

ANNUAL REPORT FOR 2020¹

“DOBROČSKÝ PRALES NATIONAL NATURE RESERVE”

State: **Slovak Republic**

Name of the area: **Dobročský prales National Nature Reserve**

Year and number of years since the award or renewal of the European Diploma of Protected Areas: ***The Resolution CM/ResDip(2018)12 on the renewal of the European Diploma for the Dobročský prales National Nature Reserve (Slovakia) adopted at the 1321st meeting of the Committee of Ministers on 4 July 2018, valid by 18 September 2028 /hereafter “Resolution No (2018)12”²***

Central authority concerned:

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1. Condition

The following condition is determined by the Resolution No (2018)12:

Conduct a study involving all stakeholders to verify necessity of a new forest road into the buffer zone and identify measures guaranteeing a least intervention solution to minimise the impact of the road, provided that the construction is not carried out during the vegetation period and in the breeding season, and that the felling itself does not include heavy machinery; a natural re-cultivation of the road should be foreseen once the forestry work has been carried out; report to the Council of Europe before starting the road works.

The situation is same as in the previous reporting period - the forest manager and administrator of the area - the Forests of the Slovak Republic, state enterprise – branch Čierny Balog (hereafter “FE Čierny Balog”) did not plan the road construction. The main reason was the priority of the sanitary logging in adjacent area of the Dobročský prales National Nature Reserve (hereafter “Dobročský prales NNR”). With regard to trends of the sanitary logging in this region the road construction is not expected to be built during the next period either.

¹ Reported period 1st September 2019 – 31th August 2020

² Originally resolution No (2003)6, resolution No (2008)19 and resolution No (2012)11, respectively

2. Recommendations

Four recommendations set up by the Resolution No (2018)12 are:

1. Add a chapter on scientific research to the management plan defining clearly the needs of the management of the nature reserve and including a timetable to avoid surveys that are not directly connected to the further development of the area.

The results of the long-term research by the expert team from the Department of Silviculture, Faculty of Forestry, Technical University in Zvolen headed by Prof. Milan Saniga, are used in silviculture practice throughout Slovakia. The silviculture concept of permanent multilayered stands, based on these results, has been increasingly applied in suitable field conditions.

During the reported period, research in the Dobročský prales NNR was realised according to the Management Plan for the Dobročský prales National Nature Reserve (Special Area of Conservation SKUVE0047 Dobročský prales) for the period 2018–2047.

The climate change research has started in November 2019. More details are provided in recommendation No. 3.

The bats species are an unexplored group of protected animals in the Dobročský prales NNR. Therefore, the State Nature Conservancy of the Slovak Republic, Poľana Protected Landscape Area and Biosphere Reserve Administration (hereafter “Poľana PLA–BR Administration”) in cooperation with the Institute of the Forest Ecology of the Slovak Academy of Sciences conducted an acoustic monitoring. During the summer season, automatic bat detectors recorded echolocation calls of bats at two sites (area called Gerauka and part of the the buffer zone near Za Dlhý grúň Valley) in this reserve. The first analysed records revealed the occurrence of one of the rarest and the biggest European forest bat, the Greater noctule (*Nyctalus lasiopterus*). The remaining records will be analysed in the near future.

Research of Prof. Vladimír Kunca from the Department of Applied Ecology, Faculty of Ecology and Environmental Sciences, Technical University in Zvolen on rare fungi species has continued this year, too. Occurrence of some fungi species (*Tricholomopsis sulphureoides* and *Phellinidium pouzarii*) associated with fir dead wood on the ground, in the context of primeval forests in Europe was published in two scientific papers Holec *et al.* (2019a, b)^{3,4}.

2. Develop, according the precautionary principle, a strategy on how to deal with invasive alien species, in case of their appearance.

Current monitoring of plant invasive alien species (IAS) in the Dobročský prales NNR and adjacent area has revealed moderate spreading of Canadian goldenrod (*Solidago canadensis*) in the Brôtovo Valley and Za Dlhý grúň Valley. Plants were eliminated in accordance with the valid methodology, by uprooting. Other IAS were not recorded by monitoring. The area of the Dobročský prales NNR itself is without the presence of IAS up to now.

Monitoring and elimination of Canadian goldenrod from the known adjacent areas is constantly realized in co-operation of the Poľana PLA-BR Administration and FE Čierny Balog.

³ Holec J., Kunca V., Kolařík M. 2019: *Tricholomopsis badinensis* sp. nov and *T. sulphureoides* – two rare fungi of European old-growth forests. *Mycological Progress* 18: 321-334.

⁴ Holec J., Kunca V., Vampola P., Beran M., 2019: Where to look for basidiomata of *Phellinidium pouzarii* (Fungi, Hymenochaetaceae), a rare European polypore of montane old-growth forests with fir (*Abies*)? *Nova Hedwigia* 109 (3-4): 379-397.

3. Prepare a study on the effects of climate change and global warming, both on the nature reserve itself and on the regional forests, including the strategy on how to manage the surrounding forest to avoid negative impact in the nature reserve.

For a climate research in the area, a hydro-meteorological station was set near the Sedmák lodge to record basal climatic variables from 1st November 2019. The station was set and has been operated by the colleagues from the Department of Natural Environment, Faculty of Forestry, Technical University in Zvolen in co-operation with the FE Čierny Balog employee. Recorded data has been continuously analysed.

The team of experts from the Technical University in Zvolen prepared a project proposal with aim to finance more complex climate research in the reserve and its surrounding. The project titled "*Trade-offs between biomass production and biodiversity in beech-fir forests under changing environmental conditions*" and its financial support was approved by the Slovak Research and Development Agency in May 2020. On 15th July 2020 the project partners had a meeting in the Dobročský prales NNR to reconnaissance monitoring plots. These plots were selected with regard to possibility of using already available forest mensuration data, which has been monitored in the reserve in the long term. Currently the public procurement of instruments is under way. Within the field research the soil sampling has already been realized in the buffer zone of the reserve.

4. Explore the possibility of moving the exhibition from the Pred Skalickou cottage to the Forest Museum.

Construction of a wooden summer house has launched in August 2020 in the open-air museum in the Vydrovská dolina Valley. This house will serve for the exhibition currently located in the Pred Skalickou cottage. The construction is financed from the budget of the FE Čierny Balog.

Therefore, during the reported period, the exhibition was open to public excursions in the Pred Skalickou cottage. The exhibition was continuously complemented with promotional leaflets, publications and DVDs about the Dobročský prales NNR. The exhibition building was subject to the regular technical maintenance in August 2020.

3. Local management

The local management in the reserve was realized in this reported period in accordance with the Management Plan for the Dobročský prales NNR (Special Area of Conservation SKUVE0047 Dobročský prales) for the period 2018–2047.

The FE Čierny Balog has fully respected so-called "non-intervention" mode (i.e. management excluded) in the core zone during the reported period. No windbreak or bark-beetle calamity was recorded in the area.

There was only sanitary logging carried out in the buffer zone (windbreak calamity – 360 m³, bark-beetle calamity – 1,940 m³). Currently there is no bark-beetle calamity in the buffer zone.

Preferential sanitary logging blocks the interventions focused on modification of tree species composition in the buffer zone.

Since January 2020 amendments of the Act No. 543/2002 Coll. on Nature and Landscape Protection and Act No. 326/2005 Coll. on Forests came in force. In line with amended relevant provisions, occurrence of the calamity was reported to the relevant governmental authority for the forest management by the local forest managers (FE Čierny Balog). The Poľana PLA-BR Administration was informed about the calamity occurrence via a special forest management

information system. Afterwards it made a reconnaissance of the calamity area and issued an approval to process the whole calamity in the volume which was reported above.

4. Borders

No changes.

5. More details

On 19th October 2019 the Open Day event in the Dobročský prales NNR for inhabitants of the Čierny Balog Village was organized in co-operation of the Poľana PLA-BR, FE Čierny Balog and the Čierny Balog municipality. Limited number of visitors (max. 40) was allowed to attend this excursion due to vulnerability and uniqueness of this area. This restriction was accepted by local people with kind understanding. The track of guided excursion followed from Tlstý javor along the red tourist pathway and natural trail. Finally, it crossed the core area and ended at the Pod Skalickou cottage with refreshments for the attendants. All participants greatly acknowledged such unique opportunity to visit the rarest part of the Dobročský prales NNR. Based on positive feedback and respectful behaviour of attendants, organizers assume that such excursions will be organized also in the future.

From March to August 2020, attendance of the Dobročský prales NNR was limited due to restriction associated with pandemic spread of COVID-19 disease. Excursions to the core area and buffer zone were allowed for small groups only.

Annexes:

1. The Open Day – picture
2. List of participants from the meeting on the climate change study
3. Wooden summer house - project

In Zvolen, 9th December 2020

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