	V.Ya. Slobodian, acting director
people with responsibility for the wetland:	v. ra. olobodian, acting uncolor
Postal address:	Yaremche, Vasylja Stusa St. 6, Ivano-Frankivska oblast, Ukraine, 78500
Postal address:	
F-mail address:	cnnp@meta.ua

# 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	✓	✓	

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact	Low impact	✓	

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Logging and wood harvesting	Low impact	Medium impact	✓	✓

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Medium impact	Medium impact	✓	✓

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Garbage and solid waste	Low impact	Medium impact	✓	✓

Geological events

e e e e e e e e e e e e e e e e e e e					
	Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
	Avalanches/landslides	Low impact	Low impact	✓	✓

# Please describe any other threats (optional):

The wetland: its territory lies within the Carpathian National Nature Park, which ensures limited use and control of natural resources. In adjacent lands, the traditional agriculture is practiced: livestock grazing and haymaking.

The main threat to the ecological status of the wetland is represented by a medium recreation pressure, which in addition to a direct impact on the ecosystems is also complicated by great littering of the territory with hard waste.

#### 5.2.2 - Legal conservation status

National legal designations

National legal designations			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Nature Park	Carpathians	http://cnnp.if.ua/en/contacts	whole

5.2.3 - IUCN protected areas categories (200	5.2.	3 -	<b>IUCN</b>	protected	areas	categories	(200)
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la Strict Nature Reserve
lb 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

zoga. protostor.		
Measures	Status	
Legal protection	Implemented	

#### Habitat

Measures	Status
Habitat manipulation/enhancement	Implemented

#### **Species**

Measures	Status
Threatened/rare species management programmes	Proposed

#### **Human Activities**

Measures	Status
Regulation/management of recreational activities	Partially implemented
Communication, education, and participation and awareness activities	Partially implemented
Research	Partially implemented
Harvest controls/poaching enforcement	Partially implemented

# Other:

The wetland is part of the Carpathian National Nature Park, which is responsible for the protection regime and management of the area. Conservation activities mostly focus on conservation and restoration of the most valuable natural complexes. In the south-west, the Site borders on the Carpathian Biosphere Reserve. The Site meets to the II categories of the IUCN.

# 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?

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:

The Site is important area for ecological awareness and recreation. There is a wide network of thematic ecological routes: botanical, zoological, geographic and landscape. Coordination of recreational and educational activities is carried out by Carpathian NNP.

# 5.2.6 - Planning for restoration

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

# 5.2.7 - Monitoring implemented or proposed

RIS for Site no. 2397, Pohorilets River Headwaters, Ukraine

Monitoring	Status
Plant community	Implemented
Animal species (please specify)	Implemented
Plant species	Implemented

# 6 - Additional material

#### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Carpathian National Nature Park / ed. by M.M. Prykhodko, O.I. Kyseliuk, A.I. Yavorskyi. - Ivano-Frankivsk: Foliant, 2009. - 672 p. [in Ukrainian]

Kyseliuk O.I. Mammal communities of plant stages of the north-eastern macroslopes of the Ukrainian Carpathians // International aspects of the study and protection of biodiversity of the Carpathians: Conference proceedings. - Rakhiv, 1997. - P. 80-83. [in Ukrainian]

Kyseliuk O.I., Klapchuk V.M., Tymchuk O.V. On the Red Book of Ukraine. - Yaremcha, 2001. - 138 p. [in Ukrainian]

Kyseliuk O. Mammals of the Carpathian National Park // Scientific notes of Vano-Frankivsk National History Museum. – Vano-Frankivsk, 2001. – P. 188-192. [in Ukrainian]

Malynovskyi K. A. Plant communities of the highlands of the Ukrainian Carpathians / K. A. Malynovskyi, V. V. Krichfalushii. - Uzhhorod: Karptska Vezha, 2002. - 244 p. [in Ukrainian]

National Atlas of Ukraine. - Kyiv: Kartografiia, 2007. - 440 p. [in Ukrainian]

Phytogenic 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]

Rizun V. B. Endemic species of ground beetles (Coleoptera, Carabidae) in the territory of the Carpathian National Nature Park // National natural parks: problems of formation and development. - Yaremche, 2000. - P.242-247. [in Ukrainian]

Rizun V. B. Ground beetles of the Ukrainian Carpathians. - Lviv, 2003. - 210 p. [in Ukrainian]

Stoiko S. M. Nature of the Carpathian National Park / [S. M. Stoiko, L. I. Milkina, L.O. Tasenkevich et al.]. - Kyiv: Naukova Dumka, 1993. - 214 p. [in Ukrainian]

Fedorenko A.P., Rohatko I.V., Yakivchuk I.M. Terrestrial vertebrate animals of the park and their conservation // Nature of the Carpathian National Park. - Kyiv: Naukova Dumka, 1993. - P. 145-169. [in Ukrainian]

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



Highland middle- forest lake Maricheika ( *I.Danylyk*, 16-07-2009 )



Raised bog at the shore of Lake Maricheika ( *I. Danylyk* 16-07-2009 )



Sphagnum-cranberry phytodiversity of the bog at the shore of Lake Maricheika ( *I.Danylyk*, 16-07-2009 )



Cottongrass-sedge hillslope bog in headwaters of the Phorilets River ( *I.Danylyk*, 16-07-2009 )



Post-glacial kettle between mountains Pip Ivan and Smotrych ( *I.Danylyk*, *16-*07-2009 )



Wetland area in the alpine belt of Chornohora massif (

# 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2019-03-20