



# Carpathian Biosphere Reserve

## Best Practices of Protected Area Management in the Carpathian Biosphere Reserve (Ukraine)

## CARPATHIAN BIOSPHERE RESERVE

**Date of Nature Reserve designation:** November 12, 1968

**Status of UNESCO biosphere reserve:** February 15, 1993

**Status of biosphere reserve as a PA:** November 23, 1993

**European Diploma for PAs:** 1997, 2002, 2007, 2012

**UNESCO World Heritage Site (5 parts):** June 28, 2007

**Wilderness areas according to EWS:** 2016-2018

**Status of 3 Ramsar wetlands:** March-April, 2019

**Total area:** 58035,8 ha

### European Diploma

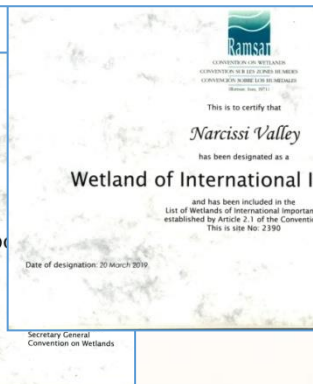
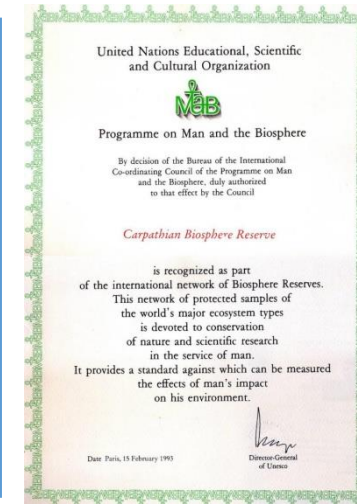
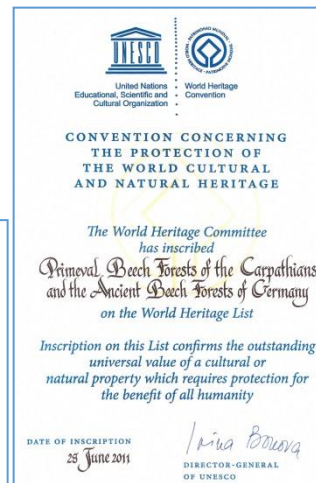
for the Carpathian Biosphere Reserve  
awarded by the Committee of Ministers  
of the Council of Europe

Whereas it is desirable to promote close co-operation between member countries of the Council of Europe, with a view to conserving and enhancing the natural environment of the peoples of Europe, for the material and spiritual well-being of present and future generations;

Whereas the Committee of Ministers has instituted to that effect a European Diploma to place under the sponsorship of the Council of Europe certain protected landscapes, reserves and natural features of European interest,

I, Daniel Tarschys,  
Secretary General of the Council of Europe,  
hereby certify that:  
The Committee of Ministers,  
Having regard to Resolution (65) 6  
instituting the European Diploma;  
Having taken note of the proposal made  
by the Bureau of the Committee for the Activities  
of the Council of Europe  
in the field of Biological and Landscape Diversity;  
Having noted further the consent of the Government  
of Ukraine;  
Having deliberated thereon,  
Has, in its Resolution (97) 21,  
solemnly awarded the present diploma  
for the **CARPATHIAN BIOSPHERE RESERVE**  
to the Ministry for Environmental Protection  
and Nuclear Safety of Ukraine,  
thereby placing the said reserve under the sponsorship  
of the Council of Europe until 30 September 2002.  
In witness whereof I have hereto appended my signature  
and affixed the seal of the Council of Europe.

Signed: *Daniel Tarschys*  
Secretary General



**Protected Areas – Cornerstones of Ecological Connectivity in the Carpathians and Beyond**

International Conference, Visegrád, Hungary, 28-30 September 2021 - Project co-funded by European Union Funds (ERDF, IPA)



## Functional zoning of CBR as a PA

**Core zone – 41,3 %;**  
**Buffer zone – 26,9 %;**  
**Zone of anthropogenic landscapes – 30,0 %;**  
**Zone of regulated protection regime – 1,8 %.**

### Core zone:

- European biggest primeval forests: pure beech, pure spruce, mixed;
- Practically undisturbed alpine landscapes;
- Postglacial alpine lakes;
- Karst limestone caves with endemic troglobiont species;
- Limestone cliffs with rare calcifilous flora.

### Buffer zone:

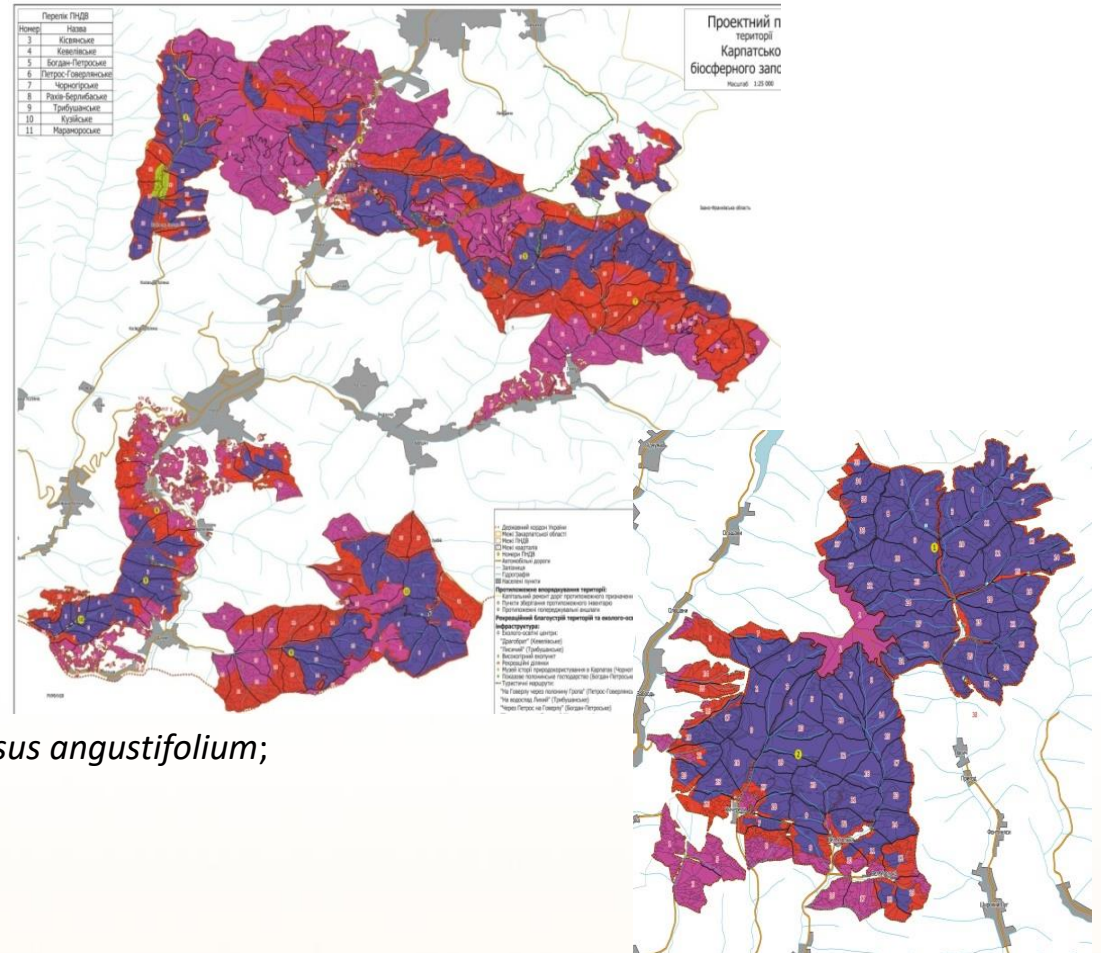
- Oldgrowth and natural forests.

### Zone of anthropogenic landscapes:

- Artificial forests;
- Lowland grasslands with last population of a highland species *Narcissus angustifolium*;
- Highland alpine and subalpine landscapes.

### Zone of regulated protection regime:

- Separate protected areas with a special protection regime.





## Management of biodiversity

- Programs for yew tree (*Taxus baccata*) and European cedar pine (*Pinus cembra*) conservation.
- A complex set of measures for mountain meadow ecosystems preservation.
- Monitoring of rare and endangered plant species populations, in particular myrtle rhododendron, carpathian bellflowers and narcissus.
- Monitoring of the status of large predators populations (bear, lynx, wolf) and implementation of the measures aimed at their protection.
- Creation of a digital database "Mammals of CBR".
- Creation of artificial breeding ponds to support populations of rare species of amphibians.
- Installation of protective metal structures at the entrances to underground shelters of hibernating bats.



Вид	Дата	Количество	Статус
Волк <i>Canis lupus</i>	2019-01-01	1	Состояние стаи 3 волка
Лисица <i>Vulpes vulpes</i>	2019-01-01	1	Состояние стаи 3 волка
Шкавал <i>Canis aureus</i>	2019-01-01	1	Состояние стаи 3 волка
Кит айский <i>Felis silvestris</i>	2019-01-01	1	Состояние стаи 3 волка
Рись <i>Lynx lynx</i>	2019-01-01	1	Состояние стаи 3 волка
Кунца лісова <i>Martes martes</i>	2019-01-01	1	Состояние стаи 3 волка
Відр рійкова <i>Lutra lutra</i>	2019-01-01	1	Состояние стаи 3 волка
Горностай <i>Mustela erminea</i>	2019-01-01	1	Состояние стаи 3 волка
Норка Європейська <i>Mustela lutreola</i>	2019-01-01	1	Состояние стаи 3 волка
Тхір айський <i>Mustela putorius</i>	2019-01-01	1	Состояние стаи 3 волка



**Program for conservation of grassland ecosystems of the unique Valley of Narcissus**, which suffers from changes in the hydrological regime (reduction of groundwater level) due to melioration (drainage, dehydration) and overgrowing with willows and other tree and shrub vegetation. The program includes:

- Installation of sluices and other hydrotechnical structures on the main melioration canals to increase the groundwater level;
- Regular mowing of the Valley of Narcissus to support grassland vegetation;
- Pasturing of water buffaloes (*Bubalus bubalis*) and other landscape-forming domestic animals to prevent forest succession, in particular willows. Also, these animals increase the tourist attractiveness of the area.

**The program of transformation felling for one-age spruce monocultures**, which occupy in CBR an area of more than 10 thousand hectares, into different-aged multi-species plantations, close to natural ones. The program provides for the creation of ecological gaps of different sizes by conducting selective cuttings of various intensity.

## Ecosystem management





## Economic activities in the context of sustainable development:

About 30% of the Carpathian Biosphere Reserve's territory is used to provide resources for the needs of local communities.

The Carpathian Biosphere Reserve provides in average 6,000 m<sup>3</sup> of commercial timber and firewood to supply more than 700 households in the area of its activity.

Haymaking and animal grazing still remain one of the main types of traditional nature management in the Ukrainian Carpathians. In particular, hay is harvested on the total area of 240 hectares.

Animal grazing within the reserve is carried out on highland pastures on an area of over 4.000 hectares. In total, about 400 individuals of cattle and 6,000 sheep are pastured within the protected area.

Controlled harvesting of wild berries (blueberries, raspberries, blackberries, etc.) and mushrooms for the needs of local population is allowed at CBR.





## Ecoeducational works:

- Network of visitor centers: 3 ecological-education and 4 tourism information centers;
- The Museum of Mountain Ecology and History of Nature Management in the Ukrainian Carpathians attended by more than 5,000 visitors each year;
- About 50 ecological events every year: ecological lessons, competitions, quizzes, eco-demonstrations, eco-games, etc;
- More than 3,000 school pupils involved in eco-education activities and events;
- Organization of ethnic festivals, thematic workshops, round-table meetings, etc.;
- Publication of the scientific-popular magazine "Green Carpathians", the regional newspaper "Newsletter of the Carpathian Biosphere Reserve", information booklets, leaflets, flyers, post-cards, calendars and other printed materials;
- Informing the public about the activities of the institution through its own website and social networks, as well as the mass media.





## Recreation and tourism:

- High attractiveness of the territory due to a big number of natural, historical and cultural values: the highest peak of Ukraine - Hoverla mountain, the biggest mountain massifs of the Carpathians: Chornohora, Svydovets, Marmarosh, a number of highland lakes, pure beech and mixed primeval forest sites, various karst formations, including caves, grottoes and rocks, UNESCO World Natural and Cultural Heritage Properties, the Geographical Center of Europe; unique Narcissi Valley, etc.
- Network of 20 ecotourism trails with a total length over 200 kilometers.
- Well-developed recreation infrastructure: checkpoints; places for rest, camping sites; information centers and boards; guest rooms, etc;
- About 40,000 visitors annually come to CBR, and this tendency is growing steadily;
- Developed programs of various tourist activities and excursion tours.





## Cooperation with local communities:

Carpathian Biosphere Reserve pays annually about 36.5 million UAH (over 1.15 million euros) land tax to the territorial communities, situated within the area of its activity.

Carpathian Biosphere Reserve, together with local communities, develops programs for socio-economic and cultural development, which are based on land tax funds, and which are focused on solving problems that are priority for both, local communities, and the biosphere reserve. In particular they are:

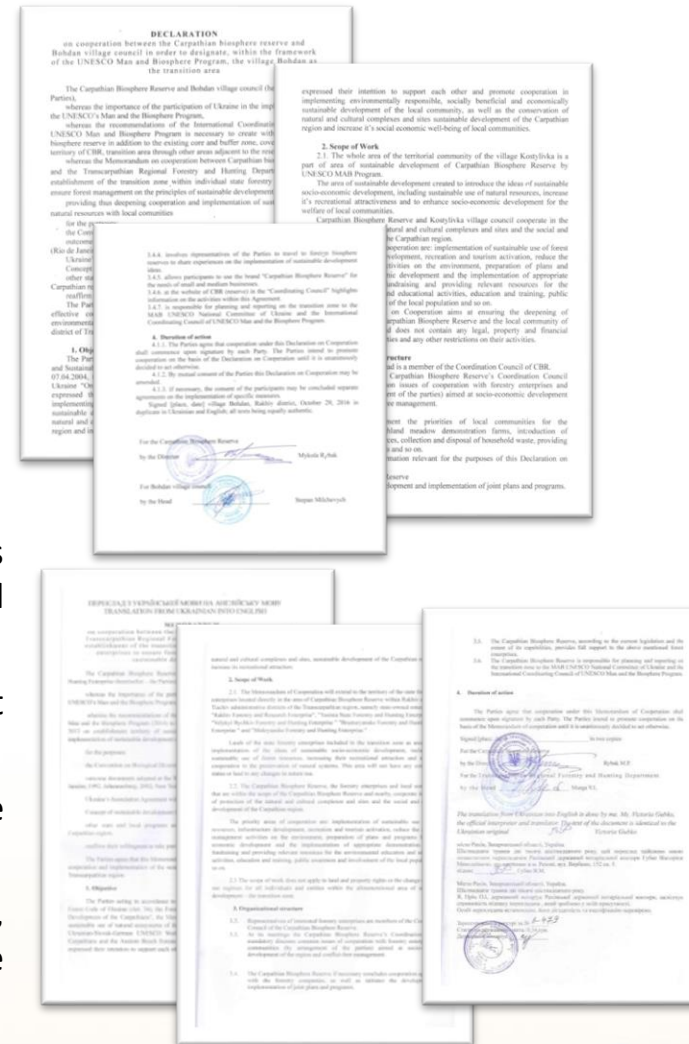
- Repair of existing roads;
- Creation of tourist-recreational infrastructure;
- Support to the Polonyna farming (economic complex for keeping small animals and cattle in the highlands) etc.

The Coordinating Board is functioning at the Biosphere Reserve first of all for solving conflict issues; it includes representatives of CBR administration, local authorities and self-administration bodies, leaders of local communities and wide public, NGOs, other key stakeholders;

Memorandums on cooperation with 5 state forestry enterprises were concluded to ensure forest management on the principles of sustainable development in the region;

Declarations on cooperation between the CBR and 17 town and village councils were concluded to ensure cooperation within the transition area;

Agreements and Memorandums on cooperation aiming at improvement of highland farms management, conservation of “polonynas” culture (highland farming) and development of recreation activities within the territory of CBR were concluded with 6 village councils.



## On the way to the UNESCO Biosphere Reserve:

- Date of designation of the Biosphere Reserve: 26 November 1993
- Adoption of the Seville Strategy for Biosphere Reserves: 1995
- Launch of an initiative called “Exit strategy” within the MAB program: 2013
- Resolution of the International Coordinating Council of the UNESCO MAB Program about nonconformity of the Carpathian Biosphere Reserve with the criteria of the Statutory Framework (Regulations) of the World Network of Biosphere Reserves: 2014
- Establishment of the transition area of the Carpathian Biosphere Reserve of UNESCO type: 2017
- Decision of the International Coordinating Council of the UNESCO MAB Program about the complete compliance of the territorial structure of the Carpathian Biosphere Reserve with the Charter Framework criteria (Provisions) of the World Network of Biosphere Reserves: 2017
- The next steps - to develop strategies for the implementation of the three main functions of the UNESCO BR and recommendations for operational planning to achieve short- and medium-term management results


UNESCO, International Co-ordinating Council  
of the Man and the Biosphere (MAB) Programme  
Twenty-sixth session, Jönköping, Sweden, 10 - 13 June 2014

**Carpathian Biosphere Reserve (Ukraine)**

352. The Council welcomed the periodic review of this biosphere reserve, designated in 1992. The Council commended the national authorities for this second submission of a periodic review report for this site since its designation. The ecosystem is characterized by foothill oak-groves, mountain beech, mixed and spruce forests, pine-alder alpine elfin woodland, subalpine and alpine meadows and upland rocky-lichen landscapes.

353. The Council concluded that this site does not meet the criteria in the Statutory Framework of the World Network of Biosphere Reserves. The Council requested the national authorities to clarify how, where and when the nonconformity occurred. The national authorities are requested to submit a report on the requested information to the International Coordinating Council of the World Network of Biosphere Reserves.

354. The Council encouraged the national authorities to submit the nomination together with Romania.



SC-17/CONF.229/15  
Paris, 15 June 2017

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION  
International Co-ordinating Council of the Man and the Biosphere (MAB) Programme  
Twenty-ninth session  
UNESCO Headquarters, Paris, Room IV (Fontenoy Building)  
12 - 15 June 2017  
**FINAL REPORT**

VIII. Periodic Review Reports and Follow-Up Information Received since the last MAB International Coordinating Council (MAB ICC) Meeting

B. Follow-Up Information Received since the last MAB MAB ICC Meeting

791. **Carpathian Biosphere Reserve (Ukraine) - Extension.** The Advisory Committee welcomed the additional information provided upon recommendation from the MAB Council in 2016. The Advisory Committee noted with satisfaction that zonation was changed in 2016 due to enlarged transition area that encompasses all cluster of core area and was designed in order to establish ecological corridor. The transition area has 124,300 ha and the total biosphere reserve has 181,138.8 hectares. The zonation complies with the Statutory Framework of the World Network of Biosphere Reserves.

792. Transition area was established in agreement with management authority of biosphere reserve and the Transcarpathian Regional Forestry and Hunting Department. A Memorandum of Cooperation was signed demonstrating the commitment to ensure forest management based on the principles of sustainable development in the region. A new management plan is in the process of elaboration in order to comply with the change in zonation.

793. The Advisory Committee noted that in 2012 and 2013 a memorandum of understanding with the local governments and municipalities of Rakhiv and Tiachiv districts of Transcarpathian region was signed and included provisions for the involvement of local communities in activities and management of biosphere reserve. It also noted the recreational infrastructure, taking into account the economical, environmental, social and other interests of local communities, and measures to increase the environment.

794. The Advisory Committee concluded that the biosphere reserve **meets** the criteria of the Statutory Framework of the World Network of Biosphere Reserves.

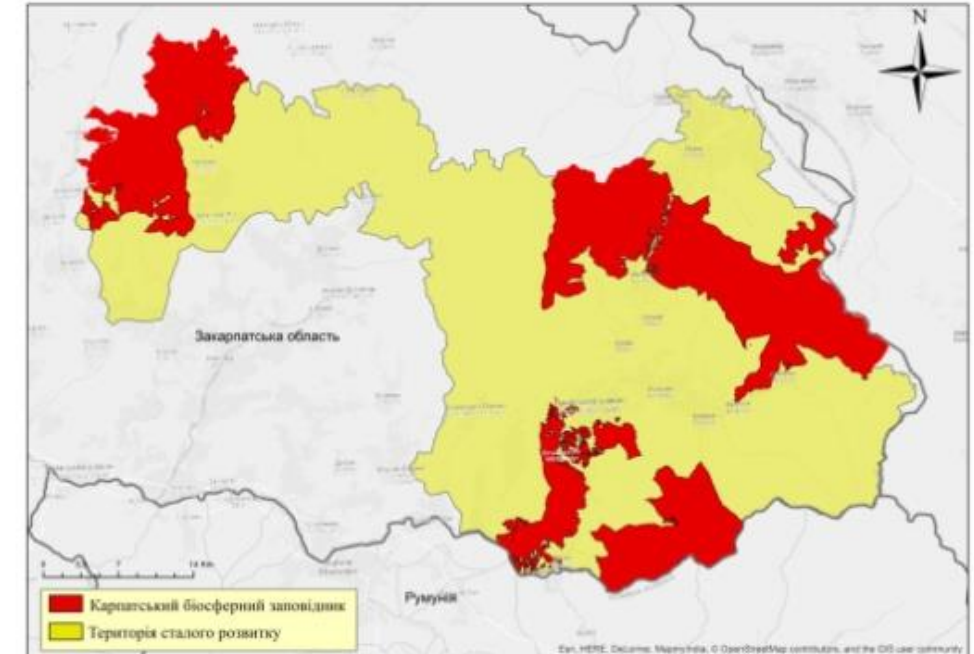


## Transition area of the Carpathian Biosphere Reserve :

The Carpathian Biosphere Reserve has created in 2017 a full-fledged transit zone that meets all the criteria of the Statutory Framework (Regulations) of the World Network of Biosphere Reserves.

The transition area has about 140 thousand hectares and covers the territory of 5 state forestry enterprises and 17 local communities within Rakhiv and Tyachiv districts.

Due to the transition area area, the Carpathian Biosphere Reserve is an integral object, devoid of fragmentation, with high ecological connectivity and integrity, which provides conditions for the existence of viable populations of large carnivorous mammals: bear, wolf and lynx.



The transition area area includes a significant part of the ecological network of the Zakarpattia Region, in particular all the main latitudinal and meridional ecological corridors, which act as a bridge between the clusters of the biosphere reserve.





**THANK YOU FOR ATTENTION!**