

Ramsar Information Sheet

Published on 23 August 2019

UkraineNarcissi Valley



Designation date 20 March 2019
Site number 2390
Coordinates 48°10'59"N 23°21'31"E
Area 256,00 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

Summarv

The "Narcissi Valley" contains the largest Central European lowland population of pheasant's eye narcissus (Narcissus poeticus L.), a wetland relict species of the ice age, which is listed in the Red Data Book of Ukraine and holds the "vulnerable" status. The site is covered by rare wet meadows with a Narcissus dominance. It occupies 256 hectares of the floodplain of the Khustets River, the right tributary of Tysa (Tisza) River, which at the same time is a Danube tributary. The Site is located in the Zakarpatska Oblast (Province) of Ukraine, close to the international border between Ukraine, Hungary and Romania.

The "Narcissi Valley" is not only a critically important biodiversity hotspot for Ukraine. The wet meadow habitats are critically endangered in the larger transboundary landscape of the Pannonian and Danube Lowlands, which are dominated by agriculture. Together with the pheasant's eye narcissus, 22 other plant species, listed in the Red Data Book of Ukraine, grow in the Site. The orchid group is dominant among them. The fauna of the site is represented by a number of endemic species of the Danube Basin. There are also species that are listes as vulnerable throughout the European wetlands, among them the bird Crex crex and Lanius excubitor, the amphibian Triturus dobrogicus, and insects, which include rare species of night moths (Eudia pavonia, Saturnia pyri, Proserpinus proserpina etc). All of them are listed in the Red Data Book of Ukraine.

The wetland plays an important role in mitigating the effects of flooding and in providing high-quality drinking water for settlements situated downstream in the valley of the Khustets River, as it accumulates a large amount of precipitation and water from the melting of snow in the catchment area.

The Site is also important as an ecological and cultural centre. Due to its aesthetic attraction during the Narcissus blossom period, which usually lasts for 3 weeks during May, the "Narcissi Valley" is a Site of great recreational significance. During this period, it is visited by ca. 50.000 tourists. The "Narcissi Valley" has a great influence on local folklore, it inspired many folk legends, songs, poems, painters etc. Every year, the children's song festival "Golden Narcissus" is held here. A "Museum of Narcissus" operates year-round. The Site is a part of the territory of the Carpathian Biosphere Reserve.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Compiler 2

Name	Bohdan Prots							
Institution/agency	State Museum of Natural History, National Academy of Sciences of Ukraine and NGO "Danube-Carpathian Programme"							
Postal address	Teatralna Str., 18, Lviv, 79008, Ukraine							
E-mail	bohdan.prots@gmail.com							
Phone	+380673533813							
Fax	+380322356917							
Name	Vasyl Pokynchereda							
Institution/agency	Carpathian Biosphere Reserve							
Postal address	77, Krasne Pleso Str., Rakhiv, Zakarpatska oblast, 90600, Ukraine							
E-mail	cbr-rakhiv@ukr.net							
Phone	+380313222193							
Fax	+3803132221 93							

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

From year 2009

To year 2016

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Unofficial name (optional)

Долина нарцисів (Dolyna Narcysiv)

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 boundaries of the "Narcissi Valley" coincide with the boundaries of the Carpathian Biosphere Reserve. The wetland located in Zakarpatska Oblast, about 100 km to the South-East of Uzhhorod, near town of Khust (4 km), directly bordering with the villages Kireshi and Iza. The Site located close to international borders of Ukraine to Hungary and Romania.

2.2.2 - General location

a) In which large administrative region does the site lie?	Zakarpatska oblast
b) What is the nearest town or population centre?	Khust

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes O No \odot

b) Is the site adjacent to another designated Ramsar Site on the Yes O No

O territory of another Contracting Party?

2.2.4 - Area of the Site

Official area, in hectares (ha): 256

Area, in hectares (ha) as calculated from 256.73

GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Pannonian

Other biogeographic regionalisation scheme

According to the geobotanical zoning the Site belongs to the Eurasian steppe region; Forest-steppe subregion (zone); Pannonian province of heliophilic and nemoral forests. Stepp meadows and meadow steppes; Transcarpathian region of rocky-oak and common-oak forests and steppe meadows (Didukh, Shelyag-Sosonko, 2003)

By zoogeographical zoning, the object is situated within the Paleo-Arctic region; Boreal European-Siberian subregion; European-West-Siberian Province; Central European, European District; Carpathian region; West-fore-mountain area (Shcherbak, 1988).

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 wetland is an important flood mitigator for the settlements located downstream in the valley of the Khustets River, particularly for the town of Khust, where 3,000 people live. It accumulates a large amount of precipitation from heavy rainfalls and water from snow melting in the catchment area.

The water purification for local communities in the lower current of the Khustets River catchment is the most important ecosystem service, as in the last decade, there has been a deficit of high-quality drinking water.

In the "Narcissi Valley", locals are engaged in traditional agricultural activities - mainly hay-mowing. There is also cattle grazing but of non-significant intensity.

Other ecosystem services provided

The Site has also an important ecological and cultural value. It is a popular tourist destination. Due to its aesthetic attraction during the period of Narcissus blossom, which usually lasts for 3 weeks during May, the "Narcissi Valley" has a great recreational value. During this period, the Site visited by approximately 50 000 tourists each year. The "Narcissi Valley" has a great influence on local folklore, as it inspired many folk legends, songs, poems, painters etc. Every year, the children's song festival "Golden Narcissus" is held. The "Museum of Narcissus" operates all year-round.

The "Narcissi Valley" is Europe's largest area of the lowland population of pheasant's eye narcissus (Narcissus poeticus L.), which has survived in the Site since the glacial period. The Site also is one of the last of traditionally maintained meadow floodplains, protected at the foothills of the Carpathians with their characteristic flora and fauna.

Other reasons

At least 11 wetland habitat types are found in the Site, most of which are rare and threatened for the region. Their development is maintained by traditional agriculture and a natural water regime. The wetland habitats contain a large number of rare species.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

The Site is important for the conservation of local biodiversity. 507 species of native vascular plants grow in the Site, which is one of the highest wetland plant species concentration of Ukraine. The existence of large lowland population of the rare highland species pheasant's eye narcissus (Narcissus poeticus L.), makes the Site contain the last surviving lowland population of this species in Ukraine. Back in the early 20th century, there were plenty of this species populations in the Pannonian Lowland, which is fragmented in Hungary, Slovakia, Romania and Ukraine. But as a result of agricultural development of these territories, at present all of them are destroyed, except "Narcissi Valley".

Justification

The largest diversity here is represented by invertebrates, of which only of insects here were identified more than 500 species. It occurs 164 species of vertebrates. Among the vertebrates especially distinguished are representatives of the local ichthyofauna, where dominate endemic and sub endemic species of the Danube basin. The local amphibians are also widely represented, which includes 10 species. Avifauna is represented by 119 species.

☑ 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
Anacamptis coriophora		2	2				listed in the Red Data Book of Ukraine - VU	
Anacamptis laxiflora		✓					listed in the Red Data Book of Ukraine - VU	
Anacamptis morio		2	2				listed in the Red Data Book of Ukraine - VU	
Anacamptis palustris		2	2		LC		listed in the Red Data Book of Ukraine - VU	
Carex buxbaumii		2	2		LC		listed in the Red Data Book of Ukraine - VU	
Colchicum autumnale			2		LC		listed in the Red Data Book of Ukraine - DD	
Crocus banaticus		2	2				listed in the Red Data Book of Ukraine – VU	
Crocus heuffelianus			2				listed in the Red Data Book of Ukraine - DD	
Dactylorhiza incarnata		2	2				listed in the Red Data Book of Ukraine - VU	
Dactylorhiza maculata		2	2				listed in the Red Data Book of Ukraine - VU	
Dactylorhiza majalis			2				listed in the Red Data Book of Ukraine – NT	
Erythronium dens-canis			2				listed in the Red Data Book of Ukraine – NT	
Gladiolus imbricatus		2	2				listed in the Red Data Book of Ukraine – VU	
Gymnadenia conopsea		2	2				listed in the Red Data Book of Ukraine - VU	
Iris sibirica		2	2				listed in the Red Data Book of Ukraine – VU	
Leucojum vernum		✓	2				listed in the Red Data Book of Ukraine - VU	
Lilium martagon		2	2				listed in the Red Data Book of Ukraine – EN	
Narcissus poeticus		2	2		LC		listed in the Red Data Book of Ukraine – VU	
Neotinea ustulata		2	2				listed in the Red Data Book of Ukraine - EN	
Orchis mascula		2					listed in the Red Data Book of Ukraine - VU	

From a botanical point of view, the «Narcissi Valley» is a unique due to the conservation here of the large lowland population of the rare highland species pheasant's eye narcissus (Narcissus poeticus L.). The lowland population was formed as a refugium during the last glacial period. Back in the early 20th century there were plenty of locations of this species on the lowland areas. But as a result of agricultural development of these territories, at present all of them are destroyed.

In addition to narcissus itself, a wetland is characterized by a large number of orchid species, of which here are occurred about 10 species. Here also grow 27 species of plants that are included in the Regional Red List of Transcarpathia (2008).

Phylum	Scientific name	Common name	Special qualification unde criteria 2 4 6	es r on	Species contribute under criterior 3 5 7	Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds													
CHORDATA/ AVES	Alcedo atthis	Common Kingfisher			2 00	2	2000-2015		LC			Bern Convention - Appendix II	
CHORDATA/ AVES	Anthus pratensis	Meadow Pipit			2 00	10	2000-2015		NT			Bern Convention - Appendix II	
CHORDATA/ AVES	Circus cyaneus	Northern Harrier			2 00	2	2000-2015		LC			listed in the Red Data Book of Ukraine - NT; Bern Convention - Appendix II	
CHORDATA/ AVES	Crex crex	Corn Crake			2 00	90	2000-2015		LC			Bern Convention - Appendix II	The only place of massive nesting (45 and 120 nests) of the species in the region.
CHORDATA/ AVES	Lanius excubitor	Great Grey Shrike; Northern Shrike			Z OO	2	2000-2015		LC			listed in the Red Data Book of Ukraine - NT; Bern Convention - Appendix II	
CHORDATA/ AVES	Otus scops	Eurasian Scops Owl			Z OO	10	2000-2015		LC			listed in the Red Data Book of Ukraine - NT; Bern Convention - Appendix II	
CHORDATA/ AVES	Picus viridis	European Green Woodpecker			Z OO	_ 2	2000-2015		LC			listed in the Red Data Book of Ukraine - VU; Bern Convention - Appendix II	
CHORDATA/ AVES	Remiz pendulinus	Eurasian Penduline Tit			2 00	2	2000-2015		LC			Bern Convention - Appendix II	
Fish, Mollusc	and Crustacea												
CHORDATA/ ACTINOPTERYG	Barbus petenyi				2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYGI	Barbus thessalus				2 00							listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYG		Wild goldfish			2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYGI	Gymnocephalus I schraetser				2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYGI	Romanogobio I kesslerii				2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYGI	Telestes souffia				2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ ACTINOPTERYGI	Zingel zingel	Zingel; Zingel; Zingel; Zingel			Z				LC			listed in the Red Data Book of Ukraine - NT	
Others													
ARTHROPODA/ INSECTA	Anax imperator				2 00				LC			listed in the Red Data Book of Ukraine - VU	
CHORDATA/ AMPHIBIA	Bombina variegata				2 00				LC			listed in the Red Data Book of Ukraine - VU	
ARTHROPODA/ INSECTA	Calopteryx virgo	Beautiful Demoiselle			2 00				LC			listed in the Red Data Book of Ukraine - VU	
ARTHROPODA/ INSECTA	Eriogaster catax				2 00							listed in the Red Data Book of Ukrainian - NT; Bern Convention - Appendix II	
ARTHROPODA/ INSECTA	Maculinea arion				2 00							Bern Convention - Appendix II	
ARTHROPODA/ INSECTA	Proserpinus proserpina				2 00							listed in the Red Data Book of Ukraine - NT	

Phylum	Scientific name	Common name	Species qualifies under criterion	Species contributes under criterion	Size Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AMPHIBIA	Rana dalmatina		2 000				LC			listed in the Red Data Book of Ukraine - CR	
CHORDATA/ AMPHIBIA	Triturus dobrogicus		2 000				NT			listed in the Red Data Book of Ukraine - VU	
ARTHROPODA/ INSECTA	Xylocopa valga									listed in the Red Data Book of Ukraine - NT	

¹⁾ Percentage of the total biogeographic population at the site

The Site is important for the conservation of fauna characteristic for floodplain meadow ecosystems and supports natural processes, which are regular flooding, plain water-flows with a slow flow etc. The Site is a biodiversity hotspot. The largest diversity is of invertebrates, of which more than 500 species of insects were identified. Among them, 12 were included in the Red Data Book of Ukraine (2009). Among the vertebrates, representatives of the local ichthyofauna are especially characteristic, as they are dominated by endemic and subendemic species of the Danube basin. The local amphibians are also widely represented, including 10 species of amphibians, 3 of which are listed in the Red Data Book of Ukraine (2009). Avifauna is represented by 119 species of birds, 10 of which are included in the Red Data Book of Ukraine (2009). Due to the large local population of corncrakes (Crex crex) - a bird that has become generally rare, the wetland is often named as the Valley of Corncrakes, instead of the Narcissi Valley. Out of rare species of local mammals, we can name only representatives of the bats who live on the adjoining territories, but they use the wetland as feeding area, rich in insects. In general, there are 14 species of bats, all of which are red listed.

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
C1.3 Permanent eutrophic lakes, ponds and pools with Magnopotamion or Hydrocharition	V	Occur in riparian water bodies of the Khustets River (a tributary of the Tysa). Main dominant species are Lemna minor, Potamogeton natans, Hottonia palustris.	Included in Resolution 4 of the Bern Convention
C1.3413 Hottonia palustris beds in shallow water	Ø	Occur in riparian water bodies of the Khustets River (a tributary of the Tysa). Main dominant species are Lemna minor, Potamogeton natans, Hottonia palustris.	Included in Resolution 4 of the Bern Convention
C3.5 Periodically inundated shores with pioneer and ephemeral vegetation	2	Occur in riparian water bodies of the Khustets River. Main species is Juncus bufonius	Included in Resolution 4 of the Bern Convention
D2.3 Transition mires and quaking bogs	V	Occur in riparian water bodies of the Khustets River. Main species is Molinia coerulans	Included in Resolution 4 of the Bern Convention
D5.2 Beds of large sedges normally without free-standing water	Ø	Occur along the watercourses of the Site Main species are Carexacuta, Carexacutiformis, Carexpaniculata, Carexflava, Carexhirta, Carexriparia, Carexulpine,	Included in Resolution 4 of the Bern Convention
E2.2 Low and medium altitude hay meadows	2	Widespread community in the Site. Typical dominants are Agrostis gigantea, Arrhenatherum elatius, Dactylis glomerata, Trisetum flavescens, Festuca pratensis, Poa pratensis.	Included in Resolution 4 of the Bern Convention
E3.4. Moist or wet eutrophic and mesotrophic grassland	Ø	Occur in riparian water bodies of the Khustets River. Main species are Alopecurus pratensis, Deschampsia caespitosa, Juncus spp., Poa palustris, Scirpus sylvaticus.	Included in Resolution 4 of the Bern Convention
E3.5: Moist or wet oligotrophic grassland	Ø	Occur in riparian water bodies of the Khustets River. Main species is Molinia caerulea	Included in Resolution 4 of the Bern Convention
F9.1: Riverine scrub	Ø	Occur in riparian watercourses. Main species are Salix cinerea, Salix pentandra, Salix purpurea, Salix triandra, Salix viminalis, Salix fragilis, Salix cinerea, Salix aurita, Salix caprea.	Included in Resolution 4 of the Bern Convention
G1.1 Riparian and gallery woodland, with dominant Anus, Betula, Populus or Salix	Ø	Occur in riparian watercourses. Main species are Alnus incana, Salixsp., Populus tremula.	Included in Resolution 4 of the Bern Convention
G1.8. Acidophilous Quercus-dominated woodland	V	Dominant species is Quercus robur or Quercus petraea, Frangula alnus, Majanthemum bifolium, Molinia caerulea	Included in Resolution 4 of the Bern Convention

Optional text box to provide further information

On the territory of the Site there is a unique combination of various rare floodplain meadow plant communities, in particular, rare plant communities of the class of Molinio-Arrhenatheretea, Narcisso-Arrhenatheretum, Centaurio-Narcissetum, Sanguisorbo-Narcissetum. According to Ustimenko, Dubyna (2007) in the Site there are genuine, swampy and peaty meadows. The genuine meadows are represented by plant communities of Anthoxanthetum (odorati) festucosum (ovinae) on upper plots of the site together with Festucetum (rubrae) anthoxanthosum (odorati) and Alopecuretum geniculatae purum, Caricetum acutae purum, Glycerietum fluitantis purum, which are developed in depressions of the site. The Festucetum (rubrae) anthoxanthosum (odorati), Festucetum (rubrae) agrostidosum (tenuis), Agrostidetum (tenuis) anthoxantosum (odorati), Agrostidetum (tenuis) festucosum (rubrae), Alopecuretum (pratensis) festucosum (pratensis), Festucetum (pratensis) dactylosum (glomeratae), Arrhenatheretum (elatii) dactylosum (glomeratae), Trisetetum (flavescinis) dactylosum (glomeratae) are developed with participation of fragmented trees and bushes. The swampy meadows are represented by plant communities of Caricetum acutae purum, Filipenduletum (denudatae) caricosum (acutae), Molinietum (caeruleae) agrostidosum (tenuis), Molinietum (caeruleae) sanguisorbosum (officinalis).

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

4.1 - Ecological character

The "Narcissi Valley" is located in the floodplain of the Khustets River, at an altitude ranging from 180 to 200 meters above sea level. It is located within the Khust-Solotvyno basin, which is the North-Eastern branch of the Pannonian Lowland. The climate of the Site is warm and humid, the average yearly temperature is 8,80°C, in January -4,60°C, and in July 20,10°C. The annual precipitation is about 1000 mm. Alluvial meadow-brown and alluvial meadow-marsh soils prevail in the Site.

The "Narcissi Valley" is a part of the Carpathian Biosphere Reserve since 1979. Its inclusion to the biosphere reserve did not solve a number of problems associated with the previous intensive management, including the change of the hydrological regime, clear-cutting (logging) in the adjacent areas of broadleaved forests, etc. In order to prevent the above-mentioned negative processes, the administration of the Carpathian Biosphere Reserve performs active conservation measures, like regulation of the ground level and surface waters, hay-mowing and grazing, cutting of bush-shrubbery vegetation and controlling the number of visitors.

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	1.4	Representative
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks		4	4	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		4	2.4	Representative
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		1	61.2	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		3	24.4	Rare
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands		2	31.5	Representative

Human-made wetlands

Human-made wetlands				
Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
9: Canals and drainage channels or ditches		4	2.3	

Other non-wetland habita

Other non-wetland habitat	
Other non-wetland habitats within the site	Area (ha) if known
Non-wetland (dry) meadows	103.8
Forest	23
Homestead, road and other lands	4

(ECD) Habitat connectivity

The Site has a mosaic structure with a high level of habitats connectivity. It is a part of the regional ecological network

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Achillea setacea		listed in the Transcarpathian Red List
Aconitum degenii		listed in the Transcarpathian Red List
Callitriche hermaphroditica		listed in the Transcarpathian Red List
Dianthus collinus glabriusculus		listed in the Transcarpathian Red List
Gentiana pneumonanthe		listed in the Transcarpathian Red List
Hottonia palustris		listed in the Transcarpathian Red List
Lathyrus laevigatus		listed in the Transcarpathian Red List
Oenanthe banatica		listed in the Transcarpathian Red List
Potentilla alba		listed in the Transcarpathian Red List
Ranunculus circinatus		listed in the Transcarpathian Red List
Succisella inflexa		listed in the Transcarpathian Red List
Uricularia vulgaris		listed in the Transcarpathian Red List

Invasive alien plant species

Scientific name	Common name	Impacts	
Ambrosia artemisiifolia		Potentially	No change
Heracleum sosnowskyi		Potentially	No change
Reynoutria sachalinensis		Potentially	No change
Robinia pseudoacacia	False Acacia;Black Locust	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
CHORDATA/AVES	Asio otus	Long-eared Owl	5	2000-2015		
CHORDATA/AMPHIBIA	Bufo bufo	European Toad				
CHORDATAMAMMALIA	Capreolus capreolus capreolus					
ARTHROPODA/INSECTA	Carterocephalus palaemon					
CHORDATA/AVES	Emberiza citrinella	Yellowhammer	15	2000-2015		
CHORDATA/AVES	Falco subbuteo	Northern Hobby	2	2000-2015		
ARTHROPODAINSECTA	Hemaris tityus					
CHORDATA/AVES	Jynx torquilla	Eurasian Wryneck	3	2000-2015		
CHORDATA/REPTILIA	Lacerta agilis					
CHORDATA/AVES	Lanius collurio	Red-backed Shrike	25	2000-2015		
CHORDATA/AMPHIBIA	Lissotriton vulgaris					
CHORDATA/AVES	Luscinia luscinia	Thrush Nightingale	5	2000-2015		
ARTHROPODAINSECTA	Lycaena dispar					
CHORDATA/AVES	Motacilla alba	White Wagtail	10	2000-2015		
CHORDATA/AVES	Motacilla flava	Western Yellow Wagtail	10	2000-2015		
CHORDATA/REPTILIA	Natrix natrix					
CHORDATA/AVES	Oriolus oriolus	Eurasian Golden Oriole	10	2000-2015		
ARTHROPODA/INSECTA	Papilio machaon	Common Yellow Swallowtail;Swallowtail;Old World Swallowtail;Artemisia Swallowtail				
CHORDATA/AMPHIBIA	Pelophylax ridibundus					
CHORDATA/AVES	Picus canus	Grey-headed Woodpecker	5	2000-2015		
CHORDATA/AMPHIBIA	Rana arvalis					
ARTHROPODA/INSECTA	Saturnia pyri					
CHORDATA/AVES	Saxicola rubetra	Whinchat	20	2000-2015		
CHORDATA/AVES	Sylvia atricapilla	Eurasian Blackcap	40	2000-2015		
CHORDATA/AVES	Sylvia communis	Common Whitethroat	30	2000-2015		
CHORDATA/AVES	Sylvia nisoria	Barred Warbler	5	2000-2015		
CHORDATA/AVES	Upupa epops	Common Hoopoe;Eurasian Hoopoe	10	2000-2015		

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts		
CHORDATA/ACTINOPTERYGII	Pseudorasbora parva	Stone morokos	Potentially	No change	

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dwb: Humid continental (Humid with severe, dry winter, warm summer)

The "Narcissi Valley" is located within the Khust-Solotvyno catchment, which is part of the Pannonian Lowland. In general, the climate of the Site could be characterized as warm and humid. The average yearly temperature of the air constitutes 8,80C, in January -4,6 C, in July 20,1 C. The annual amount of precipitations is about 1000 mm., of which 500 mm falls during a vegetation period. Humidity is usually high.

4.4.2 - Geomorphic setting

a) Mnimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

4.4.6 - Water pH

Acid (pH<5.5) □

(ECD) Water turbidity and colour Different, which depends on amount of precipitation upstream

(ECD) Water temperature In winter can be frozen and in summer it can be heated up to 28 degrees Celsius.

Circumneutral (pH: 5.5-7.4)

(ECD) Light - reaching wetland | Light reaching well the entire wetland

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	High
Wetland non-food products	Livestock fodder	Low

Regulating Services

regulating oct vices						
	Ecosystem service	Examples	Importance/Extent/Significance			
	Maintenance of hydrological regimes	Groundwater recharge and discharge	High			
	Hazard reduction	Flood control, flood storage	Medium			

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Inspiration	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High

Supporting Services

Ecosystem service Examples Ir		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	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling Carbon storage/sequestration		Medium

Within the site: 10 000
Outside the site: 100 000

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

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

Description if applicable

The meadow habitats of the "Narcissi Valley" are derivative ones, which were transformed by humans as a result of old traditional farming. In the past, there were widespread marshy, sparse oak groves, among which grew scattered narcissus thickets. During a long period of time, there was performed a clearing, eradication and burning of bush-shrubbery vegetation. Instead, meadow vegetation was harvested annually, and the area was actively used to graze by livestock during spring and autumn periods. This way of farming contributed to the formation of present meadow-marsh complexes, among which are presented rare moisture-loving meadow species of plants, in particular, the narrow-leaved Narcissus.

The permanent maintenance of conservation measures, which based on traditional agricultural method, ensures conservation of the unique meadow-marsh habitats of the "Narcissi Valley".

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

Description if applicable

The Site has exceptional cultural traditions of former civilization of ingenious people used close location of hills and regular Tysa floodplain water dynamic for traditional agriculture, which is based on over millennium records, which have influenced the ecological character of the wetland. The humans shaped the valley and maintained the narcissus population and wetland habitats based on old traditional farming, which included regular grazing, traditional mowing, clearing of bushes, burning vegetation and maintenance natural flooding regime for silt accumulation.

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

4.6 - Ecological processes	
(ECD) Primary production	No data
(ECD) Nutrient cycling	No data
(ECD) Carbon cycling	No data
(ECD) Animal reproductive productivity	High level of animal reproductive productivity
(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	All natural processes are in place and in large scope
(ECD) Notable species interactions, including grazing, predation, competition, diseases and pathogens	Some fragments overgrown by small bushes and young trees
(ECD) Notable aspects concerning animal and plant dispersal	Major natural dispersal processes are located at place, however traditional agriculture and cattle grazing supports dispersal processes
(ECD) Notable aspects concerning migration	Active migration
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	Pressures linked to lack of maintenance of conservation measures and decrease of water flow

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

D.,	ы	li o	OW	ma	ro	hi	n
Гu	U	IIG	UVV	пе	15	ш	IJ

Category	Within the Ramsar Site	In the surrounding area
National/Federal		
government	66.3	6823

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)		>
Other types of private/individual owner(s)		2

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

The territory of the Site is a part of the zone of anthropogenic landscapes of the Carpathian Biosphere Reserve.

5.1.2 - Management authority

agency or organization responsible for	The Carpathian Biosphere Reserve
managing the site:	
Provide the name and title of the person or people with responsibility for the wetland:	
people with responsibility for the wettaria.	
Postal address:	Krasne Pleso Str., 77, Rakhiv, Zakarpatska oblast, 90600, Ukraine
E-mail address:	cbr-rakhiv@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	High impact	High impact	✓	✓
Housing and urban areas	Low impact	Medium impact		✓

Water regulation

· · · · · · · · · · · · · · · · · · ·				
Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Canalisation and river regulation	Medium impact	Medium impact	/	✓
Drainage	Medium impact	Medium impact	✓	✓

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Low impact	Low impact	✓	V

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Low impact	✓	✓

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Gathering terrestrial plants	Low impact	Low impact	✓	✓

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Low impact	Low impact	4	✓

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	Low impact	Medium impact	✓	✓
Problematic native species	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	Low impact	1	✓

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	Medium impact	\checkmark	✓

Please describe any other threats (optional):

The wetland is located within the boundaries of the Carpathian Biosphere Reserve, which provides constant control over access to the territory and the use of natural resources. Among the main types of nature use on the territory of the Site are such as recreation and traditional agriculture, including grazing and hay-mowing. The main threat to this wetland is that it is located on the periphery of the village. In particular, locals intensively build up the adjoining territory. Recreational influence is quite strong during a period of three weeks in time of blooming of narcissus, this small area is visited by about 50 thousand people.

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	The Carpathian Biosphere Reserve	http://www.unesco.org/new/en/nat ural- sciences/environment/ecolog ical- sciences/biosphere-reserves /europe- north-america/ukraine/ca rpathian/	whole

National legal designations

Tattorial rogal acongrications				
Designation type	Name of area	Online information url	Overlap with Ramsar Site	
Biosphere Reserve	The Carpathian	http://cbr.nature.org.ua/main.ht m	whole	

5.2.3 - IUCN protected areas categories (2008)

ia Strict Nature Reserve L
Ib Wilderness Area: protected area managed mainly for wilderness protection
Il 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
M Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Logal protoctor.	
Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Land conversion controls	Implemented
Hydrology management/restoration	Implemented
Habitat	Partially implemented

Species

Measures	Status
Threatened/rare species	Implemented
management programmes	

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented
Regulation/management of recreational activities	Implemented
Research	Partially implemented

Other:

The Site is under the jurisdiction of the Carpathian Biosphere Reserve.

It is located in the zone of anthropogenic landscapes of the Carpathian Biosphere Reserve, which corresponds to the IUCN category VI (protected area of natural resources: protected area, which is mainly managed for the sustainable use of natural ecosystems). Scientists of the Carpathian Biosphere Reserve pay much attention to the development of environmental principles of rational use of natural resources, conservation of natural ecosystems and their management.

The Carpathian Biosphere Reserve is a part of the UNESCO World Network of Biosphere Reserves since 1993. Here is implemented the Project of Territorial Development (Management Plan) of the Carpathian Biosphere Reserve.

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the

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:

On the territory of the Site there is a visit centre of the Carpathian Biosphere Reserve dedicated to the Narcissi Valley. Here is presented detailed information about this unique area and its inhabitants.

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

5.2.6 - Planning for restoration

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

Further information

Vegetation of the wetland gradually changes. Shrubs and trees displace meadow vegetation in areas where regular grazing stopped. Therefore, a plan was developed, which, among other things, included the removal of shrubs and trees and the regulation of livestock grazing. However, the plan was not implemented to full extent.

5.2.7 - Monitoring implemented or proposed

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

Ecological, biological and geographic researches are conducted by scientists of the Carpathian Biosphere Reserve, Uzhhorod National University, the Institute of Ecology of the Carpathians, and State Museum of Natural History (National Academy of Sciences of Ukraine). Annual monitoring of the narcissus population is conducted for over 50 years.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Kruhlov I. 2008. Delimitatsiya, metryzatsiya ta klasyfikatsiya morfogennykh ekoregioniv Ukrayinskykh Karpat. Ukrayinskyy Geografichnyy Zhurnal 3: 59-68. (In Ukrainian.)

Prots H.L. 1981. Klimat. In: Herenchuk K.I. (Ed.) Pryroda Zakarpatskoyi Oblasti. pp. 62-87. Vydavnytstvo pry Lvivskomu Derzhavnomu Universyteti, Lviv. (In Ukrainian.)

Ziman S., Hamor F., Bulakh O., Voloshchuk M. Narcissus angustifolius Curt. v pryrodniy flori Ukrainy. – Kyiv: Fitosociocentr, 2014. – 60 s. (In Ukrainian.)

Dubyna D.V., Ustymenko P.M. Karta roslinnosti zapovidnoho masyvu "Dolyna narcisiv" // Ukr. Botan. Zurn., t.64. №4. – 2007. S 553-564. (In Ukrainian.)

Flora I roslynnisty Karpatskoho zapovidnika / Stoyko S.M., Tasenkevich L.O., Milkina L.I. ta in. – Kyiv, Nauk. Dumka, 1982. – 220 s. (In Ukrainian.)

Scherbak N.N. Zoogeograficheskoje delenie Ukrainskoi SSR // Vestnik Zoologii. – 1988. - № 3. – S. 22-31 (in Russian).

Ya. P. Didukh, Yu. R. Shelyag-Sosonko. Heobotanicne rayonuvannia Ukrayiny ta sumizhnykh terytoriy // Ukrayinskyi Botanichnyi Zhurnal. – 2003. T. 60. – № 1. – S. 6-11. (In Ukrainian).

Zagorodniuk I., Godovanets B., Pokynchereda V., Kyseliuk A. Taxonomic diversity of birds and mammals in the Carpathian Biosphere Reserve: a comparison of previous and new data // Methods of monitoring of the nature in the Carpathian National Parks and Protected Areas. International Conference of the Association of Carpathian National Parks and Protected Areas. - Rachiv, 1995. - P. 119-130.

Zagorodniuk I., Pokynchereda V., Kyseliuk A., Dovhanych Ya. Teriofauna Karpatskoho Biosfernoho zapovidnyka // Vestnik zoolohiyi.- 1997.- suppl. № 5.- 60 s. . (In Ukrainian.)

Bioriznomanittia Karpatskoho biosfernoho zapovidnyka. - Kyiv: Interekocentr, 1997. -. 443 s. (In Ukrainian).

Chervona knyha Ukrainy (Red Data Book). Roslynnyy svit / za red. J. Diducha. – K. Globalkonsaltyng, 2009. – 900 s. (In Ukrainian.)

Chervona knyha Ukrainy (Red Data Book). Tvarynnyy svit / za red. I. Akimova. – K. Globalkonsaltyng, 2009. – 600 s. (In Ukrainian.)

Zelena knyha Ukrainy (Green Data Book) / pid red. J. Diducha. – K.: Alterpres, 2009. – 448 s. (In Ukrainian.)

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

<1 file(s) uploaded>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site



Narcissi Valley (Vasyl Zelenskyi, 02-05-2014)



Narcissi Valley (Vasyl Zelenskyi, 02-05-2014



Narcissi Valley (Vasyl Zelenskyi, 20-02-2012



Narcissi Valley (Vasyl Zelenskyi, 19-02-2012)



Narcissi Valley (Vasyl Zelenskyi, 05-05-2014



Narcissi Valley (Vasyl Zelenskyi, 05-05-2014)

6.1.4 - Designation letter and related data

Designation letter

<2 file(s) uploaded>

Date of Designation 2019-03-20