

Project Update: December 2022

Period: September-December 2022

From September-December 2022, following the previous agreement with The Rufford Foundation, we continued our work in those ways that were possible under the conditions of war. Unfortunately, since 10th October 2022, heavy rocket shelling takes place regularly ruining critical infrastructure of our cities (namely electrical supply stations) that resulted in regular blackouts and 4 - 20 hours periods without electricity per day.

Nevertheless, we continued our work on collecting materials, conducting and participating in various eco-education events, creating and publishing datasets on GBIF.

Unfortunately we didn't have enough time to complete the work on the guide, but it will definitely be finished within the following 4 months. Also the work on collecting records of flora and fauna will be continued. We are sincerely thankful for your understanding of the situation and all the support we have from your side.



Nevertheless, from August - December 2022 we did the following activities:

- Field trips to various regions of Ukraine.
- Organised a common work of more than 240 researchers from different regions of Ukraine in collecting occurrences of rare species (many of occurrences from occupied areas).
- Published open data to GBIF.
- Proposed new protected areas to the Ministry of environmental protection of Ukraine.
- Selected areas for new Emerald Network sites.
- Organised series of lectures and other events popularizing GBIF, iNaturalist for publishing biodiversity data.

- Published a large compilation of occurrences in the form of a printed monograph.

1. Collection of field data during the expedition.

We organised a series of expeditions to regions where it was relatively safe to travel and work in the field.

"Materials to the flora of fragmented areas of Podilski Tovtry based on the results of field research in 2022"

The dataset includes 4410 occurrences of different 485 name taxa of vascular plants (437 determined to species, 17 to subspecies, two to variety, 27 to genus and two to family). Total list of flora includes 30 species and 189 occurrences of rare plants (20 to Red List of Khmelnytskyi region, 11 to Red Data Book of Ukraine, 1 to CITES, 1 to Bern Convention).

This dataset is the result of field research conducted by Professor of the Kherson State University Ivan Moysiienko in 2022. In total, 50 isolated sites of Tovtry located among agricultural fields in the Kamianets-Podilskyi district of Khmelnytskyi region were studied. For each Tovtry, a list of all spontaneously growing vascular plant species that were found during a single visit is provided.

Time frames of the expeditions were: April 20, 2022 - August 14, 2022.

The study covered the area of Podilski Tovtry 35 km long and about 5 km wide from Slobidka-Smotrytska village to Boryshkivtsi village (Kamyanets-Podilskyi district, Khmelnytskyi region, Ukraine). In total, the area of 233.6076 ha was investigated, consisting of 50 Tovtras ranging in size from 0.0224 to 18.2 ha (average 4.672 ha). In particular, 46 separate Tovtras of round or elongated shape located among agricultural fields were investigated. Also, the steppe part of Nihyn Tovtry (12 ha) and three steppe areas in the vicinity of Verbka village (4.92 and 5.6 ha) and Humentsi village (11.5 ha) of the main ridge of Podilski Tovtry were studied.



2. Collecting data on biodiversity from the territories that were de-occupied or are extremely close to the frontline.

One of the scientists (namely Ruslan Gleb, forest scientist, botanist, researcher of Carpathian Biosphere Reserve) participating in the projects was recruited to the Ukrainian army at the beginning of the war. When being close to the frontline or during his moving on the unoccupied territories close to it, Ruslan tried to collect data on biodiversity. This data doesn't pose any danger to the Ukrainian army, as they were published a long time after the initial records were made. A total of 104 points of plants, animals and fungi: namely Actinopterygii - four records, Reptilia - seven records, Mammalia - two records, Insecta - 25 records, Arachnida - two records, Bivalvia - one record, Malacostraca - one record, Liliopsida - 10 records, Magnoliopsida - 39 records, Polypodiopsida - one record and Agaricomycetes - 12 records. All the recorded species are either listed in the Red Data Book of Ukraine or in Annexes of the Bern Convention or are regionally rare. Despite the small number of records, they are of great importance as they demonstrate the records made in the zone where heavy military actions took place and therefore understanding of what species were registered there is valuable for further understanding and estimation of the consequences of war.



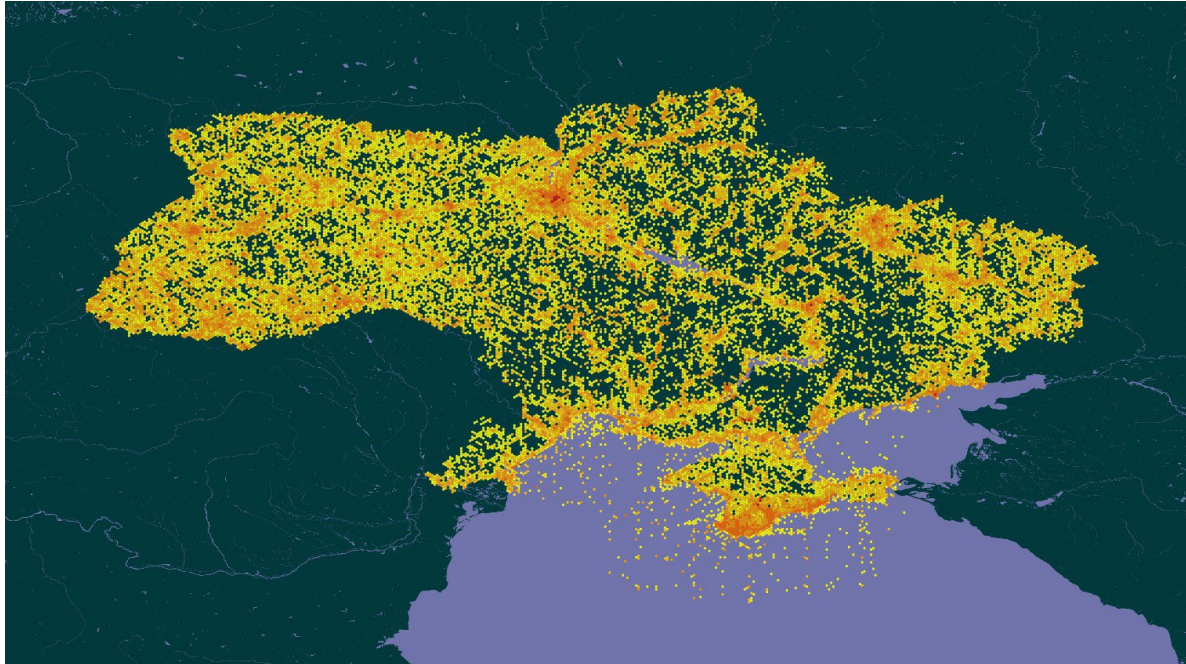
3. Two million records from Ukraine in total with the help of the project.

We are proud to say that one of the points (we are unable to tell which one) became the number 2 000 000 among the records published on GBIF from Ukraine.

On 5th November 2022, after the latest updates in the GBIF global biodiversity database, the number of records of animal, plant, and mushroom encounters on the territory of Ukraine exceeded 2,000,000.

A year ago, there were half as many records in the GBIF international database, most of which at that time were uploaded by foreign organisations. Recently, the situation has changed dramatically: many Ukrainian organisations have become independent data publishers, new data sets have appeared, and new specialists have appeared who master the processing of open data. Much of this became possible thanks to the help of our European partners, in particular the Rufford project "Open biodiversity data: serving Nature Conservation in Ukraine" and Norwegian BioDATA project.

During times of war, the collection of biodiversity data can be invaluable in identifying future losses of biodiversity due to military action. And the fact of the publication of data by scientists from the east and south of Ukraine in a certain way guarantees their preservation in this alarming time, when cultural and scientific assets are rapidly being lost.



4. Publication of the "Distribution of rare species of biota of Ukraine"

Finally, the first volume of the collection "Distribution of rare species of biota of Ukraine" was published.

The collection includes information on finds of rare species of animals in Ukraine in 2009-2021. The publication presents information collected by more than 130 zoological specialists and amateurs from 60 scientific institutions of Ukraine.

In total, information is provided on 7,957 records of animal species protected in Ukraine by various protection lists. The collection is designed for professional zoologists, nature conservationists, and employees of nature reserve fund institutions.



Поширення раритетних видів
біоти України
том 1

Records of rare species of biota of Ukraine, vol. 1



Київ, 2022

Поширення раритетних видів
біоти України
том 2

Records of of rare species of biota of Ukraine, vol.2



Київ, 2023

5. Lecture in the de-occupied national park

In terms of the Rufford Foundation activities after official de-occupation of right-coastal part of Kherson administrative region, a lecture "Kamianska Sich National Park - the first freed natural pearl of the Kherson Region" was organised by the participants of the project.

Kamianska Sich is the first National Nature Park de-occupied by the Ukrainian army in the Kherson region. It is characterised by the preservation of significant massifs of Stipa-Festuca dominated steppes, as well as numerous historical and archaeological monuments.

During the 8 months of occupation, the infrastructure of the park was badly damaged. Its natural complexes suffered significant transformations by the Russian army. We decided to help the institution and give a charity online lecture about this object.

During the lecture, we talked about the nature conservation and historical and cultural value of this area, our latest research and findings in the park and about the impact of the war on the object.



6. Lecture on popularization of GBIF and biodiversity data sharing among scientists and students

On 11-12 October 2022 in terms of the project, Oleksii Marushchak, one of the participants of Rufford project "Open biodiversity data: serving Nature Conservation in Ukraine" presented a presentation "GBIF: how it works?" to more than 50 Ukrainian scientists and students on the "International conference of young scientists-zoologists 2022" - an online event organised by I. I. Schmalhauzen institute

of Zoology NAS of Ukraine. On October 12th, at the end of the conference, a round table "Zoological research during and after the war" was held, at which seven reports were heard. The round table was held to find ways to solve problems related to the impact of military operations on zoological research in Ukraine, in particular, the need to monitor and preserve the biodiversity of the territory and water area of Ukraine and to assess the state of the state's natural reserve fund during and after the war, the preservation of scientific collections, which are the national heritage of Ukraine, as well as the importance of training zoologists, ecologists and evolutionary biologists and training highly qualified scientific personnel. The event received significant support from those present and sparked an active discussion. Based on its results, a resolution was drawn up. Also at the plenary session, the participants listened to a report on the impact of military actions on the biodiversity of nature conservation areas of Ukraine, which was presented by a junior researcher of the department of Animal monitoring and conservation - Olexiy Vasyliuk.



7. Autumn complex expedition to the territory of Rzhyschiv amalgamated territorial community (CATC)

In addition, we conducted a complex expedition in the Kyiv region on the territory of the Rzhyschiv CATC. 17 people and three local experts participated. During the expedition, information was collected on the biodiversity of experimental sites with different effects of grazing and, in general, on autumn biodiversity. Everything is uploaded to the GBIF. A particularly important finds were - places of winter dormancy of smooth snake - *Coronella austriaca*, which is included in the Red Data Book of Ukraine (a total of four animals were registered, both adults and juveniles).





After the expedition on the territory of “Hlyboki Balyky” eco-station a meeting was held on the methodology of conducting complex expeditions. The meeting included 20 experts in botany, lichenology, ornithology, herpetology, nature conservation, mammalogy etc.



8. Traditionally, we highlighted all of the fieldwork events on our website and social networks, including Facebook, Telegram, Twitter and Instagram.

<https://uncg.org.ua/opublikovano-2-miljony-zapysiv-pro-ukrainske-bioriznomanittia/>

<https://uncg.org.ua/zberzhennia-naukovykh-danykh-pid-chas-vijny-iak-tse-mozhlyvo-i-chomu-tse-vazhlyvo/>

<https://uncg.org.ua/vy-dumaiete-v-ukraini-pyroda-vyvchena-vzdovzh-i-vpoperek/>

<https://www.facebook.com/UkrainianNatureConservationGroup/posts/pfbid0Dg43Smj6GT32zmbzgWLYTxVFkKdHJMZY79QebweACrck7zAEEJD7Cg5xchn2ujcl>

<https://www.facebook.com/UkrainianNatureConservationGroup/posts/pfbid02PEagd6t2xCMTFPgMaamXq5SQUSH7zsSeTxKeWQamn84tQNUWFcNutj9QUMyFoCmsl>

<https://www.instagram.com/p/Cj4pLpHo40C/>

<https://www.instagram.com/p/CkkdyIHofSC/>

<https://www.instagram.com/p/CkSbOCHopWH/>

https://t.me/ngo_uncg/660

https://t.me/ngo_uncg/655

https://t.me/ngo_uncg/631

<https://uwecworkgroup.info/biology-in-bomb-shelters/>

<https://uwecworkgroup.info/saving-scientific-data-during-war-how-is-it-possible-and-why-it-matters/>

<https://uwecworkgroup.info/saving-scientific-data-during-war-how-is-it-possible-and-why-it-matters/>

<https://uwecworkgroup.info/uk/issue-7/>

https://uwecworkgroup.info/wp-content/uploads/2022/11/uwec_issue_7_ru.pdf

9. Collecting data from researchers and conservationists for publishing in GBIF

The process of data mobilisation took place during both complex individual expeditions to available sites of wild nature. Such expeditions consisted of scientists (that were at the time of data collecting ready to work and some of which are the internally displaced persons) that represented different fields of biology: mycologists, botanists, herpetologists, ornithologists, ichthyologists, entomologists, mammologists, etc. During the field trips the data was collected in the most comfortable way for particular scientists with relevant changes needed to fulfill the requirements of subsequent Darwin Core based data organising. In such a way more than 20000 records were collected and at least the same amount of data is expected to be added soon, as some groups (micro-invertebrates) require more time for preparation of the material for species identification. Moreover, where and when possible, such expeditions are continuing to be held.

10. Preparation and publication of datasets on GBIF

During the current 4 months of the project, we have been publishing data on GBIF. This applies to both our own data collected during test expeditions and datasets from listeners of our webinars, which they wanted to publish after the webinar, as well as data from other scientists who contacted us and published datasets with our help.

In total, thanks to the project, 40 well-prepared datasets were published (a total of 66,365 records). According to the results of expeditions, 13 datasets (36037 records) were prepared on the territory of Kherson and Kyiv regions:

- Materials of the project "Open biodiversity data: serving nature conservation in Ukraine (12646 records)
<https://www.gbif.org/ru/dataset/2d8d3cd4-da79-419b-9428-4820d44d30f>
- Materials to the flora of fragmented areas of Podilski Tovtry based on the results of field research in 2022 (4410 records)
<https://www.gbif.org/dataset/23ccb221-13cf-4011-853a-2af463b3d85b/project>
- Records of vascular plants, bryophytes and lichens from the 15th EDGG Field Workshop "Grasslands and coastal habitats of Southern Ukraine" (5497 records)
<https://www.gbif.org/dataset/5eb9d316-3b09-414c-ad57-e57b206c354b>
- Records of vascular plants from DarkDivNet sampling in Kamianska Sich National Nature Park (site D194) (1970 records)
<https://www.gbif.org/dataset/24e6ef1c-8e52-48aa-a480-be658214f1b8>
- Records of ornithofauna along the Protoka river in Kyiv region, Ukraine (394 records)
<https://www.gbif.org/uk/dataset/9fe3ae60-6197-4464-a76a-43259eb643b4>
- Birds of Drevlianskyi Nature Reserve (Zhytomyr administrative region of Ukraine) observed in 2018 (699 records)
<https://www.gbif.org/uk/dataset/cce6e9a5-f95b-4c90-aaa4-684b1ea5fc45?fbclid=IwAR3zul31eQU25O6KG0vloBIGLlxbwQ9p1yhAqV8wVZLxc9Zx8CFoXgloFo>
- Observations of bird species listed in the Red Book of Ukraine on the territory of the Pyriatyn National Nature Park (249 records)
<https://www.gbif.org/uk/dataset/7d9eead8-e908-4c64-ae0c-0f5062e93a96>
- Notes on biodiversity of Ukraine, Slovak Republic, Uzbekistan and Turkiye (2009 records)
<https://www.gbif.org/uk/dataset/f6861927-f5cb-4d82-8645-580b1d2cb4d3?fbclid=IwAR3UfRJB6ZZAEGP9P256Us8b5QIOsr-Vd9PT-qaDTuFRhNrzAvMrhtWg2d0>
- Birds of the Chernobyl Radiation and Ecological Biosphere Reserve (552 records)
<https://www.gbif.org/uk/dataset/7e77d491-bb1b-48d2-b60a-4c9658f35a0d>
- Study of the flora and fauna of the territory of Rzhyschchiv CATC by means of visual observations (138 records)
<https://www.gbif.org/uk/dataset/fe9ae6c1-f3d0-4e05-b919-c30f2fdd494a>

- Ukrainian calcareous vegetation of western and south-western Ukraine (1416 records)

https://www.gbif.org/uk/dataset/02d38abd-cf05-4bb2-93d6-5ccc47a16da2?fbclid=IwAR1rLq2LY9vdwAyrglXiUShpBRritQmOC_iCPtpuh1D95pR-UkC6n6laX-8

- Plants of the southern part of the Sinyukha river basin (5956 records)

https://www.gbif.org/uk/dataset/2b6085d6-9927-4e82-992e-2aafdc471cda?fbclid=IwAR1soE3X7cXn2XB58NlpC8URVNHlXKjY3EbuSGLEpP9IIBBQuRvb_tjJp0l

- Birds of the southern part of the Sinyukha river basin (101 records)

https://www.gbif.org/uk/dataset/fe6c2448-5443-4ce4-9bd9-e97387443f8e?fbclid=IwAR2N2edKVuUjA8veS_fbYa2qF9HrvCwoK9-kknMmf91knzl1nbajre8tETI

Moreover, the project team conducted educational work on the possibilities of publishing datasets among researchers during the project period. As a result, another 15 datasets (55562 records) were published.

- Findings of birds (Aves) in the Northern Azov region (Ukraine) during 2004-2022 (31411 records)

<https://www.gbif.org/uk/dataset/140c6e90-abbc-454f-b529-0165a1571721#description>

- Records of common herpetofauna species widespread in Northern, Central and Southern Ukraine (3960 records)

<https://www.gbif.org/uk/dataset/148bc5c8-0408-424c-84d2-d491ea2e234d>

- Particular records of helminths from common species of herpetofauna of Ukraine (132 records)

https://www.gbif.org/uk/dataset/ec73e150-38ce-46ff-926870bc0dd86a60?fbclid=IwAR2QfCZmlOKaSy0L9mg8foWFCfQnuPBVX81P29_JKH4HmW90QM9zm1pOEZ4

- Modern distribution of the European ground squirrel (*Spermophilus citellus*) in Ukraine (1642 records) (1404 records)

<https://www.gbif.org/uk/dataset/e27b9bd0-74f3-4431-ae5f-da6f0e6e9784>

- Plants from the grassland habitats of Ukraine of pan-European importance (3944 records)

<https://www.gbif.org/uk/dataset/289a347e-c925-4864-9280-e3c4afcce87>

- Records of macrozoobenthos organisms in several water bodies of Ukraine during 2007-2021 (844 records)

<https://www.gbif.org/uk/dataset/b394cf35-d6d1-4d9d-9d5b-693229207b02?fbclid=IwAR0PFw0uBU5QbVWJlfNj0hBHRdID16cRf7LnbHNx5yoTUo8dNb6M-2alX7E>

- Some notes to the flora of the northern part of Luhansk region (4032 records)

https://www.gbif.org/uk/dataset/791a0bbb-bf37-4ef5-b61917e395334dfa?fbclid=IwAR0O388TZajDfoDt1tNEOQ7WMO3JJAq-gg_UtSGGdrL2Sldz8A0hcs03M

- Some notes to the flora of the "Cretaceous Flora" - department of Ukrainian Steppe Nature Reserve (268 records)

https://www.gbif.org/uk/dataset/1ff6ca5a-c5cb-4034-a7c9-154579d0f55c?fbclid=IwAR0mrfdCLxhBzwpPqPi0svb5p_uTXHqEpMJauKq1ypWUUbQWXXp-KNWqFU

- Plants registered in forest belt in Voznesenskyy district of Mykolayiv region, Ukraine (1916 records)

https://www.gbif.org/uk/dataset/c075dac3-625d-4f89-9a23281b65416a29?fbclid=IwAR2cCPKUa6bZHD0K_WRaP2LesWwVD6MDrX5KxzOgXGeUm5lzsO4oPIYxu_0

- Small mammal records in Luhansk Region, Ukraine (4898 records)

<https://www.gbif.org/uk/dataset/5d30e8f8-ed8c-4528-a6b61ba6fa701028?fbclid=IwAR0PazJ7N7vhSjdCkHiOCCNJ1E0CQSLb8vSjl-Bo0kmmOWIciJONIPHVsu8>

- Faunistic and floristic records in the Belarusian Polissia in 2019-2020 (508 records)

https://www.gbif.org/uk/dataset/c2a03902-584a-4338-9ea8-cb0875012e7f?fbclid=IwAR2pARuKqAYJ1T_4rWJg7BYCbJLaxeUwPwyaI5_r0UCSo54WnrqrCzu6uE

- Faunistic and floristic records in the territory of the Prip'yatsky National Park and the Lyaskovichi forestry in the Belarusian Polissia in 2022 (663 records)

<https://www.gbif.org/uk/dataset/60cc6581-7564-46ed-9e6213de3be1ab58?fbclid=IwAR3K5cbVvLbRbF7U5rhGyNd6MfQ6NzVQDrHGikgT6Xi94WlqqHlCkcmQOHk>

- Faunistic and floristic records in Belarusian Polissia in 2017-2018 (655 records)

<https://www.gbif.org/uk/dataset/1e998c9f-338b-4aca-b254-ac9e0c675093>

- Faunistic and floristic records in Belarusian Polissia in 2016 (648 records)

<https://www.gbif.org/uk/dataset/f4162159-0312-4d0c-a37bb5f8be62f5bd?fbclid=IwAR3Z4uqt5HkzRY30HNjHhtZGNVBOxzMYP4H2mgcnvVbzI7DYodToBEhmxhc>

- Some notes on biodiversity of Ko Samui island, Thailand (279 records)

https://www.gbif.org/uk/dataset/a12db2f2-60a3-40f8902ddf58eee770c0?fbclid=IwAR3MMgRb0cQmdxl7mUgDTx3kHCSwMS_FCATE18kNEbNSjzfbL0Mw0yDccE

As a result of the webinars, 12 datasets on different groups from different regions of Ukraine were created and downloaded (47,695 total records). It is important that the webinar listeners provide their materials for publication on our GBIF profile.

- Spiders (Araneae) of the northeast of the Luhansk Oblast (Ukraine) (1941 records)
<https://www.gbif.org/uk/dataset/765d4ecb-a667-4f23-b95e-5254e7140d7e>
- Spiders of the National Nature Park Dvorichanskyi (Northeastern Ukraine) (1681 records)
<https://www.gbif.org/uk/dataset/9ff2afd8-a89a-41b2-9f69-79b7864e05f1>
- Spiders of the Kreidova Flora Nature Reserve (Eastern Ukraine) (1124 records)
<https://www.gbif.org/uk/dataset/ea336003-fa98-458a-ae58-840bd82976f7>
- Spiders of the monitoring sites in the Siverskyi Donets River valley near Chuhuiv (Kharkiv Oblast, Ukraine) (526 records)
<https://www.gbif.org/uk/dataset/82863718-7918-4a37-88a4-294b4c6e42e1>
- Threatened terricolous lichens with arid ecology of steppe zone of Ukraine (732 records)
<https://www.gbif.org/uk/dataset/768fca77-81e7-4118-8789-a19b04cda1bf>
- Mammal observations from Ukrainian grey literature (6839 records)
<https://www.gbif.org/uk/dataset/5e0c660f-4093-42e5-a6df-55a44ae8dfb5>
- Historical information about the biodiversity of the "Askania-Nova" nature reserve (Kherson region, Ukraine) (3029 records)
<https://www.gbif.org/uk/dataset/76c7863c-99fc-4a7c-84a9-4ec61ca50822>
- Fish from some archeological sites of Ukraine (2022) (51 records)
<https://www.gbif.org/uk/dataset/1f89ff85-e97c-4bb8-bfb6-562ef70679ff>
- Records of animals described in the cadastre of terrestrial tetrapods of the Vinnytsia region (884 records)
<https://www.gbif.org/uk/dataset/0b9de7d3-3315-4c67-a0fb-e245564abb7e>
- Nesting and seasonal migrations of birds of the Azov-Black Sea region according to scientific publications (28986)
<https://www.gbif.org/uk/dataset/ae394984-e8f8-401b-a7c9c87d29677963?fbclid=IwAR1ak8xVqqtXxbw59b46J3msauCR6OzZglOFJvBTB-6Vlu9g0njJVMta8g>
- Records of amphibians (Amphibia) and reptiles (Reptilia) in Ukraine according to the results of monitoring of Facebook public groups in 2019-2022 (748 records)
https://www.gbif.org/uk/dataset/45cff797-6ed9-4a25-b659-30aa4caa46f2?fbclid=IwAR2uHIE_2Y6JfT-KfT03An0f5Ha9D7QUP05EDTUxoNCXe-Hb2gar-vp2xFg

- Distribution of amphibians listed in Red Data Book of Ukraine according to literature data (1154 records)

https://www.gbif.org/uk/dataset/b00e720c-6a61-40ee-b52b-f195e310c11a?fbclid=IwAR00yk5ZQ_JTaHGF_35-WrgMWeLfMNC5K5RgY5GwxD6gPT6S8hnuJM8lpUk

11. Creating of new objects of nature reserve fund

We submitted and created the "Bereg of the Transcarpathian Sea" zakaznik (sanctuary) of local importance on the area of 90 ha in Transcarpathian region.

The creation of the reserve had a resonance in the mass media with our participation:

<https://suspilne.media/311472-na-zakarpatti-ekoorganizacii-podali-klopotannapro-stvorennazakaznika-na-vilshanskomu-vodoshovisi/>

<https://agronews.ua/?p=308132>

<https://zaholovok.com.ua/prirodookhoronci-podali-klopotannya-pro-stvorennazakaznika-na-vilshanskomu-vodoskhovischi>

<https://varosh.com.ua/noviny/na-vilshanskomu-vodoshovyshhi-zamist-smittyezvalyshha-mozhe-z-yavytysya-zakaznyk/>

<http://www.mukachevo.net/ua/news/view/4378581>

<https://kizso.news/2022/11/08/%D0%BD%D0%B0%D0%B7%D0%B0%D0%BA%D0%B0%D1%80%D0%BF%D0%B0%D1%82%D1%82%D1%96%D0%B5%D0%BA%D0%BE%D0%BE%D1%80%D0%B3%D0%B0%D0%BD%D1%96%D0%B7%D0%B0%D1%86%D1%96%D1%97-%D0%BF%D1%80%D0%BE%D1%81%D1%8F%D1%82/>

<https://zakarpattya.net.ua/News/224054-Na-Zakarpatti-ekozakhysnyky-klopochut-pro-stvorenniazakaznyka-na-Vilshanskomu-vodoskhovyshchi-FOTO>

<https://pmg.ua/life/111434-na-zakarpatti-podaly-klopotannya-pro-stvorenniazakaznyka-na-vilshanskomu-vodoskhovyshhi>

<https://www.youtube.com/watch?v=J9Gks93dt3I>

<http://life.ko.net.ua/?p=139729>

<https://uzhgorod.net.ua/news/172748>

<https://varosh.com.ua/noviny/vilshanske-vodoshove-rishennazakaznyka-na-vilshanskomu-vodoskhovyshhi>

<https://suspilne.media/339542-na-zakarpatti-stvorili-landsaftnij-zakaznik-bereg-zakarpatskogo-mora/>

<https://varosh.com.ua/noviny/na-terytoriyi-vilshanskogo-vodoshovyshha-stvoryat-landsaftnyj-zakaznyk/>

<http://www.mukachevo.net/ua/news/view/4569690>

https://www.instagram.com/p/CmL_QwINmGt/

Other prepared and submitted new promising objects of nature reserve fund include:

- Botanical reserve of national importance "Gruzko-Lomivskiyi" in Donetsk region - 1718 ha.
- Landscape reserve of local importance "Coast of the Transcarpathian Sea" in Transcarpathian region - 90,6662 ha;
- Landscape reserve of national importance "Borzhava Slopes" in Transcarpathian region - 2242 ha.

12. Popularization of GBIF and citizen science platforms (iNaturalist) as tools for publishing wildlife observations on different events

- On 10th November 2022, the Committee of the Verkhovna Rada of Ukraine on Environmental Policy held a hearing on the consequences of the war for the environment. We also had a talk and talked about the effects of war on biodiversity, mentioning the Rufford project as well.
- On 23rd November 2022, with the support of the World Bank, a cycle of online lectures for teachers "Ukrainian School of Charity" took place in Ukraine. We also read a description of our work and our project for 298 teachers online.
- On 1st December 2022, we gave a lecture for 15 universities in Europe and the USA as part of the support of the Marsh Trust. During the lecture, we also talked about our project and its achievements.

We also held an internal event of our organisation to plan the manual for conducting expeditions, which we are preparing as part of our project, as well as planning expeditions for the last period of training in the spring of 2024. 16 botanists and zoologists took part in the meeting.

