

EUROPEAN DIPLOMA HOLDING SITE

**IPOLYTARNOC FOSSILS
NATURE CONSERVATION AREA**

HUNGARY

ANNUAL REPORT

2022

**FOR THE PERIOD
DECEMBER 1. 2021 - NOVEMBER 30. 2022**



State/Country: H U N G A R Y

The Protected Area:

Name: Ipolytarnoc Fossils Nature Conservation Area

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Year of the award/Year of the last renewal/ Year until the award is renewed: 1995/2020/2030

Central authority concerned:

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Authority responsible for its management:

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0. Preface:

The European Diploma to the Ipolytarnóc Fossils was extended on 23 September 2020 by the Committee of Ministers until 11 September 2030, through the Resolution CM/ResDip(2020)9. This short annual report focuses on the implementation of the recommendations set in this new Resolution.

1. Conditions:

The Resolutions on the reward and renewals of the European Diploma to the Ipolytarnóc Fossils EDPA have never contained specified conditions.

2. Recommendations:

The Resolution CM/ResDip(2020)9 attached the following 12 recommendations to the renewal:

1. further explore the site's high potential for geological discoveries, especially palaeontological excavations. It would be of significant added value if further promotion of internationalisation of research activities took place by making the results of scientific research publicly available;

Action taken by the site to comply with the recommendation:

Research on the fossil footprints on the geological study trail has been going on, more than 40 vertebrate taxa have been identified so far, some of them on species level. Last year's scientific publication was followed by a scientific paper on volcanology (<https://www.nature.com/articles/s41598-022-13586-3>) and on ichnology (<https://www.tandfonline.com/eprint/KFURIXRTY2PBXGC5MXZX/full?target=10.1080/08912963.2022.2109967>) in international journals this year and more papers are expected in the oncoming years.

As part of the RiWild Interreg SKHU/1902/1.1/037 project a 3D laser scanning digitized the footprint surfaces of the excavated areas on the geotrail. Some of the end result (with the

exception of those areas, which are still scrutinized by the experts working on the Site) will be available for the scientific community and laypeople as an open database, it will be publicized after 2023.

2. take all appropriate measures to preserve and, if possible, exhibit the site's geological and palaeontological resources. By 2025, engage in a careful (ensuring maximum respect of geological and palaeontological features) renovation/replacement of buildings, primarily the exhibition halls along the geological trail. Additionally, renovate the visitors' centre and other visitors' facilities during the renewal period of ten years;

Action taken by the site to comply with the recommendation:

Excavations of fossil resources are sheltered or winter covered at the Miocene stratotype section of the Borokas ravine. In situ exhibitions interpret the palaeontological finds. At the visitor center there is high-tech exhibition from some of the movable geological and fossil material.

Part of the ongoing RiWild Interreg SKHU/1902/1.1/037 project is the reconstruction of the worn-out II. Excavation Hall of the geological trail. The reroofing of that building was already finished, interior works are now under way. Small scale renovations of the buildings, including the visitor center are taking place throughout of the year and we still seek funds to repair the reception building's exterior plaster.

3. further explore the possibilities of the site taking a central and active role in the integration in the Slovak-Hungarian trans-border Nógrád-Novohrad Geopark, in order to preserve and raise awareness about the natural assets of the region and to further develop the multilingual information point for geo-tourism;

Action taken by the site to comply with the new recommendation:

The BNPD had a very important active role in the UNESCO revalidation process of the transnational Novohrad-Nógrád UNESCO Global Geopark (UGGp), which took place this year. One of the main decisive geosites for the already known positive decision result – the extension of the membership for another 4 years – was the Ipolytarnóc Fossils EDPA, The fact that the geopark has a European Diploma-holding site within its boundary bears a good connotation.

As the main gateway to the Novohrad-Nógrád Geopark, Ipolytarnoc promotes the geological heritage of the region and advocates its resources to the visitors during special events, like the usual Geopark Week at the turn of May and provides exhibition place to the Geopark.

The EDPA website has a connection sharing news and programs with the geopark.

The BNPD and the Geopark has a memorandum of understanding, the leader / volunteer of Ipolytarnoc Fossils, as the delegated representative to the EGN Coordination Committee deals with the international affairs of the Geopark.

The GUIDE@HAND smart phone application is available for downloading in the reception building. It got further expanded and is available in Slovak and English languages as well in offline format, it contains several study-trails of the Geopark.

4. continue the gradual replacement of non-native tree species, in particular Robinia pseudoacacia and regionally non-native Pinus species with native deciduous tree species (for example, Quercus) by assisting the natural succession process through ecologically sensitive land management practices. Also take measures to control herbal invasive alien species such as Ambrosia artemisiifolia. Continue the control of game which is causing considerable damage to vegetation and protected animal species;

Action taken by the site to comply with the recommendation:

The forestry activity continued in winter on the rehabilitation of the old orchard of Upper-Hólya hamlet. It enhanced the spreading of indigenous tree species and suppressed exotic species, including the elimination of invasive plants this year. In the meadows of the border zone and around the buildings on the geological trail the pine tree and acacia spreading have been suppressed.

To protect the reroofed 2. Excavation Hall on the geological trail grown big acacia trees are under cutting right now.

Sensitive game management is an ongoing activity throughout the year, the ranger of the site is responsible for it with the assistance of the staff of the BNPD headquarters. The local TETT Foundation NGO also endorses these efforts. To help the game management a game-refrigerating container is under operation to temporarily store shot game..

5. maintain the balance between open spaces and wooded areas on the western side of the conservation area, close to the nearby settlement, to preserve the mosaic structure of the landscapes there. Maintain the use of the regional breed/landrace of Racka sheep because of its added value from a historical husbandry point of view, and also to increase structural diversity in the herb-dominated vegetation. For agropastoral reasons, maintaining hay-cutting by local farmers and/or non-governmental organisations (NGOs) should be encouraged. Limiting management of open habitats to the use of sheep grazing alone would change the landscape into a mosaic of patches covered in woody and herbal plant communities (so-called woodland), which would not comply with earlier recommendations (2010);

Action taken by the site to comply with the recommendation:

At the buffer zone, close to the local settlement the meadows are leased to local farmers, grazing, hay cutting and bailing activities are ongoing. Tree thinning on forest edges has successfully maintained the mixed vegetation cover of the landscape. Clearings are also maintained as part of game management and along some parts of the state border, the mosaic-like structure of the landscape is well managed. There are two Racka sheep grazing close to the trailhead of the geological study path as an added value to demonstrate the protected ancient breeds of the animal husbandry heritage.

6. replace the power line that runs between the village and the visitors' centre by an underground structure, respecting the current landscape and exhibitions; comply with earlier recommendations (2010);

Action taken by the site to comply with the recommendation:

The planned "Enjoy Park" project has a section for this and we seek for other funds to sponsor undergrounding the power line between Ipolytarnóc village and the main parking plot of the EDPA, but not just for aesthetic landscape protection but also from endangered bird protection point of view.

7. explore the feasibility of a video presentation, or documentary film on the scientific, evidence-based process of palaeontological science (paleotaxonomy as well as paleoecology and ecosystem reconstruction/restoration). In particular, the palaeontological method which reconstructs whole animals based on "simple" footprints is astonishing and will interest the general public and scientists in other life sciences;

Action taken by the site to comply with the recommendation:

The extension of the RiWild Interreg project has an option for such a kind of interpretative animation, planned in the 2. Conservation Hall of the geological trail of the EDPA. The start of the public procurement procedure for creating a short animation about the scientific reconstruction process is expected to be launched in the first half of the next year.

8. as is already done in the rock park, install more visual markers that make links between present and past (Miocene) ecosystems;

Action taken by the site to comply with the recommendation:

The exhibition in the Ancient Pine visitor center runs a movie about the EDPA's game management, which visually refers to the connection between the present mammal tracks and the fossil tracks of the past. The playful new animation of an interactive touch wall connects through sceneries the present animals to the beasts of the paleohabitat. More developments are planned for the next year on this issue in the Miocene forest, as part of the RiWild INTERREG project.

9. improve documentation/reporting on the results of management measures through structured monitoring, as well as of public response (numbers of visitors, appreciation), etc;

Action taken by the site to comply with the recommendation:

The new visitor questionnaires, which have been circulated as printouts and uploaded to the webpage of the site to check on the quality of our services and give option to the visitors' opinions are under evaluation now. Reflections of the visitors shared on social media platforms and on the internet are followed and consulted. Some regional geotourism studies (which include the territory of the EDPA), concerning visitor services and appreciation were published, but they are not well detailed.

10. further enlarge local, regional and transnational public involvement and administrative co-operation, for example on the Novohrad - Nógrád transnational Geopark (to be undertaken by the Bükki National Park authorities rather than the Ipolytarnóc management);

Action taken by the site to comply with the recommendation:

Since the last year the BNPD headquarters has been taking part in the Nógrád County led planning of the Enjoy Park megaproject, which targets the geotourism developments of several geosites managed by the BDNP, including the Ipolytarnoc EDPA. The RiWild project includes outside researchers like the Herman Otto Museum of Miskolc and the expert of the Natural History Museum of Budapest. There are strong ties with the TETT Foundation NGO, which has been taking part of the maintenance of Ipolytarnoc and other nearby geosite. German UNESCO volunteers worked at the EDPA by half-year-long international contracts of the BNPD.

The year's successful UNESCO revalidation of the Novohrad-Nógrád UNESCO Global Geopark also brought together all of the stakeholders with the BNPD, the co-operation with different entities has increased and seems to be satisfactory.

11. consider citizen science projects in order to strengthen involvement and engagement of non-scientific stakeholders;

Action taken by the site to comply with the recommendation:

The ongoing RiWild Interreg SKHU/1902/1.1/037 project will make available some of the scientifically already published parts of the 3D scanned paleosurface to the public as an open database from 2023. All of the new scientific papers (on volcanology and ichnology) have been uploaded to the Site's website. There are several university co-operation for field practices. German UNESCO volunteers also worked and were hosted at the EDPA for a couple of weeks in two terms. Email correspondence concerning consultations on fossils is frequent with and for interested of different backgrounds.

12. continue to make good and systematic use of the logo and slogan of the European Diploma.

Action taken by the site to comply with the recommendation:

The European Diploma logo is exhibited everywhere within and in the surroundings of the site, including roadside panels leading to the EDPA. All of the circulated media information text, brochures and other publications, even the contracts with the TETT Foundation NGO mention the fact about the European Diploma, this prestigious title is well advertised.

3. Site Management:

The BNPD provides leadership and specialists' expertise from the Headquarters to the Site. The BNPD has a permanent local staff of 10 people and by annual contracts with the local TETT Foundation NGO it also employs another 10 people right now. Since September this year a semiretired volunteer expert also contributes to the management of the site.

Overall, the Site successfully managed to overcome the budgetary difficulties caused by the pandemic, yet there are new challenges to face with because of the recession in Europe influenced by the Ukrainian war, which broke out this spring.

4. Boundaries:

The EDPA has fixed boundaries, its core and buffer zones are well defined, there are no changes.

5. Other information:

Despite the pandemic the site remained one of the main geotourism propagators in the region. The position of the EDPA is stable on the Tentative List of the World Heritage Sites in Hungary.

The significance of the European Diploma is well recognized. The logo is on all the publications, road panels of the EDPA and visibility is well maintained.



Visitors at the new excavated area on the geological path



UNESCO Geopark experts on revalidation mission at the EDPA